MEANING IN LATE-LIFE

EDITED BY: Jessie Dezutter, Suvi-Maria Katariina Saarelainen and
Gørill Haugan
PUBLISHED IN: Frontiers in Psychology

frontiers Research Topics

ISSN 1664-8714
ISBN 978-2-88974-816-7
DOI 10.3389/978-2-88974-816-7

About Frontiers

Frontiers is more than just an open-access publisher of scholarly articles: it is a pioneering approach to the world of academia, radically improving the way scholarly research is managed. The grand vision of Frontiers is a world where all people have an equal opportunity to seek, share and generate knowledge. Frontiers provides immediate and permanent online open access to all its publications, but this alone is not enough to realize our grand goals.

Frontiers Journal Series

The Frontiers Journal Series is a multi-tier and interdisciplinary set of open-access, online journals, promising a paradigm shift from the current review, selection and dissemination processes in academic publishing. All Frontiers journals are driven by researchers for researchers; therefore, they constitute a service to the scholarly community. At the same time, the Frontiers Journal Series operates on a revolutionary invention, the tiered publishing system, initially addressing specific communities of scholars, and gradually climbing up to broader public understanding, thus serving the interests of the lay society, too.

Dedication to Quality

Each Frontiers article is a landmark of the highest quality, thanks to genuinely collaborative interactions between authors and review editors, who include some of the world's best academicians. Research must be certified by peers before entering a stream of knowledge that may eventually reach the public - and shape society; therefore, Frontiers only applies the most rigorous and unbiased reviews.
Frontiers revolutionizes research publishing by freely delivering the most outstanding research, evaluated with no bias from both the academic and social point of view. By applying the most advanced information technologies, Frontiers is catapulting scholarly publishing into a new generation.

What are Frontiers Research Topics?

Frontiers Research Topics are very popular trademarks of the Frontiers Journals Series: they are collections of at least ten articles, all centered on a particular subject. With their unique mix of varied contributions from Original Research to Review Articles, Frontiers Research Topics unify the most influential researchers, the latest key findings and historical advances in a hot research area! Find out more on how to host your own Frontiers Research Topic or contribute to one as an author by contacting the Frontiers Editorial Office: frontiersin.org/about/contact

MEANING IN LATE-LIFE

Topic Editors:
Jessie Dezutter, KU Leuven, Belgium
Suvi-Maria Katariina Saarelainen, University of Eastern Finland, Finland
Gørill Haugan, Norwegian University of Science and Technology, Norway

Citation: Dezutter, J., Saarelainen, S.-M. K., Haugan, G., eds. (2022). Meaning in Late-Life. Lausanne: Frontiers Media SA. doi: 10.3389/978-2-88974-816-7

Table of Contents

frontiers in Psychology

EDITORIAL
published: 10 March 2022
doi: 10.3389/fpsyg.2022.861479

Check for updates

Editorial: Meaning in Late-Life

Jessie Dezutter[1]*, *Gørill Haugan*[2] *and Suvi Saarelainen*[3]

[1] Faculty of Psychology and Educational Sciences, KU Leuven, Leuven, Belgium, [2] Department of Public Health and Nursing, Norwegian University of Science and Technology, Trondheim, Norway, [3] School of Theology, University of Eastern Finland, Kuopio, Finland

Keywords: meaning in life, elderly care, meaning making, late life, advanced age, nursing home, sources of meaning in life, presence of meaning in life

OPEN ACCESS

Edited and reviewed by:
Changiz Mohiyeddini,
Oakland University William Beaumont School of Medicine, United States

****Correspondence:***
Jessie Dezutter
jessie.dezutter@kuleuven.be

Specialty section:
This article was submitted to Health Psychology, a section of the journal Frontiers in Psychology

Received: *24 January 2022*
Accepted: *15 February 2022*
Published: *10 March 2022*

Citation:
Dezutter J, Haugan G and Saarelainen S (2022) Editorial: Meaning in Late-Life. Front. Psychol. 13:861479. doi: 10.3389/fpsyg.2022.861479

Editorial on the Research Topic

Meaning in Late-Life

The ongoing COVID pandemic showed us how vital the experience of meaning in life is for human wellbeing. This contemporary observation is backed up with cumulating scientific evidence illustrating that a sense of meaning in life relates to more optimal psychological, physical and social functioning as well as to better adjustment to traumatic events (Roepke et al., 2014; Winger et al., 2016; Czekierda et al., 2017; Fischer et al., 2020). We assume that the experience of meaningfulness in life is equally important during the different stages of the life span. Surprisingly, Steger et al. (2009) found that older adults reported even higher levels of meaningfulness compared to younger cohorts. However, in late adulthood, especially among people 80 years and older, chronic illness, loss of functionality, relationships etc. will likely put a strain on the meaningfulness experienced in life: life aspects that were important in generating meaning earlier in life such as care for children, hobbies, travel, or community service might disappear. Meaningful activities like reading, gardening, or sport might become more difficult to perform due to physical decline. Relocation to a nursing home or assistant living unit can weaken the social ties and reduce social contacts, impacting gravely on a crucial source of meaning namely personal relationships (Dewitte et al., 2021). The life stage of advanced age can have the power to erode meaning in the lives of older adults, especially when decay and decline are present.

The articles in this Research Topic provide an overview of how and why experiencing meaning in late life is important for well-being and psychological functioning but also point out the challenges in constructing meaning in old age. The articles are interdisciplinary, coming from nursing studies, psychology, health studies, religious studies & theology, and palliative care. The methodologies implemented are diverse ranging from ethnographic and in-depth interview studies to cross-sectional and longitudinal quantitative studies illustrating how researchers try to address this multilayered and complex phenomenon from different angles and perspectives. The empirical studies in this special issue are complemented by theoretical analysis articles and scoping reviews.

The ***phenomenon*** of perceived meaning in life calls for further study. At this moment, most researchers adhere to the tripartite view on meaning in life (George and Park, 2016; Martela and Steger, 2016), making a distinction between "purpose," "mattering," and "coherence" as essential dimensions of the experience of meaning. However, the discussion on which dimensions do belong to the core of the phenomenon and which do not is still unsettled. In this Research Topic, Pachana and Baumeister propose six potential dimensions of meaning in life based on earlier models and theorizing. They summarize purpose, value, efficacy, self-worth, mattering, and comprehension as central aspects of perceived meaning in life. Knizek et al. took another approach and zoomed in on how meaning in life is experienced by extremely poor Ugandan older adults. Here, respect was a crucial facet concretized in the ability and willingness of possible descendants to support their aged parents. Covering of basic needs and receiving dignities were needed to perceive life as meaningful despite the extreme poverty. Possibly, these findings of Knizek associate with the dimensions of self-worth and mattering that are put forward by Pachana and Baumeister.

An interesting alley is the focus on the ***sources*** that provide meaningfulness in life. Earlier research (Dewitte et al., 2021) showed that not all sources of meaning are equally related to the experience of meaning. Sørensen et al. came to the same conclusion based on a large register of Norwegian older adults. In their study, vertical self-transcendence, including explicit religiosity and spirituality, had the strongest relation to meaningfulness for people in late adulthood. Moreover, earlier accomplishments, including generativity and unselfish engagement with the surroundings and future generations, were more strongly related to the experience of meaningfulness in comparison with other life aspects. Tiilikainen et al. addressed the question of how meaningfulness is experienced by older adults during the COVID-19 pandemic: their mixed-method study reveals that social contacts, daily chores and activities, familiar places and seasonal changes contribute to meaningfulness during the pandemic situation. Still, studies on sources of meaning in life are predominantly cross-sectional and Sorensen therefore rightly calls for longitudinal research and interventional studies to clarify more precisely how sources of meaning are related to a sense of meaningfulness. In addition to longitudinal studies, we also call for studies with an experimental sampling methodology in order to elucidate the finer daily dynamics between sources and experience. Slettebø et al. assessed the sources that contribute to ***daily meaning*** for residents in nursing homes, revealing five themes: (1) opening the nursing home to the surroundings; (2) expanding and strengthening tis he community of practice; (3) facilitating customized activities; (4) ensuring sufficient nutrition and facilitating enjoyable mealtimes; and (5) preventing unrest and disturbing behavior. Despite some similarities (engagement with others, social contacts, community) in the findings of these three studies on resources of meaning in late life (Sørensen et al.; Tiilikainen et al.) the identified sources represent a large diversity. The variety in study population and research design can possibly explain this diversity. Nevertheless, these diverse findings do trigger follow-up questions regarding the inter-individuality or situation-specificity of meaning sources in their contribution to a sense of meaning.

In line with the general literature on meaning in life, several articles in this Special Issue demonstrate associations between meaningfulness and aspects of ***psychological functioning in late life***. Lewis and Hill scrutinized "purpose" as a dimension of meaning in life showing that a sense of purpose in life might buffer the negative association between depressive symptomatology and cognitive functioning in older adults. This study indicates that sense of purpose can act as a resilience factor and thus adds to a growing body of research suggesting that a sense of purpose contributes to cognitive reserve. Araújo et al. showed that experiencing meaningfulness in life is a vital factor associated with being willing to live longer in centenarians. Further, the Special Issue contributes on knowledge how loss or lack of meaning is linked with difficulties in multiple aspects of life. Golovchanova et al. showed significant associations between perceived meaning and health problems, psychosocial functioning, and social support among community-residing older adults in Sweden. Appel et al. illustrated how a lack of meaning in life is often a central aspect in the experiences of tiredness or weariness of life in older adults. They provide a scoping review that clearly points out the lack of conceptual consensus in this field, as well as the complexity of the tiredness-of-life phenomenon and how existential concerns like meaning in life are probably intertwined with the tiredness-of-life experience.

A vital question concerns how meaning is constructed or made: which underlying mental processes are important in the ***meaning-construction processes***? Dewitte and Dezutter focused on meaning reflectivity as a potential process in meaning-generation. They showed that community-residing older adults who are indifferent about issues of meaning in life might be more vulnerable to experiencing meaninglessness and depressive symptoms. Other scholars have investigated specific types of meaning-making processes. For example, Spännäri and Hanne Laceulle studied meaning making among Finnish retirement migrants; a key finding was that meaning making occurs as a process that is often inherent to daily activities which may seem "trivial," but in fact turn out to be important sources of purpose, values, and connectedness. Meaning seems to be constructed in the details of life. Moreover, religion and spirituality seems to be intertwined with meaning making processes. Nissen et al. showed that spiritual care involves meaning making processes. Their theoretical analysis implies that meaning-related concerns of older patients can be addressed as a part of spiritual care. Along these lines, Toussaint et al. investigated the role of forgiving as a potential meaning making process in adapting to the COVID-19 pandemic situation. These findings not only show that older age relates to better mental health through higher levels of meaningfulness for but also that older age relates to better mental health through a serial indirect pathway. Lower COVID-19-related stress perceptions were associated with higher presence of meaning, higher forgiveness and better mental health. Positive psychological processes might thus play a pivotal role in meaning making. Meaning making can also be a difficult task. Nilsen et al. showed how crucial but challenging this process can be for breast-cancer survivors.

Meaning in life is fundamental to well-being and life quality. Within the care for older adults, the way that health care professionals (HCPs) address meaning in life-concerns is extremely relevant for shaping individualized and person-oriented care that goes further than the pure biomedical aspects of illness and suffering. In a qualitative study Isene et al. showed that HCPs in dementia care actively search for that what is meaningful for adults with dementia. The authors state that professional attentiveness for the patients' expressions and experiences of meaning may contribute to improved dementia care. HCPs, however, do not automatically have a focus on meaning in life as an essential part of care, as is described in Isene's study. Accordingly, an increased attention for existential topics in elderly care is advocated. This is in line with the findings of Viftrup et al. who showed in a qualitative study with hospice patients that meaning in life and other existential concerns are not easily talked about. Hospice patients tend to use medical solution-focused vocabulary when they talk about their meaning at the end of their lives. Dialogues with HCPs covering existential topics seem scarce and patients' existential vocabulary seems limited. The findings presented by Isene et al. and Vifturp et al. call for more attention for meaning-related aspects in health care practice. The study of Wynn et al. offers a caveat on this topic. Their results show that both care recipients and their partners report a decline in sense of purpose after being diagnosed with dementia; however, their perception of how the other partner evaluates the meaning in life is not the same. The partner of the person with dementia tend to underestimate the sense of purpose felt by the care recipient pointing out that people with dementia still report better well-being than negative stereotypes may suggest. This potential bias is of course an important focal point in dementia care.

In sum, this Research Topic offers insight in the complex phenomenon of meaning in life, its potential sources, the underlying processes, and its correlates. All contributions, however, also identify gaps and lacks in knowledge in this field. More needs to be done before we can fully understand the intriguing and multilayered experience of meaning in life in old age.

AUTHOR CONTRIBUTIONS

JD drafted this contribution. JD, GH, and SS revised this contribution. All authors contributed to the article and approved the submitted version.

FUNDING

This article is partly funded by the Constructive Advanced Thinking Grant of the Network of European Institutes for Advanced Study. The grant was received by JD, GH, and SS.

REFERENCES

Czekierda, K., Banik, A., Park, C. L., and Luszczynska, A. (2017). Meaning in life and physical health: systematic review and meta-analysis. *Health Psychol. Rev.* 11, 387–418. doi: 10.1080/17437199.2017.1327325

Dewitte, L., Vandenbulcke, M., Schellekens, T., and Dezutter, J. (2021). Sources of well-being for older adults with and without dementia in residential care: relations to presence of meaning and life satisfaction. *Aging & Mental Health*, 25(1), 170–178. doi: 10.1080/13607863.2019.1691144

Fischer, I. C., Shanahan, M. L., Hirsh, A. T., Stewart, J. C., and Rand, K. L. (2020). The relationship between meaning in life and post-traumatic stress symptoms in US military personnel: a meta-analysis. *J. Affect. Disord.* 277, 658–670. doi: 10.1016/j.jad.2020.08.063

George, L. S., and Park, C. L. (2016). Meaning in life as comprehension, purpose, and mattering: toward integration and new research questions. *Rev. Gen. Psychol.* 20, 205–220. doi: 10.1037/gpr0000077

Martela, F., and Steger, M. F. (2016). The three meanings of meaning in life: distinguishing coherence, purpose, and significance. *J. Posit. Psychol.* 11, 531–545. doi: 10.1080/17439760.2015.1137623

Roepke, A. M., Jayawickreme, E., and Riffle, O. M. (2014). Meaning and health: a systematic review. *Appl. Res. Qual. Life* 9, 1055–1079. doi: 10.1007/s11482-013-9288-9

Steger, M. F., Oishi, S., and Kashdan, T. B. (2009). Meaning in life across the life span: levels and correlates of meaning in life from emerging adulthood to older adulthood. *J. Posit. Psychol.* 4, 43–52. doi: 10.1080/17439760802303127

Winger, J. G., Adams, R. N., and Mosher, C. E. (2016). Relations of meaning in life and sense of coherence to distress in cancer patients: a meta-analysis. *Psychooncology* 25, 2–10. doi: 10.1002/pon.3798

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers
in Psychology

BRIEF RESEARCH REPORT
published: 25 June 2021
doi: 10.3389/fpsyg.2021.698109

Sense of Purpose Promotes Resilience to Cognitive Deficits Attributable to Depressive Symptoms

Nathan A. Lewis[1,2]* **and *Patrick L. Hill***[3]

[1] Department of Psychology, University of Victoria, Victoria, BC, Canada, [2] Institute on Aging and Lifelong Health, University of Victoria, Victoria, BC, Canada, [3] Department of Psychological and Brain Sciences, Washington University in St. Louis, St. Louis, MO, United States

Objective: Individuals higher in depressive symptoms commonly present with neuropsychological deficits including poorer memory performance. Sense of purpose in life has been shown to promote resilience to cognitive impairment in older adulthood, but it is unclear whether it may also protect against cognitive deficits associated with higher depressive symptoms.

Method: Cognitive functioning among 4599 older American adults (M_{age} = 74.33 years, range = 65–104 years, 56.84% female) was examined across a 12-year follow-up period. Depressive symptomatology was assessed at each wave using the 8-item Center for Epidemiologic Studies Depression Scale. Multilevel models assessed the influence of depressive symptoms and the interaction with sense of purpose in life on changes in memory performance and mental status.

Results: Higher depressive symptoms were associated with poorer memory performance at baseline, but did not predict rate of change over time. A negative interaction was observed between sense of purpose in life and depressive symptoms such that individuals higher in purpose experienced a less negative association between depressive symptoms and baseline memory performance. No significant interaction of sense of purpose and depressive symptoms was observed on mental status.

Conclusion: Having a sense of purpose in life may help protect older adults from memory deficits associated with higher depressive symptoms. The present findings underscore the potential for sense of purpose to promote cognitive reserve in older adulthood, allowing individuals to maintain cognitive performance in the face of accruing neurological insults.

Keywords: depression, cognitive functioning, purpose in life, older adulthood, longitudinal studies

OPEN ACCESS

Edited by:
Suvi-Maria Katariina Saarelainen,
University of Eastern Finland, Finland

Reviewed by:
Annelien Duits,
Maastricht University Medical Centre,
Netherlands
Stefano Zago,
IRCCS Ca' Granda Foundation
Maggiore Policlinico Hospital, Italy

****Correspondence:***
Nathan A. Lewis
nathanlewis@uvic.ca

Specialty section:
This article was submitted to
Health Psychology,
a section of the journal
Frontiers in Psychology

Received: *20 April 2021*
Accepted: *01 June 2021*
Published: *25 June 2021*

Citation:
Lewis NA and Hill PL (2021)
Sense of Purpose Promotes
Resilience to Cognitive Deficits
Attributable to Depressive Symptoms.
Front. Psychol. 12:698109.
doi: 10.3389/fpsyg.2021.698109

INTRODUCTION

Multiple theoretical frameworks and a large empirical literature now supports the claim that sense of purpose is "a psychological resource for aging well" (Windsor et al., 2015, p. 975). Purpose in life is central to the Ryff model of psychological well-being in adulthood (Ryff, 1989, 2014), which describes it with respect to having a direction in life toward goal-directed activities. Moreover, theories of successful aging point to the value of productive life engagement (Rowe and Kahn, 1997), viewed by some as the defining characteristic of having a purpose in life (Scheier et al., 2006).

Although sense of purpose appears valuable for myriad reasons (Pfund and Hill, 2018; Pfund and Lewis, 2020), a burgeoning literature has pointed to its value for cognitive resilience in later life. In one study (Windsor et al., 2015), Australian older adults with a higher sense of purpose outperformed peers on measures of memory and processing speed. Moreover, the study found that purposeful older adults experienced reduced rates of decline for processing speed over time. Work with the MIDUS study in the United States has found similar results among middle-to-older adults; namely, sense of purpose was associated with better memory and executive functioning scores cross-sectionally (Lewis et al., 2017), and that changes in purpose were correlated with changes in memory skills (Dewitte et al., 2020).

Moving beyond normative cognitive resilience, sense of purpose also may protect against non-normative cognitive decline. For instance, one study found sense of purpose longitudinally predicted later risk for Alzheimer's disease (Boyle et al., 2010). Moreover, sense of purpose was shown to moderate the association between the physiological markers for decline and diagnosis in that sample (Boyle et al., 2012) suggesting that having a sense of purpose may reduce the risk for decline posed by neurological factors. This work thus takes an interesting spin on the role of purpose in promoting healthy cognitive aging. Most studies in the area have discussed potential pathways by which sense of purpose may promote cognitive functioning (e.g., Windsor et al., 2015; Lewis et al., 2017; Dewitte et al., 2020), alerting researchers to consider whether purpose matters because it promotes physical health, emotional well-being, and activity engagement.

Instead, this work on Alzheimer's risk points to an alternative rationale, namely that having a sense of purpose may mitigate risk for cognitive concerns. Such a proposition aligns with past work linking sense of purpose to greater resilience in later life (Nygren et al., 2005), insofar that it can provide a resource against adversity or obstacles. Multiple studies find that purposeful individuals report greater hope in their ability to navigate obstacles in life (Bronk et al., 2009; Burrow et al., 2010). However, the interpretation from this work is typically with respect to physical or perceived obstacles to goal pursuit, rather than for instance, psychological or physiological concerns. Some evidence toward the latter comes from work showing that sense of purpose may mitigate the impact of daily stressors on emotional and physical well-being (Hill et al., 2018). Given that stress may play a role in cognitive decline (e.g., Dickinson et al., 2011), the cumulative story from this work is that sense of purpose could play a role on cognitive ability by mitigating psychosocial risk factors. However, to this point, work has yet to investigate this purpose-as-mitigator account with non-neurological risk factors.

The current study investigated this claim with respect to whether sense of purpose serves to mitigate the risk associated with depressive symptoms. Several studies have demonstrated that depressive symptoms longitudinally predict cognitive decline, when measured using laboratory-based markers of cognitive performance (Yaffe et al., 1999; Wilson et al., 2004; Dotson et al., 2008), measures of mental status (Chodosh et al., 2007), and risk for non-normative decline (Wilson et al., 2002; Ownby et al., 2006). Even when longitudinal associations are not always found, studies have found depressive symptoms are linked with lower initial cognitive status (Ganguli et al., 2006).

When considering potential behavioral and psychological explanations for these findings, they elucidate the potential reasons why sense of purpose could help mitigate risks. To start, individuals with depressive symptoms are likely to have reduced interest in activity engagement, a protective factor that has been positively linked cross-sectionally and longitudinally to sense of purpose in older adulthood (Lewis and Hill, 2020). Furthermore, depressive symptoms include having poor quality sleep (Radloff, 1977), and sense of purpose prospectively predicts a reduced risk for sleep disturbance (Kim et al., 2015). Finally, sense of purpose has been linked to reduced risk for social anxiety (Kashdan and McKnight, 2013), and a greater likelihood for supportive relationships (Weston et al., 2020), which may counteract the disinterest in social engagement associated with depression. Given that activity engagement, social involvement, and sleep all promote healthy cognitive aging (Smith, 2016), sense of purpose appears to be a likely candidate for moderating the risk for cognitive deficits associated with depressive symptoms.

Current Study

The current study tested this claim using longitudinal data from older adult participants in the Health and Retirement Study (HRS). Across occasions spanning 12 years, participants completed assessments for memory recall and mental status, and measures of sense of purpose and depressive symptoms. Previous work has demonstrated that sense of purpose predicts risk for non-normative cognitive decline when accounting for depressive symptoms (Boyle et al., 2010), however no studies to our knowledge have investigated whether these variables interact to predict cognitive ability in older adulthood. We tested whether sense of purpose would moderate cross-sectional and longitudinal associations between depressive symptoms and cognition, both with respect to recall and mental status.

METHOD

Participants

The current study utilized data from the HRS (Sonnega et al., 2014), a biennial nationally representative longitudinal study of American adults over the age of 50. In 2006, the HRS introduced a psychosocial questionnaire including measures of sense of purpose in life administered to a randomly selected half of the sample (Smith et al., 2017). This questionnaire was repeated at 4-year intervals, resulting in up to four repeated assessments of sense of purpose across a 12-year span between 2006 and the most recent 2018 wave. For the current study, eligible participants included those with available data for sense of purpose in life, depressive symptoms, and cognitive functioning who were aged

65 or older at the 2006 baseline wave. The resulting sample included 4599 participants.

Materials

Cognitive Functioning

Cognition in the HRS was assessed using the Telephone Interview for Cognitive Status (TICS), a brief, non-clinical assessment designed to be administered *via* telephone. Based on previous validation of the cognitive measures in HRS (McArdle et al., 2007), cognition was subdivided into two domains: word recall and mental status. Word recall is a composite measure of immediate and delayed word recall memory tasks in which participants are provided with a list of 10 unrelated nouns to be recalled immediately after presentation and again after a 30-min delay. Scores on this composite measure range from 0 to 20. Mental status is a summary variable representing performance on tasks of numeracy and perceptual orientation including serial 7 and backwards counting tasks, as well as date (day, month, year, and day of week), object (e.g., "What tool do you usually use to cut paper?"), and United States president naming. Scores on the composite mental status measure range from 0 to 15.

Depressive Symptomatology

Depressive symptoms were assessed at each wave using the 8-item Center for Epidemiologic Studies Depression Scale, which has been previously validated in large survey data of older adults (Karim et al., 2015). Participants were asked to report whether they had experienced (yes = 1, no = 0) eight specific symptoms for much of the previous week (felt depressed, lonely, sad, unmotivated, happy, everything was an effort, enjoyed life, and had restless sleep). Positive items (e.g., felt happy) were reverse-scored and the sum was taken to create a score ranging from 0 to 8, with higher values indicating more depressive symptoms.

Sense of Purpose in Life

Sense of purpose in life was measured using the 7-item version of the Ryff Psychological Well-Being Scale (Ryff, 1989). This measure included items such as "I live life one day at a time and don't really think about the future," "I am an active person in carrying out the plans I set for myself," and "I have a sense of direction and purpose in my life." Participants were asked to rate on a six-point scale, from strongly disagree (1) to strongly agree (6), the extent to which such statements apply to them. The mean of these items was calculated to create a sense of purpose score for each wave.

Statistical Analyses

Multilevel modeling (Raudenbush and Bryk, 2002) was used to examine changes in word recall and mental status across the 12-year follow-up. Multilevel modeling with maximum likelihood estimation was chosen as it is robust to missing data issues common in longitudinal studies and it permits the examination of both within-person and between-person dynamics on change in cognitive performance over time (Hoffman and Stawski, 2009). We utilized two different centering techniques to account for within- and between-person sources of variation in sense of purpose and depressive symptoms. At the within-person level (Level-1), sense of purpose and depressive symptoms were person-mean centered to reflect fluctuations over time in individuals' scores on these variables relative to their own typical levels. At the between-person level (Level-2), sense of purpose and depressive symptoms were centered on the overall sample mean to account for consistent differences between individuals across the follow-up period. In this regard, the models for the present study can be expressed as:

Level 1:

$$\text{Cognition}_{ti} = \beta_{0i} + \beta_{1i}(\text{Time}) + \beta_{2i}(\text{Purpose}_{WP}) + \beta_{3i}(\text{CESD}_{WP}) + e_{ti}$$

Level 2:

$$\beta_{0i} = \gamma_{00} + \gamma_{01}(\text{Age}) + \gamma_{02}(\text{Sex}) + \gamma_{03}(\text{Education}) + \gamma_{04}(\text{Purpose}_{BP}) + \gamma_{05}(\text{CESD}_{BP}) + \gamma_{06}(\text{Purpose} \times \text{CESD}) + \mu_{0i},$$

$$\beta_{1i} = \gamma_{10} + \gamma_{11}(\text{Age}) + \gamma_{12}(\text{Sex}) + \gamma_{13}(\text{Education}) + \gamma_{14}(\text{Purpose}_{BP}) + \gamma_{15}(\text{CESD}_{BP}) + \gamma_{16}(\text{Purpose} \times \text{CESD}) + \mu_{1i},$$

$$\beta_{2i} = \gamma_{20} + \gamma_{21}(\text{Age}) + \gamma_{22}(\text{Sex}) + \gamma_{23}(\text{Education}) + \gamma_{24}(\text{CESD}_{BP}) + \mu_{2i},$$

$$\beta 3i = \gamma 30 + \mu 3i,$$

where the cognitive functioning (word recall or mental status) for a given person, *i*, at time, *t*, is a function of a person-specific intercept (β_{0i}), a person-specific linear slope (β_{1i}), their within-person centered level of sense of purpose and depressive symptoms at that time (Purpose_{WP} and CESD_{WP}), and a residual error term (e_{ti}). At the between-person level, the intercept and slope terms are expressed as overall sample means (γ_{00} and γ_{10}) and individual deviations around those means (μ_{0i} and μ_{1i}), as well as the effects of age, sex, education, sense of purpose, depressive symptoms, and a sense of purpose by depressive symptoms interaction term. Age and education were centered in the models on the sample mean and sex was coded as males = 0, females = 1. In addition, cross-level interaction terms on the within-person effect of sense of purpose to account for potential modification of this effect by age, sex, education, or depressive symptoms.

RESULTS

Baseline demographic characteristics of the sample are presented in **Table 1**.

Word Recall

Results of the multilevel models predicting change in word recall and mental status are presented in **Table 2**. Having a higher sense of purpose in life predicted greater word recall at baseline, but was not associated with longitudinal change in recall across the follow-up period. However, sense of purpose did predict dynamic within-person changes in word recall. In other words, on occasions when participants reported higher purposefulness than was typical for them (i.e., above their personal mean across measurement occasions), they were more likely to perform better on the word recall memory tasks at that occasion.

TABLE 1 | Baseline demographic characteristics (*n* = 4599).

Variable	Mean (SD)/*n* (%)	Range
Age	74.33 (7.11)	65–104
65–69	1430 (31.14%)	
70–79	2095 (45.55%)	
80–89	932 (20.27%)	
90+	142 (3.09%)	
Sex (female)	2614 (56.84%)	
Race		
White/Caucasian	3922 (85.28%)	
Black/African American	551 (11.98%)	
Other	126 (2.74%)	
Years of education	12.24 (3.17)	0–17
Word recall	8.98 (3.32)	0–20
Mental status	12.73 (2.49)	0–15
Depressive symptoms	1.41 (1.89)	0–8
Sense of purpose in life	4.43 (0.94)	1–6

TABLE 2 | Multilevel models for sense of purpose and depressive symptoms as a predictor of word recall and mental status.

	Word recall		Mental status	
Variable	Estimate (SE)	*p*	Estimate (SE)	*p*
Within-person effects				
CESD (γ_{30})	−0.02 (0.03)	0.571	−0.01 (0.03)	0.587
Purpose (γ_{20})	0.21 (0.07)	0.001	0.13 (0.05)	0.010
Purpose × age (γ_{21})	0.01 (0.01)	0.068	0.02 (0.01)	<0.001
Purpose × sex (γ_{22})	−0.06 (0.09)	0.507	0.08 (0.06)	0.219
Purpose × education (γ_{23})	0.01 (0.01)	0.605	−0.01 (0.01)	0.601
Purpose × CESD (γ_{24})	−0.01 (0.03)	0.731	−0.00 (0.02)	0.850
Between-person effects				
Intercept (γ_{00})	8.43 (0.06)	<0.001	12.90 (0.05)	<0.001
Age (γ_{01})	−0.14 (0.01)	<0.001	−0.04 (0.01)	<0.001
Sex (female) (γ_{02})	0.97 (0.08)	<0.001	−0.34 (0.07)	<0.001
Education (γ_{03})	0.30 (0.01)	<0.001	0.32(0.01)	<0.001
Purpose BP (γ_{04})	0.36 (0.06)	<0.001	0.11(0.04)	0.011
CESD BP (γ_{05})	−0.17 (0.03)	<0.001	−0.14 (0.03)	<0.001
Purpose × CESD (γ_{06})	−0.06 (0.03)	0.041	−0.01 (0.03)	0.676
Slope (γ_{10})	−0.17 (0.01)	<0.001	−0.13 (0.01)	<0.001
Age (γ_{11})	−0.01 (0.00)	<0.001	−0.01 (0.00)	<0.001
Sex (female) (γ_{12})	0.00 (0.01)	0.830	−0.00 (0.01)	0.695
Education (γ_{13})	−0.00 (0.00)	0.206	0.00 (0.00)	0.216
Purpose BP (γ_{14})	0.01 (0.01)	0.396	0.01 (0.01)	0.112
CESD BP (γ_{15})	0.00 (0.01)	0.932	−0.01 (0.00)	0.009
Purpose × CESD (γ_{16})	−0.00 (0.01)	0.844	−0.00 (0.00)	0.407
Random effects				
Level-1 residual (e_{ti})	4.20 (0.12)	<0.001	1.73 (0.06)	<0.001
Intercept variance (μ_{0i})	3.91 (0.15)	<0.001	3.06 (0.13)	<0.001
Slope variance (μ_{1i})	0.01 (0.00)	<0.001	0.01(0.00)	<0.001

CESD, number of depressive symptoms on the Center for Epidemiological Studies-Depression scale.

Higher depressive symptoms were associated with poorer recall performance at baseline, but did not predict overall change (slope) or occasion-to-occasion fluctuations in word recall. Though higher depressive symptoms predicted poorer baseline performance, a significant sense of purpose by depressive symptoms interaction was observed wherein higher sense of purpose diminished the negative impact of depressive symptoms on word recall. For example, a participant reporting sense of purpose one standard deviation above the sample mean would be expected to recall 0.11 fewer words for each increase in depressive symptoms, whereas an individual one standard deviation below the mean for sense of purpose would recall about 0.23 fewer words with each depressive symptom. A visual representation of this interaction is presented in **Figure 1**.

Mental Status

Results of the model predicting changes in the mental status composite variable are presented in the right column of **Table 2**. Similar to the word recall model, sense of purpose in life predicted baseline mental status, but not change in the slope parameter. Sense of purpose and performance on the mental status battery were also found to fluctuate together over measurement occasions, such that participants were likely to show concurrent increases in both sense of purpose and mental status. This within-person effect of sense of purpose on mental status was modified by age, with sense of purpose having a larger effect among older participants. Unlike the word recall model, having higher depressive symptoms was associated with both poorer initial mental status and with slightly steeper decline over time. No significant interaction was observed between sense of purpose and depressive symptoms on mental status.

DISCUSSION

Accruing research has supported the notion that having a sense of purpose in life is associated with positive cognitive outcomes in older adulthood including better cognitive performance (Windsor et al., 2015; Lewis et al., 2017) and resilience to dementia-related neuropathology (Boyle et al., 2012). The present study sought to build upon these past findings by examining whether sense of purpose protected against depression-related cognitive deficits in a large, representative sample of community-based American older adults. Having higher sense of purpose in life was associated with better baseline word recall and mental status, and within-person increases in sense of purpose over time predicted corresponding increases in performance on both composite cognitive measures. Moreover, higher sense of purpose in life appeared to mitigate some of the negative effects of depressive symptoms on memory performance, with the association between higher depressive symptoms and baseline word recall being weaker among participants reporting higher sense of purpose. These findings underscore the importance of having a sense of purpose in life as a source of psychological and cognitive resilience in older adulthood.

Past research has pointed to sense of purpose in life as a resource for psychological resilience, helping individuals to overcome or recover quickly in the face of challenges to health and wellbeing (Ryff et al., 2012). For instance, veterans with a

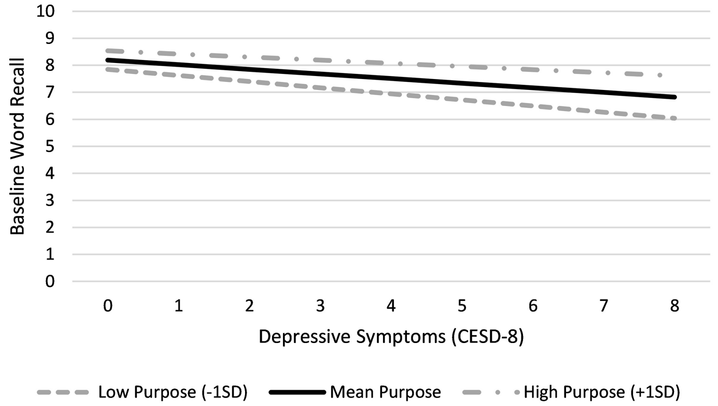


FIGURE 1 | Moderating effect of sense of purpose in life on associations between depressive symptoms and baseline word recall.

history of trauma who report higher sense of purpose in life are less likely to experience psychological distress including post-traumatic stress disorder and depressive symptoms (Pietrzak and Cook, 2013). One potential explanation for sense of purpose protecting against psychological distress is reduced reactivity to stressful experiences. More purposeful individuals also appear to be less reactive to daily stressors, showing smaller increases in negative affect and physical symptoms such as headache or fatigue relative to those lower in sense of purpose (Hill et al., 2018). Purposeful individuals may also utilize more adaptive coping mechanisms to manage psychological distress, such as relying on social support or reframing challenges in the context of major life aims.

The present work also adds to a growing body of research suggesting that sense of purpose in life contributes to cognitive reserve. The theory of cognitive reserve suggests that the accumulation of certain lifestyle characteristics allow some individuals to maintain cognitive functioning in the face of neurobiological insults, such as those associated with Alzheimer's disease and related dementias (Stern et al., 2019). In this way, cognitive reserve may be thought of as a distinction between pathology-related neural integrity and the clinical manifestations of the pathology. Indeed, post-mortem analyses have found that as many as one third of older adults with minimal cognitive impairment prior to death show levels of amyloid and neurofibrillary tangle deposition similar to persons with Alzheimer's disease (Neuropathology Group. Medical Research Council Cognitive Function and Aging Study, 2001). Prior research has found older adults higher in sense of purpose in life to be more resilient to neuropathological changes; showing better cognitive functioning despite accruing neural hallmarks of Alzheimer's disease relative to those lower in sense of purpose (Boyle et al., 2012). Major depressive disorder and high depressive symptomatology may similarly represent a neurological challenge insofar as it may lead to neurocircuitry abnormalities and dysregulation of neural systems involved in memory, executive functions, and attention (Murrough et al., 2011). The present study extends these findings, demonstrating that sense of purpose mitigates negative effects of depressive symptoms on memory performance.

Purpose in life may contribute to cognitive reserve through the promotion of higher order cognitive processes involved in the pursuit of purpose-driven life aims. Having a sense of purpose and direction in life is thought to involve several complex cognitive processes including self-reflection, envisioning future self-representations, and efficient allocation of resources across sometimes competing purpose-related goals (McKnight and Kashdan, 2009). Moreover, sense of purpose in life is believed to provide motivation and guide behavior toward actions that are congruent with long-term goals (Lewis, 2020). Indeed, sense of purpose is associated with greater leisure activity engagement, including participation in intellectual activities such as reading or doing puzzles (Lewis and Hill, 2020), which have been previously shown to contribute to cognitive reserve (Scarmeas and Stern, 2003). However, additional work is needed to clarify the mechanisms underlying associations between sense of purpose and higher cognitive reserve.

These findings also highlight the utility of sense of purpose in life as a therapeutic target among older adults at risk for depression and cognitive impairments. Several studies have shown that sense of purpose in life may be modifiable through brief interventions (Pizzolato et al., 2011; Chippendale and Boltz, 2015). For instance, one 8-week intervention involving training to help older adults identify and appreciate positive experiences as they relate to their purpose in life has been found to improve sense of purpose and lead to decreases in depressive symptoms, with these benefits being sustained at 6 month follow-up (Friedman et al., 2017, 2019). Such non-pharmaceutical interventions could help supplement existing treatment protocols to support wellbeing and promote cognitive resilience among older persons with depression.

The present study is limited in some ways which should serve to inform future research in the area. For instance, though the 8-item CESD scale has been shown to be a valid indicator of depressive symptomatology in large longitudinal studies (e.g., Karim et al., 2015), a detailed clinical evaluation could better clarify the role of sense of purpose in life on cognitive performance among individuals with major depressive disorder. Furthermore, the cognitive battery used in the present study was limited to two cognitive domains, which does not account for interactions between depressive symptoms and sense of purpose on other cognitive functions. Given that depression appears to be most strongly linked with deficits in tasks of attention and cognitive flexibility (Lee et al., 2012), future research is needed to ascertain whether sense of purpose similarly protects against deficits in these cognitive domains. These limitations aside, the present study highlights the value of having a sense of purpose in life as a source resilience, allowing older individuals to better maintain functioning in the face of challenges to wellbeing and cognition.

DATA AVAILABILITY STATEMENT

Publicly available datasets were analyzed in this study. This data can be found here: https://hrs.isr.umich.edu/data-products.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the University of Michigan. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

NL was responsible for the acquisition and analysis of the data. Both authors made substantial contributions to the conception and design of the study, as well as drafting and final approval of the manuscript.

FUNDING

This project was made possible by funding from the Alzheimer Society of Canada Research Program (ASRP 20-17) to NL.

REFERENCES

Boyle, P. A., Buchman, A. S., Barnes, L. L., and Bennett, D. A. (2010).). Effect of a purpose in life on risk of incident Alzheimer disease and mild cognitive impairment in community-dwelling older persons. *Arch. Gen. Psychiatry* 67, 304–310. doi: 10.1001/archgenpsychiatry.2009.208

Boyle, P. A., Buchman, A. S., Wilson, R. S., Yu, L., Schneider, J. A., and Bennett, D. A. (2012). Effect of purpose in life on the relation between Alzheimer disease pathologic changes on cognitive function in advanced age. *Arch. Gen. Psychiatry* 69, 499–505. doi: 10.1001/archgenpsychiatry.2011.1487

Bronk, K. C., Hill, P. L., Lapsley, D. K., Talib, T. L., and Finch, H. (2009). Purpose, hope, and life satisfaction in three age groups. *J. Posit. Psychol.* 4, 500–510. doi: 10.1080/17439760903271439

Burrow, A. L., O'Dell, A. C., and Hill, P. L. (2010). Profiles of a developmental asset: youth purpose as a context for hope and well-being. *J. Youth Adolesc.* 39, 1265–1273. doi: 10.1007/s10964-009-9481-1

Chippendale, T., and Boltz, M. (2015). living legends: effectiveness of a program to enhance sense of purpose and meaning in life among community-dwelling older adults. *Am. J. Occup. Ther.* 69, 6904270010p1-6904270010p11. doi: 10.5014/ajot.2015.014894

Chodosh, J., Kado, D. M., Seeman, T. E., and Karlamangla, A. S. (2007). Depressive symptoms as a predictor of cognitive decline: macArthur studies of successful aging. *Am. J. Geriatr. Psychiatry* 15, 406–415. doi: 10.1097/01.JGP.0b013e31802c0c63

Dewitte, L., Lewis, N. A., Payne, B. R., Turiano, N. A., and Hill, P. L. (2020). Cross-lagged relationships between sense of purpose in life, memory performance, and subjective memory beliefs in adulthood over a 9-year interval. *Aging Ment. Health* 1–10. doi: 10.1080/13607863.2020.1822284 [Epub ahead of print].

Dickinson, W. J., Potter, G. G., Hybels, C. F., McQuoid, D. R., and Steffens, D. C. (2011). Change in stress and social support as predictors of cognitive decline in older adults with and without depression. *Int. J. Geriatr. Psychiatry* 26, 1267–1274. doi: 10.1002/gps.2676

Dotson, V. M., Resnick, S. M., and Zonderman, A. B. (2008). Differential association of concurrent, baseline, and average depressive symptoms with cognitive decline in older adults. *Am. J. Geriatr. Psychiatry* 16, 318–330. doi: 10.1097/JGP.0b013e3181662a9c

Friedman, E. M., Ruini, C., Foy, C. R., Jaros, L., Love, G., and Ryff, C. D. (2019). Lighten UP! A community-based group intervention to promote eudaimonic well-being in older adults: a multi-site replication with 6 month follow-up. *Clin. Gerontol.* 42, 387–397. doi: 10.1080/07317115.2019.1574944

Friedman, E. M., Ruini, C., Foy, R., Jaros, L., Sampson, H., and Ryff, C. D. (2017). Lighten UP! A community-based group intervention to promote psychological well-being in older adults. *Aging Ment. Health* 21, 199–205. doi: 10.1080/13607863.2015.1093605

Ganguli, M., Du, Y., Dodge, H. H., Ratcliff, G. G., and Chang, C.-C. H. (2006). Depressive symptoms and cognitive decline in late life: a prospective epidemiological study. *Arch. Gen. Psychiatry* 63, 153–160. doi: 10.1001/archpsyc.63.2.153

Hill, P. L., Sin, N. L., Turiano, N. A., Burrow, A. L., and Almeida, D. M. (2018). Sense of purpose moderates the associations between daily stressors and daily well-being. *Ann. Behav. Med.* 52, 724–729. doi: 10.1093/abm/kax039

Hoffman, L., and Stawski, R. S. (2009). Persons as contexts: evaluating between-person and within-person effects in longitudinal analysis. *Res. Hum. Dev.* 6, 97–120. doi: 10.1080/15427600902911189

Karim, J., Weisz, R., Bibi, Z., and Rehman, S. U. (2015). Validation of the eight-item center for epidemiologic studies depression scale (CES-D) among older adults. *Curr. Psychol.* 34, 681–692. doi: 10.1007/s12144-014-9281-y

Kashdan, T. B., and McKnight, P. E. (2013). Commitment to a purpose in life: an antidote to the suffering by individuals with social anxiety disorder. *Emotion* 13, 1150–1159. doi: 10.1037/a0033278

Kim, E. S., Hershner, S. D., and Strecher, V. J. (2015). Purpose in life and incidence of sleep disturbances. *J. Behav. Med.* 38, 590–597. doi: 10.1007/s10865-015-9635-4

Lee, R. S. C., Hermens, D. F., Porter, M. A., and Redoblado-Hodge, M. A. (2012). A meta-analysis of cognitive deficits in first-episode major depressive disorder. *J. Affect. Disord.* 140, 113–124. doi: 10.1016/j.jad.2011.10.023

Lewis, N. A. (2020). Purpose in life as a guiding framework for goal engagement and motivation. *Soc. Personal. Psychol. Compass* 14:e12567. doi: 10.1111/spc3.12567

Lewis, N. A., and Hill, P. L. (2020). Does being active mean being purposeful in older adulthood? Examining the moderating role of retirement. *Psychol. Aging* 35, 1050–1057. doi: 10.1037/pag0000568

Lewis, N. A., Turiano, N. A., Payne, B. R., and Hill, P. L. (2017). Purpose in life and cognitive functioning in adulthood. *Neuropsychol. Dev. Cogn. B Aging Neuropsychol. Cogn.* 24, 662–671. doi: 10.1080/13825585.2016.1251549

McArdle, J. J., Fisher, G. G., and Kadlec, K. M. (2007). Latent variable analyses of age trends of cognition in the health and retirement study, 1992-2004. *Psychol. Aging* 22, 525–545. doi: 10.1037/0882-7974.22.3.525

McKnight, P. E., and Kashdan, T. B. (2009). Purpose in life as a system that creates and sustains health and well-being: an integrative. Testable Theory. *Rev. Gen. Psychol.* 13, 242–251. doi: 10.1037/a0017152

Murrough, J. W., Iacoviello, B., Neumeister, A., Charney, D. S., and Iosifescu, D. V. (2011). Cognitive dysfunction in depression: neurocircuitry and new therapeutic strategies. *Neurobiol. Learn. Mem.* 96, 553–563. doi: 10.1016/j.nlm.2011.06.006

Neuropathology Group. Medical Research Council Cognitive Function and Aging Study (2001). Pathological correlates of late-onset dementia in a multicentre, community-based population in England and Wales. *Lancet* 357, 169–175. doi: 10.1016/S0140-6736(00)03589-3

Nygren, B., Aléx, L., Jonsén, E., Gustafson, Y., Norberg, A., and Lundman, B. (2005). Resilience, sense of coherence, purpose in life and self-transcendence in relation to perceived physical and mental health among the oldest old. *Aging Ment. Health* 9, 354–362. doi: 10.1080/1360500114415

Ownby, R. L., Crocco, E., Acevedo, A., John, V., and Loewenstein, D. (2006). Depression and risk for Alzheimer disease: systematic review, meta-analysis, and metaregression analysis. *Arch. Gen. Psychiatry* 63, 530–538. doi: 10.1001/archpsyc.63.5.530

Pfund, G., and Hill, P. (2018). The multifaceted benefits of purpose in life. *Int. Forum Logother.* 41, 27–37.

Pfund, G. N., and Lewis, N. A. (2020). "Aging with purpose: developmental changes and benefits of purpose in life throughout the lifespan," in *Personality and Healthy Aging in Adulthood: New Directions and Techniques International Perspectives on Aging*, eds P. L. Hill and M. Allemand (Cham: Springer International Publishing), 27–42. doi: 10.1007/978-3-030-32053-9_3

Pietrzak, R. H., and Cook, J. M. (2013). Psychological resilience in older U.S. veterans: results from the national health and resilience in veterans study. *Depress. Anxiety* 30, 432–443. doi: 10.1002/da.22083

Pizzolato, J. E., Brown, E. L., and Kanny, M. A. (2011). Purpose plus: supporting youth purpose, control, and academic achievement. *New Dir. Youth Dev.* 2011, 75–88. doi: 10.1002/yd.429

Radloff, L. S. (1977). The CES-D scale: a self-report depression scale for research in the general population. *Appl. Psychol. Meas.* 1, 385–401. doi: 10.1177/014662167700100306

Raudenbush, S. W., and Bryk, A. S. (2002). *Hierarchical Linear Models: Applications and Data Analysis Methods*. Thousand Oaks, CA: SAGE.

Rowe, J. W., and Kahn, R. L. (1997). Successful aging. *Gerontologist* 37, 433–440. doi: 10.1093/geront/37.4.433

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *J. Pers. Soc. Psychol.* 57, 1069–1081. doi: 10.1037/0022-3514.57.6.1069

Ryff, C. D. (2014). Psychological well-being revisited: advances in the science and practice of eudaimonia. *Psychother. Psychosom.* 83, 10–28. doi: 10.1159/000353263

Ryff, C. D., Friedman, E. M., Morozink, J. A., and Tsenkova, V. (2012). "Psychological resilience in adulthood and later life: implications for health," in *Emerging Perspectives on Resilience in Adulthood and Later Life*, Vol. 32, eds B. Hayslip Jr. and G. C. Smith (New York, NY: Springer Publishing Company), 73–92.

Scarmeas, N., and Stern, Y. (2003). Cognitive reserve and lifestyle. *J. Clin. Exp. Neuropsychol.* 25, 625–633. doi: 10.1076/jcen.25.5.625.14576

Scheier, M. F., Wrosch, C., Baum, A., Cohen, S., Martire, L. M., Matthews, K. A., et al. (2006). The life engagement test: assessing purpose in life. *J. Behav. Med.* 29, 291–298. doi: 10.1007/s10865-005-9044-1

Smith, G. E. (2016). Healthy cognitive aging and dementia prevention. *Am. Psychol.* 71, 268–275. doi: 10.1037/a0040250

Smith, J., Ryan, L., Fisher, G. G., Sonnega, A., and Weir, D. (2017). *HRS Psychosocial and Lifestyle Questionnaire 2006–2016*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan.

Sonnega, A., Faul, J. D., Ofstedal, M. B., Langa, K. M., Phillips, J. W., and Weir, D. R. (2014). Cohort profile: the health and retirement study (HRS). *Int. J. Epidemiol.* 43, 576–585. doi: 10.1093/ije/dyu067

Stern, Y., Barnes, C. A., Grady, C., Jones, R. N., and Raz, N. (2019). Brain reserve, cognitive reserve, compensation, and maintenance: operationalization, validity, and mechanisms of cognitive resilience. *Neurobiol. Aging* 83, 124–129. doi: 10.1016/j.neurobiolaging.2019.03.022

Weston, S. J., Lewis, N. A., and Hill, P. L. (2020). Building sense of purpose in older adulthood: examining the role of supportive relationships. *J. Posit. Psychol.* 16, 1–9. doi: 10.1080/17439760.2020.1725607

Wilson, R. S., Barnes, L. L., Leon, C. F. M., de Aggarwal, N. T., Schneider, J. S., Bach, J., et al. (2002). Depressive symptoms, cognitive decline, and risk of AD in older persons. *Neurology* 59, 364–370. doi: 10.1212/WNL.59.3.364

Wilson, R. S., Mendes de Leon, C. F., Bienias, J. L., Evans, D. A., and Bennett, D. A. (2004). Personality and mortality in old age. *J. Gerontol. B Psychol. Sci. Soc. Sci.* 59, 110–116. doi: 10.1093/geronb/59.3.P110

Windsor, T. D., Curtis, R. G., and Luszcz, M. A. (2015). Sense of purpose as a psychological resource for aging well. *Dev. Psychol.* 51, 975–986. doi: 10.1037/dev0000023

Yaffe, K., Blackwell, T., Gore, R., Sands, L., Reus, V., and Browner, W. S. (1999). Depressive symptoms and cognitive decline in nondemented elderly women: a prospective study. *Arch. Gen. Psychiatry* 56, 425–430. doi: 10.1001/archpsyc.56.5.425

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers in Psychology

MINI REVIEW
published: 02 July 2021
doi: 10.3389/fpsyg.2021.693116

Better Later Than Never: Meaning in Late Life

*Nancy A. Pachana and Roy F. Baumeister**

School of Psychology, The University of Queensland, Brisbane, QLD, Australia

The quest for meaning in life takes on new challenges and directions during late life. This mini-review draws on prior theory to analyze meaningfulness into six discrete dimensions (purpose, value, efficacy, self-worth, mattering, and comprehension) and covers research into how these apply and operate specifically during late life. Limited remaining time, concern with one's legacy, concerns with self-continuity and integration, variable challenges to self-worth, and prioritization of positivity emerge as key themes.

Keywords: meaning, purpose, value, aging, late life, mattering

Finding meaning in life is a potential concern for people of all ages, presumably except very young children. Meaning in life is widely regarded as an indicator of well-being (Ryff, 1989), and indeed most people generally report that their lives have sufficient meaning (Heintzelman and King, 2014). Nevertheless, a lack of meaning is often linked to multiple negative outcomes, again at all ages. For example, lack of meaningful life engagement has been associated with both state and trait loneliness in younger people (Tam and Chan, 2019) and with increased risk of depression in older people (Van der Heyden et al., 2015).

Later life has been mooted as a time of particular relevance to meaningfulness concerns. Later life presents relatively few new opportunities for meaning while taking away some sources that may have been important during youth and middle age. In particular, the loss of social connection due to death or departure of loved ones can reduce meaning, given the central importance of relationships (e.g., Stillman et al., 2009). Yet many researchers, and older adults themselves, would dispute a lack of meaning in later years (Wong, 1998). For example, Reichstadt et al. (2010) found engagement with life and self-growth in later life cited by older adults as key to successful aging (along with self-acceptance and self-contentedness). Early work comparing researchers' and older adults' views of successful aging highlighted the multidimensional formulations of aging well among the latter compared with the former (Phelan et al., 2004). Increasingly, researchers are taking a more nuanced view of successful aging to incorporate constructs including meaningful engagement in life, and moreover taking cultural frameworks into consideration when examining meaning in later life (e.g., Lamb, 2014).

Two influential theories seek to explain how developmental stage of life influences perceptions and behaviors regarding meaning over the life course. Carstensen's Socioemotional Selectivity Theory (SST; Carstensen et al., 1999) suggests that recognition of a foreshortened future influences goal selection such that emotionally meaningful goals and relationships are prioritized over less meaningful goals. Whereas, the young person may see inchoate decades stretching ahead, the older individual is often increasingly aware that time is limited. The time perspective, rather than chronological age *per se*, drives these changing motivational patterns; for example, in younger HIV patients with short life expectancies, similar motivational shifts occur (Carstensen and Fredrickson, 1998). There is a greater urgency to set realistic goals and pursue them without delay. Learning is less important, whereas enjoying meaningful goals gains in priority.

Edited by:
Suvi-Maria Katariina Saarelainen,
University of Eastern Finland, Finland

Reviewed by:
Tilmann Habermas,
Goethe University Frankfurt, Germany
Pninit Russo-Netzer,
University of Haifa, Israel

****Correspondence:***
Roy F. Baumeister
r.baumeister@uq.edu.au

Specialty section:
This article was submitted to
Health Psychology,
a section of the journal
Frontiers in Psychology

Received: *09 April 2021*
Accepted: *08 June 2021*
Published: *02 July 2021*

Citation:
Pachana NA and Baumeister RF
(2021) Better Later Than Never:
Meaning in Late Life.
Front. Psychol. 12:693116.
doi: 10.3389/fpsyg.2021.693116

Baltes's Selection Optimization Compensation (SOC) is a theory developed to explain successful aging (Freund and Baltes, 1998) and has been applied in contexts as varied as business, health care, and nursing home settings. SOC focuses not on outcomes but on the processes to maximize gains and minimize loss in pursuit of meaningful goals in later life by harnessing strengths and strategically using adaptive strategies. The SOC model proposes that well-being and effective functioning throughout the lifespan can be achieved by engaging in the strategies of selection (selecting and prioritizing goals), optimization (acquiring and applying means for goal achievement), and compensation (increasing effort or recruiting alternative means to achieve the goal in the face of declines or losses of functioning). Therefore, aging well involves behavioral adjustments but moreover, requires an evolving skill set that includes letting go of plans and procedures developed earlier in life but less suited to current circumstances.

In this brief review, we discuss the challenges that arise in old age with regard to meaning in life. The analysis rests on several prior treatments as to what constitutes meaning in life, starting with Frankl's 1959 seminal work and including subsequent efforts. Frankl focused on purpose as essential to life's meaning. Baumeister (1991) proposed purpose, value, efficacy, and self-worth as four needs for meaning. George and Park (2016) featured purpose, mattering, and comprehension.

PURPOSE

All theories about meaning in life emphasize purpose, and it was the main need emphasized in the seminal work by Frankl (1959). Purpose means that present activities draw meaning from future events, to which they are usually connected in causal fashion. Goal pursuit connects present action to future benefits. In short, all meanings of life include purposiveness.

Purposiveness changes with aging. The foreshortened future focuses attention on shorter-term goals—or else one accepts that one is working toward goals that one will never live to see realized. That latter is a bit of a shock, as it goes beyond what animals could consider as worth doing. It leads to thoughts of one's legacy; people begin to care about how they will be remembered after they are dead, though there is no rational benefit to the self (e.g., Vonasch et al., 2018). In a study of legacy, Newton et al. (2020) found that Erikson's construct of stagnation (the opposite of generativity, or caring for the next generation) inhibited legacy expression and well-being in later life.

VALUE

Values are beliefs about what is right and good. They guide goal selection. Perhaps there is no strong reason why values should change with aging, but priorities among one's values may change, again because of the foreshortened future, as well as other reasons. If nothing else, aging individuals may become less willing to invest time and effort based on other people's foolish or dubious pursuits. Continuation of midlife generativity may depend on perceptions of whether one's efforts have been respected and appreciated (Cheng, 2009). Still, generativity becomes a prominent value during mid-life and continues into old age for many people (McAdams et al., 1993).

Here an aspect of Cartensen's SST may be relevant: the positivity effect. SST posits that people place increasing value on emotionally meaningful goals as they age. However, older adults also show preferential cognitive processing of positively-valenced (relative to negatively-valenced or neutral) stimuli, compared with younger adults (Charles et al., 2003). Such an emotionally gratifying focus may enable older adults to view life as more positive, and potentially more meaningful, contributing to emotional well-being (Carstensen and Mikels, 2005).

EFFICACY

As a core need for meaning in life, efficacy means making a difference in the world, and especially to bring about progress toward those valued goals. Efficacy varies greatly among persons of any age; later in life it may well be that beliefs about efficacy, that is, self-efficacy and perceived control, may influence well-being and functionality more than efficacy *per se* (Seeman et al., 1996; Robinson and Lachman, 2017). Furthermore, both SST and the positivity effect would argue that one's view of efficacy itself shifts in the latter half of life, such that emotionally gratifying pursuits are prioritized.

SELF-WORTH

There is a mixed literature regarding changes in self-esteem with increasing age; while some research supports declines in self-esteem in later life (e.g., Orth et al., 2010), a recent systematic review of the literature spanning 48 countries has found that both age and gender influence self-esteem and self-worth in complex, often non-linear ways (Bleidorn et al., 2016). Complex mediational relationships have also been demonstrated between optimism and self-esteem over the lifespan, with greater optimism associated with increased age (Jiménez et al., 2017). Given an increase in individual differences with increased age, it may well be that while a decline in self-worth is not inevitable in later life, such declines may be experienced more acutely in subpopulations of older adults. This appears to be borne out by converging data on the negative impact of poor health and socioeconomic status on self-esteem in later life (McMullin and Cairney, 2004).

Self-esteem plays an important role in buffering the effects of declines in health and functionality in later life (Sargent-Cox et al., 2012). One salient threat to self-esteem and self-worth in later life is ageism. Levy and Macdonald's 2016 review of the topic highlights negative personal and societal effects of ageism, including age stereotyping and age discrimination in the workplace. Stereotype embodiment theory (Levy, 2009) focuses on individuals who may embody or who have internalized stereotypes of aging in self-fulfilling ways that influence their health. Ravary et al. (2020) have introduced the construct of age-contingent self-worth to disentangle insecurities about one's own aging and feelings of self-worth. Such individuals are argued to be at greater risk for less successful aging, being essentially deprived of the dividends of the positivity effect.

MATTERING

Mattering was proposed by George and Park (2016) as an important component of meaning in life. Mattering, or the belief that one's life matters, is not a well-defined term, though neither is meaningfulness. George and Park explained that mattering involves a subjective belief that one's life has value and significance in the world. Value has already been discussed as a separate need, though for George and Park, value mainly modifies other needs. (They agree that purpose is an important need for meaning, but they also acknowledge that purposes must have value).

The concept of mattering calls for further elucidation. Clearly the term resonates, because self-rated mattering among workers in organizations predicted a variety of positive outcomes (Reece et al., 2021). Mattering has even become a political slogan, with many Americans marching to support the view that "Black lives matter" and some people losing their jobs for suggesting that other lives matter too. In meaning research, however, mattering is used more broadly, such that all lives may contain any degree of mattering.

It may be difficult to sustain a sense that one's own life matters if one does not believe one's life matters to others. Taylor and Turner (2001) discuss mattering in terms of its (negative) relationship to depressive symptomatology (found in their studies in women but not in men) but further work on mattering, effective disorders and suicide, which is a significant issue in later life (particularly for older men; Van Orden and Conwell, 2011) is warranted.

COMPREHENSION

Comprehension was the third need postulated by George and Park (2016). It comprises coherence and understanding, so again this need can be broken down into discrete parts. Coherence means that the parts of one's life fit together without contradiction; understanding means that one's life, upon reflection, makes sense.

There is an increasing literature examining age differences across the lifespan in self-continuity, defined as perceived associations of one's present self with past and future selves (Löckenhoff and Rutt, 2017). Maintaining a sense of continuity in the face of age-related changes is an important factor in maintaining well-being in later life (Baltes et al., 1998), and a growing literature suggests increasing stability in self-continuity with increasing age. Other characteristics of the self also demonstrate age trends toward greater stability in later life, including life philosophies, value systems, personality, and life satisfaction (Terracciano et al., 2005; Lachman et al., 2008; Quoidbach et al., 2013). Older adults themselves are aware of this tendency toward self-stability later in life, and this stability may be driven in part through internal and environmental factors (Löckenhoff and Rutt, 2017). This may in turn impact upon comprehension with respect to one's life toward the end of life.

CONCLUDING REMARKS

As human longevity continues to increase, the keys to successful aging become ever more important. An emerging consensus holds that finding or maintaining meaning is part of successful aging. We have sought here to break meaningfulness down into more precisely defined and specific needs for meaning. Such an approach holds promise for elucidating the problems, challenges, and opportunities for maximizing meaning in late life.

AUTHOR CONTRIBUTIONS

NP's expertise on aging combined with RB's expertise on meaning. Ideas emerged from discussion. Both authors wrote parts of the manuscript.

REFERENCES

Baltes, P. B., Lindenberger, U., and Staudinger, U. M. (1998). "Life-span theory in developmental psychology," in *Handbook of child psychology: Theoretical Models of Human Development,* eds W. Damon, R. M. Lerner, W. Damon, and R. M. Lerner (Hoboken, NJ: John Wiley & Sons Inc.), 1029–1143.

Baumeister, R. F. (1991). *Meanings of Life.* New York, NY: Guilford Press.

Bleidorn, W., Arslan, R. C., Denissen, J. J., Rentfrow, P. J., Gebauer, J. E., Potter, J., et al. (2016). Age and gender differences in self-esteem—A cross-cultural window. *J. Pers. Soc. Psychol.* 111, 396–410. doi: 10.1037/pspp0000078

Carstensen, L. L., and Fredrickson, B. L. (1998). Influence of HIV status and age on cognitive representations of others. *Health Psychol.* 17, 494–503. doi: 10.1037/0278-6133.17.6.494

Carstensen, L. L., Isaacowitz, D. M., and Charles, S. T. (1999). Taking time seriously: a theory of socioemotional selectivity. *Am. Psychol.* 54, 165–181. doi: 10.1037/0003-066X.54.3.165

Carstensen, L. L., and Mikels, J. A. (2005). At the intersection of emotion and cognition: aging and the positivity effect. *Curr. Direct. Psychol. Sci.* 14, 117–121. doi: 10.1111/j.0963-7214.2005.00348.x

Charles, S. T., Mather, M., and Carstensen, L. L. (2003). Aging and emotional memory: the forgettable nature of negative images for older adults. *J. Exp. Psychol. Gen.* 132, 310–324. doi: 10.1037/0096-3445.132.2.310

Cheng, S. (2009). Generativity in later life: Perceived respect from younger generations as a determinant of goal disengagement and psychological well-being. *J. Gerontol. B Psychol. Sci. Soc. Sci.* 64B, 45–54. doi: 10.1093/geronb/gbn027

Frankl, V. (1959). *Man's Search for Meaning.* New York, NY: Touchstone.

Freund, A. M., and Baltes, P. B. (1998). Selection, optimization, and compensation as strategies of life management: correlations with subjective indicators of successful aging. *Psychol. Aging* 13, 531–543. doi: 10.1037/0882-7974.13.4.531

George, L. S., and Park, C. L. (2016). Meaning in life as comprehension, purpose, and mattering: toward integration and new research questions. *Rev. Gen. Psychol.* 20, 205–220. doi: 10.1037/gpr0000077

Heintzelman, S. J., and King, L. A. (2014). Life is pretty meaningful. *Am. Psychol.* 69, 561–574. doi: 10.1037/a0035049

Jiménez, M. G., Montorio, I., and Izal, M. (2017). The association of age, sense of control, optimism, and self-esteem with emotional distress. *Dev. Psychol.* 53, 1398–1403. doi: 10.1037/dev0000341

Lachman, M. E., Röcke, C., Rosnick, C., and Ryff, C. D. (2008). Realism and illusion in Americans' temporal views of their life satisfaction: age differences in reconstructing the past and anticipating the future. *Psychol. Sci.* 19, 889–897. doi: 10.1111/j.1467-9280.2008.02173.x

Lamb, S. (2014). Permanent personhood or meaningful decline? Toward a critical anthropology of successful aging. *J. Aging Stud.* 29, 41–52. doi: 10.1016/j.jaging.2013.12.006

Levy, B. R. (2009). Stereotype embodiment: a psychosocial approach to aging. *Curr. Direct. Psychol. Sci.* 18, 332–336 doi: 10.1111/j.1467-8721.2009.01662.x

Levy, S. R., and Macdonald, J. L. (2016). Progress on understanding ageism. *J. Soc. Issues* 72, 5–25. doi: 10.1111/josi.12153

Löckenhoff, C. E., and Rutt, J. L. (2017). Age Differences in self-continuity: converging evidence and directions for future research. *Gerontologist* 57, 396–408. doi: 10.1093/geront/gnx010

McAdams, D., St. Aubin, E., and Logan, R. (1993). Generativity among young, midlife and older adults. *Psychol. Aging* 8, 221–230. doi: 10.1037/0882-7974.8.2.221

McMullin, J. A., and Cairney, J. (2004). Self-esteem and the intersection of age, class, and gender. *J. Aging Stud.* 18, 75–90. doi: 10.1016/j.jaging.2003.09.006

Newton, N. J., Chauhan, P. K., and Pates, J. L. (2020). Facing the future: generativity, stagnation, intended legacies, and well-being in later life. *J. Adult Dev.* 27, 70–80. doi: 10.1007/s10804-019-09330-3

Orth, U., Trzesniewski, K. H., and Robins, R. W. (2010). Self-esteem development from young adulthood to old age: a cohort-sequential longitudinal study. *J. Pers. Soc. Psychol.* 98, 645–658. doi: 10.1037/a0018769

Phelan, E. A., Anderson, L. A., Lacroix, A. Z., and Larson, E. B. (2004). Older adults' views of "successful aging"—how do they compare with researchers' definitions? *J. Am. Geriatr. Soc.* 52, 211–216. doi: 10.1111/j.1532-5415.2004.52056.x

Quoidbach, J., Gilbert, D. T., and Wilson, T. D. (2013). The end of history illusion. *Science* 339, 96–98. doi: 10.1126/science.1229294

Ravary, A., Stewart, E. K., and Baldwin, M. W. (2020). Insecurity about getting old: age-contingent self-worth, attentional bias, and well-being. *Aging Ment. Health* 24, 1636–1644. doi: 10.1080/13607863.2019.1636202

Reece, A., Yaden, D., Kellerman, G., Robichaux, A., Goldstein, R., Schwartz, B., et al. (2021). Mattering is an indicator of organizational health and employee success. *J. Posit. Psychol.* 16, 228–248. doi: 10.1080/17439760.2019.1689416

Reichstadt, J., Sengupta, G., Depp, C. A., Palinkas, L. A., and Jeste, D. V. (2010). Older adults' perspectives on successful aging: qualitative interviews. *Am. J. Geriatr. Psychiatry.* 18, 567–575. doi: 10.1097/jgp.0b013e3181e040bb

Robinson, S. A., and Lachman, M. E. (2017). Perceived control and aging: a mini-review and directions for future research. *Gerontology* 63, 435–442. doi: 10.1159/000468540

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *J. Pers. Soc. Psychol.* 57, 1069–1081. doi: 10.1037/0022-3514.57.6.1069

Sargent-Cox, K. A., Anstey, K. J., and Luszcz, M. A. (2012). Change in health and self-perceptions of aging over 16 years: the role of psychological resources. *Health Psychol.* 31, 423–432. doi: 10.1037/a0027464

Seeman, T., McAvay, G., Merrill, S., Albert, M., and Rodin, J. (1996). Self-efficacy beliefs and change in cognitive performance: MacArthur studies on successful aging. *Psychol. Aging* 11, 538–551. doi: 10.1037/0882-7974.11.3.538

Stillman, T. F., Baumeister, R. F., Lambert, N. M., Crescioni, A. W., DeWall, C. N., and Fincham, F. D. (2009). Alone and without purpose: life loses meaning following social exclusion. *J. Exp. Soc. Psychol.* 45, 686–694. doi: 10.1016/j.jesp.2009.03.007

Tam, K. Y., and Chan, C. S. (2019). The effects of lack of meaning on trait and state loneliness: correlational and experience-sampling evidence. *Pers. Ind. Diff.* 141, 76–80. doi: 10.1016/j.paid.2018.12.023

Taylor, J., and Turner, R. J. (2001). A longitudinal study of the role and significance of mattering to others for depressive symptoms. *J. Health Soc. Behav.* 42, 310–325. doi: 10.2307/3090217

Terracciano, A., McCrae, R. R., Brant, L. J., and Costa, P. T. Jr. (2005). Hierarchical linear modeling analyses of the NEO-PI-R scales in the baltimore longitudinal study of aging. *Psychol. Aging* 20, 493–506. doi: 10.1037/0882-7974.20.3.493

Van der Heyden, K., Dezutter, J., and Beyers, W. (2015). Meaning in life and depressive symptoms: a person-oriented approach in residential and community-dwelling older adults. *Aging Ment. health* 19, 1063–1070. doi: 10.1080/13607863.2014.995589

Van Orden, K., and Conwell, Y. (2011). Suicides in late life. *Curr. Psychiatry Rep.* 13, 234–241. doi: 10.1007/s11920-011-0193-3

Vonasch, A. J., Reynolds, T., Winegard, B. M., and Baumeister, R. F. (2018). Death before dishonor: incurring costs to protect moral reputation. *Soc. Psychol. Pers. Sci.* 9, 604–613. doi: 10.1177/1948550617720271

Wong, P. T. P. (1998). "Spirituality, meaning, and successful aging," in *The Human Quest for Meaning: A Handbook of Psychological Research and Clinical Applications*, eds P. T. P. Wong and P. S. Fry (Mahwah, NJ: Lawrence Erlbaum Associates Publishers), 359–394.

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers in Psychology

ORIGINAL RESEARCH
published: 05 August 2021
doi: 10.3389/fpsyg.2021.699485

A Struggle for Survival: Meaning of Late Life in a Rural District in Uganda: A Qualitative Study

Birthe Loa Knizek[1]*, *Davy Vancampfort*[2], *Japheth Kwiringira*[3], *Elizabeth Kyazike*[4] *and James Mugisha*[3]

[1] Department of Mental Health, Norwegian University of Science and Technology, Trondheim, Norway, [2] KU Leuven Department of Rehabilitation Sciences, Research Group for Adapted Physical Activity and Psychomotor Rehabilitation, Leuven, Belgium, [3] Department of Sociology and Social Administration, Kyambogo University, Kampala, Uganda, [4] Department of History and Political Science, Kyambogo University, Kampala, Uganda

Background: Between 2015 and 2050, the aging population of Uganda (aged 50 years and older) will be nearly doubled. Therefore, later-life problems have become an area of increasing research and policy interest. This study aimed at exploring how aging people living in extreme poverty in a low-income country experience their everyday life and what kind of meaning systems employed by them to understand and cope with their living conditions.

Methods: We conducted a qualitative interview with 14 participants in the Buikwe district. In this interview, 11 women and 3 men were included, and a thematic analysis was employed for data processing and analysis.

Results: Unanimously, all participants reported their condition as extreme poverty. The key informants (KIs) emphasized respect from descendants and the community as a foundation for a meaningful later life. In contrast, this aspect has been ever mentioned by no caregivers but by only one care-receiver. The willingness/ability of children to support the elderly who are in need of support formed a major part of the reflections of care-receivers, which would be decisive for their position in the society and the respect they would receive. In addition, both Christianity and traditional beliefs as well as beliefs in witchcraft and ancestral spirits were employed as a basis for actions and reflections.

Discussion: The question arises whether life in extreme poverty conditions can be perceived as meaningful. Respect was mentioned as fundamental by the KIs, thereby giving priority to social relations as the most meaningful factor for living a meaningful life. The ability and willingness of the possible descendants for support as the focus of care-receivers might be a more down-to-earth description of this aspect but without using the same level of abstraction. For the majority, due to their belief system did not serve as a source of consolation their main focus was on social relationships for support. To improve the wellbeing of the old people, their sense of meaning must be restored through a system, guaranteeing the coverage of basic needs and measures to restore dignity through a reintegration in both community and congregations. Social service agencies who are targeting the elderly people need to work toward this objective.

Keywords: meaning, Africa, old people, elderly, poverty

Edited by:
Suvi-Maria Katariina Saarelainen,
University of Eastern Finland, Finland

Reviewed by:
Reino Pöyhiä,
University of Helsinki, Finland
Polycarp Ikuenobe,
Kent State University, United States

***Correspondence:**
Birthe Loa Knizek
birthe.l.knizek@ntnu.no

Specialty section:
This article was submitted to
Health Psychology,
a section of the journal
Frontiers in Psychology

Received: *23 April 2021*
Accepted: *05 July 2021*
Published: *05 August 2021*

Citation:
Knizek BL, Vancampfort D,
Kwiringira J, Kyazike E and Mugisha J
(2021) A Struggle for Survival:
Meaning of Late Life in a Rural District
in Uganda: A Qualitative Study.
Front. Psychol. 12:699485.
doi: 10.3389/fpsyg.2021.699485

INTRODUCTION

Getting old for many people includes significant social, personal, and/or physiological changes including the loss of physical abilities, relationships, and social position. Health becomes a central issue when physiological changes become noticeable and the risk for chronic diseases gets increased, which again could impair the quality of life and wellbeing. According to the report of WHO on aging and health, health must be considered as a "fundamental and holistic attribute that enables older people to achieve the things that are important to them" (World Health Organization, 2015, p. 27). Important ingredients for healthy aging are integrity, dignity, freedom, and autonomy, which all are collectively called as human rights (*ibid*). In addition, the United Nations (2006) Convention on the rights of persons with disabilities especially focused on the rights for all people with a particular form of functional limitation as most older people have acquired, to live, and to be included in their community. In these perspectives, the concept of "functional ability" becomes important. According to the WHO's International classification of functioning (WHO, 2001), functional ability must be understood as health-related attributes, which make it possible for people to be and to do what they have a reason to value. Functional ability is made up of both the intrinsic capacity of the individual and relevant environmental characteristics as well as the interaction between those. The net physical and mental capacities of an individual make up the intrinsic capacity, whereas the environment consists of the contextual factors influencing an individual. Structural, physical, political, and normative factors as well as health and social policies, healthcare services, and other systems as a potentially providing support are part of the context, which is central for the functional ability of an individual (WHO, 2001). This means that, in addition to the possibility of getting help due to increasing health issues, WHO emphasizes the support of intrinsic capacity/individual resilience based on the ability of an individual for a positive adaptation in case of adversities and the upholding of wellbeing and meaning in life. However, one has to differentiate between the ultimate meaning of our lives as a lifelong quest and meanings in life, which are everyday events or activities that individuals ascribe importance to, in accordance with their value systems guiding their behavior (Frankl, 1969/2014). Both meaning in life and meaning of life are of crucial relevance for wellbeing and health as "…the acute suffering of someone who lacks meaning in life can lead to stress, ulcers, and even suicide" (Baumeister, 1991, p. 30).

The meaning-making concept has attracted renewed attention and further development in the last 20 years (Park, 2005, 2010; Seligman, 2011; Proulx and Inzlicht, 2012; De Marinis, 2018). Meaning-making is essential for a successful adaptation to shifting environments and consequently must be understood as an important part of the intrinsic capacity, which makes up a central component of the functional ability. In the meaning-making model of Park and Folkman (1997), one distinguishes between global meaning that encompasses, for example, beliefs about life, life goals, or idealistic commitments, and situational meaning, which are meanings "…in the context of a particular environmental encounter" (Park, 2010, p. 258). The global meaning system is a construction of both accumulated personal experiences and cultural influences that include dominating belief systems (Baumeister, 1991). In this global meaning system, we find assumptions about control, predictability, goals, etc. (Janoff-Bulman and Frantz, 1997; Mischel and Morf, 2003; Park, 2005, 2010). The global meaning system can be challenged by, for example, injustices, loss of persons and abilities, illness, poverty, or catastrophic events, and the person must figure out whether the situation is threatening and/or controllable and which consequences it might have in the future (Park, 2010). If the person experiences a discrepancy between the global meaning system and an actual situation, he/she has two options: revise the global meaning system (accommodation) or the appraisal of the situation (assimilation). Both cognitive and emotional forces are employed in these processes (Hunt et al., 2007; Sloan et al., 2007), which consequently have been termed as cognitive-emotional processing by Hayes et al. (2007). The result of these processes can be described as having "made sense" (Davis et al., 1998) or "meanings made" (Park, 2010) and can include growth, predictability, or coming to terms with an event or a condition (Evers et al., 2001). Other perspectives on meanings made are reattributions and causal understanding (e.g., Janoff-Bulman and Frantz, 1997; Westphal and Bonanno, 2007), changes in identity (Gillies and Neimeyer, 2006), global beliefs (Park, 2005, 2010), or global goals (Martin and Tesser, 2006) or a reappraisal of the meaning of a stressor (e.g., Resick et al., 2008), where the implications of an actual situation are re-evaluated in a more positive light (Park, 2010). Meaning-making as part of the intrinsic capacity in the functional ability of a person consequently seems to be important for health and wellbeing throughout all stages of life, including the later part. Dominant religious belief systems seem to be helpful for many people to be comprehensive meaning systems (Hood et al., 2005; Silberman, 2005; Newton and McIntosh, 2013) offering meaning and hope in a variety of situations (Hall and Hill, 2019). This is especially relevant in Uganda, a highly religious country in which the majority of the people (about 84%) are Christian, 14% are Muslim, and the remaining people belong to traditional African religion (Uganda Bureau of Statistics National Population Housing Census, 2014).

The existing literature seems exclusively focused on older people in resourceful settings, whereas settings with limited resources have been overlooked despite the fact that most people in the world live in poverty (Worldometer, 2021). In addition, the effect of the worldwide AIDS epidemic, which mostly occurs in the developing world, has received relatively little consideration with respect to older persons despite their lives being significantly affected in various ways (Knodel et al., 2003). The purpose of this study was to explore how HIV-infected older persons in a low-income country experience their everyday life and what kind of meaning systems are employed by them to understand and cope with their living conditions. As meaning-making seems related to health and wellbeing, this kind of knowledge might be important for the improvement of the conditions for the elderly in Uganda.

The Setting of the Study

Uganda is a low-income country with a young population. Almost half of the population of Uganda estimated to be 46,581 million is less than 15 years old and only about 10% are <45 years, and the median age is 16.7 (Worldometer, 2021). While Uganda has adopted the UN definition of older persons as those aged 60 or more years, WHO operates with a figure of 50 or more years, resulting in some uncertainties about the data officially collected due to a variation in the data. From 2016 to 2018, the percentage of people aged 60 or more in Uganda increased from 2.9 to 3.7% (Uganda Bureau of Statistics, 2018). In 2020, the life expectancy at birth for men was 62 years while the same for women was 66.7 years (Worldometer, 2021). Most of the older people are living in the countryside with limited economic resources and access to healthcare (Ajiambo, 2016). About 85% of the people are extremely vulnerable as they are doing crop farming and have no formal social security. Uganda also has a high burden of people living with HIV, which is reported to be 1.46 million in 2019 (Uganda AIDS Commission, 2020). Elderly people might be both infected and affected as HIV/AIDS has claimed its victims and left orphaned children behind in the care of the elderly (Ministry of Gender Labour Social Development, 2018). Rapid urbanization has contributed further, and many parents have left for the city while the children traditionally are sent to the grandparents who are in the countryside for helping their grandparents (Ministry of Gender Labour Social Development, 2018). However, this implies further economic pressure as the parents seldomly contribute and the grandparents are left with the responsibility of providing the children with food, clothing, school fees, etc. (Ministry of Gender Labour Social Development, 2018). Without means, the elderly are captured in a situation of chronic poverty, which counteracts wellbeing:

> Poverty and well-being are two sides of the same coin. Old age brings with it a higher risk of poverty in countries like Uganda, where the majority are poor throughout their lifetime. An average older person has survived traumatic periods of political upheavals, war, natural disasters and loss of wealth. In old age, they find themselves still living on low incomes while lacking proper attention when they are ill or develop disabilities (Ministry of Gender Labour Social Development, 2018, p. 18).

Under the Social Assistance Grants for Empowerment Scheme (SAGE), the Ugandan government started, in 2015, to implement the Senior Citizens Grant and to roll it out successively to an increasing number of districts. The pension targeting senior citizens aged 65 years and older amounts to 25,000 UGX per month, which equalizes about 7 US$. This pension program was rolled out in 55 of 135 districts of Uganda (Uganda AIDS Commission, 2020) but is intended to cover the entire country. Momentarily, most people do not receive this pension and in addition, it is difficult to retrieve the pension and it does not always reach those, who might be entitled to it and the funds can delay for several months. Empirical evidence reveals that only 7.1% of the older people have access to pension, of which 60% are men (Ajiambo, 2016). As a result, the elderly must rely entirely on informal networks:

> In Uganda, a person's safety net is their extended family as well as their community. These relations make up the "kinship networks" which offer them financial, physical, and emotional support, and a person becomes vulnerable when these are weak. Care is reciprocal so one must often contribute and look after others in the hope of receiving care in old age (Ministry of Gender Labour Social Development, 2018, p. 6).

In addition, one has to consider social norms, which give men the right to remarry, while the women do not. Many men leave their older wives and marry younger women, who can take care of them in old age, and it is not uncommon for a man to have more than one wife (Najjumba-Mulindwa, 2003). Contrary, older women are dependent on other's willingness to support and care for them, simultaneously, twice as many older and must continue to work as long as possible despite any physical impediments to avoid dependency and unpredictability (Ministry of Gender Labour Social Development, 2018). Older women consequently are left in a very vulnerable situation with accumulated disadvantages (Najjumba-Mulindwa, 2003; Rishworth et al., 2020) and receives less support than men in every area. The Senior Citizen Grant would be helpful but does not reach the majority of women and might not even be intended for easing their situation as the (Ministry of Gender Labour Social Development, 2018, p. 2) in a pamphlet on aging states the following: "An old age pension, for example, allows more children to attend school. It enables a person to age gracefully while delaying dependency." Obviously, the limited pension is not only meant for the benefit of the old person but also as a means to support children, so that the old people can fulfil their social duty and uphold dignity and respect.

Furthermore, religion is an important factor to consider in the central region, where Buikwe is located, as 41.2% inhabitants are Catholic, 30.1% are Anglican/Protestant, 5.9% are Pentecoastal, 1.9% are 17th Day Adventists, 0.2% are Eastern Orthodox Christian, 0.8% are Other Christians, 18.4% are Muslim, and 0.1% are Traditional (Uganda Bureau of Statistics National Population Housing Census, 2014).

METHODS

Participants and Procedure

This was an exploratory qualitative study on meaning-making among the elderly in Uganda. This study was part of a pilot study on: the efficacy of physical activity counseling in Ugandan patients with HIV and a comorbid mental disorder in the Buikwe district. The project was being implemented by African Social Development and Health Initiatives, a local NGO in Uganda. This substudy aimed on old age and depression and aimed at exploring how elderly living in extreme poverty in a low-income country experienced their everyday life and what kind of meaning systems employed by them to understand and cope with their living conditions later in life. The overall theme was how indigenous communities age with depression, and this was discussed along with other variables such as general poverty, access to basic social services, and health, gender dynamics, factors that facilitate or hinder access to basic social services in the context of having mental disorders such as depression. Through this funneling method, a lot of information was generated, and other themes and subthemes could emerge.

We conducted semi-structured interviews with 14 participants in the Buikwe district. The participants were elders who lived in the area for a long time practicing both Christian (Catholic and Protestant) and traditional religion and attended congregations on a regular basis. To cover the material and normative aspects in addition to the living experiences, we purposively recruited participants in different positions who had an intimate knowledge of aging in the district. Five of the participants were key informants (KIs), who had different formal and informal functions as elders/community leaders and were in the age range of elderly related activities. They were actively involved in community development activities by virtue of being elders. Quite a number were also community mobilisers and played leadership roles in their congregations. Four participants were care-receivers and five were caregivers. Due to the low life expectancy and some insecurities on the definition of elderly (WHO 50+ years, UN 60+ years), the elderly care-receivers were aged between 52 and 62 years. The caregivers were aged between 32 and 52 years while the KIs were aged between 51 and 65 years. Of all 14 participants, only 3 female caregivers were less than the age of 50 implicating that the remaining participants all belonged to the group of elderly people. We interviewed 11 women and 3 men. Among the men were one caregiver, one care-receiver, and one KI.

Data Collection

We approached the district leadership in the Buikwe district on the selection of the study subcounty. We chose a subcounty (Buikwe subcounty) where there are activities targeting elderly people in the district from both the public and private sector organizations. We approached the subcounty leadership to help us in the selection of community leaders who were engaged in the activities meant for the elderly. The community leaders had in turn helped us to select the elderly people who are in their communities. Data from the elderly people were collected by trained research assistants while all the interviews of KIs were conducted by the last author, who is a trained social worker and has worked with poor and remote communities for over 25 years. He is well-trained, has skills and competencies in community immersion, and potentially speaks at the level of the participants.

All interviews were conducted in the local language (Luganda). Interviews for elderly people were conducted at their homes while all the KI interviews were conducted in an office at Buikwe Health Centre III. Both KI interviews and elderly interviews lasted between 45 min to 1.5 h. All interviews are taped, recorded, and transcribed, and translated into English by a research assistant, who is from the same culture. The interviewer is a mental health worker and senior academic based on Uganda, speaking both English, and Luganda, the local language spoken in the area. The translator is a university graduate, who is born in the same culture, is grown up in a rural setting, and speaks fluent English and Luganda.

Analysis

The interviews of KIs were in general both longer and richer than the other interviews and covered more topics as relevant for aging. The participants had varying experiences in dealing with outsiders such as researchers. The KIs were more experienced (by virtue of being in community work for a long time) and spoke more than the others. The interviews with the care-receivers and caregivers would probably have been longer if we had time to spend in the field with them. Due to the perceived large differences between the KI interviews and the other participants, we decided to analyze the KI interviews separately and use the information gained from them as a background against which the interviews from both the caregivers and care-receivers could be analyzed. This resulted in the interviews of the KIs being analyzed solely by means of thematic analysis (Braun and Clarke, 2006) while the remaining interviews were analyzed through a directed thematic analysis (Hsieh and Shannon, 2005), where the analytic process is not only guided by the themes constructed through the interviews of KIs but also allows new themes to emerge. We chose this procedure as the remaining interviews were quite sparing of words and had to be interpreted in the context that the KIs had revealed based on their overall knowledge of existing conditions and normative context. The method of Braun and Clarke (2006) employed by us for the analysis of the KI interviews has proven as a flexible method, which can be employed within a variety of paradigms. Six phases of thematic analysis aim at capturing patterns and meanings expressed by the participants. The initial phase of familiarization with the material is succeeded by phase two and three, where the interesting features are detected and coded and themes developed based on the codes that seem to belong together. In the consecutive phases, the initial themes are checked and reviewed against the material, and final themes are developed in a recursive process (Braun and Clarke, 2006) moving back and forth between the phases as well as the data and our increasing understanding of them until final themes are reached. These themes were then used further in the next step where we analyzed the remaining interviews with a directed thematic analysis (Hsieh and Shannon, 2005). The process is quite like the process of Braun and Clarkes except that one reuses the themes from the analysis of the interviews of KIs. At the end of the process in both the approaches, the themes are quality checked against the text to control whether everything is captured.

Ethical Considerations

Ethical approval for the project was secured from Mengo Hospital Research Ethics Committee as well as from the district, subcounty, and Buikwe Health Centre III management. All research assistants were trained in ethical issues (such as climate setting, informed consent, and confidentiality) related to the study before data collection. All participants were informed of the objectives of the study and provided oral consent before the interviews. They were assured of confidentiality and that all data collected were kept under key and lock, only accessible to the research team. To protect the anonymity of the participants, they will be referred to as KIs with number and gender (for example, KI1F), care-receivers (for example, CR1F), or caregivers (for example, CG4M).

FINDINGS

Perspectives of KIs

The KIs were four women and one man aged between 51 and 65 years, which makes them members of the group of elderly. The KIs all had a position as counsellors or a position at the village health team where they both had knowledge about the conditions of the elderly and social reactions as a result of the normative context. Their knowledge not only included rights but also shortcomings from both government and community. Their statements included the conditions of getting old today compared to the former times regarding support and the social reactions toward the elderly. One prominent, thoroughgoing topic in these interviews was the notion of respect, which was perceived as the fundamental of experiencing a meaningful life. The other prominent theme was supernatural powers and the relationship with them.

Respect

Respect for old people was underlined as an important factor for living a meaningful life in the interviews of all KIs, which is in concordance with the claim of Mbele et al. that respect is an essential component of African culture forming the foundation for existence:

> …African people have always recognized respect, as a concept, experience, and practice with spiritual and cultural dimensions of great breadth, depth, and height. Such practice is recognized as crucial for the promotion of local, international and global health, and well-being (Mbele et al., 2015, p. 87).

The fundamental role of respect must be seen in relationship to the African, holistic worldview, which is still highly influential. Everything is part of the same universe and interdependent, which means that a person is nothing without being part of a social order/community. Consequently, "…an individual is obligated to contribute to the community not because it is expected of him or her, but because it is him or her (…) If one does not devote oneself to the welfare of the community, in a sense, one purposely causes harm to oneself" (Verhoef and Michel, 1997, p. 396).

In line with this, the KIs emphasized that respect was not something, which one could expect automatically when getting older. In a society where respect is the foundation of existence and an essential component of meaning-making, lack of respect has huge consequences. Some of the KIs noticed a difference from former times and they claimed that it was better to grow old in the past: "Being old of long ago was nice more than the one of now days" (KI2F). This respondent bases her opinion on her perceptions of children caring less for old people in addition to community members more sticking to their own families and not taking responsibility for others. This must be regarded as a severe breach of traditional communitarian norms, where respect, care, and responsibility for other people especially from own community are fundamental and installed from early childhood in the mind of the community members (Mafunisa, 2008). Moreover, the traditional norms are described as doctrinaire and dogmatic as "…the communal context and authoritarian structures, in terms of the respect that is accorded to elders and traditions, also indicate that these beliefs cannot be questioned and critically examined" (Ikuenobe, 2006, p. 257). The disruption of the family support that our respondents note is quite dramatic and has been described both as a result of the HIV/AIDS epidemic (Knodel et al., 2003; Seeley et al., 2009) and rapid urbanization leaving old people alone at the countryside (Apt, 2001; Aboderin, 2006).

Our respondents agree that aging was easier previously and give as reasons the HIV/AIDS epidemy: "The elderly of long ago was very well off, all these sicknesses had not come in those people" (KI3F). According to this lady, the problems that the elderly face is related to sicknesses, which did not exist earlier. From the context, we can deduce that she is referring to HIV/AIDS and the complications related to being infected, which have a considerable impact on the possibilities of being respected and live a meaningful life. HIV/AIDS both can be stigmatizing due to presumed sexual activities of the patient and the inhibitory physical consequences. In addition, old people can be affected by HIV/AIDS by becoming the caretaker of orphaned grandchildren and relatives, which contributes to the economic burden and worries about them: "If you worry a lot, you grow old very fast" (KI1F).

Who Will Be Respected?

The question of who will be respected is closely related to what is regarded as respect. KI1F mentions that elderly people are normally referred to in a respectful way (Jjaja), but all KIs agreed that respect is an interpersonal phenomenon, which presupposes some efforts from the old person him/herself:

> I: Hmmm, do you think growing old gives respect?
> R: There are people who grow old with respect, but you can even work for your respect.
> I: So, you must work with your respect, you don't grow old with it; me, I thought if you are old, every elderly is respected? That growing old is respectable.
> R: You work for your respect. (KI4F)

The perception of how one can work for respect seems to differ somewhat between the KIs. KI3F is very clear about the conditions of getting respect: the child has bought him/her a car and she/he has money and property. If somebody on the contrary has no means for their own support as food, she/he will lose every respect. In sum, this means that you have to be wealthy, have children that are willing and own the means to support you as a prerequisite for respect and the possibility of living a meaningful life. The arguments of the KIs seem to be somewhat circular as an old person gets respect when looked after but is only looked after in case of having respect. KI5M seems to unlock this circle by explaining that one gets respect when one has prepared for old age and loses respect if one has failed to prepare for old age. The preparation implies ensuring financial independency and the upbringing of descendants, who can ensure necessary care:

"An elderly to be with respect is when he educated his children" (KI2F). Education of the children means here both an investment in the basis for a meaningful old age as the education both gives the descendant job possibilities and access to financial means, and the installment of an accept to accept the obligation to help parents when necessary in old age.

To clarify further the question concerning respect, KI1F gives an example of an old lady who has no respect at all in her community because of her situation and behavior. Her fundamental problem is that she is childless and never gave birth. This is already problematic because this is against the norms. It also implies that she has no descendants, who would be able to care and provide for her. In addition, one way of earning respect is to bring up children who behave well and according to the normative expectations. She missed that chance too. According to KI4F, the lady publicly proclaims that she is not ashamed of not giving birth and abuses other community members. As she also drinks alcohol and hangs around with young boys, she has violated so many normative expectations so that she is not respected by anybody, which probably worsens her situation even more. Also, the other KIs talk about disrespect to old people caused by misbehaving, which, according to them, means drinking alcohol, talking nonsense, or being abusive.

Another issue influencing respect is the health status of the elderly. If you need to walk with a stick, the respect seems to disappear according to KI1F. In addition, deteriorated health is perceived more common today than earlier: "The ones of long ago didn't get sick all the time, or what? But now they get sick a lot" (KI4F). Unhealthy food, increased use of chemicals in farming, and the loss of property are the perceived causes of more pressure and sickness, which then again implies the loss of respect from the other community members. AIDS is never mentioned in relationship to respect, which might be seen in relationship to Uganda's work in the reduction of stigma as official figures show a reduction of external stigma and discrimination from 24% in 2013 to 1.3% in 2019 (Uganda AIDS Commission, 2020).

However, health issues traditionally mean more than an individual problem:

> Health does not simply mean the absence of disease; it incorporates balance and harmony between the individual and his or her social surroundings, including harmony with self. Disease results from the breakdown in relatedness, including disharmony between the individual and the rest of the universe (Mkhize, 2008, p. 39).

Traditionally, health issues are regarded as disharmonious interpersonal and intrapersonal relationships and consequently carry a negative meaning. KI4F touches on the necessity of intrapersonal harmony in her statement: "You first give yourself respect and in your old age people say Yiii, that woman has grown old, but she has grown old with her respect." She elaborates further on how one can give oneself respect by helping others. She seems to be in line with the observations of Mkhiz by underlining the mutual dependence of internal and external harmony. However, the normative system also installs limitations to who might be able to help. KI2F tells, for example, about a lady who was incontinent and defecating on herself. The person, who usually would help her, was a nephew and based on the normative context regarded as in-law and therefore forbidden to help her with personal hygiene. This is an example of how the normative system even might limit the possibilities for the reception of fundamental, personal care even further. Apparently, only the self-reliant elderly can be respected and dependency on others can be interpreted by community members as a personal flaw and character weakness implying that one must prepare adequately for his/her old age. This is interesting as Uganda is regarded a highly religious country (Uganda Bureau of Statistics National Population Housing Census, 2014). In the central region, where Buikwe is located, 41.2% are Catholic, 30.1% are Anglican/Protestant, 5.9% are Pentecoastal, 1.9% are 17th Day Adventists, 0.2% are Eastern Orthodox Christian, 0.8% are Other Christians, 18.4% are Muslim, and 0.1% are Traditional (Uganda Bureau of Statistics National Population Housing Census, 2014). Mercy and compassion are the main virtues in the religions that almost all Ugandan confessed to. These virtues also fit very well with the traditional communitarian norms that fostered care and support for fellow community members (Ikuenobe, 2006; Golaz et al., 2017). Based on the statements of the KIs, it does not seem that the contemporary elderly are necessarily included in these considerations. The shortness of resources seems to have affected which persons have a priority for support.

The Ugandan Government has recognized the financial hardship of old people and is in the process of rolling out the Senior Citizen Grant, whose "… aim is to provide all older people in Uganda with a regular pension based on their rights as citizens, and in recognition of their contributions to the nation over their lifetimes" (Ministry of Gender Labour Social Development, 2018, p. 20). Despite disagreements on the speed and the fairness in which these grants reach people, one also can find disagreements on the suitability of the usage of finances for this purpose. On questions whether public financial support would relief the situation of the elderly, for example, KI5M answers:

> R: … it would be good, but that money doesn't help them.
> Ii: Hmmmm
> R: Because it would have been, now like a person of 19 years, 20 years can use it.
> Ii: Hmmmm
> R: And they work, and they develop.
> Ii: Hmmmm
> R: But this person just eats it.

In the opinion of this male KI, financial support to the elderly is a short-sighted investment. While young people would be able to develop a living and a family and be an asset for the community, food for the elderly is perceived as a waste of resources despite religious and communitarian norms of compassion. It is therefore no surprise when KI2F talks about the children only waiting for the old to die, so that they can inherit their possessions. According to these KIs, the traditional inclination to support the elderly has vanished in the context of chronic poverty and some question the suitability of the allocation of resources by the government for the support of the elderly people. The situation is complex because government pension scheme seems to be helping more the dependents of the elderly than the intended users. It is natural to assume that establishing meaning in later life might be difficult under these circumstances.

Supernatural Powers

Dominating belief systems influence the personal worldview, which contributes to coping in the context of encountering difficult life events (Hall et al., 2018). Paloutzian (2005) states that the meaning-system cannot be understood independently of some faith elements. Being a very religious society, it is not surprising that supernatural powers as a basis for meaning in life are mentioned frequently by the KIs. Meaning in life is to surrender to God's will as "God plans everything, not you" (KI3F) and "It's God who decides" (KI4F). Besides a strong tendency to blame the elderly for their own misery, the KIs attribute everything to God and understand the meaning of life as being part of a divine plan. In addition, all the KIs talk about witchcraft as a vital factor for meaning-making among people in general and the elderly in particular. On the one hand, the elderly might be accused to be witches: "On the village they say that old lady, aaahhhhaaa, she has finished all the people in this village. She has bewitched all children in this village, aahhhaahhhaaa" (KI1F). In cases like this, the situation becomes even more serious for the elderly as people will avoid him/her totally because witches are known to have the power and will to kill. In addition to being blamed for their own misery, the potential risk of being blamed for the misery of others and misfortune and perceived as evil minded. Especially, women seem in danger, according to KI5M, as barrenness might be interpreted as a sign of being a witch. On the other hand, the elderly themselves grasp quickly the notion of witchcraft to find meaning in their situation according to KI4F. If their children who were supposed to look after them have died, very soon witchcraft thoughts are presented as meaningful explanations, and the remedies to counteract further actions from this evil force are sought for at the witchdoctor.

The statements of the KIs are important as all of them have an intimate knowledge of the conditions and beliefs of both the elderly and the community's opinions of the elderly. Through their positions and daily interactions with the elderly, they have a nuanced opinion about the conditions for experiencing meaning in late life, at the same time as they are in the same age group. Their statements provide the socio-ideological context for analyzing both the care-receivers and caregivers in their attempts to make meaning of their emaciated conditions.

Perspectives of Care-Receivers

The care-receivers were all without a job except one lady, who sometimes could sell some leaves in the possibility of making a living. Of the four participants, one was a man and he was the only one not living alone. All care-receivers aged between 52 and 62 years and were HIV positive. The interviewers especially attempted to find out what the participants knew about depression and how to avoid it. In these interviews, the participants revealed what they perceived as meaningful in their life and how they employed their global meaning system to understand and approach problematic situations.

While respect as the foundation of a meaningful life was very prominent in the interviews of the KIs only the male respondent talked about this. Maybe this must be seen on the background of his gender and be the only one experiencing respect. He was 53 years, had one wife and six children. He used to help himself financially, and dependency is a problem for him as it influences his dignity: "…now I feel like a beggar because there is nothing, I can do for myself.…" On the other hand, he carefully elaborates on "the required respect" that he receives:

> C: Well my younger brother gives support and gives me the required respect and checks on me and also confides in me
> I: How about neighbours?
> C: They also respect me and greet me once in a while, so we work together

The respondent seems to be convinced that he is entitled to respect as he talks about the required respect. The respect he receives contributes to his wellbeing and he feels satisfied with the situation:

> C: They do come and check on me, and we talk, and I feel happy
> I: And how do you feel? Meaning that being around people helps!
> C: I feel good and cared for and it reduces the thoughts and worry

In contrast, this man lives together with his wife and four grandchildren, who look after him, and seems integrated and respected in the community. The brother and children support him financially and pay him respect. His wife takes care of all his needs, including the management of his illness. He feels well, and life is meaningful as he still feels like a valuable and an integrated member of the community as people around him accord respect.

The women, on the contrary, all live alone and do not receive care or support regularly. The reasons for their living alone, which they often describe as loneliness, are different. CR1F is a widow of 54 years living alone because she only has daughters who are married now, and her grandchildren are at school. She has 2 years of schooling. She sells occasionally leaves on the market to be able to afford salt and food. On a question, whether she ever felt depressed, she answers: "No, like having thoughts about being sick and all that, I don't have them. The only thoughts I have are those that come from being alone and no one to take care of me." She has been on HIV treatment for 10–20 years and is less worried about this than being alone. It is, however, not clear whether she feels lonely or short of help and financial means to avoid worries: "Well it helps if you have grown up children working in town and bring you all necessities and financial aid, it keeps you worry free and you may not get depression."

CR2F is the best educated woman with 4 years of school. She is 62 years old and has lost all her children except one grown up son, whose daughter comes to help with cleaning and washing. She states that old people are treated as useless and clearly expresses her needs: "I hate being alone because it worries and I would like to have someone here to take care of me" and "When you don't have money, you tend to think a lot and also of the disease that killed my children" (CR2F). Here, we clearly see the need for the company in addition to the need for both financial and practical support.

The last of the care-receiving women, CR4F, has never attended school. She is 52 years old and has seven children with two men. She grew up in a household, where she was her mother's only child while she was among 30 of her father's children. She feels misunderstood by her community as she states that she got HIV from her brother, who purposely mixed some of his infected blood into her food. She did not develop HIV due to sexual intercourse, but it seems people find it hard to believe. When she found out that she was infected, she tried to take her own life. Her husband, who is HIV negative, left her after her status was known. But as they have a son together, he was obliged to buy her a plot and build a house. It seems that she does not get the necessary support from her three sons and four daughters, which causes her worries: "If I had something from which I could earn a living, I guess I would not have much worry; but in my situation, I only have this one child whose father left and he does not even provide fees, because even the child that used to help me, now has financial issues and so it keeps me worried." Left without financial support for herself and the school fees for the son, she is worried. She also mentions poverty as the main cause for people getting depressed and secondly "… not having children to take care of you and maybe having children who neglect you and also a spouse who mistreats you and you have no peace of mind."

The dominant issue for the female care-receivers was children and their ability and willingness to support them, whereas the most important issue for the male care-receiver is to become a respected and integrated member of the community. What was experienced meaningful in their life thus seemed to differ and be gender specific based on their different positions and access to support, which makes up their functional ability.

In the global meaning system of all care-receivers, both the Christian God, witches and witchdoctors and ancestors, were important. Misfortune and madness might befall a person if she/he has not appeased the ancestral spirits, whereas evil-minded witches equally can be blamed for these calamities including death. In the case of witches, one must turn to witchdoctors who might help according to CR1F. However, if one should be ill and admitted to a psychiatric hospital, it is in God's hands. Their global meaning system can without problems contain two different spiritual systems, which help them to make meaning and understand occurring situations. Depending on which force is perceived as responsible for a specific situation remedy is sought from a supernatural power that is assumed capable of rectifying and restore "normality." Despite this eclectic approach making up the global meaning system, CR2F seems to mainly embrace her Christian belief, which provides her with the meaning for the harsh conditions: "Well, I don't have those negative thoughts because I believe people exist to suffer." Through this approach, the suffering of her and others becomes a meaningful and normal way of living beyond her control, which protects her from ruminating.

Perspectives of Caregivers

The caregivers were aged between 32 and 52 years old and all were made their living by farming and sometimes selling products. The people they supported were all but one HIV positive needing medication. The oldest in the group (48 and 52) were taking care of their spouses, whereas the youngest (32 and 39) took care of their mother and the last (unknown age) supported a neighbor. The only man in the group was 52 years, who took care of his wife. Except for the youngest caregiver, an immigrant from Rwanda, all confessed to the same eclectic global meaning-system we found in the care-receivers, but with a slight overweight to the traditional African worldview. Only one respondent (CG3F) indicated that she prayed and that the fate of all human beings was part of a divine plan. They all stated that old people in general have a tendency to worry and overthink as they have experienced hardship and disappointments in life: "I think the older you get, the more likely you are to get depressed, because as you age, you get many things that frustrate you and make you worry" (CG5F). Poverty and "the virus" (CG1F) make you especially overthink and loose hope. However, it also might depend on the context: "It depends on the condition of living, if someone is in good condition, someone can even reach 70 years with a sound mind and no worries" (CG4M). The caregivers seem to agree that old people are given less attention than younger people, which seems to be in accordance with the care-receivers perception of being useless. Interestingly, in contrast to the KI's accentuation of respect as the foundation for a meaningful late life, none of the caregivers ever mentioned this aspect. While the care-receivers complained about not being taken care of by their relatives and neighbors, these respondents support as much as they feel possible for them and thus contribute to their functional ability of care-receivers. Especially, interesting is the man, who is elderly himself (52 years), taking care of his wife. Being not unusual for a man to have more than one wife or to remarry a younger woman, who can take care of him in late life (Najjumba-Mulindwa, 2003), this respondent is of particular interest as he takes responsibility for his only wife: "Well, I was young, and I got her, and we now have children." Interestingly, this seems difficult to understand for the interviewer, who repeatedly refers to him taking care of "this old lady" and the man's mother, whereas the respondent consequently talks about his wife. This thoroughgoing peculiar misunderstanding may have its origin in the rarity of the situation. The respondent has an educational background of 7 years of school. He mentions both ancestors, witches, and witchdoctors, but never a Christian God in his way of understanding and finding meaning in illness and calamities. His global meaning system seems to be dominated by a traditional African worldview, whereas his measures to prevent depression are from an interpersonal realm and include distraction and social contact to avoid thinking:

> I: Personally, what do you do to distract yourself from over thinking and worrying
> C: Keeping yourself busy with work
> I: What else?
> C: Well I don't really have many thoughts

Distraction is also what this respondent thinks helps his wife and other people, who need help: "Being there for the person and supporting them through engaging in activities that may distract the person from too many thoughts." It is unclear why the wife needs help as she has tested negative for HIV and has, according to the husband, not shown signs of depression. While this respondent is reporting that others go to witchdoctors, a shrine, or eventually a hospital, he is convinced that interpersonal relations are meaningful and healthy. The male respondent was different from the female respondents in being more positive and relying mainly on the power of interpersonal relations as meaningful. CG2F, for example, has not the same faith in interpersonal relationships as meaningful or trust in other people: "Usually when you have a problem you just handle it alone, because you never know who wishes you well…." She is the only participant explicitly claiming that she does not believe in witches and spirits, which might indicate that her mistrust must be based on past experiences. She is the youngest person in the entire sample and has never been in school and immigrated from Rwanda.

DISCUSSION

We interviewed 14 people about the situation of the elderly in 3 groups: KIs, care-receivers, and caregivers. All the KIs were simultaneously elderly being more than 50 years. Among the caregivers, only one person was above 50 years. The KIs gave extensive descriptions of the conditions of the elderly as well as the public opinions and general normative context. It was against this rich material the interviews of the care-receivers and caregivers that were poorer in words were analyzed. The KIs described emaciated conditions, where the elderly were especially affected by poverty and lacking access to health facilities and support. Respect was mentioned as central for the possibility of living a life, which could be perceived as meaningful. However, the notion of respect was retrieved only in the interview of the male care-receiver and in none of the female care-receivers or the caregivers. In contrast, the caregivers agreed that the self-perception of care-receivers as useless was supported by their neglect by the community. Meaning was for the female care-receivers perceived as having children, who were willing, and able to support and care for their parents and consequently improve their functional ability, which was concordant with the KIs statements. The dominating global meaning-system for all but one participant seemed to be a fusion of Christian and traditional African worldviews. In our study, remarkable differences were noticed between the conditions of men and women as women were reported to suffer harsher conditions affecting their functional ability and meaning-making, which is in line with the findings of, for example, Rishworth et al. (2020). The respondents in this study are trapped in chronic poverty that embraces intergenerational and durational dimensions, where especially widowed, disabled, women, and those living alone are prone to chronic poverty Najjumba-Mulindwa (2003). Besides, older women are much more likely than older men to suffer from disabilities in old age according to the Ministry of Gender Labour Social Development (2018). Widowed, sick, and poor female respondents were dependent on relatives' and others' mercy and willingness to support, which should be compatible with African culture, where the community is the main element of human existence (Verhoef and Michel, 1997). Lack of or unstable support, therefore, might have a huge impact on their meaning-making and psychological wellbeing. As remarriage is not allowed for older women, they will have a weaker safety net based entirely on informal networks:

> In Uganda, a person's safety net is their extended family as well as their community. These relations make up the "kinship networks" which offer them financial, physical, and emotional support, and a person becomes vulnerable when these are weak. Care is reciprocal so one must often contribute and look after others in the hope of receiving care in old age (Ministry of Gender Labour Social Development, 2018, p. 6).

Women, consequently, suffer accumulated disadvantages and in a study by Rishworth et al. (2020), lower subjectively reported wellbeing was found among older women than men in Uganda. This is no surprise given that meaning and wellbeing are strongly related, but dependent on the context:

> Individuals' general tendency to use autobiographical memory for meaning making appears to be positively (and not negatively) related to SWB [Subjective well-being], but the exact nature of such relations varies by the component of meaning assessed, as well as by individuals' life phase and their cultural context (Alea and Bluck, 2013, p. 59).

The respondents in this study seemingly are captured in a situation of trans-generational chronic poverty Najjumba-Mulindwa (2003) without hope for change. The meaning-making activity is concentrated in the social area and the informal networks, where male and female respondents apparently are met differently. In 1998, Keyes defined five dimensions making up social wellbeing, where the social area is of special importance: social integration, social contribution, coherence, actualization, and acceptance. While respect was mentioned as fundamental by the KIs for a meaningful late life, it is interesting that only the male care-receiver feels that he receives sufficient respect and is socially integrated, neither the female care-receivers or any of the caregivers mention this aspect. Most models on wellbeing include a component of meaning and purpose (i.e., Baumeister, 1991; Wong, 2010, 2011, 2014). Especially, interesting is Baumeister's definition of meaning in life, whose basis is that four fundamental needs are met: purpose, efficacy or control, value and justification, and finally self-worth (Baumeister, 1991).

The care-receivers in our study might seem quite typical for this particular impoverished context as the male care-receiver had an established network, got his basic needs covered, and perceived social recognition as especially meaningful for him. He perceived to get the "required respect" and had some sense of efficacy by being asked for advice from others, which probably nourished his self-worth and sense of purpose and value. The women, on the other hand, had no network and were dependent on a sporadic support. Their situation was marked by unpredictability and a lack of means to cover their basic needs. The women felt useless and the caregivers supported their perception of the public opinion of them. The women thus seemed not to be able to meet Baumeister's fundamental needs for meaning in life.

According to the Ministry of Gender, Labour and Social Development, "older persons are also prone to social exclusion, in which the most vulnerable are ostracized by their family and the community. This is often targeted toward widowed women and in extreme cases can lead to witchcraft accusations" (Ministry of Gender Labour Social Development, 2018, p. 20). As the Ministry of Gender, Labour and Social Development underlines the reciprocity of care in the informal safety net, where one cares for others hoping that oneself will be cared for in late life, the hope of care has not been fulfilled for these older women and they feel useless. One might speculate whether these feelings mirror a self-perception of not being worthy to receive necessary support or care and consequently could be interpreted as self-reproach. This would be in line with the KIs' statements of the public opinion, where people might be blamed for their own misery as they assumingly have not prepared for old age. The feeling of uselessness simultaneously indicates that being useful is meaningful in the meaning system of the respondents. It is not described which usefulness they have in mind whether it is to contribute to the community and family actively or by being able to care for themselves and not being a burden for the community. Often described in African ethics is the necessity of contributing to the community: "Every member is expected to consider him/herself an integral part of the whole and to play an appropriate role towards achieving the good of all" (Gbadegesin, 1991, p. 65). The feeling of uselessness consequently might arise when one is dependent on others for care and support. In an emaciated context, where HIV/AIDS and rapid urbanization have weakened or disrupted the traditional, informal safety networks, this feeling as well as the public opinion of them being useless might be increased. Given the experience and sense of being useful seem especially meaningful for the care-receivers, the feeling of uselessness and the public opinion supporting this are alarming:

> Sense of usefulness, feeling of social disconnectedness, and psychological pain associated with chronic physical illness should be assessed by practitioners who take care of older adults because of their strong association with suicidal behavior (Conejero et al., 2018, p. 697).

In an emaciated context without access to and means for basic needs and health facilities, the lack of experiencing a meaningful late life with all its dimensions mentioned above might have fatal consequences. As Uganda has no public statistics, we do not know whether Uganda follows the global trend of higher rates of suicide in older people (Conejero et al., 2018). Suicide attempt being a criminal offense (Penal code act Cap. 120, p. 109, Section 210), one could suspect that eventual suicides or suicide attempts among old people, who are regarded as useless, not necessarily would be reported. Especially this would be the case, where the elderly are perceived as an unnecessary burden for relatives and community.

Healthy aging includes human rights such as integrity, dignity, freedom, and autonomy (World Health Organization, 2015), and the rights for all people with a particular form of functional limitation, as most older people have acquired, to live and be included in their community (UN, 2006). The concept of functional ability has got a central status in studies on healthy aging (Cesari et al., 2018). Functional ability comprises both the intrinsic capacity of the individual and relevant environmental characteristics as well as the interaction between those (ICF, 2001) as a foundation to obtain the human rights. WHO (2001) emphasizes the support of intrinsic capacity/individual resilience based on the ability of an individual for a positive adaptation in case of adversities and the upholding of wellbeing and meaning in life. Without the predictability of sufficient support and care the female care-receivers seemed not to be able to live a meaningful life in contrast to the male care-receiver. However, despite these conditions, one of the female care-receivers (CR2F) manages to be positive as she has handed her fate over to God. As mentioned earlier, Uganda is a very religious country (Mbiti, 2006; Uganda Bureau of Statistics National Population Housing Census, 2014) and one could expect this to have an impact on the meaning-making of these elderly people as dominant belief systems like religions seem to be helpful for many people being comprehensive meaning systems (Hood et al., 2005; Silberman, 2005; Newton and McIntosh, 2013) offering meaning and hope in a variety of situations (Hall and Hill, 2019). Park (2010) describes that the global meaning system comes into action in the confrontation with potentially stressful events, and according to Hall et al. (2018) religion might contribute to coping in the context of encountering complex life events. However, reductionist Western meaning models seem inadequate to capture the cultural complexity of religions entirely and thus might have insufficient explanatory potential (Knizek et al., 2021). Both the KIs and most of the other respondents refer to an eclectic approach with a fusion of Christianity and traditional African belief systems and all but one referred to both religion and a traditional spiritual belief system in a meaning-making sense as explanatory tools for the prevailing conditions. Therefore, it is surprising that only one of the care-receivers mentions religion as a source for a meaningful life, hope, and solace, which protects her from rumination. Among the caregivers, also one female respondent put her trust into God, both for help and protection, whereas all the KIs unanimously assured that everything is part of a divine plan. Given that religion has been described as permeating all aspects of life in Africa (Mbiti, 2006), where "the African lives in a religious universe: all actions and thoughts have a religious meaning and aspired or influenced by a religious point of view" (Gyekye, 1995, p. 3), it is astonishing that so few care-receivers and caregivers mention religion even in a small study like this. In the absence of the fulfilment of all the basic needs for meaning in life, the individuals will feel distressed and frustrated and look for new sources of meanings for their lives (Baumeister, 1991). The women had no chances or hope for improving their situation, but they had clear ideas about what would have been a meaningful life for them.

They did not look for new sources of meanings for their lives not even in religion. For them, a meaningful life was related to the predictability and coverage of basic needs, which again was related to their children as other relatives, who might have been able to care for their personal needs, might not be allowed due to strict norms. Emphasis on descendants is in line with children being valuable in the most high fertility settings of Africa and especially among the poor as they are perceived as old age security under pervasive insecurity conditions (Cain, 1985; Ntozi, 1995; Najjumba-Mulindwa, 2003). The changed social conditions indicate that governmental measures are needed to secure dignified and healthy aging in the sense of human rights as the informal, traditional networks have outlived their role in modern Uganda. Stable basic incomes with a fair distribution between men and women in need would improve the living conditions and reduce the danger of social exclusion and provide the possibility of living a meaningful life in old age. Improved access to necessary and affordable healthcare also is a crucial factor. The introduction of the Senior Citizen Grant is a laudable start but must be speeded up rapidly and improved significantly so that it reaches all old men and women that are in need equally. The functional ability and resilience of old people can be supported by the provision of the basic needs, which might give them the opportunity to make and find meaning in late life in Uganda.

Limitations

This is a small study in a specific area. More participants in the care-receiver group would strengthen the study. In addition, participants from different areas, both rural and urban, would be valuable. As all care-receivers were HIV-infected and needed special care, a more heterogeneous sample might give a more nuanced picture. Spending some time in the field in advance with the participants might have improved the quality of the interviews, which partly were sparse in words. This study can, however, be regarded as a pilot study.

CONCLUSION

In extreme poverty conditions, where all thoughts are bound to the coverage of the most basic needs, the question arises whether the perception of living a meaningful life that increases the functional ability is possible. While the KIs emphasized respect to be crucial tended to blame old, dependent people for their misery as a result of unsuccessful preparation for old age, the female care-receivers and the caregivers never mentioned this aspect. The female care-receivers felt useless, which also was a public opinion supported by the caregivers. Poverty, death of younger people, and rapid urbanization have affected the traditional, informal family and community-based networks severely, and left many old people in untenable situations without the possibility of living a life that is perceived as meaningful. Respect seemed especially to be related to financial independence/stability. The development and fair distribution of the Senior Citizen Grant guaranteeing the coverage of basic needs in later life are crucial in addition to the measures to restore dignity through a reintegration in both community and congregations to strengthen meaning in later life in Uganda.

DATA AVAILABILITY STATEMENT

The datasets presented in this article are not readily available because of ethical reasons as confidentiality was guaranteed as a precondition for the participants' consent. Requests to access the datasets should be directed to James Mugisha, jmmugi77@hotmail.com.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Mengo Hospital Research Ethics Committee. Written informed consent for participation was not required for this study in accordance with the national legislation and the institutional requirements.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

FUNDING

The study was partially funded by Leuvense Universitaire Medische Ontwikkelingssamenwerking en Solidariteit (LUMOS).

REFERENCES

Aboderin, I. (2006). *Intergenerational Support and Old Age in Africa*. New Brunswick, NJ: Transaction Publishers.

Ajiambo, E. (2016). *Presentation on the Situation of Older Persons in Uganda in Regards to Evidence Based Policy Making. Presented at the Ministry of Gender, Labour and Social Development*. Washington, DC: World Bank Publications. Available online at: https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/unpd_ws201607_uganda_presentation_eajiambo.pdf

Alea, N., and Bluck, S. (2013). When does meaning making predict subjective well-being? examining young and older adults in two cultures. *Memory* 21, 44–63. doi: 10.1080/09658211.2012.704927

Apt, N. A. (2001). *Rapid Urbanization and Living Arrangements of Older Persons in Africa. United Nations Population Bulletin*. Available online at http://www.un.org/esa/population/publications/bulletin42_43/apt.pdf

Baumeister, R. F. (1991). *Meanings of Life*. New York, NY: Guilford Press.

Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qual. Res. Psychol.* 3, 77–101. doi: 10.1191/1478088706qp063oa

Cain, M. (1985). *Consequences of Reproductive Failure: Dependence, Mobility and Mortality Among Elderly in Rural South Asia. Centre for Policy Studies Working Papers. No. 119*. New York, NY: The Population Council.

Cesari, M., de Carvalho, I. A., Thiyagarajan, J. A., Cooper, C., Martin, F. C., Reginster, J., et al. (2018). Evidence for the domains supporting the construct of intrinsic capacity. *J. Gerontol. Series A Bio. Sci. Med. Sci.* 73, 1653–1660. doi: 10.1093/gerona/gly011

Conejero, I., Oli,é, E., Courtet, P., and Calati, R. (2018). Suicide in older adults: current perspectives. *Clinic. Interven. Aging* 13, 691–699. doi: 10.2147/CIA.S130670

Davis, C. G., Nolen-Hoeksema, S., and Larson, J. (1998). Making sense of loss and benefiting from the experience: two construals of meaning. *J. Person. Soc. Psychol.* 75, 561–574. doi: 10.1037/0022-3514.75.2.561

De Marinis, V. (2018). Foreword. In: Ahmadi F. and Ahmadi N. (2018). *Meaning-Making Methods for Coping with Serious Illness*. New York, NY: Routledge.

Evers, A. W., Kraaimaat, F. W., van Lankveld, W., Jongen, P. J., Jacobs, J. W., and Bijlsma, J. W. (2001). Beyond unfavorable thinking: the illness cognition questionnaire for chronic diseases. *J. Consult. Clinic. Psychol.* 69, 1026–1036. doi: 10.1037/0022-006X.69.6.1026

Frankl, V. E. (1969/2014). *The Will to Meaning. Foundations and Applications of Logotherapy*. New York, NY: Plume; Penguin Group.

Gbadegesin, S. (1991). *African Philosophy: Traditional Yoruba Philosophy and Contemporary African Realities*. New York, NY: Peter Lang.

Gillies, J., and Neimeyer, R. A. (2006). Loss, grief and the search for significance: toward a model of meaning reconstruction in bereavement. *J. Constr. Psychol.* 19, 31–65. doi: 10.1080/10720530500311182

Golaz, V., Wandera, S. O., and Rutaremwa, G. (2017). Understanding the vulnerability of older adults: extent of and breaches in support systems in Uganda. *Age. Soc.* 37, 63–89. doi: 10.1017/S0144686X15001051

Gyekye, K. (1995). *An essay on African Philosophical Thought*. Akan Conceptual Scheme (Rev. ed.). Philadelphia: Temple University Press.

Hall, E. M., and Hill, P. (2019). Meaning-making, suffering, and religion: a worldview conception. *Ment. Health Relig. Cult.* 22, 467–479. doi: 10.1080/13674676.2019.1625037

Hall, E. M., Shannonhouse, L., Aten, J., McMartin, J., and Silverman, E. J. (2018). Religion-specific resources for meaning-making from suffering: defining the territory. *Ment. Health Relig. Cult.* 21, 77–92. doi: 10.1080/13674676.2018.1448770

Hayes, A. M., Laurenceau, J., Feldman, G., Strauss, J. L., and Cardiacotto, L. (2007). Change is not always linear: The study of nonlinear and discontinuous patterns of change in psychotherapy. *Clin. Psychol. Rev*. 27, 715–723. doi: 10.1016/j.cpr.2007.01.008

Hood, R. W., Hill, P. C., and Williamson, W. P. (2005). *The Psychology of Religious Fundamentalism*. New York, NY: Guilford Press.

Hsieh, H. F., and Shannon, S. (2005). Three approaches to qualitative content analysis. *Qual. Health Res*. 15, 1277–1188. doi: 10.1177/1049732305276687

Hunt, M., Schloss, H., Moonat, S., Poulos, S., and Wieland, J. (2007). Emotional processing versus cognitive restructuring in response to a depressing life event. *Cogn. Therap. Res.* 31, 833–851. doi: 10.1007/s10608-007-9156-8

Ikuenobe, P. (2006). *Philosophical Perspectives on Communalism and Morality in African Traditions*. Oxford: Lexington Books.

Janoff-Bulman, R., and Frantz, C. M. (1997). "The impact of trauma on meaning: from meaningless world to meaningful life," in *The Transformation of Meaning in Psychological Therapies: Integrating Theory and Practice*, eds M. J. Power and C. R. Brewin (Hoboken: John Wiley and Sons Inc), 91–106.

Knizek, B. L., Andoh-Arthur, J., Osafo, J., Mugisha, J., Kinyanda, E., Akotia, C., et al. (2021). Religion as meaning-making resource in understanding suicidal behavior in Ghana and Uganda. *Front. Psychol.* 437–478. doi: 10.3389/fpsyg.2021.549404

Knodel, J., Watkins, S., and Van Landingham, M. (2003). AIDS and older persons: an international perspective. *JAIDS J. Acquir. Immun. Def. Syndrom.* 33, 153–165. doi: 10.1097/00126334-200306012-00012

Mafunisa, J. M. (2008). Ethics, African societal values and the workplace. in *Persons in Community. African Ethics in a Global Culture*, ed R. Nicolson (Scotsville, ZA: University of KwaZulu-Natal Press), 111–124.

Martin, L. L., and Tesser, A. (2006). "Extending the goal progress theory of rumination: goal reevaluation and growth," in *Judgments Over Time: The Interplay of Thoughts, Feelings, and* Behaviors, eds L. J. Sanna and E. C. Chang (New York, NY: Oxford University Press), 145–162.

Mbele, B., Makhaba, L., Nzima, D., Hlongwane, M., Thwala, J., Edwards, D., et al. (2015). An experiential investigation into the phenomenon of respect in Zulu culture. *Indilinga—Afric. J. Indigen. Knowled. Syst*. 14, 87–102.

Mbiti, J. S. (2006). *African Religions and Philosophy*. Oxford: Heinemann.

Ministry of Gender Labour and Social Development (2018). *Facing our future. Ageing in a changing Uganda*. Available online at: https://www.developmentpathways.co.uk/wp-content/uploads/2018/09/Facing-Our-Future-Ageing-in-a-Changing-Uganda.pdf

Mischel, W., and Morf, C. C. (2003). "The self as a psycho-social dynamic processing system: a meta-perspective on a century of the self in psychology," in *Handbook of self and identity*, eds M. R. Leary and J. P. Tangney (New York, NY: The Guilford Press), 15–43.

Mkhize, N. (2008). "Ubuntu and harmony. an african approach to morality and ethics," in *Persons in Community. African Ethics in a Global Culture*, ed R. Nicolson (Scotsville, ZA: University of KwaZulu-Natal Press), 35–44.

Najjumba-Mulindwa, I. (2003). *Chronic Poverty Among the Elderly in Uganda: Perceptions, Experiences and Policy Issues. Paper presented at Staying Poor: Chronic Poverty and Development Policy, 7–9 April 2003*. Manchester: Chronic Poverty Research Centre. Available online at: https://assets.publishing.service.gov.uk/media/57a08cdde5274a31e00014dc/Najjumba-Mulindwa.pdf

Newton, T., and McIntosh, D. N. (2013). "Unique contributions of religion to meaning," in *The Experience of Meaning in life: Classical Perspectives, Emerging themes, and Controversies,* eds J. A. Hicks and C. Routledge (New York, NY: Springer Science + Business Media), 257–269.

Ntozi, J. P. M. (1995). *High Fertility in Rural Uganda*. The Role of Socio-Economic and Biological Factors. Kampala, Uganda: Fountain Publishers Limited.

Paloutzian, R. F. (2005). "Religious conversion and spiritual transformation: a meaning-system analysis," in *Handbook of the Psychology of Religion and Spirituality*, eds Paloutzian RF and Park CL (New York, NY: The Guilford Press), 331–347.

Park, C. L. (2005). Religion as a meaning-making framework in coping with life stress. *J. Soc. Issues* 61, 707–729. doi: 10.1111/j.1540-4560.2005.00428.x

Park, C. L. (2010). Making sense of the meaning literature: an integrative review of meaning making and its effects on adjustment to stressful life events. *Psycholo. Bull.* 136, 257–301. doi: 10.1037/a0018301

Park, C. L., and Folkman, S. (1997). Meaning in the context of stress and coping. *Gen. Rev. Psychol.* 1, 115–144. doi: 10.1037/1089-2680.1.2.115

Proulx, T., and Inzlicht, M. (2012). The five "A" s of meaning maintenance: finding meaning in the theories of sense-making. *Psycholo. Inq.* 23, 317–335. doi: 10.1080/1047840X.2012.702372

Resick, P. A., Monson, C. M., and Rizvi, S. L. (2008). "Posttraumatic stress disorder," in *Clinical Handbook of Psychological Disorders: A step-by-step Treatment Manual*, ed D. H. Barlow (New York, NY: The Guilford Press), 65–122.

Rishworth, A., Elliot, S. J., and Kangmenaang, J. (2020). "Getting old well in sub saharan Africa: exploring the social and structural drivers of subjective wellbeing among elderly men and women in Uganda. *Int. J. Environ. Res. Pub. Health.* 17:2347. doi: 10.3390/ijerph17072347

Seeley, J., Wolff, B., Kabunga, E., Tumwekwase, G., and Grosskurth, H. (2009). 'This is where we buried our sons': people of advanced old age coping with the impact of the AIDS epidemic in a resource-poor setting in rural Uganda. *Age. Soc.* 29, 115–134. doi: 10.1017/S0144686X08007605

Seligman, M. E. (2011). *Flourish*. New York, NY: Free Press.

Silberman, I. (2005). Religion as a meaning system: Implications for the new millennium. *J. Soc. Issues* 61, 641–663. doi: 10.1111/j.1540-4560.2005.00425.x

Sloan, D. S., Marx, B. P., Epstein, E. M., and Lexington, J. M. (2007). Does altering the writing instructions influence outcome associated with written disclosure? *Behav. Therap.* 38, 155–168. doi: 10.1016/j.beth.2006.06.005

Uganda AIDS Commission (2020). https://uac.go.ug/sites/default/files/Reports/HIV%20FACT%20SHEET%202020.pdf (accessed May 30, 2021).

Uganda Bureau of Statistics (2018) *National Service Delivery Survey Report*. Kampala, Rockville, MD: Uganda Bureau of Statistics. ICF. Available online at: http://npcsec.go.ug/wp-content/uploads/2013/06/SUPRE-2018-.pdf

Uganda Bureau of Statistics National Population and Housing Census (2014). *Main Report*. Available online at: https://www.ubos.org/wpcontent/uploads/publications/03_20182014_National_Census_Main_Report.pdf

United Nations (2006). *Convention on the Rights of Persons with Disabilities (CRPD). Department of Economic and Social Affairs*. Available online at: https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/convention-on-the-rights-of-persons-with-disabilities-2.html

Verhoef, H., and Michel, C. (1997). Studying morality within the african context: a model of moral analysis and construction. *J. Moral Educ.* 26, 389–407, doi: 10.1080/0305724970260401

Westphal, M., and Bonanno, G. A. (2007). Posttraumatic growth and resilience to trauma: different sides of the same coin or different coins? *Appl. Psychol. Int. Rev*. 56, 417–427. doi: 10.1111/j.1464-0597.2007.00298.x

WHO (2001). *International Classification of Functioning, Disability and Health (ICF)*. Available online at: https://www.who.int/standards/classifications/international-classification-of-functioning-disability-and-health

Wong, P. T. P. (2010). Meaning therapy: an integrative and positive existential psychotherapy. *J. Contemp. Psychotherap*. 40, 85–99. doi: 10.1007/s10879-009-9132-6

Wong, P. T. P. (2011). Positive psychology 2.0: Towards a balanced interactive model of the good life. *Can. Psychol.* 52, 69–81. doi: 10.1037/a0022511

Wong, P. T. P. (2014). "Meaning in life," in *Encyclopedia of Quality of Life and Well-Being Research*, ed A. C. Michalos (New York, NY: Springer). 3894–3898.

World Health Organization (2015). *World Report on Ageing and Health*. Geneva, Switzerland: World Health Organization. Available online at: https://apps.who.int/iris/bitstream/handle/10665/186463/9789240694811_eng.pdf/jsessionid$=$ADDE98C6187DD0D84EDE00CB62E25DDA?sequence$=$1

Worldometer (2021). https://www.worldometers.info/world-population/uganda-population/

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

BRIEF RESEARCH REPORT
published: 13 August 2021
doi: 10.3389/fpsyg.2021.703478

Sense of Purpose Following a Dementia Diagnostic Appointment: Comparing Self- and Other-Reports of Care Recipients and Care Partners

Matthew J. Wynn, Catherine H. Ju and Patrick L. Hill*

Department of Psychological and Brain Sciences, Washington University in St. Louis, St. Louis, MO, United States

Objective: Purpose in life tends to decline in older adulthood and it is thought that intact cognitive functioning is required for purposeful living. Thus, it is likely that individuals may perceive older adults who are experiencing cognitive declines associated with dementia as having a reduced sense of purpose. Biases such as these may influence how individuals, especially care partners, interact with those with dementia.

Method: This study examined how sense of purpose changed following a dementia diagnostic appointment for both the person receiving a diagnosis and their care partner. This study also explored how each individual perceived the other member of the dyad's sense of purpose. Older adults (47 care recipients and 75 care partners, 57% female; *Mage* = 68.5 years, *SDage* = 12.0 years) provided self- and other-report ratings of sense of purpose before and after their appointment at a specialized memory clinic.

Results: Overall, both care recipients and care partners' sense of purpose declined following a dementia diagnostic appointment [$t(85) = 7.01$, $p < 0.001$]. However, when comparing self-reports and other-reports of purpose, care partners reported that care recipients experienced a lower sense of purpose in life than the care recipients reported about themselves.

Conclusions: Care recipients and partners reported less purpose in life following their dementia diagnostic appointment. Care partners may hold certain biases regarding sense of purpose toward care recipients. These findings can inform future work regarding how care recipients and care partners can plan purposeful lives following a dementia diagnosis.

Keywords: purpose, dementia, Alzheimer, care partner, caregiving, observer-report

Edited by:
Jessie Dezutter,
KU Leuven, Belgium

Reviewed by:
Stephen Badham,
Nottingham Trent University,
United Kingdom
Harm Van Marwijk,
Brighton and Sussex Medical School,
United Kingdom

****Correspondence:***
Matthew J. Wynn
mjwynn@wustl.edu

Specialty section:
This article was submitted to
Health Psychology,
a section of the journal
Frontiers in Psychology

Received: *30 April 2021*
Accepted: *23 July 2021*
Published: *13 August 2021*

Citation:
Wynn MJ, Ju CH and Hill PL (2021)
Sense of Purpose Following a
Dementia Diagnostic Appointment:
Comparing Self- and Other-Reports
of Care Recipients and Care
Partners.
Front. Psychol. 12:703478.
doi: 10.3389/fpsyg.2021.703478

INTRODUCTION

Previous research suggests that adults tend to believe that, when considering lifespan trajectories, people will tend to stop increasing on purposefulness in older adulthood, and potentially start to decline (Heckhausen et al., 1989). This perception appears to align with existing studies on sense of purpose during older adulthood. Indeed, meta-analytic work suggests a negative age association with purpose (Pinquart, 2002), which matches cross-sectional studies finding that younger and middle adults tend to report higher sense of purpose than older adults (Ryff, 1989; Ryff and Keyes, 1995). Moreover, longitudinal work finds that older adults tend to decline over repeated assessments on purpose (Hill and Weston, 2019; Lewis and Hill, 2020).

This perception also likely reflects the commonly held perception that older adulthood is a period of widespread declines (Sneed and Whitbourne, 2005). Purposefulness may be particularly contrary to older adult perceptions, given that having a sense of purpose involves greater engagement with life toward one's broader life direction (Ryff, 1989; Scheier et al., 2006). Although life engagement is seen as a cornerstone of successful aging (Rowe and Kahn, 1997), it may be complicated by age-graded physical limitations and losses. Indeed, self-rated health was one of the few predictors of trajectories of change for sense of purpose in past work (Hill and Weston, 2019).

Given the known age-graded cognitive declines (Salthouse, 2009, 2012), it is also important to note that having a purpose in life is thought to require intact cognitive functioning (McKnight and Kashdan, 2009). Purposeful living likely requires frequent practice of cognitive functions in order to plan toward the future and organize life activities around pursuit of one's goals. Researchers have noted that having a sense of purpose promotes a wide array of positive aging outcomes (Pfund and Lewis, 2020); for instance, adults who report a greater sense of purpose tend to outperform peers on measures of memory and executive functioning (Windsor et al., 2015; Lewis et al., 2017), and sense of purpose has been shown to longitudinally predict reduced risk for non-normative cognitive decline (Boyle et al., 2010). As such, it may be the case that people will be even more likely to expect reduced purposefulness for older adults who also are experiencing cognitive difficulties. Such biases may be particularly problematic when held by individuals responsible for decisions regarding the older adult's care and daily life, and efforts to maintain purposeful engagement may be hindered when care partners make decisions based on a biased opinion that the older adult has little direction for life.

Research on this front, though, is relatively limited, as is work more broadly on whether people can reliably report on another person's sense of purpose. It may be difficult for individuals to know whether another person perceives a direction for life, unless discussions about life goals are held regularly. Perhaps for this reason, the limited work on this topic has focused on married couples reporting on each other's sense of purpose (Schmutte and Ryff, 1997). That research demonstrates relatively strong positive correlations between the individual's report for sense of purpose and their partner's perception. However, these associations were far from unity and thus suggest that discordance may occur even among close individuals. To understand this discordance requires getting both members of a dyad to provide self- and other-reports of purpose, allowing insights into whether discordance is higher or lower based on dyadic member status (here, care partner or care recipient).

This point is particularly important to consider in the context of older adults showing symptoms of cognitive decline and incipient dementia. This group is vulnerable both to losing primary decision-making for their lives, and to a growing concern that their care partners may not understand their needs and goals. Accordingly, it is valuable to consider whether care partners hold biased or inaccurate views of their recipients' sense of purpose, particularly at the start of potential treatment or decision-making about the recipients' cognitive issues. Based on past work with married couples (Schmutte and Ryff, 1997), one would expect reasonable accuracy in the care partners' reports, insofar that they should be moderate-to-strongly correlated with self-reports from the older adult experiencing declines. However, given the beliefs that older adults decline in purposefulness with age (Heckhausen et al., 1989) and the assumption that purposeful living involves intact cognitive functioning (McKnight and Kashdan, 2009), mean-level biases are likely insofar that the care partner may report lower sense of purpose relative to the self-report.

Current Study

The current study investigated that these claims with a sample of individuals attending an initial cognitive decline clinic visit as a result of personal or observer-reported cognitive concerns. Hereafter, we refer to these dyads as the care recipient and care partner. It should be noted that the required attendee may not be the ultimate primary care partner, and the visit may suggest little need for intervention or care. However, this attendee was the primary informant for the process of diagnosing cognitive issues, and if such a diagnosis were rendered, would be the individual with whom the future care process was discussed. As such, we employ the partner and recipient terminology both for parsimony, and because this framing reflects the most likely future roles based on the information available prior to the clinic visit.

Both members of the dyad provided self- and observer-reports for sense of purpose at an initial assessment before the appointment and again as close as possible following the appointment. Tests of the primary hypotheses – whether accuracy and biases in reporting were evidenced – concern primarily the initial assessment. However, we also discuss the reports over both assessments to explore the stability for sense of purpose following a potential major life event, namely the initial visit to the clinic and potential diagnosis of dementia.

MATERIALS AND METHODS

Participants

Participants presented for an initial diagnostic assessment at a specialized dementia assessment clinic. About a month before the appointment date, a research assistant called the care partner to obtain consent and to give verbal consent for the care recipient to be contacted. The care recipient then received a call in which they gave their consent to participate. After obtaining consent from participants, a comprehensive copy of the consent form was emailed or mailed to the care partner and recipient. Due to concerns regarding potential participants' cognitive capacities, care partners were the primary source of contact. If the care partner indicated the person would be unable to consent, proxy consent was obtained from the care partner along with assent from the recipient before continuing with study procedures.

Seventy-five care partners and 47 care recipients agreed to participate in the pre-appointment interview. Fifty-three (70.7% of the original sample) care partners and 33 (71.7% of the original sample) care recipients completed the post-appointment interview (**Table 1**). Participants who could not answer questions due to cognitive limitations ($n = 7$) were excluded from analysis. According to care recipient and care partner reports, 12 care recipients were suspected of having dementia or Alzheimer disease (36.4%), nine care recipients were suspected of having problems with memory and thinking (27.3%), and 12 care recipients reported being told they did not have any issues with dementia, Alzheimer disease, or any general memory problems (36.4%).

Measures

Purpose in Life

Purpose in life was measured by seven items from the Ryff Scales of Psychological Well-Being (1989). Participants rated their agreement with statements such as, "I live life one day at a time and do not really think about the future" or "They live life one day at a time and do not really think about the future" when responding to statements about the other member of the dyad. Responses were recorded using a seven-point Likert scale (1, *Strongly Disagree* to 7, *Strongly Agree*). Higher scores indicate a sense of purpose and more aims and objectives for living. Previous work with this scale has demonstrated its positive correlations with conceptually related well-being constructs (Ryff, 1989; Ryff and Keyes, 1995), as well as its associations with healthy aging outcomes (Windsor et al., 2015; Lewis et al., 2017). Reliability in the current sample was strong ($\alpha = 0.75$; $\alpha_{\text{care-recipeints}} = 0.76$; $\alpha_{\text{care-partners}} = 0.74$).

TABLE 1 | Sample characteristics.

	M/n	*SD/%*
Age	68.53	12.03
Gender		
Female	52	42.6
Male	70	57.4
Race		
Asian	3	2.5
Black	4	3.3
More than one race	2	1.6
Not reported	1	0.8
White	112	91.8
Dyad role		
Care recipient	47	38.5
Care partner	75	61.5
Care partner relationship		
Spouse or partner	58	77.3
Child	12	16.0
Sibling	2	2.7
Other relative	2	2.7
Friend or neighbor	1	1.3
Self-reported diagnosis		
Dementia or Alzheimer disease	12	36.4
General memory problems	9	27.3
No dementia, Alzheimer disease, or general memory problems	12	36.4

Purpose Change Scores

Changes in ratings of purpose in life across the two timepoints were calculated by subtracting post-appointment scores from pre-appointment scores. A positive "change in purpose" score indicates that the person has declined in sense of purpose across the duration of the study.

Purpose Discordance Scores

Within dyads, other-ratings of purpose were subtracted from self-ratings of purpose in order to produce a "discordance score." Discordance scores close to zero indicate relative similarity between the self- and other-rating; positive discordance scores indicate that the person reported a higher self-rating of purpose than the other-rating produced by their partner and negative discordance scores indicate that the person reported a lower self-rating of purpose than the other-rating produced by their partner. When appropriate, self- and other-ratings will take the form of "person being rated – person who is rating" (e.g., "care partner-other" refers to a rating of the care partner given by the other member of the dyad).

Diagnostic Experience

In the post-appointment interview, care recipients and care partners answered whether they thought the care recipient had memory issues and whether the issues would grow worse. Participants then answered either *yes*, *no*, or *I do not know* to indicate whether the doctor told them they had memory and thinking problems, dementia, Alzheimer disease, or another disorder. Based on their response to these questions, dyads were classified into three groups: those who were told they had Alzheimer disease or dementia, those who were told they had memory and thinking problems but were *not* told they had Alzheimer disease or dementia, and those who were told they had no objective issues with their memory or thinking.

Procedure

Before their evaluation, care recipients and care partners were separately contacted to participate in the pre-appointment interview. The 15-min pre-appointment interview was conducted over the telephone before the scheduled appointment. Interviews took place between two and a half weeks before the appointment to earlier in the day on the day of the appointment. Dyads then attended the clinic for their memory evaluation, which included a review of medical history as well as a physical and neurological examination. At the conclusion of the evaluation, dyads were brought together for a feedback session during which the provider disclosed their diagnosis and prognosis. Following the evaluation, care recipients and care partners were called by telephone and separately completed the post-appointment interview. The 40-min post-appointment interview was conducted between 2 days and 2 weeks after the care recipient's appointment. Individuals who completed the initial pre-appointment interview received a \$5 gift card. Individuals who completed the second post-appointment interview received a \$30 gift card, due to the longer length.

Data Analysis

Analyses were conducted with R and RStudio. Descriptive statistics were calculated for demographic characteristics and dyad relationships. Paired-samples t tests were conducted to compare pre- and post-appointment responses and investigate change in purpose across the duration of the study while independent-samples t tests were used to compare self- and other-ratings between dyads. A one-way ANOVA was conducted to investigate potential differences in reported purpose change scores between diagnostic groups.

RESULTS

Overall, self-reported purpose significantly decreased [$t(85) = 7.01$, $p < 0.001$] between pre- and post-appointment measurements (**Figure 1**). Participants, in general, declined approximately one-half of a point ($M_{\text{change}} = 0.46$ points) over the course of the study. This general trend held when analyses focused on only care recipients [$M_{\text{change}} = 0.30$ points, $t(32) = 2.81$, $p = 0.008$] and care partners [$M_{\text{change}} = 0.56$ points, $t(52) = 6.93$, $p < 0.001$]. Further analysis based on self-reported diagnosis received during the appointment revealed no significant differences in purpose change score [$F(2, 72) = 0.029$, $p = 0.972$]. Care recipients and partners appeared to report similar declines in purpose regardless of whether they reported being told they had Alzheimer disease or dementia ($M_{\text{change}} = 0.46$ points); memory and thinking problems ($M_{\text{change}} = 0.44$ points); or that they did not have any issues with dementia, Alzheimer disease, or any general memory problems ($M_{\text{change}} = 0.48$ points).

When comparing self- and other-ratings for each dyad, there were moderate positive correlations between self- and other-ratings of purpose using both pre-appointment ($r = 0.49$, $p < 0.001$) and post-appointment ($r = 0.42$, $p < 0.001$) measures. Overall, other-reported purpose did not show a significant change across the two timepoints [$M_{\text{change}} = 0.09$ points, $t(84) = 1.03$, $p = 0.304$]. Similarly, this lack of difference held when analyses focused on specific members of the dyad as both care partner purpose, rated by care recipient [$M_{\text{change}} = -0.18$ points, $t(31) = -1.97$, $p = 0.057$] and care recipient purpose, rated by care partners [$M_{\text{change}} = 0.25$ points, $t(52) = 2.05$, $p = 0.045$], showed small differences between pre-appointment and post-appointment ratings.

Finally, we explored whether care partners or care recipients displayed biased or inaccurate views of their partner's sense of purpose. Discordance scores were calculated and support the idea that care partners underestimate the sense of purpose of their care recipients at both pre-appointment [$M_{\text{discordance}} = 0.76$, $SD_{\text{discordance}} = 1.24$, $t(110.02) = -4.72$, $p < 0.001$] and post-appointment [$M_{\text{discordance}} = 0.54$, $SD_{\text{discordance}} = 1.27$, $t(86.98) = -3.96$, $p < 0.001$] timepoints (**Figure 2**). On average, care recipients' self-ratings of purpose were one-half to three-quarters of a point higher than the care partners' other-ratings.

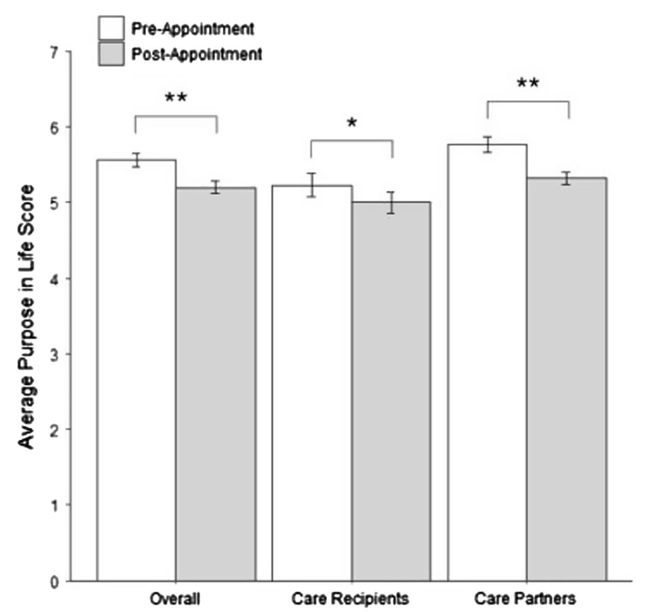


FIGURE 1 | Change in self-reported purpose for care recipients and care partners. *p < 0.01; **p < 0.001.

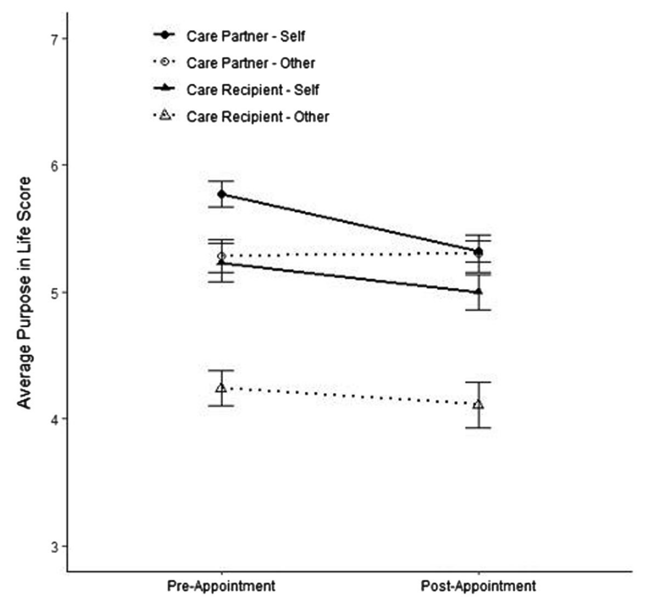


FIGURE 2 | Comparisons of self- and other-reports of purpose for care partners and care recipients.

Counter to expectations, analyses focusing on care partners' purpose found similar differences prior to the appointment, insofar that recipients also seemed to underestimate levels [$M_{\text{discordance}} = 0.52$, $SD_{\text{discordance}} = 0.90$, $t(91.77) = 3.02$, $p = 0.003$]; however, self- and observer-ratings were relatively concordant [$M_{\text{discordance}} = -0.07$, $SD_{\text{discordance}} = 0.83$, $t(51.90) = 0.14$, $p = 0.89$] following the appointment (**Figure 2**).

DISCUSSION

The current study sought to explore changes in sense of purpose in both care recipients and care partners following a dementia diagnostic evaluation. Overall, we found that older adults who engaged in a diagnostic evaluation at a specialized memory clinic declined in their sense of purpose in life following their diagnostic appointment. A previous study (Hill et al., 2021) found that onset of illness did not change sense of purpose over 4 years, and previous work with care partners found that engagement in the care partner role may increase sense of purpose over time (Lang and Fowers, 2019). However, our findings may highlight negative self-reflection immediately following the appointment as both members of the dyad wonder how they are going to cope with their potentially different life ahead. Care recipients may wonder how their disease will progress and experience feeling like a burden to the care partner. Likewise, care partners may feel increased stress as they face the transition, often from spouse to caregiver, and wonder how their previously established life plans (e.g., retirement and travel) will be affected. Perhaps unexpectedly, a decline in self-rated purpose was observed for both care recipients and care partners, and it differed little depending on the diagnosis of dementia. This potentially points to the uncertainty that follows dementia diagnostic appointments, regardless of outcome. For those who receive a diagnosis, there is uncertainty regarding how the disease will progress and how their care partner will arrange care for the recipient. For those who do not receive a diagnosis, uncertainty remains over the cause of the symptoms that spurred their trip to the clinic and whether or not they will continue to seek assessment or treatment.

While care recipients and care partners self-report a decline in sense of purpose, they do not report a similar expected decline when rating the other member of the dyad. Care recipients' other-reports were moderately correlated with self-report for the other member of the dyad, indicating that partners were moderately good judges of each other's sense of purpose. However, our results indicate that care partners tend to underestimate the sense of purpose felt by the other member of their dyad. Care recipients, though they report similar declines in purpose to care partners, remain purposeful on average despite their role as the patient. This finding may be unexpected and somewhat surprising, considering the cognitive limitations faced by care recipients. However, our findings suggest that people with dementia still report better well-being than negative stereotypes may suggest, and better well-being than their care partners would estimate. Thus, our findings do not support the claim that individuals may feel purposeless in the face of subjective or objective cognitive decline, and the associated bias from others that may accompany a dementia diagnosis.

Limitations and Future Directions

When interpreting the results, some limitations should be considered. Foremost, details of the care recipient's diagnosis were not available from the memory clinic. Thus, we relied on the care recipient and care partner to communicate the diagnosis. Previous studies show that both care partners and recipients are relatively good reporters, especially for cases where diagnosis of no dementia or mild dementia are given (Zaleta et al., 2012). Although it is possible that participants misremembered the diagnosis the care recipient received, it seems more likely that what the care recipient or care partner perceived to be the true diagnosis – regardless of accuracy – would have the most significant influence on reported purpose. Additionally, due to a small sample size and a lack of power, we collapsed across diagnoses labels in a way that grouped Alzheimer disease and dementia diagnoses together. While Alzheimer disease is captured by the term dementia, there is nuance between these two diagnoses and future work should aim to distinguish between the labels.

Another limitation to consider is that the national prevalence of dementia varies by race and ethnicity (Plassman et al., 2007; Mehta and Yeo, 2017), which we were unable to account for given our sample was disproportionately White. Therefore, our results may not be generalizable to the diverse population of Americans with dementia. Furthermore, the participants in the present study were recruited from a tertiary memory clinic. Tertiary care providers tend to serve broader geographic areas due to the specialized nature of their care, and long travel times are often required of the care recipient and care partner (Newington and Metcalfe, 2014). Consequently, those who seek tertiary health care services may have more time or financial resources than the general population of individuals with dementia.

Finally, we collected reports of purpose just prior and just following the diagnostic appointment. Caregiving for a person with dementia is itself an other-focused act but some researchers cite a sense of meaning and purpose for the caregiver as a potential motivating factor in providing care to a person with dementia (Hill et al., 2020). It is possible that the initial downward trajectory in purpose demonstrated in this study may change as care partners find purpose in the caregiving process over time. Obtaining reports further out from the appointment would be a valuable addition to any future studies.

In conclusion, care recipients and partners were generally purposeful, but both reported less purpose in life following their dementia diagnostic appointment. When asked to report on the other member of the dyad, care partners tended to be biased toward care recipients and assumed their purpose would be significantly lower than care recipients reported, illustrating that older adults with cognitive concerns are more purposeful than expected. Additional studies with larger, more diverse samples in term of both demographics and diagnosis are warranted to more fully examine the effect of a dementia diagnostic appointment on a person's sense of purpose in life.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Human Research Protection Office Washington University in St. Louis. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

MW led data collection, data analysis, and writing of the manuscript. MW and PH conceived of the presented idea, designed, and directed the project. CJ contributed to the collection of the data, analysis of results, and to the writing of the manuscript. All authors contributed to the article and approved the submitted version.

FUNDING

Research funding from Washington University in St. Louis was utilized to support this research.

ACKNOWLEDGMENTS

This project benefited from the generous support and guidance of John C. Morris, Barbara Joy Snider, and Brian D. Carpenter. We also wish to acknowledge the care partners and care recipients who volunteered to participate in our study as well as Zoë Hancock, Matthew Kim, Kathleen Lamb, Sarah Paul, Eric Song, and Dani Worthalter for their assistance recruiting participants and conducting interviews.

REFERENCES

Boyle, P. A., Buchman, A. S., Barnes, L. L., and Bennett, D. A. (2010). Effect of a purpose in life on risk of incident Alzheimer disease and mild cognitive impairment in community-dwelling older persons. *Arch. Gen. Psychiatry* 67, 304–310. doi: 10.1001/archgenpsychiatry.2009.208

Heckhausen, J., Dixon, R. A., and Baltes, P. B. (1989). Gains and losses in development throughout adulthood as perceived by different adult age groups. *Dev. Psychol.* 25, 109–121. doi: 10.1037/0012-1649.25.1.109

Hill, P. L., Beck, E. D., and Jackson, J. J. (2021). Maintaining sense of purpose following health and adversity in older adulthood: a propensity score matching examination. *J. Gerontol. B Psychol. Sci. Soc. Sci.* doi: 10.1093/geronb/gbab002 [Epub ahead of print]

Hill, P. L., and Weston, S. J. (2019). Evaluating eight-year trajectories for sense of purpose in the health and retirement study. *Aging Ment. Health* 23, 233–237. doi: 10.1080/13607863.2017.1399344

Hill, P. L., Wynn, M. J., and Carpenter, B. D. (2020). Purposeful engagement as a motivation for dementia caregiving: comment on Lang and Fowers (2019). *Am. Psychol.* 75, 113–114. doi: 10.1037/amp0000511

Lang, S. F., and Fowers, B. J. (2019). An expanded theory of Alzheimer's caregiving. *Am. Psychol.* 74, 194–206. doi: 10.1037/amp0000323

Lewis, N. A., and Hill, P. L. (2020). Does being active mean being purposeful in older adulthood? Examining the moderating role of retirement. *Psychol. Aging* 35, 1050–1057. doi: 10.1037/pag0000568

Lewis, N. A., Turiano, N. A., Payne, B. R., and Hill, P. L. (2017). Purpose in life and cognitive functioning in adulthood. *Aging Neuropsychol. Cognit.* 24, 662–671. doi: 10.1080/13825585.2016.1251549

McKnight, M. E., and Kashdan, T. B. (2009). Purpose in life as a system that creates and sustains health and well-being: an integrative, testable theory. *Rev. Gen. Psychol.* 13, 242–251. doi: 10.1037/a0017152

Mehta, K. M., and Yeo, G. W. (2017). Systematic review of dementia prevalence and incidence in United States race/ethnic populations. *Alzheimers Dement.* 13, 72–83. doi: 10.1016/j.jalz.2016.06.2360

Newington, L., and Metcalfe, A. (2014). Factors influencing recruitment to research: qualitative study of the experiences and perceptions of research teams. *BMC Med. Res. Methodol.* 14:10. doi: 10.1186/1471-2288-14-10

Pfund, G. N., and Lewis, N. A. (2020). "Aging with purpose: developmental changes and benefits of purpose in life throughout the lifespan," in *Personality and Healthy Aging in Adulthood: New Directions and Techniques*. eds. P. L. Hill and M. Allemand (Cham: Springer), 27–42.

Pinquart, M. (2002). Creating and maintaining purpose in life in old age: a meta-analysis. *Ageing Int.* 27, 90–114. doi: 10.1007/s12126-002-1004-2

Plassman, B. L., Langa, K. M., Fisher, G. G., Heeringa, S. G., Weir, D. R., Ofstedal, M. B., et al. (2007). Prevalence of dementia in the United States: the aging, demographics, and memory study. *Neuroepidemiology* 29, 125–132. doi: 10.1159/000109998

Rowe, J. W., and Kahn, R. L. (1997). Successful aging. *The Gerontologist* 37, 433–440. doi: 10.1093/geront/37.4.433

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *J. Pers. Soc. Psychol.* 57, 1069–1081. doi: 10.1037/0022-3514.57.6.1069

Ryff, C. D., and Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *J. Pers. Soc. Psychol.* 69, 719–727. doi: 10.1037/0022-3514.69.4.719

Salthouse, T. A. (2009). When does age-related cognitive decline begin? *Neurobiol. Aging* 30, 507–514. doi: 10.1016/j.neurobiolaging.2008.09.023

Salthouse, T. A. (2012). Consequences of age-related cognitive declines. *Annu. Rev. Psychol.* 63, 201–226. doi: 10.1146/annurev-psych-120710-100328

Scheier, M. F., Wrosch, C., Baum, A., Cohen, S., Martire, L. M., Matthews, K. A., et al. (2006). The life engagement test: assessing purpose in life. *J. Behav. Med.* 29:291. doi: 10.1007/s10865-005-9044-1

Schmutte, P. S., and Ryff, C. D. (1997). Personality and well-being: reexamining methods and meanings. *J. Pers. Soc. Psychol.* 73, 549–559. doi: 10.1037/0022-3514.73.3.549

Sneed, J. R., and Whitbourne, S. K. (2005). Models of the aging self. *J. Soc. Issues* 61, 375–388. doi: 10.1111/j.1540-4560.2005.00411.x

Windsor, T. D., Curtis, R. G., and Luszcz, M. A. (2015). Sense of purpose as a psychological resource for aging well. *Dev. Psychol.* 51, 975–986. doi: 10.1037/dev0000023

Zaleta, A. K., Carpenter, B. D., Porensky, E. K., Xiong, C., and Morris, J. C. (2012). Agreement on diagnosis among patients, companions, and professionals after a dementia evaluation. *Alzheimer Dis. Assoc. Disord.* 26, 232–237. doi: 10.1097/WAD.0b013e3182351c04

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers in Psychology

ORIGINAL RESEARCH
published: 18 August 2021
doi: 10.3389/fpsyg.2021.707060

Meaning Making in a Retirement Migrant Community: Religion, Spirituality, and Social Practices of Daily Lives

Jenni Spännäri[1]* *and Hanne Laceulle*[2]

[1] School of Theology, Faculty of Philosophy, University of Eastern Finland, Joensuu, Finland, [2] Humanism and Social Resilience, University of Humanistic Studies, Utrecht, Netherlands

OPEN ACCESS

Edited by:
Gørill Haugan,
Norwegian University of Science and Technology, Norway

Reviewed by:
Paul T. P. Wong,
Trent University, Canada
Lynne Catherine Manzo,
University of Washington, United States
Marianne Nilsen,
Norwegian University of Science and Technology, Norway

***Correspondence:**
Jenni Spännäri
jenni.spannari@uef.fi

Specialty section:
This article was submitted to Health Psychology, a section of the journal Frontiers in Psychology

Received: *08 May 2021*
Accepted: *20 July 2021*
Published: *18 August 2021*

Citation:
Spännäri J and Laceulle H (2021) Meaning Making in a Retirement Migrant Community: Religion, Spirituality, and Social Practices of Daily Lives.
Front. Psychol. 12:707060.
doi: 10.3389/fpsyg.2021.707060

Meaning in life has also been seen as crucial to well-being, and especially, in later life. This study focused on the social complexity of meaning making processes and the role of religion and spirituality in them, by finding out the following: (1) How are meaning-making practices connected with religion and spirituality for Finnish retirement migrants of the boomer generation? (2) What does the role of religion and spirituality in meaning-making practices teach us about the relationship between individual and social aspects of meaning making? This was done by examining a particular group of older persons: Finnish retirement migrants aged 60 or over in Costa del Sol, Spain. The material for this study consists of 58 texts (written correspondence, dataset 1, year 2009), 10 semi-structured interviews (dataset 2, year 2011), and 30 completed online surveys with open-ended questions (dataset 3, year 2019). Key findings include that religion and spirituality are present in the lives of our informants in a variety of ways, playing a significant role in their meaning making, and that they appear as intertwined and not so easy to separate. A variety of religious and non-religious forms of spirituality exist in this population, and all of these forms can be relevant factors in meaning making. Also, the engagement in meaning making, contrary to what has been suggested in some of the literature about meaning in later life, not only occurs in response to confrontations with health issues, death, or other major life events. Instead, we found that meaning making occurs as a process that is often inherent to daily activities which may seem "trivial," but in fact turn out to be important sources of purpose, values, and connectedness. Contrary to the dominant modern ideal of the authentic, self-sufficient human agent, which is based on a problematically atomistic and individualistic anthropology, for our respondents, their authentic subject position is embedded in the social practices of their daily lives, which nourish their individual spirituality and are vital to making meaning.

Keywords: meaning in life, aging, retirement migration, religion and spirituality, authenticity, spiritual seeking, baby boom aging

INTRODUCTION

Meaning in life has also been seen as crucial to well-being, and especially in later life, manifested for example, in the need for life review and adjustment to changing roles in the family and society (Reker et al., 1987; Krause, 2012; Crescioni and Baumeister, 2013; Krok, 2014). In this article, we focus on the role of religion and spirituality in the process of meaning making in later life. Although viewed as central, the contributions of religion and spirituality to meaning making have not been examined in research adequately or in their full spectrum.

The role of religion and spirituality for meaning making in later life is particularly salient for the postwar baby boom generation, a generation differing from its predecessors in a significant way (Roof, 1993, 1999; Pruchno, 2012). Although the boomer generation has been shown to either stay quite stable in their religious orientation and its intensity, or to become more religious by age and in various existential challenges (Silverstein and Bengtson, 2018), it is also the first generation whose bonds with traditional religious institutions started to loosen (Roof, 1993, 1999). At the same time, this generation developed a profound interest in spiritual practices advancing personal growth and development, often leading to complex trajectories of spiritual seeking (Atchley, 2009). As a result, many older people nowadays no longer feel (completely) at home with traditional religious institutions and their teachings and practice, and are searching for their own spirituality. Often, they are creatively using sources from different religious traditions to fulfill their need for meaning, a profile that can be characterized as “hybrid religiosity” (Berghuijs, 2017).

Influenced by the broader societal transition toward a culture of authenticity and personal fulfillment (Taylor, 1991), the relationship between spiritual authority and religious institutions has become self-chosen rather than inherited or non-chosen for the boomer generation and subsequent cohorts. As a result, taking an active role in identity building and meaning making in the global framework of religion and spirituality, facing various types of religious and non-religious convictions, has increasingly become a necessity (Flory and Miller, 2008). Members of the boomer generation characteristically rely more on their own judgement, feelings, and intuition regarding their beliefs, what to accept and what to reject, than on, e.g., traditions or religious authority (Coleman and Mills, 2019, p. 104, 105). At the same time, the social and communal settings of religion and spirituality remain profoundly important in meaning making (Silberman, 2003).

We may conclude that the boomer generation is exemplary for a generation immersed in the religious and spiritual transitions characteristic of a secular age (Taylor, 2007). Its diversity in religious and spiritual orientations makes this generation particularly interesting for studying the role of religion and (religious or non-religious) forms of spirituality in meaning-making practices. In this article, we will look specifically at how their meaning making practices unfold in an interplay of personal and social orientations toward religion and spirituality and how these meaning-making practices are connected with religion and spirituality.

We study these themes in a specific social context, namely, a Finnish retirement migrant community in the Costa del Sol, Spain. The specific characteristics of this population provides us with an opportunity to study the interaction between individual and social aspects of meaning making in the light of religion and spirituality, because, as we will discuss below, both communal bonds and personal searching motives are strongly present in this community, as well as the stimulus for meaning making in the transmigrant context.

Our study thus aims to increase the understanding of meaning in life as an influential well-being factor of the current and future generations of older persons, and to shed light on the social complexity of meaning-making processes in relation to the role of religion and spirituality for these people. To that end, we will answer the following research questions:

1) How are meaning-making practices connected with religion and spirituality for Finnish retirement migrants of the boomer generation?
2) What does the role of religion and spirituality in meaning-making practices teach us about the relation between individual and social aspects of meaning making?

BACKGROUND

Meaning and Later Life

Research on meaning and meaning-making is an exciting and growing field that has been approached from different disciplinary angles, including theological, philosophical, and psychological studies (Hupkens et al., 2018; Schnell, 2021). Partially because of this disciplinary variety, however, consensus on how to define meaning is still lacking, though an integrated approach is generally agreed to be desirable (George and Park, 2017). Whether meaning is defined in terms of a set of psychological or psycho-social needs, a global system of beliefs and values or rather a set of situated practices, of course impacts methodological choices in the study of the phenomenon of meaning as well.

In the literature, there exists many distinct ways of defining meaning. These include Wong’s model, which defines global meaning in life to consist of the following four components: purpose, understanding, responsibility, and emotion/enjoyment (Wong, 2014); Steger’s approach which distinguishes among purpose, significance, and coherence (Baumeister, 1991; Martela and Steger, 2016) defines the following needs for meaning: purpose, efficacy, moral worth, and self-worth, to which Derkx et al. (2019) added needs for coherence, comprehensibility, and excitement; Park (2010), who distinguishes between global and situational meaning; or Edmondson (2015) who takes an ethnographic approach and presents meaning not as answering a predefined set of needs, but rather as an emergent phenomenon created in the daily life practices of people.

Meaning-making practices are often linked to frameworks of meaning, also called meaning systems (Taylor, 1989; Eidelson and Eidelson, 2003; Silberman, 2003, 2005). They are to be distinguished from the scientific conceptualization of meaning listed above; rather, these are frameworks held by individuals who serve as background of their understandings of themselves and the world. Meaning systems are theories and beliefs about both self and the surrounding realities, used in decision-making, planning, defining the internal and external relationships, and attitudes of an individual, in general, making sense and giving meaning to the experiences of an individual. Meaning systems are contextual, both in relation to the social and historical settings where experiences happen, and in relation to the personal history and life course of an individual (Taylor, 1989; Silberman, 2003, 2005; Fischer, 2009; Uwland-Sikkema et al., 2018). This conceptualization of meaning system comes closer to several other concepts, including "horizons of interpretation" (Heidegger, 1927/1962; Hirsh, 2013), in the way it refers to guiding the meaning-making processes of individuals.

On the one hand, meaning systems are personally and individually appropriated, but on the other hand, they are always at least partially shared with others—persons, communities, and larger social entities like societies. Shared meaning systems contribute to the shaping and preserving shared realities in a group, and to create a shared sense of communality and belonging (Bar-Tal, 2000). By using shared meaning systems, the communities and their members are able to direct their behavior and interpretation of events, including historical ones (Kelman, 1997; Hirsh, 2013). The shared realities shaped by meaning systems not only affect the everyday life of individuals and communities, but also more abstract issues and experiences, including views on what is meaningful in life and where meaningful experiences can be searched for (Silberman, 2005).

Religions are examples of social phenomena which can be approached as global meaning systems. As they most often explicitly deal with questions related to the sacred and the transcendent, they can constitute an influential framework not only on meaning and meaning making, relating to beliefs, but also on contingencies, expectations, and goals (Lewis Hall and Hill, 2019). However, it is vital to note that religions are by no means the only possible frameworks for a meaning system. Also explicitly non-religious, as well as spiritual but not religious, meaning systems are found in diverse social groups, including the baby boomer generation (Pargament, 1997, p. 32; Silberman, 2003; Pargament et al., 2005).

George and Park (2017) suggests that global meaning systems always encompass dimensions of cognition (beliefs people hold on how the world is), motivation (goals that people feel motivated to pursue in their lives), and emotion (the subjective sense of meaning being present or lacking in life). With regard to situational meaning, Park's model distinguishes between appraisals of a certain situation in terms of its meaning, comparison of this appraisal with the *global meaning system* (and possible distress if the given situation is not concurrent with it), *meaning making*, which describes the efforts people make to create or restore coherence between the global meaning system and a given situation, and *meanings made* (the resulting adaptations in the global meaning system).

Aging and old age can pose specific challenges when it comes to meaning making. First of all, as Krause (2012) suggests, the emphasis in meaning making may shift during the life course, so that setting goals may be more important in constituting meaningfulness for younger people, whereas the ability to reconcile the past and look back on the life of an individual with peacefulness and contentment gains in importance during later life. Second, modern Western societies are often hostile toward aging people, because old age is associated with decline and fear, and this cultural hostility impedes the chances of older people having to experience their life phase and social roles as valuable and meaningful (Edmondson, 2015; Laceulle, 2018). On the other hand, the second half of life has also been traditionally seen as a phase in which the human potentials for wisdom and spiritual growth can be fully realized (Tornstam, 2005; Atchley, 2009; Edmondson, 2015).

In the current literature, the function of religion and spirituality for meaning in later life is particularly explored with regard to the confrontation with death, and with regard to coping with health problems. Manning (2019) states that religion can serve two important functions in coming to terms with the existential reality of finitude, one's own death or the death of others. First, religion can provide people with a framework in which events of life can be experienced as ordered and coherent, rather than random or chaotic. This makes it easier to feel a sense of purpose and accept that death is part of the human condition. Second, religions can offer people action steps to deal with death (for example in the form of rituals), that give them a sense of control and reduce possible feelings of helplessness and despair in the face of death.

The role of religion and spirituality in meaning making is also linked to coping with health issues in older age (Krok, 2014; Manuti et al., 2016; Xu, 2016). Although meaning can be searched for and found in both religious and non-religious contexts, there are differences between how different meaning systems propose to deal with health issues, for example, with regard to how they define the ideal emotional state and its path leading (Park and Hale, 2014; Tsai et al., 2016). Studies show that being non-religious need not lead to worse health results compared to being religious, and that atheism or non-religious forms of spirituality and hybrid religiosity are equally functional in providing sources of meaning in diverse life situations, including confrontations with diminishing health and death (Wilkinson and Coleman, 2010; Coleman and Mills, 2019). What remains mainly unstudied is what the role of religion and religious or non-religious spirituality can be in meaning making aside from situations where one is confronted with death or diminishing health.

Religion and Spirituality

The concepts "religion" and "spirituality" are both fuzzy and overlapping. Where religion often refers to beliefs, behaviors, rituals, and ceremonies related to an established tradition, spirituality evolves more around the theme of transcendence, within or without organized religion (Koenig et al., 2012). In this article, the concepts are useful especially as tools for working with and illustrating the cultural and linguistic richness and differences related to these phenomena (Murphy, 2018). These differences and variations have been observed in various cultural contexts including in Japan (Takahashi, 2020). From longitudinal and narrative data pertaining to the relation of religion, belief, and spirituality in old age, Bengtson and Johnson (2016) drew some interesting conclusions about how the role of religion and spirituality has transformed across different generations during the twentieth and early twenty-first centuries. First, they observed how conceptualizations of God have changed, showing that older cohorts are more likely to see God as a transcendent, omniscient, and distant being, whereas the younger cohorts often see God as an imminent and internalized power to whom they have access in themselves. Second, a comparison between the older and younger generations shows an increasing separation of religious practice from religious institutions. Whereas, for older generations it was self-evident that religion is practiced in church, synagogue, or mosque, the younger generations increasingly came to the conviction that leading a religious life did not necessitate regular church attendance, but could also be realized in other practices outside traditional houses of worship. Third, religion and spirituality have increasingly become two different domains for younger generations, as compared to older cohorts. While religion is increasingly identified with organized, institutionalized traditions, spirituality became the term for an internal, personal relationship with the Divine, to be obtained through processes of spiritual development, growth, and transformation.

The contemporary religious and spiritual landscape is best understood as a complex and multilayered structure. It is typical for the "quest culture" of modern spirituality that traditional boundaries characteristic of religious traditions and institutions no longer suffice to understand the meaning making processes that people engage in (Roof, 1999). Instead, in the process of spiritual seeking, people are shaping their own "lived" practices of religion, freely drawing on sources both inside and outside traditional religious frameworks. As Roof puts it, "Agency, or the role of the individual actively engaging and creating an ongoing personal religious narrative in relation to the symbolic resources available, is (...) crucial to our understanding of contemporary spiritual quests" (Roof, 1999, p. 12). Thus in this article, we put emphasis on meaning making as an active process, in which people may or may not draw on religion and spirituality to create meaning (Manning, 2019).

Meaning Making and Spiritual Seeking

In this article, we specifically aim to look at meaning *making*, which we broadly define as the active component of the engagement of people with meaning in life. Meaning making not only pertains to global life meaning, but also occurs as people ascribe meaning to specific aspects of their existence. Making meaning can be distinguished from *finding* meaning, which implies a more passive role for the individual. Also, the verb "making" emphasizes the active construction of meaning by individuals in their lifeworld, whereas "finding" assumes that meaning has an existence independent of individual consciousness in the outside world. Meaning making is related but not equivalent to searching for meaning. According to Park (2017), meaning making occurs when a discrepancy is experienced between the global meaning system (beliefs and values) that people adhere to, and to a specific situation. For example, experiencing a traumatic life event, such as the loss of a loved one, may alter the philosophical or religious outlook of an individual on life, and affect the view of the world of an individual and the perception of an individual on himself. The process of meaning making then facilitates the repair of a coherent match between the global and situational meaning (Park and Gutierrez, 2013). However, as ethnographic approaches to meaning in life suggest (Edmondson, 2015; Derkx et al., 2019) meaning making is not necessarily restricted to our response to situations of distress, but can also be approached as a continuing practice throughout our daily life activities. We would like to take this broader perspective to not only focus on the distress that discrepancies with global meaning systems pose, but also on more "ordinary" instances of meaning making as an active process of creation.

Manning (2019) suggests that meaning making processes in which we assign meaning to the past are different from meaning making processes in which we try to find meaning in what happens to us in the present. This is relevant in the context of aging, because evaluating the life of an individual with the purpose of finding what Erikson (1997) has called "ego-integrity" is generally seen as an important meaning-goal in later life. Whereas, Manning conceives the past-oriented type of meaning making as a mainly intellectual exercise where events from our past lives are put in an interpretive narrative framework (which may or may not be religiously inspired), the present-oriented type of meaning making is less about reflection and explanation to create a retrospective coherence, and more about action, emotion, and motivation to create a sense of purpose and control amidst the events one lives through at that moment.

The reflective and retrospective orientation characteristic of meaning making about the past is consistent with the philosophy that people are narrating beings, whose meaning making relies heavily on narrative (Ricoeur, 1992; Roof, 1999; Manning, 2019). People tell narratives to shape their identity and express their relationships with other people and with the values and practices of their societies (McAdams, 1993; Smith and Halligan, 2020). For older persons, narrative seems to gain an increased importance as an instrument of creating meaning. As many authors in the tradition of narrative gerontology underscore, in looking back at the life of an individual and construing a coherent narrative about it, people come to terms with themselves and, ideally, can perceive their life in retrospect as purposeful and significant (Kenyon et al., 2011; De Medeiros, 2013).

In this article, we relate our focus on meaning making to processes of spiritual seeking. According to Wuthnow (1998), we can observe a transition from religious dwelling, where people feel at home in a particular tradition and community, usually provided by religious institutions, toward spiritual seeking, where people undertake a highly personal journey of transformation and, hopefully, growth in which they aim to discover and create their own meaning-generating spiritual orientation. The process of spiritual seeking can take place in a fruitful dialogue with more traditional religious institutions, such as church communities, but can also involve distancing oneself from them and creating new forms of communion with like-minded spiritual seekers. Though the study of Wuthnow focuses on the North American context, the transition from religious dwelling to spiritual seeking can be found throughout the entire Western modern world.

The shift from religious dwelling to spiritual seeking comes with a strong focus on inwardness, subjectivity, and authentic personal experience as the focal point of religious and spiritual energy (Roof, 1999). This is exemplary of the modern turn toward an ethics of authenticity described by several authors (Taylor, 1991; Ferrara, 1998; Guignon, 2002; Laceulle, 2017). Taylor (1989) has provided an eloquent historical-philosophical analysis of this shift toward an ethics of authenticity. The study of Taylor sketches the genealogy of the meaning systems relied upon by people in Western modernity, as they relate to their self-understanding and identity. The search for meaning has evolved into an inner journey that is perceived as highly individual and authentic. A problematic side of this discourse is that it seems to present a rather atomistic image of the human agent, with hardly any sensitivity for how agency is embedded in social practices. Rather, social influence is presented as a threat to living authentically (Laceulle, 2017). However, as Taylor pointed out, it would be a mistake to see the pursuit of authenticity as a purely personal process; instead, it is deeply intertwined with the moral horizon of the culture/society in which it takes place and therefore always socially mediated. According to Taylor, it is impossible to develop an individual vision of "the good" (indispensable for experiencing meaningfulness) without knowing where you stand in a field of socially constituted "goods" that form the moral horizon of the culture of an individual. We can learn from the analysis of Taylor that the spiritual seekers of our research population may have an ambiguous relationship with traditional contexts of religious dwelling, but that their search or quest for meaning is nevertheless a deeply social process.

It would therefore be a simplification to state that spiritual seeking, as opposed to religious dwelling, is predominantly an individual process, and that people no longer feel themselves to be part of traditional religious and social communities, with potentially detrimental consequences for their sense of belonging and for social cohesion in society. Instead, the population of spiritual seekers experience "multiple religious belonging," though no longer identifying as exclusive members of a certain religious institution, people can still "feel at home" and experience a sense of authentic relation with multiple religious sources and traditions (Berghuijs, 2017). Traditional boundaries between religious and spiritual traditions have become irrelevant to some extent, but the sources of meaning they provide gain significance in new creative combinations.

MATERIALS AND METHODS

This article examines these questions within a particular group of older persons: Finnish retirement migrants in Costa del Sol, Spain. This group is characterized by constant change and fluctuation: the typical lifestyle includes spending summers in Finland and winters in Spain, members of the community come and go, and a large proportion of social activities and networks are bound to time and place: either Finland or Spain (Karisto, 2005, 2008a; Oliver, 2008; Spännäri, 2013). Also, the individuals engaging in this lifestyle experience transitions: from work to retirement, from a country to another, from a social or family role to another. Many of these older migrants are best described as transmigrants (Glick Schiller et al., 1995; Gingrich and Preibisch, 2010), sharing their time and interests in varied proportions between Finland and Spain. This is one of the reasons why this particular population is an intriguing context for studying meaning making. Retirement migration and transmigration, involve not only various transitions and challenges which require self-realization, personal coping, and social relating, but also adaptation to new things and coping with loss—all of which are circumstances where meaning making is especially needed (O'Reilly, 2000; Gingrich and Preibisch, 2010; Warnes, 2010; Spännäri, 2013).

Another reason for focusing on this particular, Finnish group of older persons, are the country-specific characteristics of the baby boomer generation in Finland. Both the size of the baby boomer generation and its timing and span are exceptional, when compared to other countries. The exceptionally large After-War birth cohorts were proportionally larger and their birth years fewer than in most other countries after the Second World War. For example, the annual birth rate curve almost doubled in Finland during the second half of the 1940s, whereas in Great Britain, the annual growth was only about 25% (Nieminen, 2007; Karisto, 2008b). Thus, in Finland the concept of baby boomers, as a sociological phenomenon, may have a greater explanatory power than in several other countries and the shift from previous behavior patterns to those adopted by the boomer generations might be more dramatic (Karisto, 2008b). Related to meaning making behavior, a significant shift has been observed in several European and North American countries (Roof, 1993, 1999,). In Finland, where the prevailing narrative has been of cultural and ethnic homogeneity (Keskinen et al., 2019), the choice contexts for meaning making have been relatively limited. Thus, for many older Finns, especially those belonging to generations preceding the baby boomer generation, the search for meaning in life has taken place in a religious framework (e.g., Niemelä, 2011).

Here, arises a third reason for focusing on this community of older persons: according to earlier studies, the retirement migrant community is much more active in religious and spiritual activities than the corresponding demographic groups would be in Finland. In Finland, religious attendance is at the North European low level. In the year 2019, about 68.7% of Finns were members of the Lutheran church, but only 6% participated in a service at least once a month (Salomäki et al., 2020). According to an earlier questionnaire survey, it was found that a Finnish religious service was the second most popular Finnish event at Costa del Sol: about 46% of the informants had attended a service and 29% had attended some other Finnish religious activity during the last winter season (Karisto, 2008a). In a study regarding the Finnish seasonal migrants and regular tourists in Spain and the Canary Islands, it was found that during their stay in Spain, 57% of Finnish migrants attend more to religious services than they do in Finland, whereas only 12% attend more in Finland than in the Canary Islands (Mäkeläinen, 2011). Also, many of the persons attending the services in Spain do not take part in church activities in Finland. In an earlier study, 28% of questionnaire survey informants, who stated that religion is not important to them, still had attended a service during their winter stay in Spain (Karisto, 2008a, p. 248–249). A significantly understudied phenomenon is the emergence of meditation and alternative spiritual practice groups. This can be observed in the social media pages of the community, advertisements in newspapers, and in other traditional media from around 2015 onwards, but has not yet been studied.

The obvious and explicit explanation for the higher attendance in Spain than in Finland is meeting other Finns. Social connections and activities in various associations have been proved crucial to the well-being of retirement migrants and in the creation of social capital (Casado-Diaz, 2009; Simó Noguera et al., 2013). Like many migrant churches and congregations globally, the Finnish religious communities in Spain are important platforms for forming social networks (Ebaugh and Saltzman Chafetz, 2000; Jeppsson Grassman and Taghizadeh Larsson, 2013). However, there are various other instances, contexts, and events outside the religious ones where the Finnish migrants in the Costa del Sol could and do meet each other. While social factors explain some of the attendance, it leaves a particular demand for religious events in hiding.

In a Danish case reported by Warburg (2012), the church was the only or one of the very few available organizers of national and cultural activities and the participation was the highest at the non-religious events organized by the parish. On the contrary, the Finnish community at the Costa del Sol has a variety of clubs, associations, and institutes to organize cultural, educational, and entertaining activities. Also, the weekly services are clearly the most popular activities organized by the Lutheran parish. Religious activities have been strongly associated with the well-being, especially the mental well-being of the migrants, where non-religious activities did not have the same effect (Connor, 2012). The reason might lie in the ability of religion to function as a tool of connectivity both in diasporic and transnational ways (Ebaugh and Saltzman Chafetz, 2000). For these reasons, the retirement migrant community with its abundance of religious and spiritual activities is a very interesting context to study, given our aim to shed light on the social complexity of meaning-making processes in relation to the role of religion and spirituality.

The material for this study was collected in the Finnish community of Costa del Sol during the years 2009–2019. The material consists of 58 texts (dataset 1, year 2009), 10 semi-structured interviews (dataset 2, year 2011), and 30 responses to an online survey with open-ended questions (dataset 3, year 2019). The material is also presented in **Table 1**: datasets of this study. Together, this combination of narrative material gives a rich, multidimensional view to the life of the retirement migrants and their community across time, and allows for the examination of their meaning making, from various points of view.

TABLE 1 | Datasets of this study.

	Dataset 1	Dataset 2	Dataset 3
Year of collection	2009	2011	2019
Format	Texts (written correspondence)	Semi-structured interviews	Survey (open-ended questions)
Number (included in the analysis)	58	10	30

The texts for the dataset 1 were collected by letters and emails, with the cue "Write about religion in the Finnish community at Costa del Sol." The invitation to write was published in the Finnish language magazines and newspapers in the area, and also advertised through the biggest Finnish religious communities: the Evangelical–Lutheran parish and the Tourist Church. This collection resulted in 64 texts, approximately half a page long, the shortest 10 sentences, and the longest two and a half pages. The informants represented various religious affiliations (which included: Lutherans, Pentecostals, and witnesses of Jehovah), and age groups (from 40 to 84). In this study, we excluded six texts where the informant was known to be under 60 years old, as we focus here on the meaning making, especially in the later life. Thus, 58 texts (40 women and 18 men respondents) constitute the dataset 1 and were used in our analysis. From the texts, we picked the themes and approaches for the interviews constituting the dataset 2 (See interview questions in **Appendix A**). Eight of the interviewees in the dataset 2 had also provided a text to the dataset 1. The remaining two interviewees were recruited in the Finnish events in the area, and were persons especially willing to contribute to research on religion and spirituality in the area. The interviewees of dataset 2 were aged from 60 to 82, where half of them were men and half women, and they represented Lutheran, Pentecostal, and non-religious orientations. The interviews were carried out by the first author of this article, mostly in the homes of the respondents, and they lasted from 1.5 to 3 h.

Dataset 3 was created by a survey, distributed online in March 2019 to a Facebook group of Finns in Costa del Sol (with 250,000 members), and sent by email to persons affiliated with a meditation/non-religious spirituality group. The survey material provides an interesting incremental point of view to the community, reaching out to specifically spiritual but not religious persons, and the emergence of new spiritual but not religious activities in the community. The survey was anonymous so there is no means of telling whether the respondents have also contributed to the first two datasets. This study examines the replies to open-ended questions included in the survey (Included in **Appendix B**), which focused on discussing and reflecting on meaning in life, as well as religious/spiritual orientation and practices. We received altogether 65 replies to the survey, of which 30 (8 men and 22 women) were from informants aged from 60 or over, and thus are included in this study focusing especially on meaning making in later life.

The material was analyzed with qualitative content analysis and adapted a grounded theory methodology, using the Atlas.ti analysis software (Charmaz, 2006; Friese, 2011). The first author analyzed the first two datasets, and the third dataset was analyzed by the two authors together, first taking turns and then each author checking on the analysis of the other. All categories and codes used were extracted from the material, then grouped and regrouped to form themes as responses to our research questions (Dey, 2007).

One significant decision made in the analysis and writing process for this article was the question of translating the terms related to religion and spirituality. Both the phenomena and the vocabulary around religion and spirituality evade clear-cut definitions and are context-specific to a large extent (Moberg, 2009; Murphy, 2018). In the Finnish context, in everyday language, the field of religiosity and spirituality is often described using three words: *uskonnollisuus, hengellisyys,* and *henkisyys*. The word, *uskonnollisuus* would refer to religiosity, through dimensions, such as attendance, practice, and dogmatic beliefs related to institutionalized religion, such as a church—thus, we decided to translate that as religiosity. The word, *hengellisyys* would refer to a type of spirituality relating to institutionalized religion, but in contrast with religiosity or *uskonnollisuus*, *hengellisyys* focuses more on the personal practice and experiences, such as praying, singing hymns, and having a religious worldview. In this article, this is translated as a religious spirituality. The word, *henkisyys*, then, would refer to spirituality, characterized by experiences and personal practice not connected to institutionalized religions. Interestingly, this term could also include phenomena in the fringes between the spiritual and the secular factors, such as philosophical interest or personal growth.

RESULTS

Meaning Making in the Retirement Migrant Community

In our material, meaning making was displayed in a wide variety of ways. For some informants, meaning making was quite comprehensive, touching not only the person in question, but persons in general, and also even larger entities like the cosmos or God:

> *I believe (i.e., trust and hope) in the ability of a person to perceive his or her modest part of the earth and therefore to work for himself and his immediate surroundings, both mentally and physically. This can be God in us (D3, 33).*

For some informants, accounts of meaning making are centered around "the little things in life," such as volunteering:

> *But volunteering, it has been the spice of life.—It is very pleasant to be around people, in everyday life. And at the same time feel united with all the parish members. To feel that you can be of help and to be helped yourself at the same time (D1, 23).*

For this informant, an important part of volunteering in the parish was to be united with others, and this sense of unity was created through the tasks in everyday life. In addition to the pleasantness of doing together, this activity was given the meaning of unity with all the parish members—which might, judging from the word, *ykseys* the interviewee uses, be a particular, spiritual kind of unity.

Volunteer activities had a strong spiritual importance for some of the informants. An interviewee from the dataset 2, a female in her 60s, ponders:

> *—That this is really only temporary. That a time will come, when I don't have to worry or take care of anything.*
>
> *(Interviewer: To know, that everything will end [well in any case)*
>
> *Yes, exactly.] And then you can rejoice and rest and just enjoy. And that gives me strength to strive for that goal here in the parish and in my own life and toward other people. And for that reason, too, participate however I can, whatever small contribution I can make, to… make that possible for others who don't know God. That's really our task here. We want to take others with us there, too, some with a bigger and some with a smaller contribution.*
>
> *(Interviewer: And everybody, in their own way, can take part).*
>
> *Mm, yes. Like washing the dishes or sweeping the floor there, that somebody, a seeker, can come here. That we're here for them (D2, 4).*

This informant makes meaning of her volunteering in cooking and cleaning duties in the context of religion. For her, volunteering was not only keeping up the hope for a better life after death, but also in this life, giving strength in everyday struggles. In addition, she makes meaning for her duties in the religious community as helping others to find God.

Our material also reminds that meaning making happens in a place and time.

> *I go to worship and ponder the sermon on my way home and at home. I help others whenever I can. It gives strength and good spirits (D3, 42).*

The moments of meaning making are not something separate from the everyday life, but take place during the usual activities like walking home or embedded in the everyday deeds of helping others. The informant tells about pondering a sermon, and then continues to write about practice: helping others, which also has benefits for the helper herself. The practice and the sermon come together. A practical meaning is given to the religious message, and a religious meaning is given to the spiritual practice.

In addition to everyday life religious practices, festivities, and customs linked to them are also one of the frequently mentioned contexts of meaning making.

> *For us, it is very important to celebrate the religious holidays in the Finnish way. For example Christmas is a very emotional and an important holiday. All the childhood Christmases come to mind, with Christmas matins, sleigh rides etc. We also reminisce about persons who have passed away, parents, siblings, and all relatives, and the message of Christmas (D1, 15).*

The informant describes how Christmas is given the meaning of looking back but also reaching out to others in the spirit of Christmas. The message of Christmas seems to be one of connectivity, both to the past but also to the present. As for the past, the personal life stories appear in the material as important contexts of meaning making for these older persons.

> *I was born into a home where religion and the morals, behavior, and good manners that come with it are not unfamiliar. These give good guidance on the journey of life, to take into account others, and to respect their view of life and conviction, no matter which religious branch they belong to (D1, 19).*

Interestingly, for this informant, the tolerant and accepting way of life was given meaning through their strong religious upbringing. Morals and good manners were seen in the religious context, and shaping the whole journey of life of the informant.

One of the key findings of our analysis is that meaning making is integrated in the everyday lives of the people, not only in the times of festivities, but also in the quite usual chores and activities, like volunteering or walking home.

Religion and Spirituality in the Meaning Making

Our analysis showed that both religion and spirituality played a role in the meaning making, both in the religious and non-religious context. In the religious context, one of the social phenomena framing the meaning-making processes is a religious participation, which is described to be more religious and active for Finns in Spain than in Finland. A clear majority of informants in the dataset 1 stated, even if that was not explicitly asked in the call for texts, that religious participation was much more common and the participation style was much more active for the Finns in Costa del Sol, than in Finland. The place and change of place seemed to play an important role for meaning making for many respondents, as sunshine and the palm trees were often mentioned as pleasant elements but at the same time constant reminders of being in a foreign environment.

> *"I think that in Spain (Finnish) people are more open and receptive to religion. They are older and the departure from this world is approaching for everybody. But here also those people go to the church, who won't do it in Finland because of bashfulness or other reasons. The songs and hymns are sung at full blast, although everybody isn't always hitting the right key. It also seems that everyone goes to receive communion." (D1, 61).*

In addition to the higher age and approaching the end of life, the informants mention openness and receptiveness as central factors for increased engagement and attendance. But in addition to the increased frequency, this and several other informants write about the difference in participation style: more open, more personal, a result of an individual choice and stressing more an active role in participation.

The specific social context and the transitions linked to the life in it seem to play a key role in the increased and intensified religious engagement.

> *"The church here is like a mother duck who calls her ducklings under her wings for shelter and protection and nourishes both physically and spiritually, the church and religion is much more important to us here than in our homeland—aren't we here like scattered in the winds of the world." (D1, 13).*

Here, the religious context was seen as framing the meaning making in a new, uncertain, and insecure situation. The perceived safety and protection provided by the religious context was very often mentioned in the texts. It was mainly left unclear, which were the threats to safety that religious context was perceived to be protecting from. Building a social network and social capital (weak and strong ties) in a new community might be a factor here. In addition, the sense of safety seemed to be also spiritual, as in the quote above, and for this informant:

> *"And often it's because problems caused by a certain homesickness, loneliness or troubles in integration develop to be a curious internal longing and emptiness, where spiritual circles are starting to give meaning to one's life." (D1, 52).*

The informant describes how external factors, like moving to a new country and social environment create experiences of longing and loneliness, which in turn create internal needs, longing to be fulfilled—which in turn leads to meaning making in a new context and with a new sense of urgency.

Interplay between personal, individual aspirations, and the social framework was not always easy. Many informants, such as the persons quoted above, also mentioned possible obstacles, on why they themselves or their peers have not engaged in religious activities in the home country. The peer pressure for not participating while in Finland, and the absence of it in Spain, was explicitly mentioned in several texts.

> *"Belief is a personal encounter with Lord Jesus. The Coast gives the same possibilities for it as Finland does. Sometimes even better, when relatives, friends and neighbors are not there, "controlling" (D1, 52).*

The "lower threshold" to engaging in religious and spiritual activities in Spain than in Finland, mentioned explicitly in 10 of the 58 texts in the dataset 1, gives a reason to think that the need for this engagement exists also in the Finnish context and is not only related to transitions, such as moving to another country to retire. Also, it underlines the need for active negotiation between the personal needs for meaning and the social context. The meaning making practices adopted in the later life depend on many factors, neither on the social norms nor the pursuit for authenticity.

However, the search for meaning was not linked exclusively to the specific social context of being a retirement migrant in Spain, but also and very firmly to the life stage of older adulthood and retirement.

> *It is as if you could start your life anew now that you're retired, and do what you really want to and feel it's the right thing to do, that's spirituality today (D1, 46).*

Interestingly, the writer not only placed spiritual practices as the engagement they were longing for, but also vice versa: to "do what you really want to do," to explore one's own agency, was indeed a form of spirituality.

Religion and spirituality also play a role in making meaning of severe illnesses in later life—and the threat they pose. One of interviewees in dataset 2, a woman in her seventies, tells about a person living with several illnesses; how she is a very positive and joyous person, and how she often discusses the possibility of an illness-ridden elderhood:

> *We just always remind each other, that if He, our Lord, puts us through that schooling, I won't be there alone. He's there with us.—So I'm not afraid, no (D2, 3).*

Interestingly, the religious and spiritual framework is here related to togetherness and connectedness; explicitly not only with God, but also with the person and persons sharing similar views.

Also informants who did not consider themselves as religious, saw spirituality as significant contexts for meaning making.

> *I do not believe in God as seen by Christianity. I believe there is something bigger. I believe things tend to arrange themselves and that something is behind that. I also like to think that my dead father is somewhere, but where, I haven't figured it out yet (D3, 9).*

For this informant, non-religious spirituality helped to make meaning and sense of life and its events. For others, engaging in meaning making processes in a spiritual context was primarily motivated by self-realization or self-development.

> *I treat religion and religious spirituality in the same way as exotic flowers. I look and marvel. I understand non-religious spirituality more broadly; I think it is a work and an exercise that a person does to change themselves (D3, 27).*

This informant saw the self-development motive to be especially linked with the non-religious spirituality—in contrast with religion and religious spirituality. The informant thus described what they found to be a key difference of religious and non-religious spirituality: the other is to be looked at, and the other to be exercised.

Another informant describes how religion and religious spirituality affects her everyday life, especially having found God:

> *It's had a great effect. Like when I think how I've ever been able to make decisions before, for example. And I thought I was good at decision-making. Now I don't need to do anything more than just ask: "Heavenly Father, how is it now with this thing here. Do I sell this flat or not." And I get answered. In all my matters I get answered. In a way or another (D2, 3).*

Although the context where this informant practices her religion is strongly religious, as she is an active member of one of the religious organizations in the area, the effect in her life described here arises from a personal spiritual practice, praying. Thus, another key finding is that religion and spirituality are not easily segregated from each other in the data, and they are manifested intertwined. Also, for this respondent, asking God for advice seems to be a personal process, not involving any religious professionals or key figures. In this narrative, getting answered involves agency, in asking and defining an answer. Thus, it is vital to inspect meaning making as an activity, in the lived context, following the course of research on aging in context, ethnographical approaches, and in aging and everyday life (Edmondson, 2005; Degnen, 2012).

In this study, further examining is to be included on the role of the older persons as active subjects of the meaning making process.

Meaning Making as an Active Process

One of our key findings is that meaning making is an active process for these older persons, and it involves a negotiation between authenticity and self-expression on the one hand and the social framework on the other. For some informants this is very explicit:

> *This is my own thought interpretation about belief and Deity: we must grow and develop by ourselves. No pastor or preacher is able to do that (D1, 29).*

After presenting the development of his spiritual thinking, the informant comes to the conclusion that everyone is responsible for his own spiritual development.

Another informant, who is not very active in any religious community, uses the religious context to make meaning of his aspirations to help others—even if he would have to disagree with others:

> *Well, I don't know if my Christian conviction is that strong… But it comes to me from early childhood "from my mother's milk," the defending of the weak. And, I've seen christianity so, that it should focus on exactly defending the weak.—This is how I see the teachings of Jesus, too. Some disagree and say that it is not only about helping the weak. But I think it is. That's the core of everything (D2, 9).*

Later in the interview, the informant tells that for him, personally, helping others is the primary way of practicing spirituality. It is not only a moral obligation, but also a spiritual act, part of a larger whole. That ethos has especially affected his life after retirement, as he feels he now has more freedom and time to do good to others.

For some informants, the focus of the meaning-making processes was in the self, like for this informant, describing the meaning of religious service to her:

> *Hearing the gospel helps revitalize and strengthens me. I don't have to accomplish anything, but I can just rest and be taken care of by God. This is something I've been missing through many years of work, to safely be a child of God. Now that I have time, I can read the Bible and other spiritual literature. Now I have time to pray, either specially to settle for prayer or then pray by myself while doing the daily chores. My wish here in the sun is to get closer to God (D1, 59).*

Religious context had for this informant an uplifting and caring effect. Retirement also offered the much needed time to explore the spiritual dimensions of life, perhaps earlier subdued by work and the related lack of time to focus on oneself. For this informant, however, the individual meaning-making process is launched in a shared context, having heard the gospel with others.

Also, in non-religiously spiritual contexts, both a social aspect and the emphasis on the individual agency as well as authenticity were present. For some, meaning making was the first and foremost linked with social connectivity:

> *(meaning of life is to) live in such a way that my deeds, my presence and my words would enable my loved ones to fulfill the purpose of life they've chosen with joy and confidence in their own abilities (D3, 33).*

For others, the motivation was linked more clearly to self-development:

> *I want to find myself through the wisdom of spirituality. Who am I? (D3, 3).*

These individual experiences and fulfillments do not appear in vacuum. Many informants relate the individual sense of meaning in a relational context.

> *I find it unlikely that living on a large scale has any purpose. Instead, I think it is good for individuals to experience that their lives matter to someone or something. This kind of individual sense of meaning can be found in different things for different people (D3, 50).*

In fact, quite often individualist and relational motivations were intertwined:

> *(meaning of life is to)Become the best person possible, that is, kind, helpful, and spiritual toward all living things (D3, 61).*

This informant connects personal development with contribution to the lives of others, and even nature. The best possible person is also the best person for others, not only for oneself. Meaning in life is actively made and measured by kindness, helpfulness—in everyday life.

DISCUSSION

The lives of the Finnish retirement migrants we have studied in this article are vibrant with meaning making. Both the written and told narratives from our informants paint a lively picture of a community whose members actively engage with each other and with themselves to infuse their daily lives with meaning.

An important finding is that the engagement in meaning making, contrary to what has been suggested in some of the literature about meaning in later life, does not only occur in response to confrontations with health issues, death, or other major life events. Instead, we found that meaning making occurs as a process that is often inherent to daily activities which may seem "trivial," but in fact turn out to be important sources of purpose, values, and connectedness. This has been noted also in previous and recent studies (Hupkens et al., 2021). This speaks in favor of studying meaning from an ethnographic, phenomenological perspective (cf. Edmondson, 2015), and not limiting research on this topic to more dominant quantitative approaches using measurement instruments, such as the Meaning in Life questionnaire (Steger et al., 2006). It also resonates with the emerging literature about lived religion, in the sense that through studying this engagement, it is possible to examine how meaning making is practiced—quite alike how the study of lived religion focuses on the practice of religion (Knibbe and Kupari, 2020).

In response to our first research question, we found that religion and spirituality are present in the lives of our informants in a variety of ways, and play a significant role in their meaning making. Some of the informants find their spiritual and social home within traditional religious institutions, such as the Lutheran Church, and find comfort and a sense of belonging through practices, such as worship and reading the gospel. Others have chosen the paths of spiritual seeking that lead them away from these traditional religious practices and toward new expressions of spiritual meaning making, such as meditation or yoga. In this sense, the Finnish retirement migrants in this study confirm the findings from the literature in our theoretical framework about the varied religious and spiritual orientations of the boomer generation.

A significant finding is that for some informants, traditional religious settings, such as church services serve a meaning making function that is more social than it is substantially religious—for them, meeting other Finns and belonging to the community seems to surpass the importance of religious teachings. Yet, it is important to note that despite these seemingly rather functional reasons to stay connected with religious institutions, the sense of social belonging and connectedness they gain from their engagement with it has acquired a spiritual status for many informants. Feeling related to other people and being there for one another in a religious and spiritual context are highly important values in this community, with a great potential for meaning making. Individual spiritual journeys are often interwoven with more traditional religious practices, though for some respondents, their spiritual path has led them to turn away from institutionalized religion permanently.

A finding related to the above is that religion and spirituality turn out to be not so easy to separate in our results. There exists a variety of religious and non-religious forms of spirituality in this population and all of these forms can be relevant factors in meaning making. It is noteworthy to mention that the distinction between religious dwellers and spiritual seekers as laid out in the literature (Wuthnow, 1998; Roof, 1999; Wink, 2003) cannot be clearly drawn in our sample; in a sense, many of our informants appeared to be seeking in some way, and this seeking could occur both within and outside of more traditional religious practices. This is consistent with the idea that the baby boom generation is characterized by multiple religious belongings (Berghuijs, 2017). These results underline the importance of looking beyond dichotomies, such as religious—non-religious or even religious—spiritual when the aim is to understand the role of religious and spiritual phenomena in the lives and meaning making of individuals and communities. The results also emphasize the need to come to a more nuanced understanding of the diversity of experiences related to religious and spiritual meaning-making of older persons—be they in religious or non-religious contexts.

Another important finding to mention is that people exhibited a variety of different motives for including religion and/or spirituality in their meaning-making practices. As indicated before, socially oriented motives, such as seeking connectedness or belonging, caring, and taking responsibility for others, or doing good deeds that benefit individual recipients or the community as a whole, play an important role in meaning making, and are explicitly framed as spiritually inspired motives. On the other hand, there is a group of more individually oriented motives that we propose to unite under the heading of authenticity, which covers the striving for personal growth and spiritual development. While many respondents continue to feel a connection to religious institutions, even if only for its social functions, it is characteristic for most of them that they want to actively create their own spiritual journey. As Atchley puts it, people are "(...) actively creating mosaics of spiritual practice, lifestyles, and communities specifically designed to nurture their vision of the spiritual journey. The spiritual journey is a much different prospect and experience in the evolving dwelling-seeking-practice framework than that experienced in a more static framework that emphasizes authority structures and one-size-fits-all approaches to the spiritual path" (Atchley, 2016, p. 26). This leads us to an interesting direction to answering our second research question in this paper, with regard to how the role of religion and spirituality can enhance our understanding about the relationship between individual and social elements of meaning making. It seems to be the case that whereas individual and social factors are both indispensable in the religious and spiritual meaning making of these retirement migrants, it is vital to them that an authentic and active subject position is maintained always. But contrary to the dominant modern ideal of the authentic, self-sufficient human agent with its problematically atomistic anthropology (Taylor, 1991), for our respondents their authentic subject position is embedded in the social practices of their daily lives, which nourish their individual spirituality and are vital to meaning making.

This study has its limitations. The respondents in all the three datasets are individuals who are at least somewhat intrigued with meaning making and questions related to religion or spirituality. In the future, it would be interesting to examine meaning making with representative material, or in a population not inclined to ponder their lives in any spiritual framework. However, exactly by focusing on persons willing to describe their meaning making, this study offered insights into meaning making in later life as an active process taking place in the social and lived context. These insights should be employed not only in further studies examining meaning in life, but also in the well-being and good life in older age, as this study was one among many highlighting the fundamental importance of meaning making for older persons.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

ACKNOWLEDGMENTS

The authors wish to thank Professor Monika Ardelt, University of Florida, for her significant and warm-hearted contribution in the collection of the dataset 3. This research was funded by the Finnish Cultural Foundation and Jenny and Antti Wihuri foundation.

REFERENCES

Atchley, R. C. (2009). *Spirituality and Aging*. Baltimore, MD: Johns Hopkins University Press.

Atchley, R. C. (2016). "Spirituality and Ageing - Yesterday, Today and Tomorrow," in *Spiritual Dimensions of Ageing*, eds M. Johnson and J. Walker (Cambridge: Cambridge University Press), 13–31.

Bar-Tal, D. (2000). *Shared Beliefs in a Society: Social Psychological Analysis*. Thousand Oaks, CA: Sage.

Baumeister, R. (1991). *Meanings of Life*. New York, NY: Guilford Press.

Bengtson, V., and Johnson, M. (2016). "Religion, belief and spirituality in old age: how the change," *Spiritual Dimensions of Ageing*, eds M. Johnson and J. Walker (Cambridge: Cambridge University Press), 87–105.

Berghuijs, J. (2017). Multiple religious belonging in the Netherlands: an empirical approach to hybrid religiosity. *Open Theol.* 3, 19–37. doi: 10.1515/opth-2017-0003

Casado-Diaz, M. Á. (2009). "Social capital in the sun: bonding and bridging social capital among British retirees," in *Lifestyle Migration: Expectations, Aspirations and Experiences,* eds M. C. Benson and K. O'Reilly (Aldershot: Ashgate) 87–102.

Charmaz, K. (2006). *Constructing Grounded Theory*. London: Sage.

Coleman, P. G., and Mills, M. A. (2019). "Uncertain faith in later life. studies of the last religious generations in England (UK)," in *New Dimensions in Spirituality, Religion, and Aging*, eds M. Silverstein and V. Bengtson (London: Routledge) 86–112. doi: 10.4324/9780429463891-5

Connor, P. (2012). Balm for the soul: immigrant religion and emotional well-being. *Int. Migrat.* 50 130–157. doi: 10.1111/j.1468-2435.2010.00623.x

Crescioni, A. W., and Baumeister, R. F. (2013). "The four needs for meaning, the value gap, and how (and whether) society can fill the void," in *The Experience of Meaning in Life*, eds J. Hicks and C. Routledge (Dordrecht: Springer), 3–15. doi: 10.1007/978-94-007-6527-6_1

De Medeiros, K. (2013). *Narrative Gerontology in Research and Practice*. New York, NY: Springer.

Degnen, C. (2012). *Ageing Selves and Everyday Life in the North of England: Years in the Making*. Manchester: Manchester University Press.

Derkx, P., Bos, P., Laceulle, H., and Machielse, A. (2019). Meaning in life and the experience of older people. *Int. J. Ageing Later Life*. 14, 37–66. doi: 10.3384/ijal.1652-8670.19467

Dey, I. (2007). "Grounding categories," in *The SAGE Handbook of Grounded Theory,* eds A. Bryant and K. Charmaz (Los Angeles. CA: Sage), 167–190.

Ebaugh, H. R., and Saltzman Chafetz, J. (2000). *Religion and the New Immigrants: Continuities and Adaptations in Immigrant*

Congregations. Lanham, MD: Rowman and Littlefield. doi: 10.2307/3712282

Edmondson, R. (2005). Wisdom in later life: ethnographic approaches. *Ageing Soc.* 25, 339–356. doi: 10.1017/S0144686X04003320

Edmondson, R. (2015). *Ageing, Insight and Wisdom: Meaning and Practice Across the Life Course*. Bristol: Policy Press. doi: 10.2307/j.ctt1t89crd

Eidelson, R. J., and Eidelson, J. I. (2003). Dangerous ideas: five beliefs that propel groups toward conflict. *Amer. Psychol.* 58, 182–192. doi: 10.1037/0003-066X.58.3.182

Erikson, E. H. (1997). *The Life Cycle Completed*. New York, NY: W. W. Norton.

Ferrara, A. (1998). *Reflective Authenticity: Rethinking the Project of Modernity*. London: Routledge.

Fischer, R. (2009). Where is culture in cross cultural research?: an outline of a multilevel research process for measuring culture as a shared meaning system. *Int. J. Cross Cult. Manage.* 9, 25–49. doi: 10.1177/1470595808101154

Flory, R. W., and Miller, D. E. (2008). *Finding Faith : The Spiritual Quest of the Post-Boomer Generation*. New Brunswick, NJ: Rutgers University Press.

Friese, S. (2011). *Qualitative Data Analysis with ATLAS.ti*. London: Sage Publications.

George, L. S., and Park, C. L. (2017). The multidimensional existential meaning scale: a tripartite approach to measuring meaning in life. *J. Posit. Psychol.* 12, 613–627. doi: 10.1080/17439760.2016.1209546

Gingrich, L. G., and Preibisch, K. (2010). Migration as preservation and loss. The paradox of transnational living for low german mennonite women. *J. Ethnic Migrat. Stud.* 36, 1499–1518. doi: 10.1080/1369183X.2010.494825

Glick Schiller, N., Basch, L., and Szanton Blanc, C. (1995). From immigrant to transmigrant: theorizing transnational migration. *Anthropol. Q.* 68, 48–63. doi: 10.2307/3317464

Guignon, C. (2002). Hermeneutics, authenticity and the aims of psychology. *J. Theor. Philos. Psychol.* 22, 83–102. doi: 10.1037/h0091216

Heidegger, M. (1927/1962). *Being and Time (1st English Edn).* Oxford: Blackwell.

Hirsh, J. B. (2013). "Meaning and the horizon of interpretation: how goals structure our experience of the world," in *The Experience of Meaning in Life*, eds. J. Hicks and C. Routledge (Dordrecht: Springer), 129–139. doi: 10.1007/978-94-007-6527-6_10

Hupkens, S., Goumans, M., Derkx, P., and Machielse, A. (2021). 'Meaning in life? Make it as bearable, enjoyable and good as possible!': a qualitative study among community-dwelling aged adults who receive home nursing in the Netherlands. *Health Soc. Care Community* 29, 78–90. doi: 10.1111/hsc.13071

Hupkens, S., Machielse, A., Goumans, M., and Derkx, P. (2018). Meaning in life of older persons: an integrative literature review. *Nurs. Ethics* 25, 973–991. doi: 10.1177/0969733016680122

Jeppsson Grassman, E., and Taghizadeh Larsson, A. (2013). *Som Ettandra Hem*? *Svenska Utlandskyrkan i en Tid av Globalisering Och Äldremigration*. NISAL/Linköpings Universitet.

Karisto, A. (2005). "Residentes Finlandeses de invierno en España," in *La Migración de Europeosretirados en España*, eds. V. Rodríguez, M. Á. Casado Díaz, andA. Huber (Madrid: Consejo Superior de InvestigacionesCientíficas, ColecciónPoliteya, Estudios de Política y Sociedad), 195–220.

Karisto, A. (2008a). Satumaa. *Suomalaiseläkeläiset Espanjan Aurinkorannikolla*. Helsinki: Suomalaisen Kirjallisuuden Seura.

Karisto, A. (2008b). Finnish baby boomers and the emergence of the third age. *Int. J. Ageing Later Life* 2, 91–108. doi: 10.3384/ijal.1652-8670.072291

Kelman, H. C. (1997). "Nationalism, patriotism, and national identity: social-psychological dimensions," in *Nelson-Hall Series in Psychology. Patriotism: In the Lives of Individuals and Nations*, eds D. Bar-Tal and E. Staub (Chicago, IL: Nelson-Hall Publishers), 165–189.

Kenyon, G., Bohlmeijer, E., and Randall, W. (2011). *Storying Later Life: Issues, Investigations, and Interventions in Narrative Gerontology*. New York, NY: Oxford University Press.

Keskinen, S., DísSkaptadóttir, U., and Toivanen, M. (2019). "Narrations of homogeneity, waning welfare states, and the politics of solidarity," in *Undoing Homogeneity in the Nordic Region: Migration, Difference and the Politics of Solidarity*, eds S. Keskinen, U. DísSkaptadóttir, and M. Toivanen (Abingdon: Routledge), 1–17. doi: 10.4324/9781315122328-1

Knibbe, K., and Kupari, H. (2020). Theorizing lived religion: introduction. *J. Contemp. Relig.* 35, 157–176. doi: 10.1080/13537903.2020.1759897

Koenig, H. G., King, D. E., and Carson, V. B. (2012). *Handbook of Religion and Health, 2nd Edn*. New York, NY: Oxford University Press.

Krause, N. (2012). "Meaning in life and healthy aging" in *Personality and Clinical Psychology Series. The Human Quest for Meaning: Theories, Research, and Applications*, ed P. T. P. Wong (Routledge/Taylor and Francis Group), 409–432.

Krok, D. (2014). The role of meaning in life within the relations of religious coping and psychological well-being. *J. Relig. Health* 54, 2292–2308. doi: 10.1007/s10943-014-9983-3

Laceulle, H. (2017). Aging and the ethics of authenticity. *Gerontologist* 58, 970–978. doi: 10.1093/geront/gnx037

Laceulle, H. (2018). *Aging and Self-Realization. Cultural Narratives About Later Life*. Bielefeld: Transcript Verlag. doi: 10.14361/9783839444221

Lewis Hall, M. E., and Hill, P. (2019). Meaning-making, suffering, and religion: a worldview conception. *Ment. Health Relig. Cult.* 22, 467–479. doi: 10.1080/13674676.2019.1625037

Mäkeläinen, H. (2011). *Suomalaisten Kirkollinen Osallistuminen Espanjassa.* WWW-Publications of the Church Research Institute 2011:23. Available online at: https://evl.fi/documents/1327140/45386794/Www-julkaisu$+$23$+$M%C3%A4kel%C3%A4inen$+$%28Suomalaisten$+$kirkollinen$+$osallistuminen$+$Espanjassa%29.pdf/d8e72fbe-4d45-1a50-8c12-61ad077496fd (accessed April 1, 2021).

Manning, C. (2019). "Meaning making narratives among non-religious individuals facing end of life," in *New Dimensions in Spirituality, Religion and Aging*, eds V. L. Bengston and M. Silverstein (New York, NY: Routledge), 59–85. doi: 10.4324/9780429463891-4

Manuti, A., Scardigno, R., and Mininni, G. (2016). Me, myself, and god: religion as a psychocultural resource of meaning in later life. *Cult. Psychol.* 22, 3–34. doi: 10.1177/1354067X14551294

Martela, F., and Steger, M. F. (2016). The meaning of meaning in life: coherence, purpose and significance as the three facets of meaning. *J. Posit. Psychol.* 11, 531–545. doi: 10.1080/17439760.2015.1137623

McAdams, D. P. (1993). The *Stories We Live By: Personal Myths and the Making of the Self*. William Morrow and Co.

Moberg, D. O. (2009). "Spirituality and implications" in *Methods in Religion, Spirituality and Ageing*, ed J W. Ellor (London; New York: Routledge), 91–130.

Murphy, J. (2018). Beyond "religion" and "spirituality". *Arch. Psychol. Relig.* 39, 1–26. doi: 10.1163/15736121-12341335

Niemelä, K. (2011). "Heikkeneekö uskonnollisuus ikäryhmissä? Uskonnollinen kasvatus ja sen merkitys uskonnollisuuden selittäjänä" in *Uskonto Suomalaisten Elämässä–Uskonnollinen Kasvatus, Moraali, Onnellisuus ja Suvaitsevaisuus Kansainvälisessä Vertailussa*, ed K. Ketola, (Tampere: Yhteiskuntatieteellinen tietoarkisto) 40–59.

Nieminen, M. (2007). *Population Development in Independent Finland – Greying Baby Boomers. Tilastokeskus*. Available online at: https://www.stat.fi/tup/suomi90/joulukuu_en.html (accessed March, 10 2021).

Oliver, C. (2008). *Retirement Migration. Paradoxes of Ageing*. London: Routledge.

O'Reilly, K. (2000). *The British on the Costa del Sol. Transnational Identities and Local Communities.* London: Routledge.

Pargament, K. I. (1997). *The Psychology of RelIgIon and CopIng. Theory, Research, PractIce*. New York, NY: GuIlford Press.

Pargament, K. I., Magyar-Russell, G. M., and Murray-Swank, N. A. (2005). The sacred and the search for significance: religion as a unique process. *J. Soc. Issues* 61, 665–687. doi: 10.1111/j.1540-4560.2005.00426.x

Park, C. L. (2010). Making sense of the meaning literature: an integrative review of meaning making and its effects on adjustment to stressful life events. *Psychol. Bull.* 136, 257–301. doi: 10.1037/a0018301

Park, C. L., and Gutierrez, I. A. (2013). Global and situational meanings in the context of trauma: relations with psychological well-being. *Counsell. Psychology Q.* 26, 8–25. doi: 10.1080/09515070.2012.727547

Park, C. L., and Hale, A. (2014). "Religious/spiritual meaning systems: multiple pathways to well-being, religion and spirituality across cultures" in *Cross-Cultural Advancements in Positive Psychology: Vol. 9. Religion and Spirituality Across Cultures*, ed C. Kim-Prieto (Dordrecht: Springer Science + Business Media), 177–201. doi: 10.1007/978-94-017-8950-9_10

Pruchno, R. (2012). Not your mother's old age: baby boomers at age 65. *Gerontologist* 52, 149–152. doi: 10.1093/geront/gns038

Reker, G. T., Peacock, E. J., and Wong, P. T. (1987). Meaning and purpose in life and well-being: a life-span perspective. *J. Gerontol.* 42, 44–49. doi: 10.1093/geronj/42.1.44

Ricoeur, P. (1992). *Oneself as Another*. Chicago, IL: The University of Chicago Press.

Roof, W. C. (1993). *A Generation of Seekers : The Spiritual Journeys of the Baby Boom Generation*. San Francisco, CA: Harper San Francisco.

Roof, W. C. (1999). Spiritual Marketplace*: Baby Boomers and the Remaking of American Religion.* Princeton, NJ: Princeton University Press.

Salomäki, H., Hytönen, M., Ketola, K., Salminen, V.-M., and Sohlberg, J. (2020). Uskonto arjessa ja juhlassa. Suomen evankelis-luterilainen kirkko vuosina 2016-2019. *Kirkon Tutkimusk. Julkais.* 134:KTK101112.

Schnell, T. (2021). *The Psychology of Meaning in Life*. London: Routledge. doi: 10.4324/9780367823160

Silberman, I. (2003). Spiritual role modeling: the teaching of meaning systems. *Int. J. Psychol. Relig.* 13, 175–195. doi: 10.1207/S15327582IJPR1303_03

Silberman, I. (2005). Religion as a meaning-system: implications for individual and societal well-being. *Psychol. Relig. Newslett.* 30, 1–9. doi: 10.1037/e568392011-002

Silverstein, M., and Bengtson, V. (2018). Return to religion? Predictors of religious change among baby-boomers in their transition to later life. *J. Popul. Ageing* 11, 7–21. doi: 10.1007/s12062-017-9216-0

Simó Noguera, C. X., Herzog, B., and Fleerackers, J. (2013). Forms of social capital among European retirement migrants in the Valencian community. *Migrac. Int.* 7, 131–163. doi: 10.17428/rmi.v6i24.712

Smith, J. M., and Halligan, C. L. (2020). Making meaning without a maker: secular consciousness through narrative and cultural practice. *Sociol. Relig.* 82, 85–110. doi: 10.1093/socrel/sraa016

Spännäri, J. (2013). "Religious life in a finnish retirement migrant community: diasporic and transnational perspectives" in *Nordic Seniors on the Move*, Lund Studies in Arts and Cultural Sciences 4, eds A. L. Blaakilde and G. Nilsson (Lund: Lund University), 101–126.

Steger, M. F., Frazier, P., Oishi, S., and Kaler, M. (2006). The meaning in life questionnaire: assessing the presence of and search for meaning in life. *J. Couns. Psychol.* 53, 80–93. doi: 10.1037/0022-0167.53.1.80

Takahashi, M. (ed.) (2020). *Religion and Spirituality in Japan.* San Antonio, TX: Elm Grove.

Taylor, C. (1989). *Sources of the Self: The Making of Modern Identity*. Cambridge, MA; London: Harvard University Press.

Taylor, C. (1991). *The Ethics of Authenticity*. Cambridge: Harvard University Press.

Taylor, C. (2007). *A Secular Age*. Cambridge: Harvard University Press. doi: 10.2307/j.ctvxrpz54

Tornstam, L. (2005). *Gerotranscendence: A Developmental Theory of Positive Aging*. New York: Springer Publishing Company.

Tsai, J. L., Miao, F. F., and Emma Seppala, E. (2016). Good feelings in christianity and buddhism: religious differences in ideal affect. *Pers. Soc. Psychol. Bull.* 33, 409–421. doi: 10.1177/0146167206296107

Uwland-Sikkema, N. F., Visser, A., Westerhof, G. J., Garssen, B., Park, C. L., and Piedmont, R. L. (2018). How is spirituality part of people's meaning system? *Psychol. Relig. Spiritual.* 10, 157–165. doi: 10.1037/rel0000172

Warburg, M. (2012). Nårdethelligeogdetverdslige rum smelter sammen: danske kirker i udlandetog en danskoffentligsfære. *Relig. Videnskab. Tidsskr.* 58, 21–32. doi: 10.7146/rt.v0i58.7659

Warnes, T. (2010). "Migration and age" in *The SAGE Handbook of Social Gerontology*, eds D. Dannefer and C. Phillipson (London: SAGE Publications), 389–405. doi: 10.4135/9781446200933.n30

Wilkinson, P., and Coleman, P. (2010). Strong beliefs and coping in old age: a case-based comparison of atheism and religious faith. *Ageing Soc.* 30, 337–361. doi: 10.1017/S0144686X09990353

Wink, P. (2003). Dwelling and seeking in late adulthood: the psychosocial implications of two types of religious orientation. *J. Relig. Gerontol.* 14, 101–117. doi: 10.1300/J078v14n02_02

Wong, P.T. P. (2014). "Meaning in life" in *Encyclopedia of Quality of Life and Well-Being Research*, ed A. C. Michalos (Dordrecht: Springer). doi: 10.1007/978-94-007-0753-5_1755

Wuthnow, R. (1998). *After Heaven. Spirituality in America since the 1950's.* Berkley, CA. University of California Press. doi: 10.1525/9780520924444

Xu, J. (2016). Buddhism as a meaning system for coping with late-life stress: a conceptual framework. *Aging Ment. Health* 22, 100–108. doi: 10.1080/13607863.2016.1227767

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

APPENDIX A. INTERVIEW QUESTIONS (DATASET 2)

1. How did you end up living in the Costa de Sol?
2. How do you spend time here?
3. How 'Finnish' would you say your life is here?
4. What is your relationship to religion and/or spirituality?
5. There is a lot of volunteering here, what's your relationship to that?
6. Quite a few Finns attend religious services here. How is it with you?
7. What do you expect from the future?

APPENDIX B. SURVEY QUESTIONS (DATASET 3)

1. Please write about your religion or spirituality.
2. In what kind of religious or spiritual practices do you engage?
3. Do you believe in God? If not: In what do you believe?
4. What do you think is the meaning of life?
5. Would you say that your religious/spiritual beliefs and your faith in 'God' have changed over the years? How?
6. During the past 6 months, have you participated in an activity, group, or a lecture about good life, personal, or spiritual growth, or religious/spiritual matters?
7. With whom do you discuss questions related to meaning in life or religious/spiritual questions?
8. What does discussing these questions mean to you?
9. What kinds of activities related to these themes would you be interested in?

frontiers in Psychology

ORIGINAL RESEARCH
published: 01 September 2021
doi: 10.3389/fpsyg.2021.701353

Meaning in Life for Patients With Severe Dementia: A Qualitative Study of Healthcare Professionals' Interpretations

Tor-Arne Isene [1,2]*, *Sigrid Helene Kjørven Haug* [1,3], *Hans Stifoss-Hanssen* [2], *Lars J. Danbolt* [1,4], *Liv S. Ødbehr* [3] and *Hilde Thygesen* [5,6]

[1] Centre for Psychology of Religion, Innlandet Hospital Trust, Hamar, Norway, [2] Centre of Diakonia and Professional Practise, VID Specialised University, Oslo, Norway, [3] Faculty of Social and Health Sciences, Department of Health and Nursing Sciences, Inland Norway University of Applied Sciences, Elverum, Norway, [4] MF Norwegian School of Theology, Oslo, Norway, [5] Faculty of Health Sciences, Department of Occupational Therapy, Prosthetics and Orthotics, Oslo Metropolitan University, Oslo, Norway, [6] Faculty of Health Studies, VID Specialised University, Oslo, Norway

Edited by:
Gørill Haugan,
Norwegian University of Science and Technology, Norway

Reviewed by:
Andrian Liem,
University of Macau, China
Gary Christopher,
University of the West of England, United Kingdom

***Correspondence:**
Tor-Arne Isene
tor-arne.isene@sykehuset-innlandet.no

Specialty section:
This article was submitted to Health Psychology, a section of the journal Frontiers in Psychology

Received: *27 April 2021*
Accepted: *05 August 2021*
Published: *01 September 2021*

Citation:
Isene T-A, Kjørven Haug SH, Stifoss-Hanssen H, Danbolt LJ, Ødbehr LS and Thygesen H (2021) Meaning in Life for Patients With Severe Dementia: A Qualitative Study of Healthcare Professionals' Interpretations. Front. Psychol. 12:701353. doi: 10.3389/fpsyg.2021.701353

The need for meaning in life is a key aspect of being human, and a central issue in the psychology of religion. Understanding experience of meaning for persons with severe dementia is challenging due to the impairments associated with the illness. Despite these challenges, this article argues that meaning in life is as important for a person with severe dementia as it is for everyone else. This study was conducted in a Norwegian hospital and nursing home context and was part of a research project on meaning in life for persons with severe dementia. The study builds on two other studies which focused on how meaning-making and experience of meaningfulness appeared in patients with severe dementia. By presenting the findings from these two studies for a group of healthcare professionals and introducing them to research on meaning in life, the aim of this study was to explore how healthcare professionals interpret the patients' experience of meaning in life in practise for patients with severe dementia in a hospital and nursing home context, and to highlight its clinical implications. The study was conducted using a qualitative method with exploratory design. The data were collected at a round table conference, a method inspired by a mode of action research called "co-operative inquiry." Altogether 27 professional healthcarers, from a variety of professions, with high competence in dementia care participated together with six researchers authoring this article. This study revealed that healthcare professionals were constantly dealing with different forms of meaning in their everyday care for people with dementia. The findings also showed clear connexions between understanding of meaning and fundamental aspects of good dementia care. Meaning corresponded well with the principles of person-centred care, and this compatibility allowed the healthcare professionals to associate meaning in life as a perspective into their work without having much prior knowledge or being familiar with the use of this perspective. The study points out that awareness of meaning in life as an integrated perspective in clinical practise will contribute to a broader and enhanced repertoire, and hence to improved dementia care. Facilitating experience of meaning calls for increased resources in personnel and competence in future dementia care.

Keywords: severe dementia, person-centred care, residential care, meaning in life, meaning-making, meaningfulness, personhood

INTRODUCTION

Today there are about 50 million people worldwide living with dementia and the number is projected to increase to about 152 million by the year 2050 (Patterson, 2018). In Norway, which is the context of the present study, almost every seventh person (14.6%) aged more than 70 years lives with dementia, and for the age group 90 years and older the prevalence increases to one out of two persons (48.1%) (Demensplan 2025 [National plan for dementia care 2025], 2020). In nursing homes five out of six residents (84.3%) are living with dementia (Demensplan 2025 [National plan for dementia care 2025], 2020). Seeing dementia as an increasing threat to the public health the Norwegian government aims to "*create a society that to a greater extent promotes mental and physical health by facilitating coping, belonging and experience of meaning*" [Authors' translation[1]] (Demensplan 2020 [National plan for dementia care 2020], 2015, p. 9). Seeing experience of meaning as a contributor to health, it is important to investigate how this experience can be facilitated into the care of persons with severe dementia.

The need for meaning in life is a key aspect in being human, and a central issue in the psychology of religion (Park, 2005). Victor Frankl described *will to meaning* as the "*man's primary concern*" (Frankl, 1969, p. 20). Understanding experience of meaning for persons with severe dementia is challenging due to the impairments associated with the illness. The severity of symptoms of dementia is classified in stages from mild, moderate to severe dementia (WHO, 1993 in Hughes et al., 1982; Engedal and Haugen, 2018). For persons with severe dementia the capacity for cognitive functioning and abstract thinking is severely impaired, and the ability to verbally communicate or express oneself is reduced (Kitwood and Bredin, 1992; Engedal and Haugen, 2018). Despite these challenges, seeing meaning in life as a key aspect in being human, this article argues that meaning in life is as important for a person with severe dementia as it is for everyone else. Healthcare professionals' awareness and knowledge about meaning in life brings an important perspective into person-centred care for this patient group. This study is not patient-oriented but seeks to bring out knowledge based on healthcare professionals' experiences and understanding of the topic.

BACKGROUND

The traditional thinking about dementia has been dominated by a focus on individual neuropathology and resulted in overlooking the important role of external factors on disease progression and loss of self (Kitwood, 1997; Kontos, 2005). Over the last decades these attitudes have changed towards seeing persons with dementia from a social perspective, affirming the personhood and identity even while cognitive functions are lost (MacKinlay and Trevitt, 2012). Dementia has social implications as it can affect how society treats people with dementia, and thus making it a relational disability (Swinton, 2011). Seeing dementia as a relational and social illness, Kitwood (1997) has influenced the changes towards a perspective of "person-centred care," based on meeting the main psychological needs of love, comfort, identity, occupation, inclusion, and attachment. Person-centred care is an approach that sets the persons at the centre where the individuals are supported, facilitated, and enabled to contribute to their own care (Mitchell and Agnelli, 2015). Dementia care should, according to Kontos, be this kind of "person work" (Kontos, 2005), with an ultimate goal of "offsetting the fragmentation of selfhood" (Kitwood and Bredin, 1992). In Norway, the principles of person-centred care form the basis of policy on dementia care. While meaning *of* life is a philosophical question and not possible to prove by any methods, empirical research deals with meaning *in* life (Schnell, 2021). Since Frankl (1969), different aspects of meaning in life have been investigated by a number of researchers (Crumbaugh, 1968; Battista and Almond, 1973; Antonovsky, 1993; Schnell, 2009, 2021). Meaning in life in relation to different health aspects is associated with a variety of physical and psychological outcomes (Steger, 2012; Czekierda et al., 2017). Scandinavian research on meaning in life has been linked with existential issues in different clinical populations (DeMarinis, 2008; Haug et al., 2016; Lloyd, 2018). Recent studies that included cognitively intact nursing home residents have shown that perceived meaning in life is significantly associated with nurse-patient interaction (Haugan, 2014b; Haugan et al., 2020).

Research on meaning and dementia tends to focus on meaning for the caregivers or the caregiving process (Butcher and Buckwalter, 2002; McLennon et al., 2011; Butcher, 2016; Cherry et al., 2019). However, some research on meaning for the person with dementia has come up the last few years, showing that meaning in life provides life satisfaction and reduces depressive symptoms for persons with Alzheimer's (Dewitte et al., 2019). Research has also pointed out that relationship and connectedness are of great significance for the experience of meaning for persons with dementia (MacKinlay, 2016). A study on how the view of life frames the sense of identity of

---

[1] Original text: *"Regjeringen legger vekt på å skape et samfunn som i større grad fremmer psykisk og fysisk helse gjennom å legge til rette for mestring, tilhørighet og opplevelse av mening."*

persons with Alzheimer's in telling their life-story, showed an experience of meaningfulness and continuity when looking back on their lives (Westius et al., 2010). Several studies on meaning also refers to spirituality or spiritual needs, as these are closely related (Kevern, 2015). In the present study spirituality is not highlighted but is seen as a subordinate concept as a mean or source of meaning (Schnell, 2009).

Over the last 15 years Schnell and her collaborators have done comprehensive research on meaning in life (Schnell and Becker, 2007; Schnell, 2009, 2021). The concept of meaning in life is understood as a multidimensional construct consisting of the following dimensions: "*Meaningfulness*," "*Crisis of Meaning*," and "*Sources of Meaning*" (Schnell, 2021, p. 6–8). Early empirical studies on meaning in life assumed that meaningfulness and crisis of meaning were opposite sides of the same continuum (Schnell, 2009, 2021). Schnell's research has found the two dimensions to be relatively independent as low meaningfulness and low crisis of meaning may occur together (Schnell, 2009, 2021). Meaningfulness is based on an "*evaluation of one's life as coherent, significant, oriented and belonging*" (Schnell, 2009, p. 487; Schnell, 2021). These four criteria can be understood as central elements to the experience of meaningfulness without referring to its sources (Schnell, 2021). A crisis of meaning is defined as "*a judgement of one's life as frustratingly empty, pointless and lacking meaning*" (Schnell, 2009, p. 487; Schnell, 2021, p. 8). Schnell has identified 28 sources of meaning which are understood as orientations that correlates positively with meaningfulness and give form to peoples' actions, convictions, and experiences (Schnell and Becker, 2007; Schnell, 2021). The sources of meaning that are strongest associated with meaningfulness are generativity, care, religiosity, and harmony (Schnell, 2021).

Meaning-making is also a central concept in research on meaning (la Cour and Hvidt, 2010; DeMarinis, 2013). In this study meaning-making refers to meaning both as the experience of meaning in life and the process of creating it. Meaning in life is always experienced within a context and depends on the accessibility to sources of meaning. Being a resident in a nursing home or a patient in hospital may affect the access to sources of meaning as the residents are distanced to their normal living environment and are thus in an alienating situation. Living with dementia may also be experienced as a kind of alienation and affect the person's existence at a deeper level (Svanström et al., 2013). This is in particular the case for persons living with severe dementia, due to the severity of the cognitive impairments that characterise this phase. In relation to dementia, Schnell's understanding of meaning in life is useful because it emphasises the experience of meaning without necessarily having a cognitive awareness of why or what it is that creates meaning.

With exception of the few examples mentioned above, research on meaning in life and dementia is scarce in general, and particularly in relation to severe dementia. Some research has focused on how nurses understand residents with dementia's needs for meaning (Ødbehr et al., 2014). Ødbehr found that although the residents' needs for meaning were similar to the general population, retrieving and creating sources of meaning may be limited by dementia (Ødbehr et al., 2014). Empirical knowledge on how these needs for meaning in life are managed in dementia care practise is lacking. Exploring this knowledge gap, this study was part of a research project on meaning in life for persons with severe dementia. It is not possible to have direct knowledge about the patients' own experiences of meaning in life. However, exploring qualified healthcare professionals' perspectives provides the best knowledge accessible, and we find it important to bring this knowledge into the field of dementia care. The aim of this study was to explore how healthcare professionals interpret the patients' experiences of meaning in life in practise for patients with severe dementia in a hospital and nursing home context, and to highlight its clinical implications.

MATERIALS AND METHODS

The present study builds on two other studies within the same research project, all with a focus on how meaning-making and experience of meaningfulness appeared in patients with severe dementia. The two previous studies involved participant observation of patients and interviews with healthcare professionals at a hospital ward, with particular focus on how meaning-making and experiences of meaningfulness appeared in patients. Unlike the two other studies that collected data from observations of patients with severe dementia, the empirical data in this present study were based on healthcare professionals' understandings and interpretations of meaning in life for this patient group.

Study Design

This study used a qualitative method with an exploratory design as it was found appropriate when investigating healthcare professionals' understandings and interpretations in a field where research is relatively scarce. A round table conference was held as this is a method which has proved to be relevant and fruitful for knowledge development in healthcare practise (Hummelvoll, 2006). The round table conference was carried out in one day and organised in three sections:

- Teaching with presentation of the project and introduction to the topic of the research (90 min).
- Discussion in three simultaneous focus groups (90 min).
- Plenary discussion (45 min).

Round table conference is a method inspired by a mode of action research called *co-operative inquiry* (Hummelvoll, 2006). Bringing in research relevant in a clinical setting, clinicians are invited to contribute with their professional experiences and together with researchers discuss and reflect upon how theoretical perspectives are relevant in practise. Focus groups are useful as research method when exploring issues concerning common experiences and perspectives in an environment where different people or professions cooperate (Malterud, 2012a). The purpose of the round table conference was to explore how meaning-making and meaningfulness in persons with severe dementia are relevant in dementia care, based on findings from the two earlier studies in this project.

Collection

The data for this study were collected at a round table conference with healthcare professionals from a specialised dementia ward at an old age psychiatric department in Innlandet Hospital Trust, and healthcare professionals from the SAM-AKS network[2]. Altogether 27 healthcare professionals participated together with the six researchers authoring this article. The participants were nurses, occupational therapists, social educators, and psychiatrists working with persons with dementia. All age groups from early thirties to late sixties were represented, with some of the participants having more than 30 years of experience in dementia care. Using the SAM-AKS network, this sample included participants with high formal and clinical competence in dementia care from a variety of professions covering both the primary healthcare and specialist healthcare service.

Although different professions were represented among the participants of the focus groups, the moderators did not experience any power imbalance (which could be typical between doctors and nurses). The healthcare contexts from which the participants were recruited practised a relatively flat structure, as is normal in a broad part of the Norwegian healthcare system. The focus group interviews were conducted on neutral ground and the participants wore their private clothes. As all participants were given the chance to talk in rounds, the moderators felt that no particular profession notably dominated the conversation.

Findings from two other studies in this project on meaning in persons with severe dementia were presented at the round table conference. There were given examples of meaning-making and experiences of meaningfulness found in everyday situations with persons with dementia. Two introductions on *Worldview and health* and on *Meaning in life* were also presented. The participants were primed with Schnell's theory on *Sources of meaning* and understanding of *meaningfulness* (Schnell, 2009, 2011). The participants were also presented with the thinking around worldview and how it relates to and affects people's health (Stifoss-Hanssen and Kallenberg, 1998). The purpose of the teaching with presentation and introductions was to give a context and build an understanding of the content of the research question.

Following the teaching, the participants were interviewed in three different focus groups. Each group had 9 participants with a mix of professions and were moderated by two researchers from this study. The focus groups first shared their own experiences and stories of meaning-making in persons with dementia. They were then asked about what it is in these stories that makes us understand them as meaningful. Finally, the focus groups were asked how worldview and existential themes can be managed in persons with severe dementia, based on the findings they were presented for ahead of the focus group interviews.

Three main points from each focus group were presented in a plenary session, followed by an open discussion that acknowledged and elaborated the discussions from the focus groups.

Analysis

Audio recordings from the focus group interviews and the plenary discussion were transcribed into 80 pages of text. The transcribed texts were analysed using *Systematic text condensation (STC)*, which is a pragmatic method of thematic cross-sectional analysis of qualitative data described by Malterud (2012b, 2017). The analysis was done in four steps: (1) Forming a total impression, (2) identifying and sorting meaning units, (3) abstracting the content from the individual meaning units, and (4) summarising the meaning. All the authors read through the material independently to form a general impression of the whole and identify preliminary themes. The authors then met to negotiate the meaning units and code groups. With an inductive and open-ended approach (Malterud, 2016), we looked for patterns and categories related to the concepts of meaning-making and meaningfulness, and the clinical implications of how the professionals understood and operated according to these concepts. The first author analysed the material by further sorting and abstracting the content from the individual meaning units, and together with the co-authors the meaning from the abstracts were summarised. The analysis was supported by the theories of meaning in life as developed by Schnell (2009, 2021).

The participants in this study were healthcare professionals working at hospital or nursing homes where the persons with dementia were referred to as *patients*. At the nursing homes *resident* was more common, but even here *patient* was frequently used. In this article we prefer to use *person with dementia* to validate humanity and the patient as an equal person. However, referring to situations and examples from the data material, we some places use the word *patient* to keep close to the material from an institutional context with asymmetrical relationships between healthcare professionals and the ones cared for.

Ethical Considerations

Consistent with Norwegian legislation, the project was registered (#47488) and approved by the Norwegian Social Science Data Services (NSD) in April 2016. The project was also in 2020 registered by the Data Protection Office at Innlandet Hospital Trust. Participation was voluntary, and written informed consent was obtained from all participants before the data collection. The data were anonymised when transcribing the audio recordings into text.

RESULTS

The understanding of meaning and clinical implications of this understanding were identified through the analysis of the empirical material and organised in three main categories: "being on a treasure hunt," "catching the moment" and "taking leadership." The categories describe the approaches healthcare professionals used to search for what could be interpreted as meaning for patients with severe dementia. Again, it is important to emphasise that the findings are based on the participants' interpretations of the patients' experiences, as we do not have direct access the patients' own expressions. The presentation of

---

[2] SAM-AKS is a cooperating network in Norway with 33 participating municipalities and Innlandet Hospital Trust. The networks' primary aim is better medical examination and treatment of residents in nursing homes. Secondly the network is developing and evaluating a model for interaction between the specialist health service and the primary health service with a focus on following up residents in nursing homes.

results will be based on these categories. Although the categories will be presented separately, they may also overlap in practise.

Being on a Treasure Hunt

The participants of the study shared an understanding that professional attentiveness for the patients' experiences and expressions of meaning was an important aspect of everyday dementia care practises. This attentiveness was described as an ongoing, but also uncertain process of searching for meaning, which involved a number of components.

The search for meaning meant that healthcare professionals interpreted and translated non-verbal—and often non-coherent verbal expressions—into something that could be understood as expressions of meaning for the patients. One of the participants described this ongoing work of searching for meaning as "*being on a treasure hunt*." In this context using the analogy of being on a treasure hunt was understood as interpreting behaviour and expressions and catching seemingly trivial incidents as something potentially meaningful:

> "*But you see, the job you are doing there, the small seed you manage to either spread further or get hold on, it makes a big difference.*"

One other participant described the search for meaning as "*finding the key*" that could change the situation for the patient. Other participants had a similar understanding of searching for meaning as taking the time and effort to go beyond what was up in the open:

> "*… we also take it a little further. (…) We are trained to be able to describe behaviour and see symptoms. But then, you must also have time to try to understand the meaning behind what happens. If you have the time for that, and the ability for it, you will catch something completely different.*"

The work of searching for patients' experience of meaning required both time and knowledge as well as patience. The participants used their formal training and understanding of dementia and the principles of person-centred care in the search for understanding patients' experiences of meaningfulness. They underlined how this meant that they continually worked to sort out expressions of meaning from the pathological and seemingly meaningless and chaotic, and to focus on catching on to the individual behind the illness.

The participants of the focus groups gave many examples of how they actively searched for and initiated something that could give the patients experiences of meaning through everyday activities such as working in the garden, going for walks, celebrating birthdays, using humour and laugh of situations, singing or listening to music. Some activities, such as knitting and needlework, were experienced as best fitted for women. For men, they often chose more physically demanding activities like carrying laundry or garbage or sweeping the floor.

The participants also expressed how they searched to facilitate meaningful experiences for the patients by mobilising an important patient resource: personal background information about each of the patients, including their interests and previous occupation, as well as family background. This information provided the participants with clues as to where to look for meaning, and a context for interpreting potential meaning-making episodes.

The participants shared many stories describing how they succeeded in finding meaning. However, the participants pointed out that their caring-time was also spent being present in chaotic situations without finding meaning, as described in this quote:

> "*There are also many times that one does not reach the goal, in searching for meaning, that the expression simply becomes too chaotic to put it into perspective.*"

They emphasised that the meaningful treasure-moments were fugacious and represented only tiny parts of the caring process, and that they had to endure the patients' chaos and meaninglessness between these moments. The participants also pointed out that a part of enduring the chaos of dementia care was about understanding and containing the patients' painful expressions, in order to ease or relieve the pain. Expressions of pain was understood as a way to communicate when other means of verbal communication were impaired. Participants faced the pain of their patients through a two-sided attention, where one aspect related to trying to reveal a possible underlying bodily cause, and the other aspect had to do with having an awareness that it may be an expression of inner or emotional pain.

Catching the Moment

The second main category was that the process of meaning-making was understood in relation to what we have named "catching the moment." The importance of the "here and now" or "there and then" and of being able to catch these moments of meaning was a recurring theme as illustrated by one participant:

> "*... what is special about people with advanced dementia is that the meaning is there and then. The experience is there and then (...) So I think you have to look at the moment there and then.*"

We found that the participants related to catching the moments in three ways: *Enlarging the moments, seeing the moments as whole stories,* and *creating the moments*. The understanding of catching the moment involved more than the participants being aware of—and making use of—here and now moments. For example, the participants worked to *enlarge* the meaningful moments for the patients by making the most out of trivial occasions. One participant expressed the importance of everyday situations this way:

> "*My experience is that it doesn't have to be that much hocus pocus, but everyday perfectly adequate things. Whether it's birthday celebrations or whether it's working in the garden, telling a joke, having something to laugh at. [Then] such everyday things that you take for granted in everyday life, is what creates meaning for everyone.*"

Unlike the patients with dementia where it was the here and now that counted, the participants had the possibility of a broader perspective; *seeing the moments as whole stories*. The participants considered the moments as tiny bits of a bigger picture of meaning, where it was possible to see patterns and resources to build on. The importance of knowing the background and life-story of the patients was a common feature. This was described as *deep diving* or *signing into* the patient's life-story. By signing or inviting oneself into the life-story of the person with dementia, the participants observed that there was meaning in the patients' activity. This made it possible to understand their behaviour, and thus to participate in creating and confirming a coherence for the patients. One of the participants illustrated this point by telling a story about one of the patients who spent much time crawling on the ward floor at the hospital. The healthcare workers felt sorry for the man and were worried about what his family would say if they found him crawling on the floor. But when they tried to help the man onto his feet, he became very distressed. However, the crawling on the floor all gave more sense when his family told them that the man had been a professional floor layer in his working years. While crawling on the floor he was actually at work. In this case, catching the moment was not sufficient to understand the meaning there and then. However, the patient's background provided a context for meaning that was not evident out of the situation but had to be searched for. Knowing the patient's background made it possible to interpret the crawling on the floor as a meaningful moment. The story showed that it is important to not only consider the moments isolated but seeing them as a part of a bigger picture. Seeing the moments as pieces of a whole story was also seen to give a sense of orientation as described by one of the participants:

> *"But I think that maybe we easily think that setting direction and goals, we can't do that. But we are doing it all the time because it's in small pieces."*

In addition to enlarging potentially meaningful moments for the patients in everyday situations, the participants also worked on *creating these moments*. The participants used different milieu-therapy tools, such as reminiscence activities or music, to achieve meaningful moments. Creating moments is related to the former category of being on a treasure hunt where everyday activities were used in search of meaning. As the everyday activities were initiated by the participants, one could also say that they were created moments.

Taking Leadership

The third main category relates to the assignment of roles and responsibilities between participants and patients. The participants described the relationship between themselves and the patients as asymmetrical and they emphasised the need for taking leadership. However, the participants made nuanced descriptions of the components of this leadership.

Some of the participants described their role as being a "guide." This role was seen as encompassing a number of responsibilities; including getting a grasp of the here and now situation of the person, simplifying or adapting choices in order to make them manageable for the person with dementia, offering opportunities for relief of pain and unease, as well as incorporating differentness and odd behaviours. In this way, the participants saw themselves as someone the patients could "lean on," providing safety and meaning.

Taking leadership involved a demanding balancing act related to the participants' preservation of the personal integrity of the patient as described below:

> *"It becomes such a delicate balance of taking leadership, but at the same time exercising or showing respect. They are persons who need management very much and guidance from the caregiver."*

The participants identified certain characteristics of taking leadership. This was related to the participant's presence; of being attentive and physically present in order to be able to interpret non-verbal signals and behaviour. Some participants expressed the importance of "silent presence," emphasising that being physically close to someone had a value in itself, without having to talk or do anything. By being present in silence the participants were taking responsibility for the relation to the patients through their presence.

The participants also described that taking leadership was about *tuning in*. "Tuning in" was characterised as the responsibility to "tune in on" the reality and situation of the person with dementia. However, the term was also used in reference to the task of preserving the demanding balance between leadership and personal integrity and dignity of the person with dementia. One of the participants used the word *resonance* as an expression of two-way communication based on observation of how the communication is received in the patient.

A common feature among the participants was to describe the relations between the participants and the patients as asymmetrical. This was partly done in reference to their role and responsibility as healthcare professionals. However, at the same time the participants expressed that the relationship between healthcare professionals and patients had changed compared to the past in terms of talking about the patients as *equal collaborators.* This seemingly contradictory understanding of balancing responsibility with collaboration was expressed in the following quote:

> *"We have to regard them as equal partners, and we are the ones who are going to make them equal."*

Here, in this context the notion of equal collaborators was used primarily as a stance towards recognising the identity and humanity of the patients, and in this way to the principles of human rights, emphasising the equal worth of all humans.

DISCUSSION

This study revealed that healthcare professionals were constantly dealing with different forms of meaning in their everyday care for patients with dementia. This finding corresponds to other research in the field (Haugan, 2014a,b; Ødbehr et al., 2014, 2015). We found that the understandings of meaning had clear connections with fundamental aspects of good dementia care, and that meaning was strongly associated with the principles of person-centred care. The participants were not familiar with seeing dementia care from the perspective of meaning-making and experiences of meaning. However, as the participants were primed on the subject in advance, their discussions showed that even if their work with person-centred care had not been identified as meaning, we found they dealt with central facets of meaningfulness, such as coherence, significance, orientation, and belonging (Schnell, 2009, 2021).

The aim of this study was to explore how healthcare professionals interpret the patients' experiences of meaning in life in practise for patients with severe dementia in a hospital and nursing home context, and to highlight its clinical implications. The findings of the study are important because they show how meaning in life can be facilitated into dementia care, and hence accommodate the Norwegian government's aim of facilitating experience of meaning as one of the measures to promote mental and physical health in society (Demensplan 2020 [National plan for dementia care 2020], 2015). The global prevalence of persons with dementia is projected to triple over the three next decades (Patterson, 2018). Based on the findings of this study it is our assumption that professional attentiveness for the patients' expressions and experiences of meaning contributes to improved dementia care. In the following we will discuss how meaning is facilitated in practise into the care of persons with severe dementia, as well as some implications for future dementia care.

Attitudes of Openness and Respect

The way a healthcare professional sees a patient with dementia, will influence how the healthcare worker relates to this person and thus how the care is provided (MacKinlay and Trevitt, 2012). This is especially important when meeting people with severe dementia where the ability for verbal communication is limited and must largely be based on the interpretation of non-verbal behaviour. The participants in this study demonstrated attitudes of *openness* and *respect* towards the patients. Being open towards a reality that could be perceived as different from what they expected and attempting to understand what could exist behind odd behaviours, they got in touch with something that seemed to give meaning for the patients. The findings showed that it was about seeing beyond the symptoms and diagnoses and was, for example, expressed as "finding the key" to something that could give change—and maybe meaning. This openness seemed to be based on respect. The etymological meaning of respect (*re-* "back" + *specere* "look at") means to see again, to see once more. The participants' respect for the patients seemed to be about not underestimating them but look once more to confirm their significance as persons, and also about showing respect for the patients' autonomy through balancing between support and preservation of the personal integrity. In line with Schnell's (2009, 2021) characterisations, the results of openness and respect seemed to encompass aspects of meaningfulness. Openness towards looking beyond chaotic expressions and odd behaviours seemed to create contact with the identity and reality of the patients and thus produce a sense of *significance* and *coherence*.

Participating Partnership

The study showed that the practise where the processes of meaning-making and experiences of meaning happened was a cooperative teamwork between the participants and the patients. Being on a treasure hunt, catching the moment, and taking leadership—the categories of findings are descriptions of how the participants were interpreting and managing meaning in their role and relations to the patients. Seeing themselves as guides for the patients to lean on, the participants highlighted qualities like openness, presence, equality, interaction, and generosity in relation to the patients' needs. Based on the attitudes of openness and respect the healthcare professionals were facilitating meaning through active participating in a partnership with the patients. This participating partnership built on the principles of person-centred care, seeing dementia as a social and relational illness (Kitwood, 1997). The findings of this study showed that the healthcare professionals were supporting the patients by taking leadership, being close, present, being able to endure chaotic situations, creating and enlarging moments, and keeping a broader picture of situations. In a person-centred perspective where this support may be interpreted as meeting psychological needs, we found that the healthcare professionals' contributions in this partnership were giving the patients experiences of meaning. This finding has been thoroughly tested and verified in recent studies by Haugan et al., which included cognitively intact residents in nursing homes and showed that perceived meaning in life is significantly associated with perceived nurse-patient interaction (Haugan, 2014b; Haugan et al., 2020).

This cooperate teamwork between the participants and the patients connects to the social dimention of meaning in life (Schnell, 2021). Meaning in life is not only explored, experienced, or expressed individually, but can be understood as a social interactive event. The ones caring for the persons with dementia, the context and physical environment, as well as artefacts, are all carriers of meaningfulness. This social dimention of meaning is perhaps particularly important for persons with cognitive impairments. According to Schnell, being recognised and held in an interpersonal relationship is important for a person's experience of meaning, likely by strengthening the sense of *belonging* and *significance* (Schnell, 2021).

Schnell (2021) refers to *belonging* as an existential experience more than the social aspect of it. In this study, the participating partnership seemed to hold both the social and the existential aspects of belonging as it provided the patient with the physical experience of being present together with someone, as well as the experience of having a place in the world and thus also being of *significance*. As the reality becomes more fragmented as a consequence of the progression of dementia, it challenges the senses of *coherence* and *orientation*. However, the interactions in the partnership with the healthcare workers seemed to hold the fragments together giving a sense of *coherence* by making use of the patients' background information and *orientation* by giving the moments purpose.

This study relied on the healthcare workers' understandings and interpretations. However, the focus in this participating partnership was, in line with the first part of the aim in this study, on the patients' experience of meaning in life and not the healthcare workers'. Although the participants found it rewarding to work with the patients on the issues of meaning, their role in the partnership was to facilitate these experiences for the patients.

Significance of Meaning in Dementia

Meaning is created and experienced within a paradigm or context, which in this study was within a population living with severe dementia. Understanding meaningfulness in line with Schnell (2009, 2021) as experiences of *coherence*, *significance*, *orientation* and *belonging*, one could easily think that people with severe dementia are bereaved of these experiences. The findings of this study demonstrated that healthcare professionals considered that—even if meaning for persons with dementia in several ways is affected by the illness—it is nevertheless of significance and has the same functions as meaning has for other people. The participants of this study focused on sorting out expressions of meaning from the pathological. This often meant facing and containing chaotic and painful expressions. Expressions of pain in the patients were approached with a two-sided attention. On the one hand the healthcare professionals observed possible unmet needs or underlying bodily causes. On the other hand, it meant going beyond this perspective seeing it as expressions of inner and emotional tensions. This two-sided attention opened up for the possibility that the patients were experiencing a crisis of meaning.

Using the analogy of treasure hunt as one of the categories of findings, the uncertainty of the process of searching for meaning and finding potential sources of meaning was highlighted. The participants had no means of knowing what was valuable, but had to interpret, continually, the patient's behaviours and expressions. Using the background and life-story of the patients along with different milieu-therapy tools such as reminiscence activities seemed to give access to various sources of meaning that was no longer conscious to the patients.

Seeing meaning in life to be as important to persons with dementia as it is for other people highlights significant challenges in dementia care, this study revealed that giving patients with severe dementia experiences of meaning in life was not happening by itself but had to be initiated and guided by others. Being attentive and facilitating the perspective of meaning in life takes a lot of resources, time, and effort. Coming from both the specialist health service and the SAM-AKS network in the primary health service, the participants in this study possessed high levels of professional competence. The normal situation in the municipal primary healthcare may be quite different as this is a sector with a large proportion of unskilled labour, often working part time, and with a high turn-over of personnel. Accommodating the government's goal of facilitating experience of meaning into dementia care could prove to be difficult due to lack of resources by today's standards.

Strengths and Limitations

Findings from this study cannot be generalised which is not the intention of qualitative investigations based on interpretations from healthcare professional with the purpose of gaining an understanding of the clinical implications of meaning in dementia care. This study was not patient-directed but aimed at getting new qualitative knowledge about the professionals' experiences, interpretations, and interventions. Nevertheless, the participants in this study represent a wide range of professions with high competence in dementia care which provided the best knowledge accessible from interdisciplinary perspectives. The study used a cross-sectional method of analysis and did not emphasise potential differences between professions. Although it could be interesting looking into interdisciplinary differences, we think that the strength of having perspectives from this variety of professions are the outcome of accumulated knowledge from this group. The choice of round table conference as a multi-step method with the possibility to discuss each other's contributions from the focus groups, in addition to the group of authors cooperating in all steps including data collection, analysis and writing process of the article, provided a high degree of reflexivity to the study. As the participants of the study provided interdisciplinary perspectives together with the research group cooperating in all levels from data collection to authoring this article, this study offered new insights that contributed to our understandings of meaning in life in dementia care. Priming the participants on theories of meaning in life and focusing the discussions within this concept provided knowledge with high specificity. A limitation caused by this specificity is that potential related knowledge was not captured. The study provided internal validity through a high degree of information power according to the criteria as proposed by Malterud: aim of the study, sample specificity, use of established theory, quality of dialogue, and analysis strategy (Malterud et al., 2016). The external validity of the study was met by strategical selection of sample in order to give qualified answers to the research questions.

CONCLUSION

The study showed that healthcare professionals' interpretation of meaning in life in persons with severe dementia corresponds well with the principles of person-centred care. This compatibility with person-centred care allowed the healthcare professionals who participated in the study to associate meaning in life as a perspective into their work without having much prior knowledge or being familiar with the use of this perspective.

Persons with dementia have full human dignity, and it is therefore important to keep them in personhood in order to meet them as whole human beings. The study showed that a perspective of meaning in life offers a broadened understanding of personhood and identity in persons with dementia. Contributing to a broader and enhanced repertoire in person-centred care, an awareness of meaning in life as a perspective in care of persons with severe dementia can improve clinical practise in the future.

The study revealed that facilitating experience of meaning for patients in dementia care requires high levels of competence and resources. Together with a rapidly growing population of people with dementia in years to come, this calls for a high priority of increased resources in personnel and competence in future dementia care.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Norwegian Social Science Data Services (NSD) in April 2016 (#47488). Registered by the Data Protection Office at Innlandet Hospital Trust 2020. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

T-AI: conceptualisation (equal), methodology—data collection (equal), transcribing data, analysis (lead), writing—original draught preparation (lead), and writing—review and editing (equal). SH, HS-H, LD, LØ, and HT: conceptualisation (equal), methodology—data collection (equal), analysis (equal), and writing—review and editing (equal). All authors contributed to the article and approved the submitted version.

FUNDING

This study was financed by Innlandet Hospital Trust, Norway, (Grant No. 150332).

ACKNOWLEDGMENTS

We wish to thank healthcare professionals from Innlandet hospital trust and the SAM-AKS network for participating in this study. We also like to especially thank Wenche Nordengen for helping to organise the round table conference.

REFERENCES

Antonovsky, A. (1993). The structure and properties of the sense of coherence scale. *Soc. Sci. Med.* 36, 725–733. doi: 10.1016/0277-9536(93)90033-Z

Battista, J., and Almond, R. (1973). The development of meaning in life. *Psychiatry* 36, 409–427. doi: 10.1080/00332747.1973.11023774

Butcher, H. K., Gordon, J. K., Ko, J. W., Perkhounkova, Y., Cho, J. Y., Rinner, A., et al., (2016). Finding meaning in written emotional expression by family caregivers of persons with dementia. *Am. J. Alzheimer's Dis. Other Dement.* 31, 631–642. doi: 10.1177/1533317516660611

Butcher, K. H., and Buckwalter, K. C. (2002). Exasperations as blessings: Meaning-making and the caregiving experience. *J. Aging Ident.* 7, 113–132. doi: 10.1023/A:1015439218276

Cherry, M., Ablett, J., Dickson, J., Powell, D., Sikdar, S., and Salmon, P. (2019). A qualitative study of the processes by which carers of people with dementia derive meaning from caring. *Aging Ment. Health* 23, 69–76. doi: 10.1080/13607863.2017.1393792

Crumbaugh, J. C. (1968). Cross-validation of purpose-in-life test based on Frankl's concepts. *J. Individ. Psychol.* 24:74.

Czekierda, K., Banik, A., Park, C. L., and Luszczynska, A. (2017). Meaning in life and physical health: systematic review and meta-analysis. *Health Psychol. Rev.* 11, 387–418. doi: 10.1080/17437199.2017.1327325

DeMarinis, V. (2013). "Existential meaning-making and ritualizing for understanding mental health function in cultural context," in *Religion and Transformation in Contemporary European Society*, Göttingen, Germany: Vienna University Press.

DeMarinis, V. (2008). The impact of post-modernization on existential health in Sweden: Psychology of religion's function in existential public health analysis. *Arch. Psychol. Relig.* 30, 57–74. doi: 10.1163/157361208X316962

Demensplan 2020 [National plan for dementia care 2020] (2015). *The Norwegian Ministry of Health and Care Services*. Oslo: The Norwegian Ministry of Health and Care Services.

Demensplan 2025 [National plan for dementia care 2025] (2020). *Norwegian Ministry of Health and Care Services*. Oslo: Norwegian Ministry of Health and Care Services.

Dewitte, L., Vandenbulcke, M., and Dezutter, J. (2019). Meaning in life matters for older adults with Alzheimer's disease in residential care: associations with life satisfaction and depressive symptoms. *Int. Psychogeriatr.* 31, 607–615. doi: 10.1017/S1041610218002338

Engedal, K., and Haugen, P. K. (eds.). (2018). "Demens," in *Demens: sykdommer, diagnostikk og behandling [Dementia: diseases, diagnostics and treatment]*, Tønsberg: Forl. aldring og helse akademisk, 14–28.

Frankl, V. (1969). *The Will to Meaning*. New York, NY: New American Library.

Haug, S. H. K., DeMarinis, V., Danbolt, L. D., and Kvigne, K. (2016). The illness reframing process in an ethnic-majority population of older people with incurable cancer: variations of cultural- and existential meaning-making adjustments. *Ment. Health Relig. Cult.* 19, 150–163. doi: 10.1080/13674676.2015.1126705

Haugan, G., Kuven, B. M., Eide, W. M., Taasen, S. E., Rinnan, E., Wu, V. X., et al., (2020). Nurse-patient interaction and self-transcendence: assets for a meaningful life in nursing home residents? *BMC Geriatr.* 20, 1–13. doi: 10.1186/s12877-020-01555-2

Haugan, G. (2014b). The relationship between nurse–patient interaction and meaning-in-life in cognitively intact nursing home patients. *J. Adv. Nurs.* 70, 107–120. doi: 10.1111/jan.12173

Haugan, G. (2014a). Nurse–patient interaction is a resource for hope, meaning in life and self-transcendence in nursing home patients. *Scand. J. Caring Sci.* 28, 74–88. doi: 10.1111/scs.12028

Hughes, C. P., Berg, L., Danziger, W. L., Coben, L. A., and Martin, R. L. (1982). A new clinical scale for the staging of dementia. *Br. J. Psychiatry* 140, 566–572. doi: 10.1192/bjp.140.6.566

Hummelvoll, J. K. (2006). Handlingsorientert forskningssamarbeid—teoretisk begrunnelse og praktiske implikasjoner.[Action-oriented research collaboration—theoretical arguments and practical implications.]. *Norsk tidsskrift for sykepleieforskning* 8, 17–30.

Kevern, P. (2015). The spirituality of people with late-stage dementia: a review of the research literature, a critical analysis and some implications for person-centred spirituality and dementia care. *Ment. Health Relig. Cult.* 18, 765–776. doi: 10.1080/13674676.2015.1094781

Kitwood, T. (1997). *Dementia Reconsidered: The Person Comes First*. *Rethinking Ageing Series*. Buckingham: Open University Press.

Kitwood, T., and Bredin, K. (1992). Towards a theory of dementia care: personhood and well-being. *Ageing Soc.* 12, 269–287. doi: 10.1017/S0144686X0000502X

Kontos, P. C. (2005). Embodied selfhood in Alzheimer's disease: Rethinking person-centred care. *Dementia* 4, 553–570. doi: 10.1177/1471301205058311

la Cour, P., and Hvidt, N. C. (2010). Research on meaning-making and health in secular society: secular, spiritual and religious existential orientations. *Soc. Sci. Med.* 71, 1292–1299. doi: 10.1016/j.socscimed.2010.06.024

Lloyd, C. (2018). *Moments of Meaning—Towards an Assessment of Protective and Risk Factors for Existential Vulnerability Among Young Women with Mental ill-Health Concerns: A Mixed Methods Project in Clinical Psychology of Religion and Existential Health.* Uppsala: Uppsala universitet, Teologiska institutionen.

MacKinlay, E., and Trevitt, C. (2012). *Finding Meaning in the Experience of Dementia: The Place of Spiritual Reminiscence Work*. London: Jessica Kingsley Publishers.

MacKinlay, E. (2016). Journeys with people who have dementia: connecting and finding meaning in the journey. *J. Relig. Spiritual. Aging* 28, 24-36. doi: 10.1080/15528030.2015.1046632

Malterud, K. (2012a). *Fokusgrupper som forskningsmetode for medisin og helsefag [Focus groups as research method in medicine and health science]*. Oslo: Universitetsforlaget.

Malterud, K. (2016). Theory and interpretation in qualitative studies from general practice: why and how? *Scand. J. Public Health* 44, 120–129. doi: 10.1177/1403494815621181

Malterud, K. (2017). *Kvalitative forskningsmetoder for medisin og helsefag [Qualitative research methods in medicine and health science]. 4. utg. ed.* Oslo: Universitetsforlaget.

Malterud, K., Siersma, V. S., and Guassora, A. D. (2016). Sample size in qualitative interview studies: guided by information power. *Qual. Health Res.* 26, 1753–1760. doi: 10.1177/1049732315617444

Malterud, K. (2012b). Systematic text condensation: A strategy for qualitative analysis. *Scandinav. J. Public Health* 40, 795–805. doi: 10.1177/1403494812465030

McLennon, S. M., Habermann, B., and Rice, M. (2011). Finding meaning as a mediator of burden on the health of caregivers of spouses with dementia. *Aging Ment. Health* 15, 522–530. doi: 10.1080/13607863.2010.543656

Mitchell, G., and Agnelli, J. (2015). Person-centred care for people with dementia: kitwood reconsidered. *Nurs. Stand.* 30, 44–50. doi: 10.7748/ns.29.43.44.e8905

Ødbehr, L. S., Kvigne, K., Hauge, S., and Danbolt, L. J. (2014). Nurses' and care workers' experiences of spiritual needs in residents with dementia in nursing homes: a qualitative study. *BMC Nurs* 13:12. doi: 10.1186/1472-6955-13-12

Ødbehr, L. S., Kvigne, K., Hauge, S., and Danbolt, L. J. (2015). Spiritual care to persons with dementia in nursing homes; a qualitative study of nurses and care workers experiences. *BMC Nurs.* 14:70. doi: 10.1186/s12912-015-0122-6

Park, C. L. (2005). "Religion and meaning," in *Handbook of the Psychology of Religion and Spirituality*, ed R. F. Paloutzian and C. L. Park (New York, NY: Guilford Press), 295–314.

Patterson, C. (2018). *World Alzheimer Report 2018: the State of the Art of Dementia Research: New Frontiers.* London: Alzheimer's Disease International (ADI).

Schnell, T. (2009). The sources of meaning and meaning in life questionnaire (SoMe): relations to demographics and well-being. *J. Positiv. Psychol.* 4, 483–499. doi: 10.1080/17439760903271074

Schnell, T. (2011). Individual differences in meaning-making: considering the variety of sources of meaning, their density and diversity. *Personal. Individ. Differen.* 51, 667–673. doi: 10.1016/j.paid.2011.06.006

Schnell, T. (2021). *The Psychology of Meaning in Life*. Transl. by Tatjana Schnell. 1st ed. New York, NY: Routledge. Psychologie des Lebenssinns.

Schnell, T., and Becker, P. (2007). *LeBe—Fragenbogen zu Lebensbedeutungen und Lebenssinn*. Göttingen: Hogrefe Verlag.

Steger, M. F. (2012). "Experiencing meaning in life: Optimal functioning at the nexus of well-being, psychopathology, and spirituality," In *The Human Quest for Meaning: Theories, Research, and Applications*, ed P. T. P. Wong (Routledge: Taylor and Francis Group), 165–184.

Stifoss-Hanssen, H., and Kallenberg, K. (1998). *Livssyn og helse: teoretiske og kliniske perspektiver [Worldview and health: theoretical and clinical perspectives]*. Oslo: Ad notam Gyldendal.

Svanström, R., Sundler, A. J., Berglund, M., and Westin, L. (2013). Suffering caused by care—elderly patients' experiences in community care. *Int. J. Qual. Stud. Health Well-Being* 8:20603. doi: 10.3402/qhw.v8i0.20603

Swinton, J. (2011). "Being in the moment: developing a contemplative approach to spiritual care with people who have dementia," in *Spirituality and Personhood and Dementia*, ed A. Jewell (London: Jessica Kingsley Publishers), 175–185.

Westius, A., Kallenberg, K., and Norberg, A. (2010). Views of life and sense of identity in people with Alzheimer's disease. *Ageing Soc.* 30, 1257–1278. doi: 10.1017/S0144686X10000309

WHO (1993). The ICD-10 classification of mental and behavioural disorders : diagnostic criteria for research. (Geneva: World Health Organization).

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers in Psychology

BRIEF RESEARCH REPORT
published: 03 September 2021
doi: 10.3389/fpsyg.2021.730724

Presence of Meaning in Life in Older Men and Women: The Role of Dimensions of Frailty and Social Support

Nadezhda Golovchanova, Christiana Owiredua, Katja Boersma, Henrik Andershed and Karin Hellfeldt*

School of Law, Psychology and Social Work, Örebro University, Örebro, Sweden

Presence of meaning in life is an important component of eudemonic wellbeing while aging. While subjective health and interpersonal relationships are among important sources of meaning for older adults, less research has explored the gender differences in the potential contribution of these sources to the presence of meaning in late life. The current study aims to examine the associations of frailty dimensions (daily activities, health problems, and psychosocial functioning) and social support with the presence of meaning in late life, and whether these associations differ for older men and women. The study employs the data from the 65+ and Safe Study – a cross-sectional survey of residents of senior apartments. The data were collected in 2019 in a mid-sized Swedish municipality ($N = 618$; age range from 64 to 106 years, 60.5% female). Results showed significant associations of health problems, psychosocial functioning, and social support with the presence of meaning in life. Further, the results demonstrated no statistically significant gender differences in the associations between frailty dimensions, social support, and presence of meaning. However, since the interaction between health problems and gender approached statistical significance, this association was further explored indicating a more detrimental role of health problems in relation to the presence of meaning in life among older men than among older women. Overall, the study highlights the importance of physical and psychosocial health and social support for the presence of meaning in life among older adults and warrants further research on possible gender differences in the relation between health problems and meaning in late life.

Keywords: presence of meaning, meaning in life, older adults, frailty, social support, gender differences

Edited by:
Jessie Dezutter,
KU Leuven, Belgium

Reviewed by:
Arjan Braam,
University of Humanistic Studies, Netherlands
Amber Damiaens,
KU Leuven, Belgium

****Correspondence:***
Nadezhda Golovchanova
nadezhda.golovchanova@oru.se

Specialty section:
This article was submitted to Health Psychology, a section of the journal Frontiers in Psychology

Received: *25 June 2021*
Accepted: *03 August 2021*
Published: *03 September 2021*

Citation:
Golovchanova N, Owiredua C, Boersma K, Andershed H and Hellfeldt K (2021) Presence of Meaning in Life in Older Men and Women: The Role of Dimensions of Frailty and Social Support. Front. Psychol. 12:730724. doi: 10.3389/fpsyg.2021.730724

INTRODUCTION

Maintaining meaning in life is an important part of eudemonic wellbeing for older adults (Steptoe et al., 2015; Steverink, 2019). Meaning and purpose in life are recognized among psychological outcomes in the current understanding of successful ageing (Fernandez-Ballesteros, 2019). Recently, the presence of meaning in late life has been gaining research attention because it has been positively associated with life satisfaction, happiness, and positive affect

(Steger et al., 2009) and negatively associated with depressive feelings (Van der Heyden et al., 2015; Volkert et al., 2019). Considering frequent losses and challenges that often accompany the aging process (Kuin and Westerhof, 2017), it is especially important to understand the role of factors hindering or maintaining meaning in life into old age. Such understanding is important for identifying those at most risk for meaninglessness while aging and improving the targeting of meaning enhancing interventions (e.g., Westerhof et al., 2004).

The presence of meaning in life can be defined as "the extent to which people comprehend, make sense of, or see significance in their lives, accompanied by the degree to which they perceive themselves to have a purpose, mission, or overarching aim in life" (Steger et al., 2009, p. 43). Thus, the presence of meaning does not refer to the global or ultimate meaning of a human life, but rather reflects a personal perception of the degree to which one's life is meaningful. In light of the developmental tasks of aging related to developing an integrative and transcending view over one's whole life, such meaningfulness is especially important in late life (Krause, 2012).

However, older age is a life period marked with high heterogeneity (Diehl and Wahl, 2020), especially in health aspects and overall functioning. Considering that health aspects were previously associated with meaning in life (Roepke et al., 2013; Czekierda et al., 2017), the variation in health is among important factors explaining the differences in meaningfulness in late life. For instance, the number of physical illnesses has been shown to be negatively associated with meaning in life in older adults (Volkert et al., 2019). A more complex health indicator specific for late life is frailty which is referred to as a multidimensional construct that reflects declines related to multiple functioning domains, such as being able to carry out daily tasks, having specific health problems, or psycho-social complaints (Schuurmans et al., 2004; Bielderman et al., 2013). Although a general negative association between frailty and subjective wellbeing has been reported (Steverink, 2019), less is known about associations of specific frailty dimensions with the presence of meaning. Theoretically, given the multidimensionality of frailty, the complex interplay among different frailty dimensions needs consideration in relation to older adults (Markle-Reid and Browne, 2003). Thus, it is important to understand whether losses in certain dimensions are stronger and independently associated with the presence of meaning. Such knowledge would enable both researchers and health care practitioners to improve recognizing those older adults who might perceive their life as less meaningful, and, consequently, experience lower eudemonic wellbeing. Also, since studies indicate gender differences in different frailty dimensions (for review, Collard et al., 2012), it is also important to extend our understanding on whether these potential associations differ for men and women, a knowledge gap this study aims to address.

Further, relations with others have been previously outlined as the central source of meaning across the life span (Glaw et al., 2017). In late life, the presence of meaning was positively associated with a number of significant social contacts in older adults (Volkert et al., 2019), with the quality of interpersonal relationships (Dewitte et al., 2019) and with aspects of social support (Krause, 2007). The term social support generally refers to different kinds of supportive social relations or interactions that increase or promote an individual's wellbeing (Cohen et al., 2000). According to the main effect model on social support, social support is beneficial for an individual's wellbeing since stable supportive network gives the individual a sense of belonging and security. In late life, the social environment and social relations have been argued to be an important source of meaning (O'Donnell et al., 2014; Duppen et al., 2019). In the current study, we further explore the role of social support in the presence of meaning of older men and women.

Moreover, considering previously reported gender differences in aging trajectories (Li et al., 2020), gender emerges as a potentially important factor in relation to factors associated with the presence of meaning while aging. Women display higher prevalence of frailty (Freitag and Schmidt, 2016; Gordon et al., 2017) and lower psychological health (Pinquart, 2002), and are more likely to become widows (Calasanti, 2010). Because these factors are closely associated with previously outlined sources of meaning (i.e., health and social relationships), deficits in these sources might lead to women experiencing lower presence of meaning compared to men in late life. Research showed that women above 70 years old experience less meaning in life compared to men (Pinquart, 2002). However, other studies showed no gender differences in the presence of meaning in late life (Krause, 2007), or, in contrast, lower presence of meaning experienced by older men (Volkert et al., 2019). Thus, more research is needed to understand the role of gender in the presence of meaning in life and in associations between frailty dimensions, social support, and the presence of meaning.

The Current Study

The current study aimed to investigate whether frailty dimensions (i.e., daily activities, health problems, and psychosocial functioning) and social support were associated with the presence of meaning in advanced age. Since less is known about potential gender differences in these associations, we addressed this research gap by exploring whether these associations differed for older men and women. Because autonomy (Hupkens et al., 2021), subjective health (Czekierda et al., 2017), and social connectedness (Glaw et al., 2017) were previously reported as important sources of meaning, we hypothesized that higher frailty scores in the respective dimensions of daily activities, health problems, and psychosocial functioning would be independently negatively associated with the presence of meaning in older adults. Further, in line with previous findings (Pinquart, 2002; Krause, 2007; Volkert et al., 2019), we expected social support to be positively associated with presence of meaning. Additionally, we explored the possible gender differences in these associations.

MATERIALS AND METHODS

Sample and Procedure

The current study employs the data of the 65+ and Safe Study – a cross-sectional survey study of residents of senior apartments carried out in 2019 in a Swedish municipality. Such apartments are a form of senior housing in Sweden, available for people 65 years and older. These apartments differ from nursing home or assistant living settings. Most of the apartment buildings are adapted for older adults and are equipped with automatic door openers, elevators, etc. Senior apartments are located in both urban and rural areas of the municipality, differ in size, and are situated in neighborhoods with diverse socioeconomic status. Potential participants were contacted by written mail with an invitation to complete the survey questionnaire in paper form or *via* a Web site. These initial survey letters were followed by reminder letters and reminder phone calls administered within the following weeks of the data collection. Inclusion criteria were: (1) becoming 65 years old in the year of 2019, or older; (2) residing in a senior apartment, and (3) the absence of severe cognitive impairment. The project was approved by the Swedish Ethical Review Agency (Dnr: 2019-02248). All participants of the 65+ and Safe Study provided a written informed consent.

The study sample comprised of 622 participants indicating the response rate of 49.5%. The power calculation was performed prior to the data collection indicating that considering the power of 80% and $p < 0.05$ in a two-tailed distribution, the sample of at least 194 participants was required for expected correlation coefficients of $r = 0.2$. Based on the previous research which indicated that associations of the presence of meaning with self-rated health and social support tend to be stronger than $r = 0.2$, the obtained sample was considered sufficient for performing the study. There were no significant gender differences between responders and non-responders [χ^2 (2, $N = 1{,}237$) = 1.17, $p = 0.56$]. However, responders were on average younger ($M = 77.6$, $SD = 7.2$) compared to those who did not respond [$M = 79.1$, $SD = 8.1$; t (1220) = −3.41, $p = 0.001$]. Out of the 622 respondents, four people were missing data on all study variables (both predictors and outcome variables) except for gender and age; hence, these were excluded from further analysis. This resulted in a sample size of 618 participants. The average age of the study participants was 77.6 years ($SD = 7.2$; age range 64–106); 60.5% were women. In this sample, 68.4% reported having education similar to a high school degree or lower, 36.7% were married, 7.8% lived together with a partner, 2.4% lived separately with a partner, 15.9% were divorced, 9.7% were single, and 26.1% were widowed. Additionally, 23.3% received assistance with daily tasks (e.g., with preparing meals and grocery shopping).

Measurements

Presence of Meaning in Life

The presence of meaning was assessed with the "Presence of Meaning" subscale of the Meaning in Life Questionnaire (Steger et al., 2006). The subscale consists of five items rated by the participants on a 7-point Likert scale from 1 (Absolutely untrue) to 7 (Absolutely true). Examples of items are "I understand my life's meaning" and "My life has a clear sense of purpose." The Presence of Meaning variable used in this study was calculated using the sum score of the five items. The subscale demonstrated good reliability in our sample (Cronbach's alpha 0.80).

Frailty

Frailty was assessed with the Groningen Frailty Indicator (GFI; Steverink et al., 2001). This is a multidimensional screening instrument which contains 15 items that assess physical, cognitive, social, and psychosocial dimensions of frailty. Eight items include "Yes" or "No," and six items include "Yes," "Sometimes," and "No" as response categories, while one item is scored on a 10-point Likert scale. Responses on all items were coded according to the scale scoring [for exact coding of each item, please see Schuurmans et al. (2004)]. Higher scale score indicates higher level of frailty with the score of four and greater being indicative of frailty (Schuurmans et al., 2004). The scale showed good reliability in our sample [Kuder-Richardson (KR) 20 = 0.70].

In the current study, we examined three dimensions of frailty separately according to the previously demonstrated three-dimensional structure of the GFI (Bielderman et al., 2013). The Daily Activities subscale assessed the ability to carry out daily tasks (dressing, going to the toilet, shopping, and walking outdoors; items 1–4). The Health Problems subscale assessed the presence of specific health problems (e.g., vision, hearing, weight loss, and memory; items 5–10). The Psychosocial Functioning subscale assessed the presence of psycho-social complaints (e.g., experience of emptiness, feeling downhearted or sad, and feeling nervous or anxious; items 11–15). Values of the KR 20 for the Daily Activities, Health Problems, and Psychosocial functioning were 0.68, 0.40, and 0.78, respectively. Deleting any of the items did not improve reliability of the subscales. Poor reliability of the Health Problems subscale was previously observed in a sample of older adults and can be explained by the substantial heterogeneity of health problems covered by the subscale (Bielderman et al., 2013). Despite this limitation, we considered it possible using the subscale as indicative of the presence of health problems in our sample.

Social Support

Social support was assessed with the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988). The scale consists of 12 items which assess perceived social support from the significant other, family, and friends. Each item was scored on a 7-point Likert scale from 1 (Very strongly disagree) to 7 (Very strongly agree). Examples of items are "There is a special person who is around when I am in need," "I can talk about my problems with my family," and "I have friends with whom I can share my joys and sorrows." To create the variable used in the study, the sum of the twelve items was calculated. The scale showed excellent reliability in our sample (Cronbach's alpha 0.94).

Data Preparation and Analytic Procedure

All data analysis was conducted using the IBM SPSS 27. Before commencing with data analysis, missing data analysis was performed to estimate the level of missing data as well as the nature of the missingness with regard to it randomness. The diagnostics of the pattern of missingness in data was conducted with results indicating that 6% of all data values were missing with 72% of the participants with complete data on all variables.

Further, the Little's MCAR test indicated that the data were not missing completely at random [MNAR; χ^2 (87) = 131, $p < 0.01$]. Assuming missing data to be missing at random, listwise deletion may lead to biased estimate; hence, multiple imputation with five iterations was used to deal with missingness in the data (Jakobsen et al., 2017). This method is suggested to result in unbiased estimate with the proportion of data missing less than 40% (Jakobsen et al., 2017). Further, to rule out the potential impact data not missing completely at random, sensitivity analysis was performed as a control by running the analysis on the initial data with missing values, with no noteworthy differences in the direction of associations among the variables observed.

Descriptive analysis consisted of calculating the means, standard deviations, percentage scores when appropriate, and correlation coefficients between the study variables. The main analysis included multiple regression models with the presence of meaning as outcome. In the first model, frailty dimensions (daily activities, health problems, and psychosocial functioning) and social support were entered while controlling for age and gender. The second model included interaction terms of each of the frailty dimensions and social support with gender, in addition to the independent variables included in the first model. In order to reduce multicollinearity, interaction terms were created with mean-centered independent variables (Hayes, 2018). No substantial deviation from normal distribution in the outcome variable (presence of meaning) was detected (Skewness = −0.277, $SE = 0.098$; Kurtosis = 0.004, $SE = 0.196$). Multicollinearity diagnostics revealed no multicollinearity problems in the first model and acceptable multicollinearity in the second model (all tolerance values above 0.2 and all VIF values below 5). PROCESS v3.5 was used to visualize possible gender differences.

RESULTS

Descriptive Statistics

Table 1 presents the descriptive statistics of study variables. There were no gender differences in the presence of meaning and the frailty dimension daily activities. However, gender differences were found in the frailty dimension health problems and psychosocial problems and in social support. **Table 2** presents the correlation coefficients between the study variables. The presence of meaning was significantly associated to age as well as with frailty dimensions (Daily activities, Health problems, and Psychosocial functioning) and social support. All associations were significant except for those between age and psychosocial functioning subscale, age and social support, gender and presence of meaning, gender and daily activities, and daily activities subscale and social support (**Table 2**).

Multivariate Associations Between Frailty Dimensions, Social Support, and Presence of Meaning

To test whether the frailty dimensions (Daily activities, Health problems, and Psychosocial functioning) and social support contribute to significant variance in presence of meaning in addition to age and gender, a multiple regression analysis was performed (**Table 3**; Model 1). The model was statistically significant [F (6, 611) = 45.05, $p < 0.01$] explaining 30% of variance in the presence of meaning (as indicated by the adjusted R^2). Specifically, age, health problems, psychosocial functioning, and social support explained unique variance in the presence of meaning. Higher age and higher frailty in the health and psychosocial dimensions were independently negatively associated with the presence of meaning, while social support was independently positively related to the presence of meaning.

Gender Differences in the Associations Between Frailty Dimensions, Social Support, and Presence of Meaning

To explore possible gender differences in associations between the frailty dimensions (Daily activities, Health problems, and Psychosocial functioning), social support and the presence of meaning, a multiple regression model with interactions between the independent variables and gender, in addition to the independent variables included in the first model, was performed (**Table 3**; Model 2). The model was statistically significant [F (10, 607) = 27.67, $p < 0.01$] and explained 30% of variance in the presence of meaning (as indicated by the adjusted R^2). The results showed that none of the interaction term variables reached statistical significance at $p < 0.05$. However, because the interaction of Health problems × Gender approached statistical significance ($p = 0.07$), gender differences in the association of health problems and the presence of meaning were further explored. As shown in **Figure 1**, this analysis indicated that, with increase in health problems, men showed stronger decline in the presence of meaning compared to women. Conditional effects were statistically significant ($p < 0.01$) for both genders.

DISCUSSION

The current study investigated the presence of meaning and its associations with frailty dimensions and social support, as well as possible gender differences in these associations in a sample of senior apartment residents. In line with our hypothesis, health and psychosocial problems were independently negatively associated with the presence of meaning in the total sample. This result highlights the importance of both health-related and psychosocial frailty as factors independently related to less presence of meaning in life. Considering that 90% of frail individuals report difficulties in their psychosocial functioning (Bielderman et al., 2013), it is especially important to monitor the association of this frailty dimension with meaning in life. In contrast with our hypothesis, the daily activities dimension was not significantly associated with presence of meaning. Possibly, considering that a substantial amount of the residents of senior apartments receive assistance with daily tasks at home, such help might enable these older adults to maintain autonomy and to continue engaging with important sources of meaning. This is in line with a recent finding that older adults receiving care at home perceive sufficient autonomy for maintaining

TABLE 1 | Descriptive statistics and *t*-test results for gender differences for the study variables.

Variable	Overall sample *M* (*SD*)	Men *M* (*SD*)	Women *M* (*SD*)	*t*	Value of *p*
Presence of Meaning	24.39 (5.71)	23.94 (6.12)	24.68 (5.42)	−1.532	0.126
Age	77.56 (7.20)	77.02 (6.94)	77.90 (7.36)	−1.485	0.138
Daily Activities	0.20 (0.58)	0.15 (0.53)	0.23 (0.61)	−1.751	0.080
Health Problems	2.10 (1.26)	2.30 (1.28)	1.97 (1.23)	3.283	**0.001****
Psychosocial Functioning	1.99 (1.71)	1.74 (1.64)	2.15 (1.74)	−2.928	**0.004****
Social Support	64.72 (14.55)	62.75 (16.59)	66.01 (12.91)	−2.604	**0.010***

M, mean; SD, standard deviation. *$p<0.05$ and **$p<0.01$.

TABLE 2 | Correlations among the study variables.

S. No.		1	2	3	4	5	6	7
1.	Age	–						
2.	Gender[a]	0.06	–					
3.	Presence of Meaning	−0.14**	0.06	–				
4.	Daily Activities	0.24**	0.07	−0.09*	–			
5.	Health Problems	0.30**	−0.13**	−0.25**	0.29**	–		
6.	Psychosocial Functioning	0.03	0.12**	−0.30**	0.08*	0.29**	–	
7.	Social Support	0.01	0.11**	0.49**	−0.02	−0.09*	−0.29**	–

[a] 0 = men, 1 = women Listwise N = 618.
*$p<0.05$ and **$p<0.01$

TABLE 3 | Multiple regression analyses with the presence of meaning as dependent variable.

Variable	*B*	*SEB*	*β*	95% CI		Value of *p*
				LL	*UL*	
Model 1						
Age	−0.08	0.03	−0.10	−0.13	−0.02	0.007**
Gender[a]	0.22	0.41	0.02	−0.59	0.03	0.598
Daily Activities	−0.13	0.36	−0.01	−0.83	0.56	0.709
Health Problems	−0.61	0.18	−0.14	−0.96	−0.27	0.001**
Psychosocial Functioning	−0.43	0.13	−0.13	−0.67	−0.18	0.001**
Social Support	0.17	0.01	0.44	0.15	0.20	< 0.001**
Adjusted R^2 = 0.30						
Model 2						
Age	−0.08	0.03	−0.11	−0.14	−0.03	0.004**
Gender[a]	0.18	0.42	0.02	−0.63	1.00	0.664
Daily Activities	−0.58	0.61	−0.06	−1.77	0.61	0.340
Daily Activities × Gender	0.65	0.75	0.05	−0.81	2.12	0.383
Health Problems	−0.98	0.27	−0.22	−1.51	−0.45	< 0.001**
Health Problems × Gender	0.64	0.35	0.11	−0.04	1.32	0.066
Psychosocial Functioning	−0.31	0.21	−0.09	−0.73	0.11	0.145
Psychosocial Functioning × Gender	−0.18	0.26	−0.04	−0.69	0.34	0.507
Social Support	0.17	0.02	0.44	0.13	0.21	<0.001**
Social Support × Gender	0.01	0.03	0.01	−0.05	0.06	0.805
Adjusted R^2 = 0.30						

[a] 0 = men; 1 = women.
N = 618; CI, confidence interval; LL, lower limit; and UL, upper limit. *$p<0.05$ and **$p<0.01$.

meaning and report a broad variety of meaning in life sources (Hupkens et al., 2021). Additionally, older study participants reported significantly less presence of meaning which calls special attention to those in the highest age as experiencing less meaning in life. As observed by Pinquart (2002), this could be explained by the losses in the domains that constitute important sources of meaning for older adults (e.g., health, social relationships, and the ability to participate in activities) which become more frequent with higher age.

Further, perceiving social support from a significant other, friends, and family was associated with more presence of meaning in life. This finding underscores the central role of social context in acquiring meaning (Kuin and Westerhof, 2017) and articulates the crucial role of social support in maintaining the presence

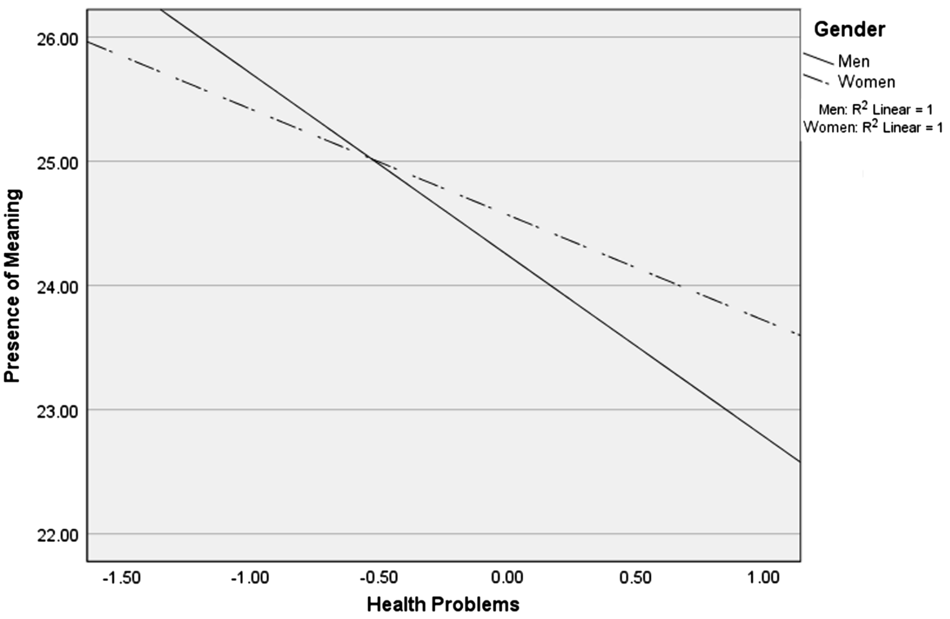


FIGURE 1 | Gender differences in the association between health problems and the presence of meaning.

of meaning in late life. Prioritizing emotionally significant contact with others over less fulfilling connections as a way to maintain higher levels of wellbeing has been suggested by the socioemotional selectivity theory (Carstensen et al., 2003). Striving for redefinition and more selectivity in relationships with others is articulated as a sign of the gerotranscendence process which is a hallmark of late life (Tornstam, 2005) and which is associated with meaning in life in older adults (Braam et al., 2006). The study findings endorse these theoretical propositions by showing that those older adults who have available sources of social support in their social networks experience their lives as more meaningful. The findings might also suggest that older adults lacking social support might benefit from interventions directed at creating opportunities for developing close contact with others to enhance the presence of meaning in their lives. Further research might explore the relationships with family members (partner, children, and grandchildren), friends, or other people in relation to meaningfulness.

Regarding gender differences, we observed no significant differences in levels of presence of meaning between men and women in our sample. Further, the study demonstrated no gender differences in the associations of daily activities, psychosocial functioning, and social support with presence of meaning in late life. However, the near significant interaction ($p = 0.07$) between health problems and gender indicated that the association between declining health and meaning in life might be moderated by gender. Tentatively, health problems may be more detrimental for men than for women in influencing presence of meaning. One explanation for this finding could be that significance of different sources of meaning might differ for men and women in later life. Although some research concluded that gender is not a key factor in preferred sources of meaning (Bar-Tur et al., 2001; Reker and Woo, 2011), another study found that leisure time was more likely to be a source of meaning for older men compared to older women (Grouden and Jose, 2014). Experiencing health problems could create a substantial barrier for participating in leisure time activities, which could be more important for men. Therefore, although health problems are significantly related to presence of meaning for both men and women, this association might be stronger for older men because of its interference with an important source of meaning.

Taken together, these findings indicate that problems with psychosocial functioning and lack of social support are of equal importance for men and women as predictors of meaning in life while aging. Experiencing health problems, however, might be differentially related to meaning in life for men and women while aging. Specifically, men might be at higher risk for experiencing their life as less meaningful when experiencing substantial health problems. However, these findings are exploratory and warrant replication in other samples of older adults.

Strengths and Limitations

The main strength of the present study includes the wide age range (64–106 years old), allowing to investigate the presence of meaning across the aging span. The sufficient sample size allowed to study the several factors associated with presence of meaning, including the potential differences between older men and women. Moreover, the study examined the distinct dimensions of frailty which is a multidimensional age-relevant health indicator, social support, and explored whether gender differences existed in the associations between these factors and presence of meaning.

Several limitations of the study should be mentioned. First, some measurement questions should be considered. Because health problems subscale of GFI showed low reliability, which can most likely be attributed to a broad diversity of health complaints that its questions tap into, it might be beneficial to replicate our findings in other samples to ensure robustness of the results. Further research might explore the associations of specific health problems (e.g., vision, hearing problems, and overall fitness) with the presence of meaning. Additionally, further research might consider more frailty dimensions (e.g., environmental frailty and cognitive frailty; De Donder et al., 2019) and their associations with presence of meaning in late life. Further, because the current study included the measure of emotional social support only, further research might explore the role of informational, instrumental, or other forms of social support (Uchino et al., 2016) in relation to presence of meaning. Secondly, the study sample included only older adults living in senior apartments. This suggests caution in generalizing the results of the study to the general population of older adults because the residents of senior apartments might differ from, for instance, homeowners or nursing home residents in their health, socioeconomic status, or life-style aspects. Additionally, because the age of application for senior apartments may vary between 55 and 65 years in Sweden, some residences might host considerably younger adults. Moreover, responders of the survey were slightly younger compared to non-responders. Considering that the presence of meaning was lower for older individuals, more research specifically focused on those in the highest age is needed. Yet, considering that average level of presence of meaning in our study was within the range of those reported in previous studies on community dwelling older adults (e.g., Steger et al., 2009; Hofer et al., 2014; Van der Heyden et al., 2015), we suppose that these sample specifics do not have a detrimental impact on the main study outcome variable. Thirdly, because the study questionnaire was made available only in Swedish and in English, the sample excluded those prospective respondents who were not able to respond in either of these two languages.

CONCLUSION

The current study examined the role of frailty dimensions and social support in the presence of meaning of older adults – residents of senior apartments. The results showed that experiencing less problems in health and psychosocial functioning dimensions of frailty significantly and independently contributed to the presence of meaning in late life. Thus, the findings contributed to the body of previous research which established associations between subjective health and meaning in late life. Moreover, the study showed that social support is an important resource for experiencing the presence of meaning in late life, thus endorsing the theoretical propositions of the importance of emotionally close relations for maintaining eudemonic wellbeing in late life. We observed no gender differences in the associations between daily activities and psychosocial functioning, as well as social support with the presence of meaning. However, the gender differences in the association between health problems and presence of meaning deserve further research attention as declining health might be more detrimental for loss of meaning for men compared to women. This is important to consider in the future research on meaning in life as well as for psychological interventions aimed at enhancing meaningfulness in older adults.

DATA AVAILABILITY STATEMENT

The datasets presented in this article are not readily available because of participant confidentiality. Requests to access the datasets should be directed to karin.hellfeldt@oru.se.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Swedish Ethical Review Agency (Dnr: 2019–02248). The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

NG, CO, KB, HA, and KH: conceptualization, methodology, and analytic plan. NG and CO: formal analysis and writing—original draft preparation. NG, HA, and KH: investigation, resources, project administration, and funding acquisition. NG, KB, HA, and KH: writing—review and editing. All authors have read and agreed to the published version of the manuscript.

FUNDING

The study was completed within the Newbreed doctoral program – the project that has received funding from the European Union's Horizon 2020 research and innovation program under the Marie Sklodowska-Curie grant agreement no. 754285.

ACKNOWLEDGMENTS

We would like to thank Örebro Bostäder AB (ÖBO) for their assistance with forming the target sample. This study was accomplished within the context of the Swedish National Graduate School for Competitive Science on Ageing and Health (SWEAH) funded by the Swedish Research Council.

REFERENCES

Bar-Tur, L., and Savaya, R., and, and Prager, E. (2001). Sources of meaning in life for young and old Israeli Jews and Arabs. *J. Aging Stud.*, 15, 253–269. doi:10.1016/S0890-4065(01)00022-6.

Bielderman, A., van der Schans, C. P., van Lieshout, M.-R. J., de Greef, M. H. G., Boersma, F., and Krijnen, W. P., and, and Steverink, N. (2013). Multidimensional structure of the Groningen frailty indicator in community-dwelling older people. *BMC Geriatr.*, 13:86. doi:10.1186/1471-2318-13-86

Braam, A. W., Bramsen, I., van Tilburg, T. G., van Der Ploeg, H. M., and Deeg, D. J. (2006). Cosmic transcendence and framework of meaning in life: patterns among older adults in the Netherlands. *J. Gerontol. Ser. B Psychol. Sci. Soc. Sci.* 61, 121–128. doi: 10.1093/geronb/61.3.S121

Calasanti, T. (2010). "Gender and ageing in the context of globalization," in *The SAGE Handbook of Social Gerontology*. eds. D. Dannefer and C. Phillipson (London: SAGE), 137–149.

Carstensen, L. L., Fung, H. H., and Charles, S. T. (2003). Socioemotional selectivity theory and the regulation of emotions in the second half of life. *Motiv. Emot.* 27, 103–123. doi: 10.1023/A:1024569803230

Cohen, S., Underwood, L. G., and Gottlieb, B. H. E. (2000). *Social Support Measurement and Intervention: A Guide for Health and Social Scientists.* New York: Oxford University Press.

Collard, R. M., Boter, H., Schoevers, R. A., and Oude Voshaar, R. C. (2012). Prevalence of frailty in community-dwelling older persons: a systematic review. *J. Am. Geriatr. Soc.* 60, 1487–1492. doi: 10.1111/j.1532-5415.2012.04054.x

Czekierda, K., Banik, A., Park, C. L., and Luszczynska, A. (2017). Meaning in life and physical health: systematic review and meta-analysis. *Health Psychol. Rev.* 11, 387–418. doi: 10.1080/17437199.2017.1327325

De Donder, L., Smetcoren, A. S., Schols, J., van der Vorst, A., Dierckx, E., D-SCOPE Consortiumet al. (2019). Critical reflections on the blind sides of frailty in later life. *J. Aging Stud.* 49, 66–73. doi: 10.1016/j.jaging.2019.100787

Dewitte, L., Vandenbulcke, M., Schellekens, T., and Dezutter, J. (2019). Sources of well-being for older adults with and without dementia in residential care: relations to presence of meaning and life satisfaction. *Aging Ment. Health* 25, 170–178. doi: 10.1080/13607863.2019.1691144

Diehl, M., and Wahl, H.-W. (2020). *The Psychology of Later Life: A Contextual Perspective*. Washington: American Psychological Association.

Duppen, D., Machielse, A., Verte Rn, D., Dury, S., De Donder, L., and D-SCOPE Consortium (2019). Meaning in life for socially frail older adults. *J. Community Health Nurs.* 36, 65–77. doi: 10.1080/07370016.2019.1582160

Fernandez-Ballesteros, R. (2019). "The concept of successful aging and related terms," in *The Cambidge Handbook of Successful Aging (Pp. 6–22).* eds. R. Fernandez-Ballesteros, A. Benetos and J.-M. Robine (Cambridge: Cambridge University Press).

Freitag, S., and Schmidt, S. (2016). Psychosocial correlates of frailty in older adults. *Geriatrics* 1:26. doi: 10.3390/geriatrics1040026

Glaw, X., Kable, A., Hazelton, M., and Inder, K. (2017). Meaning in life and meaning of life in mental health care: an integrative literature review. *Issues Ment. Health Nurs.* 38, 243–252. doi: 10.1080/01612840.2016.1253804

Gordon, E. H., Peel, N. M., Samanta, M., Theou, O., Howlett, S. E., and Hubbard, R. E. (2017). Sex differences in frailty: a systematic review and meta-analysis. *Exp. Gerontol.* 89, 30–40. doi: 10.1016/j.exger.2016.12.021

Grouden, M. E., and, and Jose, P. E. (2014). How do sources of meaning in life vary according to demographic factors? *N. Z. J. Psychol.*, 43, 29–38.

Hayes, A. F. (2018). *Introduction to Mediation, Moderation, and Conditional Process Analysis. A Regression-Based Approach. 2nd Edn*. New York: The Guilford Press.

Hofer, J., Busch, H., Au, A., Polackova Solcova, I., Tavel, P., and Tsien Wong, T. (2014). For the benefit of others: generativity and meaning in life in the elderly in four cultures. *Psychol. Aging* 29, 764–775. doi: 10.1037/a0037762

Hupkens, S., Goumans, M., and Derkx, P., and, and Machielse, A. (2021). 'Meaning in life? Make it as bearable, enjoyable and good as possible!': a qualitative study among community-dwelling aged adults who receive home nursing in the Netherlands. *Health and Social Care in the Community*, 29, 78–90. doi:10.1111/hsc.13071

Jakobsen, J. C., Gluud, C., Wetterslev, J., and Winkel, P. (2017). When and how should multiple imputation be used for handling missing data in randomised clinical trials – a practical guide with flowcharts. *BMC Med. Res. Methodol.* 17:162. doi: 10.1186/s12874-017-0442-1

Krause, N. (2007). Longitudinal study of social support and meaning in life. *Psychol. Aging* 22, 456–469. doi: 10.1037/0882-7974.22.3.456

Krause, N. (2012). "Meaning in life and healthy aging" in *The Human Quest for Meaning: Theories, Research and Application*. *2nd Edn*. ed. P. T. P. Wong. (New York: Routledge), 409–432.

Kuin, Y., and Westerhof, H. (2017). "Zingeving en levensvragen," in *Handboek Ouderenpsychologie*. *2nd Edn*. eds. M. Vink, Y. Kuin, G. Westerhof, S. Lamers and A. M. Pot. (Utrecht: De Tijdstroom), 201–220.

Li, X., Ploner, A., Wang, Y., Magnusson, P. K., Reynolds, C., Finkel, D., et al. (2020). Longitudinal trajectories, correlations and mortality associations of nine biological ages across 20-years follow-up. *elife* 9:e51507. doi: 10.7554/eLife.51507

Markle-Reid, M., and, and Browne, G. (2003). Conceptualizations of frailty in relation to older adults. *J. Adv. Nurs.*, 44, 58–68. doi:10.1046/j.1365-2648.2003.02767.x

O'Donnell, M. B., Bentele, C. N., Grossman, H. B., Le, Y., Jang, H., and Steger, M. F. (2014). You, me, and meaning: an integrative review of connections between relationships and meaning in life. *J. Psychol. Afr.* 24, 44–50. doi: 10.1080/14330237.2014.904097

Pinquart, M. (2002). Creating and maintaining purpose in life in old age: a meta-analysis. *Aging International* 27, 90–114. doi: 10.1007/s12126-002-1004-2

Reker, G. T., and Woo, L. C. (2011). Personal meaning orientations and psychosocial adaptation in older adults. *SAGE Open* 1, 1–10. doi: 10.1177/2158244011405217

Roepke, A. M., Jayawickreme, E., and Riffle, O. M. (2013). Meaning and health: a systematic review. *Appl. Res. Qual. Life* 9, 1055–1079. doi: 10.1007/s11482-013-9288-9

Schuurmans, H., Steverink, N., Lindenberg, S., and Frieswijk, N., and, and Slaets, J. P. J. (2004). Old or frail: what tells us more? *J. Gerontol.*, 59, M962–M965. doi:10.1093/gerona/59.9.m962

Steger, M. F., Frazier, P., Oishi, S., and Kaler, M. (2006). The meaning in life questionnaire: assessing the presence of and search for meaning in life. *J. Couns. Psychol.* 53, 80–93. doi: 10.1037/0022-0167.53.1.80

Steger, M. F., Oishi, S., and Kashdan, T. B. (2009). Meaning in life across the life span: levels and correlates of meaning in life from emerging adulthood to older adulthood. *J. Posit. Psychol.* 4, 43–52. doi: 10.1080/17439760802303127

Steptoe, A., Deaton, A., and Stone, A. A. (2015). Subjective wellbeing, health, and ageing. *Lancet* 385, 640–648. doi: 10.1016/S0140-6736(13)61489-0

Steverink, N. (2019). Trajectories of well-being in later life. *Oxford Research Encyclopedia of Psychology*. doi: 10.1093/acrefore/9780190236557.013.424

Steverink, N., Slaets, J. P. J., and Schuurmans, H., and, and Van Lis, M. (2001). Measuring frailty: developing and testing the GFI (Groningen frailty indicator). *The Gerontologist*, 41:236.

Tornstam, L. (2005). *Gerotranscendence: A Developmental Theory of Positive Aging.* New York: Springer Publishing Company.

Uchino, B. N., Ong, A. D., and Queen, T. L., and, and de Grey, R. G. K. (2016). "Theories of social support in health and aging," in *Handbook of Theories of Aging. 3rd Edn.* eds. V. Bengtson and R. Settersten. (New York: Springer Publishing Company), 235–258.

Van der Heyden, K., Dezutter, J., and Beyers, W. (2015). Meaning in life and depressive symptoms: a person-oriented approach in residential and community-dwelling older adults. *Aging Ment. Health* 19, 1063–1070. doi: 10.1080/13607863.2014.995589

Volkert, J., Harter, M., Dehoust, M. C., Ausin, B., Canuto, A., Da Ronch, C., et al. (2019). The role of meaning in life in community-dwelling older adults with depression and relationship to other risk factors. *Aging Ment. Health* 23, 100–106. doi: 10.1080/13607863.2017.1396576

Westerhof, G. J., Bohlmeijer, E., and Valenkamp, M. W. (2004). In search of meaning: a reminiscence program for older persons. *Educ. Gerontol.* 30, 751–766. doi: 10.1080/03601270490498016

Zimet, G. D., Dahlem, N. W., and Zimet, S. G., and, and Farley, G. K. (1988). The multidimensional scale of perceived social support. *J. Pers. Assess.*, 52, 30–41. doi:10.1207/s15327752jpa5201_2.

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

The handling editor declared a past co-authorship with one of the authors NG.

frontiers in Psychology

HYPOTHESIS AND THEORY
published: 07 September 2021
doi: 10.3389/fpsyg.2021.674453

The Process of Spiritual Care

Ricko Damberg Nissen, Dorte Toudal Viftrup and Niels Christian Hvidt*

Research Unit of General Practice, Department of Public Health, University of Southern Denmark, Odense, Denmark

The aim of this article is to illustrate and outline an understanding of spiritual care as a process involving a number of organically linked phases: (1) the identification of spiritual needs and resources, (2) understanding the patient's specific needs, (3) developing the individual spiritual care treatment plan, hereunder involving the relevant healthcare/spiritual care professionals, (4) the provision of spiritual care, and (5) evaluating the spiritual care provided. The focus on spiritual care in healthcare research has increased throughout the past decades, showing that existential, spiritual, and/or religious considerations and needs increase with life-threatening illness, that these needs intensify with the severity of disease and with the prospect of death. Furthermore, research has shown that spiritual care increases quality of life, but also that failing to provide spiritual care leads to increased chance of depression and lowered health conditions. The World Health Organization accordingly emphasizes that providing spiritual care is vital for enhancing quality-of-life. Looking at spiritual care as a process suggests that working within a defined conceptual framework for providing spiritual care, is a recommendable default position for any institution where spiritual care is part of the daily work and routines. This so, especially because looking at spiritual care as a process highlights that moving from identifying spiritual needs in a patient to the actual provision of spiritual care, involves deliberate and considered actions and interventions that take into account the specific cultural and ontological grounding of the patient as well as the appropriate persons to provide the spiritual care. By presenting spiritual care as a process, we hope to inspire and to contribute to the international development of spiritual care, by enabling sharing experiences and best-practices internationally and cross-culturally. This so to better approach the practical and daily dimensions of spiritual care, to better address and consider the individual patient's specific spiritual needs, be they secular, spiritual and/or religious. In the final instance, spiritual care has only one ambition; to help the individual human being through crisis.

Keywords: spiritual care, meaning-making, ontological grounding, secular, spiritual, religious

OPEN ACCESS

Edited by:
Jessie Dezutter,
KU Leuven, Belgium

Reviewed by:
Anne Vandenhoeck,
KU Leuven, Belgium
Loren Toussaint,
Luther College, United States

***Correspondence:**
Ricko Damberg Nissen
rnissen@health.sdu.dk

Specialty section:
This article was submitted to
Health Psychology,
a section of the journal
Frontiers in Psychology

Received: *01 March 2021*
Accepted: *16 August 2021*
Published: *07 September 2021*

Citation:
Nissen RD, Viftrup DT and
Hvidt NC (2021) The Process
of Spiritual Care.
Front. Psychol. 12:674453.
doi: 10.3389/fpsyg.2021.674453

INTRODUCTION

Spiritual care is an important aspect of patient centered care and in healthcare research the focus on spiritual care has been growing through the past decades (Cadge and Bandini, 2015; Gijsberts et al., 2019; Harrad et al., 2019). In Geriatrics, for instance, research has found that spirituality and religion is supportive of health and well-being in old age (Rykkje et al., 2013) and that older people going through illness or approaching death are in high risk of experiencing a spiritual crisis

(Wiltjer, 2019). Research has also shown, however, that spiritual needs are often overlooked in healthcare in general and that spiritual care is difficult to integrate as part of daily care and disease management (Assing Hvidt et al., 2017a; Straßner et al., 2019). The World Health Organization thus emphasizes that providing spiritual care is vital for enhancing quality-of-life and should be included in treatment (Group, 1994). The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) in the United States has stipulated that spiritual care should be included in medical and nursing education (Hodge, 2006), just as countries in Europe have included spiritual care in the curriculum in medical training (Taverna et al., 2019; Viftrup et al., 2021).

Providing spiritual care in a global, culturally entwined, and pluralistic world (Taylor, 2007; Berger, 2014) is complicated, as providers have to be sensitive to the potential variance in the secular, spiritual, and religious meaning orientations of their patients (Ghorbani et al., 2021). A wide range of interventions have been developed in the area of spiritual care, but research shows that these interventions are often developed as stand-alone instruments, such as for instance questionnaires or interview guides assessing spiritual needs (Damberg Nissen et al., 2020), and do not approach spiritual care as an ongoing and integrated part of patientcare. One of the reasons for this is that spiritual needs are always individual, and how spiritual care is provided depends on these specific needs, but also on the relationship between patient and provider(s) (Moudatsou et al., 2020). Therefore, it often falls on the individual healthcare professional (HCP) to incorporate spiritual care in day-to-day care, and combined with ethical and cultural considerations, professional and personal boundaries, lack of time and resources, and so on, it is understandable that HCPs often find it challenging to include spiritual care in daily care (Assing Hvidt et al., 2017a; Damberg Nissen et al., 2018; Teófilo et al., 2019; Moudatsou et al., 2020). This leads to a situation where the provision of spiritual care is in risk of becoming an auto-didact and *ad hoc* solution, arbitrarily implemented, or marginalized altogether (Hvidt et al., 2016; Austin et al., 2018). As an approach to address and overcome these difficulties, we argue that spiritual care should be regarded as a process.

The aim of this article is to illustrate and outline an understanding of spiritual care as a process involving a number of organically linked phases: (1) the identification of spiritual needs and resources, (2) understanding the patient's specific needs, (3) developing an individual spiritual care treatment plan (hereunder involving the relevant healthcare/spiritual care professionals), (4) the provision of spiritual care, and (5) evaluating the spiritual care provided.

Every local context, patient, and provision of spiritual care is unique, and we need to appreciate this. However, we also need to appreciate the need for international research and exchange of knowledge and experience, to further the development of spiritual care. Therefore, the aim is not to present a spiritual care intervention *per se*, but an understanding of spiritual care as a structured process, that will enable both the local development and provision of spiritual care and the international exchange of practice and experience.

Positing spiritual care as a process brings to attention that spiritual care instruments and interventions are often focused on specific aspects of spiritual care, but also that combining existing instruments in a spiritual care treatment plan is possible and can be a beneficial approach to providing spiritual care (Damberg Nissen et al., 2020; Nissen and Hvidt, 2021). It also brings to attention that work is needed in the area of developing and training for providing spiritual care. This work is already commencing, as reflected in the work of the WHO and JCAHO mentioned above, but also in spiritual care training programs, such as the "Interprofessional Spiritual Care Education Curriculum," developed at the George Washington School of Medicine & Health Sciences (Bandini et al., 2018; Puchalski et al., 2020).

In this article, the primary healthcare area is Geriatrics, old age/late life. However, spiritual care is part of many healthcare areas and as such, looking at spiritual care as a process is relevant for any healthcare area where spiritual care is part of daily practice, such as palliative care (Gijsberts et al., 2019), oncology (Conway, 2010), orthopedic (Clark, 1997), or around childbirth (Crowther and Hall, 2015). It should also be mentioned that understanding patientcare as a process in general is well-established and includes processes similar to what we suggest here, such as assessment, development of care plan, and provision of and follow-up on such care (Bergman et al., 2011; T. L. C., 2019). Nevertheless, research has shown that when it comes to spiritual care, the provision of spiritual care is often arbitrary, auto-didact, and linked to personal values (Hvidt et al., 2016; Austin et al., 2018).

Spiritual care is further complicated by the concept "spiritual," which has (so far) defied unified international definitions, just as the relation between spirituality and health needs to be better understood (Delgado, 2005; Hvidt et al., 2021). A recent study from Germany concludes that the concept "spirituality" is immature in the German language (Grabenweger and Paal, 2021). This illustrates how international understandings and discussions of spirituality and spiritual care can be difficult to incorporate in local vernacular understandings of how to approach the patient in relation to the individual patient's spiritual needs and resources (Daaleman, 2012; Caldeira et al., 2013).

As a way to address this and the complexity of a culturally entwined and pluralistic world, we introduce the concept "ontological grounding," inspired partly by Giddens (2018) concept "ontological security" and partly by Holbraad and Madsen's "ontological turn" (Holbraad, 2017). Through this, we hope to contribute with an understanding of spiritual care that will enable clinical practice, palliative care, oncology, geriatrics, and other healthcare areas, to approach spiritual care in a systematic way, sensitive to the secular and pluralistic character of a culturally entwined world, and thereby also to contribute to the continuing international development of spiritual care.

In our conceptualization of spiritual care, we focus on secular, spiritual and religious existential orientations, needs, and resources in connection with illness and crisis. This understanding is aimed at capturing the potential width of the individual patient in relation to the ontological grounding (la Cour and Hvidt, 2010; Nolan, 2011; Hvidt et al., 2020, 2021).

In the following, we outline the process of spiritual care as a local undertaking in a culturally entwined and pluralistic world. We introduce "the ontological grounding" and "the Meaning-Making Matrix," as a way to approach the individual patient, sensitive to the individual patient's specific secular/spiritual/religious, and cultural existential orientation (la Cour and Hvidt, 2010; Nissen, 2019). Hereafter, we outline and discuss the process of spiritual care, exemplified by instruments working in the different phases of the process. The examples in the discussion are drawn from the Catalogue of Spiritual Care Instruments (Damberg Nissen et al., 2020).

THE ONTOLOGICAL GROUNDING AND THE MEANING-MAKING MATRIX

A central aspect in the following understanding and discussion of spiritual care as a process is that we entertain an understanding of the world as culturally entwined and pluralistic (Taylor, 2007; Mignolo, 2011; Berger, 2014), in the sense that secular, spiritual, and religious people live entwined in a surrounding cultural context; they are neighbors, they are colleagues, they commute, and sit next to each other on the bus and the train, and. . . they use the same healthcare systems. However, they do not necessarily know anything about each other. They don't know whether the person sitting next to them on the bus is happily married, just got promoted, or is in deep existential crisis, because of a tumor just being diagnosed as terminal. The physician, the nurse, the chaplain, the relative, the friend, or whoever this person may be on the way to for counsel and help, do not have access to the innermost thoughts and feelings of this person, not for all the empathy in the world. However, and despite this level of separateness from each other, we are also connected through our shared humanity, offering us the social contexts that influence who we are, giving us ontological security (Giddens, 2018), enabling the empathy we need to understand and support each other, indeed for providing spiritual care. This is what we argue as the ontological grounding of the individual, the parts of the individual that others do not have access to and cannot know, and the empathetic ability of us to understand each other despite these limitations.

In a culturally entwined and pluralistic world, an existential orientation, be it secular, spiritual, or religious, is a conscious choice for some and not so for others (Taylor, 2007). For some it is irrelevant, for others it is the Archimedean point around which everything else revolves (Damberg Nissen et al., 2018). However, when faced with life-threatening illness these existential questions have a strong tendency to surface (Hvidt et al., 2017, 2019). A religious person may draw from his/her religiosity the mental, physical, or social strength to cope with a life-threatening diagnose, but the same religiosity can also lead to a complete collapse in meaning, followed by doubt, guilt, anger, depression, even suicide. Similarly, a secular person faced with a life-threatening diagnosis may draw from this secular orientation the strength to either cope with the situation or experience a collapse in meaning and find him or herself on the brink of depression or worse (Moestrup and Hvidt, 2016; Hvidt et al., 2017). If spiritual care is to be patient centered and patient empowering, it is necessary to ascertain an understanding of the patient's ontological grounding, in order to understand from which aspects (secular, spiritual, religious) and to what degree the meaning-making process is stable or has collapsed. This also calls for an appreciation of whether the needs are of a cognitive or practical kind, to differentiate and plan the spiritual care accordingly.

In order to empower local understandings and to enable cross-cultural exchange of knowledge and experience, it is pivotal to engage the three central concepts; secular, spiritual, religious, as Western constructs with varied meaning, connotations, and importance in different contexts, international, local vernacular, and individual levels (Mignolo, 2011; Bowman, 2014). This shows us the limits of the concepts we use and the difficulties of using them cross-culturally, where especially the concept "spiritual" lacks international consensus, definition, and even usability, which again makes it even harder to define what spiritual care is. It is depending on the local context. Following this, it might seem artificial and even counterproductive to separate human meaning-making processes into the existential domains secular, spiritual, religious, even more so as patients may think about existence in secular, spiritual, religious terms simultaneously, or move between them and place different importance in them at different times (Berger, 2014; Johannesen-Henry CaI, 2019). Thus, the domains may be entwined (la Cour and Hvidt, 2010). These are the concepts we have; these are our limitations. However, precisely by engaging these concepts actively we highlight that the human worlds we try to capture through these concepts and models do not easily render themselves to such constructs (Descola, 2014; Holbraad, 2017), which is an important aspect, when attempting to approach a patient's ontological grounding.

By attempting to reach an understanding of a patient's ontological grounding, we highlight that even though some things lie outside of our reach, this does not mean that we should not attempt to reach an understanding and therethrough an appreciation of them. To some extent, this will enable us to transgress the concepts secular, spiritual, religious, and therethrough better identify the character of the identified spiritual needs and to develop the appropriate approach to providing spiritual care.

Figure 1 illustrates the ontological grounding of the individual differentiated in three spheres of relevance (Berger, 2016): secular, spiritual, and religious. The "Surrounding (cultural) context" signifies the context in which the individual lives, such as for instance Canada, Denmark, Germany, etc. The underlying "Relevance Spheres" and "Secular context," "Spiritual context," "Religious context," mention some of the significant influencers on the ontological grounding of the individual. These may differ from the surrounding (cultural) context in the sense that the surrounding (cultural) context is biased, promoting certain things while discouraging others; there are no value free settings (Kørup et al., 2020). In a healthcare context this could for example be promoting exercise while discouraging smoking. The relevance spheres may or may not agree with this, and the individual "makes up his/her own mind," so to speak. As

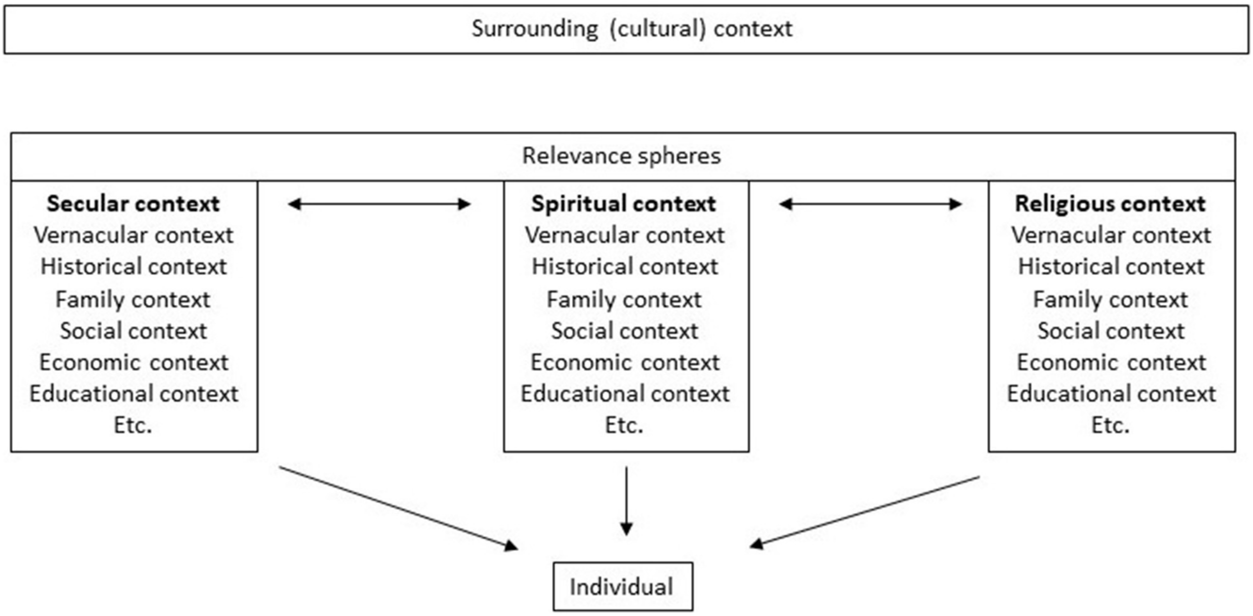


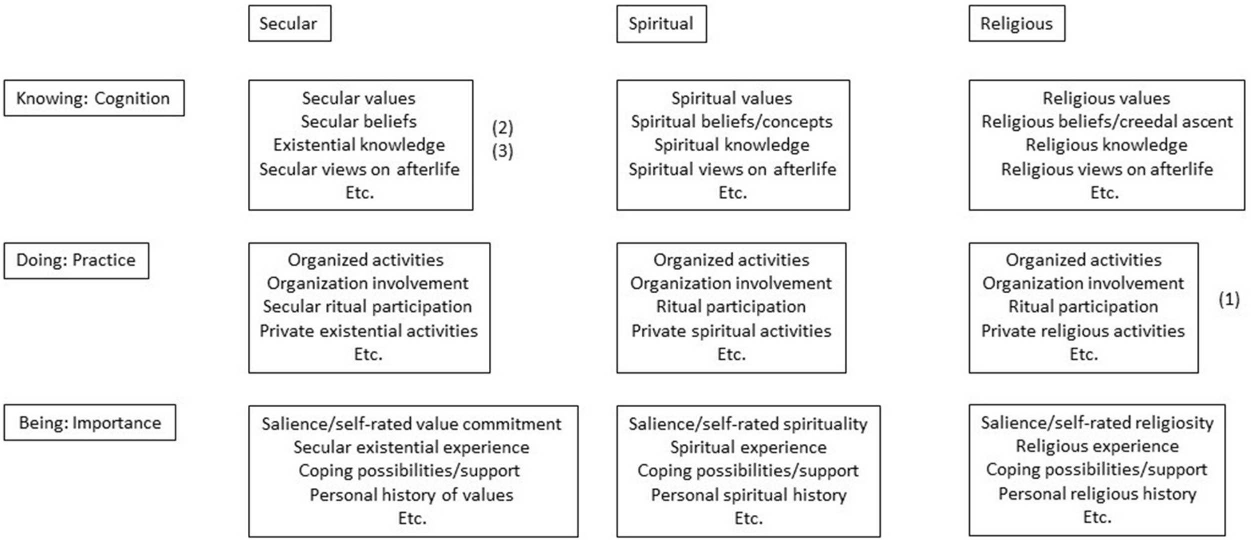
FIGURE 1 | The ontological grounding.

illustrated by the identical content of the three boxes individuals are naturally influenced by similar influencers that comes from learning a specific language, living in a specific family with a specific history and economy and so on, while also highlighting that even though these influencers are similar, the individuals are still unique. The arrows between the boxes illustrate that an individual is likely to move between the spheres depending on context. As Peter Berger argued, people most often have no problem with moving between relevance spheres and can quite easily differentiate between when it is time to be (act) secular and when it is time to be (act) religious (Berger, 2014, 2015). However, in the context of secular healthcare this might not be so easy, as the patient consulting the physician (in a secular setting) is informed by the surrounding cultural context that this is not the time, nor the place, to talk about spiritual pains and needs, and thereby the patient may marginalize his/her spiritual needs, and resources for that matter. As research has shown, the HCP may also find it difficult and sometimes even irrelevant to bring up spiritual needs, and thereby also, maybe unintentionally, marginalize the patient's spiritual needs (Nissen et al., 2019a). With the words of Charles Taylor, it can be argued that the existential orientations in contemporary Western culture, be they secular, spiritual or religious, are cross-pressured in a figurative force-field, they are continuously contested by the presence of each other and work upon each other as interior "pressures" or "forces," thereby fragilizing each other (Taylor, 2007). For healthcare, this may explain why it is difficult to approach existential orientations due to the presence of barrier pressures (the bias of the surrounding (cultural) context) of, for instance, ethics, professional boundaries, and scientific discourse, that are countered by facilitating pressures of, for instance, compassion and sense of a patients' spiritual needs (Damberg Nissen et al., 2018). These types of barriers and facilitators work against each other in the clinic and constitute the force field of opposing cross-pressures (barriers and facilitators) that HCPs need to engage in the encounter with each new patient.

Figure 1 thus illustrates the surrounding (cultural) context and relevance spheres as significant influencers on the ontological grounding of the individual, yet every individual is physically and mentally separated from everyone else. We are semantically situated in relation to each other through the surrounding (cultural) context and relevance spheres and therefore we have similar understandings of the world, but we are not the same. We do not have access to the "inner life" of each other. In the final instance, the ontological grounding of the individual is unique.

We argue that an attempt at understanding of the ontological grounding of the individual patient is necessary, even imperative, for providing spiritual care in a culturally entwined and pluralistic world. How to approach the patient and provide spiritual care from this understanding is not easily put into formulae or practice. However, being explicit and proactive about it and approaching an understanding of the patient from this perspective, will enable more explicit and inclusive reflections in relation to the individual, and help the HCP gage from which perspectives and to what degree the existential meaning-making of the individual patient has collapsed. From here the HCP will be in a better position to develop a spiritual care treatment plan that is sensitive to the ontological grounding, appropriate, inclusive, empowering, and, not the least, recognizable to the patient.

Where **Figure 1** illustrates the ontological grounding of the patient, **Figure 2**, the Meaning-Making Matrix (MMM), inspired by la Cour and Hvidt (2010), sets this in relation to three central aspects of meaning-making: Knowing, Doing, and Being. The secular, spiritual, and religious components are here



	Secular	Spiritual	Religious
Knowing: Cognition	Secular values Secular beliefs Existential knowledge Secular views on afterlife Etc. (2) (3)	Spiritual values Spiritual beliefs/concepts Spiritual knowledge Spiritual views on afterlife Etc.	Religious values Religious beliefs/creedal ascent Religious knowledge Religious views on afterlife Etc.
Doing: Practice	Organized activities Organization involvement Secular ritual participation Private existential activities Etc.	Organized activities Organization involvement Ritual participation Private spiritual activities Etc.	Organized activities Organization involvement Ritual participation Private religious activities Etc. (1)
Being: Importance	Salience/self-rated value commitment Secular existential experience Coping possibilities/support Personal history of values Etc.	Salience/self-rated spirituality Spiritual experience Coping possibilities/support Personal spiritual history Etc.	Salience/self-rated religiosity Religious experience Coping possibilities/support Personal religious history Etc.

FIGURE 2 | The Meaning-Making Matrix. Example: Through a "spiritual needs assessment" a patient is identified as a practicing catholic and is expressing a need to go to Mass, marked above by (1). The patient is also expressing a need to reconcile with an old friend and a need for talking with family about their financial situation, marked above by 2 and 3. This would lead to considering the following interventions: Organizing participation in a Mass, a visit by the old friend, and a visit by the family. However, all 3 interventions need to be reflected through the understanding of the patients ontological grounding and physical/mental condition: Is the patient physically capable of going to Mass and if not, what alternatives are there? Who is the friend and what is their history, is the patient in a mental condition to reach reconciliation or will such a meeting lead to further distress? Is the patient mentally capable of addressing financial issues and what are these issues, and will it lead to further distress? This leads to ethical considerations about how to approach the situation and who to involve; just as further interventions could be considered and leading to the development of the spiritual care treatment plan.

differentiated in relation to these aspects. The MMM enables the HCP to explicitly reflect upon the patient's ontological grounding and what existential orientations the patient draws upon – and on that basis to locate what kind of interventions are needed to support coping through these orientations and to offer adequate and sensitive spiritual care. In this way the MMM facilitates the HCP in understanding the patient, thereby making it easier to address the area ethically, sensitively, and appropriately. The content of the boxes is similar to each other, only the frames "secular," "spiritual," "religious" change, in order to illustrate that the needs are, or may be, similar but that they are understood by the individual from different perspectives. Approaching the ontological grounding of the patient through the MMM will also enable an understanding of what aspects are important to the patient (relational, individual, embodied, verbal) (Viftrup et al., 2021), and finally, it will give an idea of who should be involved in providing spiritual care; nurse, physician, social worker, chaplain, relative, etc.

As will be exemplified below, this attempt at understanding the patient in relation to the MMM can be done in many ways, using questionnaires, through daily interactions and conversation, through the involvement of relatives or friends, etc. Essential is that the specificity of the needs is determined, i.e., whether they are of mainly secular, spiritual, or religious nature, whether they are of a cognitive, practical, or emotional kind, if they are interwoven, and how important various aspects are to the patient at various times. Can the needs be addressed through daily interaction and conversation with the nurse? Does the patient want to interact with peers, to have physical contact, listen to music? Or is the patient in such distress that a psychiatrist, psychologist, or chaplain is needed? Maybe it is a question of making peace with a higher being or participating in spiritual or religious rituals or other kinds of activities, in which case a chaplain or religious community may be needed. Maybe it is a combination of the above? Understanding the patient in relation to the MMM will assist in clarifying these questions and assist in identifying specific approaches relevant/suitable for the individual patient. In everyday practice this is likely to take place as the HCP is getting to know a patient as part of relationship-building. In this way the MMM is an explicit area of focus in the process of spiritual care, initiated when meeting the patient and an integrated part of the spiritual care treatment plan (phase 3 in the process of spiritual care).

We realize, that using the constructs "secular," "spiritual," and "religious" is already assuming "something" on behalf of the patient, namely that the ontological grounding and the MMM can be understood and accessed through these constructs. This is a bias and a limitation. However, by making these reflections explicit, we may reveal our potential bias and challenge our own understandings, and thereby reach a better understanding of the patient (Holbraad, 2017; Nissen et al., 2019b). Is this pushing the endeavor to far, is it complicating things more than need be? As we have argued, we find it necessary, in an individualized, culturally entwined, and pluralistic world, in order to gain an understanding of the patient that is recognizable to both patient and HCP, and from there to identify the appropriate actions, and develop the spiritual care treatment plan.

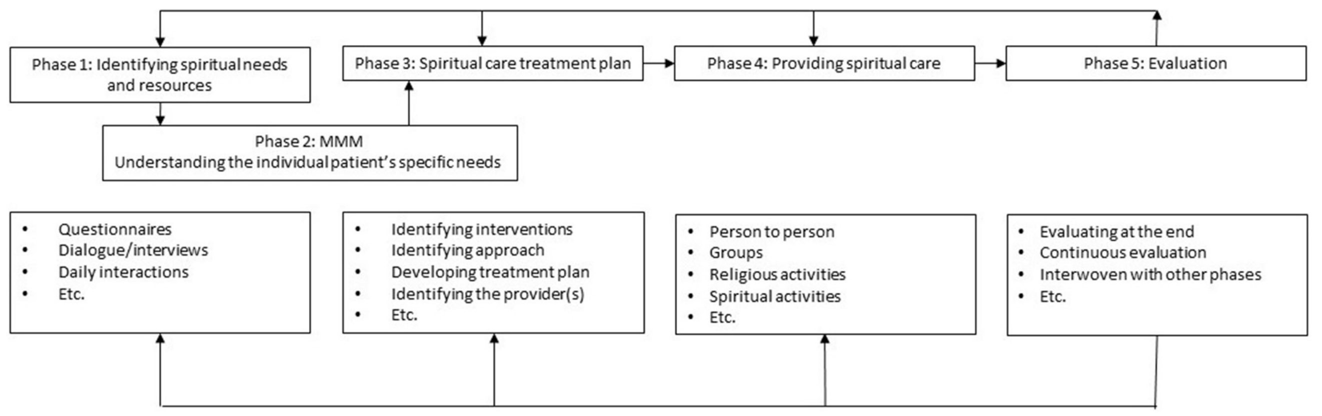


FIGURE 3 | The Process of Spiritual Care.

THE PROCESS OF SPIRITUAL CARE

In the following we will outline the process of spiritual care and then commence to a discussion of the process, exemplified by instruments/interventions focused on the different phases. The examples in the discussion have been drawn from the Catalogue of Spiritual Care Instruments (Damberg Nissen et al., 2020).

Figure 3 illustrates the process of spiritual care as spanning 5 phases. The four boxes below the phases illustrate what kinds of instruments/interventions can be applied. The "etc." has been included to illustrate that other possibilities exist.

The process of spiritual care is illustrated as starting by identifying spiritual needs. Phase 1 is then combined with phase 2 – the MMM, which leads to phase 3 – developing the spiritual care treatment plan and locating the relevant HCP's to be involved. Phase 4 is then the actual provision of spiritual care. Phase 5 is the evaluation that should take place to ensure that the spiritual care provided is living up to expectations. The arrow going from "phase 5: Evaluation" and back to the previous phases illustrates that spiritual care should be continuously evaluated and the spiritual care treatment plan adjusted according to the findings of the evaluation.

EXAMPLES AND DISCUSSION

Phase 1: Identifying Spiritual Needs and Resources

In the following we have focused on the identification of spiritual needs. However, a similar approach can be taken in relation to spiritual resources. How are spiritual needs identified? They can be identified as part of the daily interaction between patient and HCP, through conversation or observation, this will be addressed below. First, we address the explicit assessment as an approach. The Catalogue of Spiritual Care Instruments locates 132 questionnaires within the field of spiritual care. Not all of these are spiritual needs assessment questionnaires but a recent overview, which was based on the Catalogue of Spiritual Care Instruments, included 22 questionnaires aimed at assessing spiritual needs or spiritual distress (Nissen and Hvidt, 2021). These spiritual needs assessment questionnaires were developed in different national and cultural contexts, reflecting the international attention on spiritual needs and spiritual care, but also reflecting local contextual differences in the way the questions are formulated. They span from containing strictly secular questions, such as "the Psychosocial and Spiritual Needs Evaluation scale" from Spain (Mateo-Ortega et al., 2019), "the Existential Distress Scale" from Canada (Lo et al., 2017), and "the Spirit 8" from South Africa and Uganda (Selman et al., 2012), to questionnaires that include explicit questions in relation to spirituality or religiosity, such as the "Geriatric Spiritual Well-being Scale" from the United States (Dunn, 2008), "the Holistic Health Status Questionnaire" from Hong Kong (Chan et al., 2016) and "the Spiritual Distress Scale" from Taiwan (Ku et al., 2010), while others have been developed in a religious setting such as the "Elder Spiritual Health Scale" from Iran (Ajamzibad et al., 2018), "the Spiritual Care Needs Scale" from Turkey (Otuzoglu, 2019) and "the Mature Religiosity Scale" from Netherlands (Vries-Schot and Uden, 2012). The "Thai Spiritual Well-being Assessment Tool for Elders with Chronic Illnesses" from Thailand (Unsanit et al., 2012), is an example of an assessment instrument developed in a pluralist religious setting (Buddhist, Islam, Christian) and containing no explicit references to religion (only one reference to Dharma). In the area of assessing spiritual needs and resources in the elderly, the Catalogue of Spiritual Care Instruments also mentions the "JAREL Spiritual Well-Being Scale" from the United States (Hungelmann et al., 1996) and the "Spiritual Distress Assessment Tool" from Switzerland (Monod et al., 2015).

"The Spiritual Needs Questionnaire" from Germany (Büssing et al., 2010) is likely to be the most widely distributed spiritual needs assessment instrument and has been translated, validated, and implemented in at least 18 countries (Damberg Nissen et al., 2020).

Spiritual needs may also surface in the day-to-day interaction between patient and HCP. As such, identifying spiritual needs becomes part of the relationship between patient, HCP, and other involved parties such as relatives and friends. From this perspective spiritual needs are not necessarily identified when the patient is diagnosed or hospitalized, but becomes part of relationship-building between patient and HCP (Steenfeldt, 2019), and thereby partly dependent on both the empathy of the HCP and the willingness of the HCP to engage in this work. To approach spiritual needs through daily interaction with the patient, underlines the need for spiritual care to be included in the curriculum, and the necessity of this has increasingly come into focus during the past decades. In an international context this also needs to be furthered by the concept "spirituality" to be continuously addressed and discussed in research, as the concept has so many different connotations and meanings, as an aspect of being human and as a concept in healthcare (Hvidt et al., 2020). "The Spiritual Assessment in Aging" from the United Kingdom (Nelson-Becker et al., 2007) was developed to both prepare and guide clinicians to undertake spiritual assessment through conversation, identifying 11 domains in spirituality through which a framework is assembled for spiritual assessment with older adults.

While identifying spiritual needs and resources through daily interactions is a sensitive and patient empowering approach, it demands great attention, preparation, and education/training on behalf of the HCP. In highly secular contexts this might be difficult, as there may be a tendency to marginalize spiritual needs, as both patient and HCP may find the topic difficult to engage, which is partly influenced by the surrounding (cultural) contexts tendency to marginalize the area as irrelevant, unimportant, or inappropriate. This hinders the identification of spiritual needs and resources, as has been documented in psychiatric research (Nissen et al., 2019a). Nissen (2019) outlines "the privacy of religion argument" as hindering spiritual needs from being identified in secular healthcare, because asking about spirituality or religiosity is considered so private that it becomes unethical to ask such questions directly. The patient must bring it up if spirituality/religiosity is to be brought into conversation. This is supported by the study on spiritual care in Danish hospices by Viftrup et al. (2021), and also by Andersen et al. (2020) study on existential communication between physicians and patients with chronic pain and multiple sclerosis. Being thus far a purely theoretical concept, it is unknown to what extent the MMM will assist in overcoming difficulties in relation to existential communication. However, the MMM will initiate a conscious reflection on behalf of the HCP in relation to the ontological grounding of the patient, which has the potential of therethrough making it easier to address the area ethically, sensitively, and appropriately, as it explicitly identifies spiritual needs and resources as relevant in the given (secular) healthcare context.

The United States Joint Commission on Accreditation of Healthcare Organization's (JCAHO) has developed a set of guidelines to assist the HCP in assessing and identifying spiritual needs through day-to-day interaction. The guidelines are formulated as a series of questions for the HCP to be aware of when in contact with the patient. The patient is not necessarily asked these questions explicit but they enable the HCP to be aware of areas where spiritual needs might surface (Hodge, 2006). As such, the JCAHO guidelines is an example of a way to address phase 1 and 2 in the process of spiritual care, without presenting a stringent and predesigned approach to spiritual care. Wiltjer and Kendall argue that a spiritual needs assessment should be part of a holistic assessment of older people, where the spiritual domain is seen as one of five key domains (Wiltjer, 2019).

The nurse or social worker is likely to be in a good position to both identify spiritual needs and resources and provide spiritual care, considering that relationship is a central part of providing spiritual care. This is underlined by spiritual distress having been a diagnose in nursing in the United States since 1978 (Hodge, 2006), and as Burkhart et al. (2011) argues, spiritual care has always been an integral part of nursing care.

The general practitioner, who is often the HCP who often knows the patient prior to severe illness, is also in a position to identify spiritual needs and resources, but is often not in a position to offer spiritual care, simply because of time limitation in general practice (Assing Hvidt et al., 2017a). This does not mean that spiritual care cannot be part of general practice. The "existential communication in general practice" tool (EMAP) from Denmark, is an example of an instrument facilitating communication about existential needs and resources between general practitioners and patients with cancer (Assing Hvidt et al., 2017b), also functioning as a way for the general practitioner to open the topic, without transgressing ethical or personal borders, thereby overcoming the above-mentioned "privacy of religion argument" and facilitating working with the MMM.

The chaplain is trained and experienced in having existential conversations and in providing spiritual care. With the ambition of sharing this expertise with HCPs', Fitchett and Risk (2009) from the United States developed the "Religious Struggle Screening Protocol" (RSSP). The RSSP was developed in a Christian context within chaplaincy, with the intention of assisting non-chaplain HCP's to identify patients in need of spiritual care. It is a map of action consisting of a series of yes/no questions for the HCP to be attentive of when talking with the patient leading to different action outcomes. In the secular countries of Scandinavia and Northern Europe, the chaplain is experienced in interfaith dialog and is able to provide spiritual care in different frameworks and address secular, spiritual, and religious existential question alike (Nissen et al., 2019b).

Phase 2: The Meaning-Making Matrix

Once spiritual needs have been identified, it is necessary to locate the nature of the spiritual needs. Involving the MMM will help to clarify whether the identified needs are of a secular, spiritual, or religious kind, whether there are cultural variances that need be taken into consideration, and whether the needs are of a cognitive or practical nature, or a combination of this, as outlined above in section "The Ontological Grounding and the Meaning-Making Matrix".

The "Cultural Formulation Interview" (CFI) from the United States (Aggarwal et al., 2014) is an example of an approach that can assist in understanding the patient through the MMM. The CFI is not aimed at spiritual care *per se*, but it contains (culturally) open questions that will enable the patient to reflect on the personal background and context, and therethrough the HCP will be able to get an understanding of the patient in relation to the MMM. The "ETHNIC(S) mnemonic" from the United States (Kobylarz et al., 2002) is another example in relation to the MMM. The "ETHNIC(S) mnemonic" was developed in Geriatric care as a framework that practitioners can use in providing culturally appropriate care for the elderly.

As illustrated in **Figure 3** we see the MMM as interwoven in phases 1–3, meaning to illustrate that understanding the individual patients ontological grounding is essential for addressing the questions of how to care for the patient in relation to the identified spiritual needs, what are the specifics of these needs, what are the relevant interventions, and who are the relevant HCP's to be involved? These are explicit reflections to be made in relation to the individual patient and will influence the HCPs to be involved in both identifying spiritual needs (phase 1), developing the spiritual care treatment plan (phase 3), and who should be involved in providing spiritual care (phase 4).

Phase 3: The Spiritual Care Treatment Plan

Having identified spiritual needs and reached an understanding of these needs in relation to the patients ontological grounding, should enable a point from which to develop a plan for the provision of the spiritual care. Who is qualified to develop this plan? A chaplain, a general practitioner, a psychologist, a nurse, a relative, or is it a joint effort? We propose that this is a joint effort, as spiritual care is best practiced as a teamwork effort, and as part of holistic and patient centered healthcare it could potentially involve all concerned parties, as an interprofessional endeavor (Puchalski et al., 2006, 2019; Bandini et al., 2018). The particular spiritual care treatment plan will reflect the patient in relation to the ontological grounding and whether the nature of the identified spiritual needs is of a secular, spiritual, or religious character, and whether the needs are of a cognitive, practical, or emotional kind, or a mix. The spiritual care treatment plan should reflect the interventions included and how the actual provision of spiritual care should be implemented; who should be involved to do what, when, and where? The "Spiritual Assessment and Intervention Model" (Spiritual Aim) from the United States (Shields et al., 2015) is an example of such an approach. Shields and colleagues argue that if spiritual care is provided without a plan, then the intervention(s) may stray off course, or simply remain within the realm of a social visit or random interactions with patients. While Spiritual Aim is not a spiritual care treatment plane in itself, it could inspire as a conceptual framework for the development of specific spiritual care treatment plans as it can assist the HCP to diagnose a patient's unmet spiritual needs (phase 1/2), to devise a spiritual care treatment plan (phase 3), to implement this plan (phase 4), and to evaluate the desired and actual outcome of the intervention (phase 5). As such, Spiritual Aim is an example of an approach encompassing all phases. Spiritual Aim was developed from a Lutheran perspective but is now inclusive of other faiths and implemented in clinical settings. Its applicability in secular context or with secular oriented patients is a question for further research. Another example of a systematic approach that includes all phases of assessing, planning, providing, and evaluating spiritual care is "Guidelines for the Assessment of Spiritual Needs" from the United Kingdom (Govier, 2000).

Phase 4: Providing Spiritual Care

Providing spiritual care is implementing the spiritual care treatment plan. Interestingly, even though many spiritual care instruments exist, approaches for providing spiritual care through the provision of a spiritual care treatment plan seem scarce (Harrad et al., 2019; Damberg Nissen et al., 2020). This might be because, as we have argued, spiritual care is an individual and relational process and therefore difficult to put into stringent formulae; it must be developed at the local level with the individual patient in mind. "Spiritual Reminiscence" from Australia (Mackinlay and Trevitt, 2010) is an example of an approach that both enables identifying spiritual needs (phase 1) while also being applicable as part of the provision of spiritual care, in the sense that spiritual reminiscence is a type of narrative gerontology, enabling the elderly to give meaning to their life-story while also connecting socially to peers.

Phase 5: Evaluation

Phase 5, evaluation, should be included as part of the spiritual care treatment plan and take place continuously in order to secure that the care is being provided according to plan, and that effect be measured ongoingly in order to adjust the spiritual care treatment plan if necessary. Evaluating a process can be done in many ways but should be integratable with the identification/assessment of spiritual needs to enable effect evaluation. If this kind of evaluation is intended, it will be made possible by identifying/assessing the spiritual needs through a questionnaire and then reusing the questionnaire for evaluative purposes, in view of gaging to what extent the needs have been met. There are instruments made to specifically assess the effect of an intervention, such as the Service-user Recovery Evaluation Scale (SeRvE) from England, which is a patient reported outcome measure developed to monitor interventions, which also highlights the importance of spiritual care for patients (Barber et al., 2018).

PERSPECTIVES AND CONCLUSION

To approach spiritual care as a process has implications and perspectives for all healthcare areas where existential questions and crises may arise, be it in geriatrics for an elderly at the end of life, in pediatrics for a youngster diagnosed with cancer, or anyone in between faced with the difficulties of existential crisis. It also has consequences for the person(s) who provide spiritual care, be it the general practitioner, the nurse, the psychologist, the chaplain, the relatives, or anyone else who cares for persons in existential crisis. We have argued that it is difficult to develop a stringent approach that encapsulates the process of spiritual care as a whole, because spiritual care is a relational and individual process that takes place in a local context between individuals, and therefore each case of providing spiritual care is unique. By drawing on examples from the Catalogue of Spiritual Care Instruments we have illustrated that many instruments exist that in one way or another are applicable in the process of spiritual care, but also that they cannot stand alone and that several instruments are necessary. This points to the conclusion that developing a spiritual care treatment plan is essential for providing spiritual care, so that spiritual care does not become *ad hoc* solutions depending on individual empathy, involvement, (lack of) training, and interest.

We have illustrated the importance of locating patients in relation to their ontological grounding and from there to approach an understanding of the patient in relation to secular, spiritual and/or religious existential needs. We have argued this as essential in a culturally entwined and pluralist world, and we have suggested the ontological grounding by means of the MMM as a way to approach this aspect, as it will help to understand the specificity of the individual patient's spiritual needs and thereby assist in developing the best possible spiritual care treatment plan. How this spiritual care treatment plan should be developed in various international and vernacular contexts is an area that calls for further attention and research, to delineate and share international experiences and best practice. Our presentation of the ontological grounding and MMM should also assist in this aspect of the international development of spiritual care, as it is not specific to culture, spirituality, or religion, nor does it present an intervention, but a structure in which to implement specific instruments/interventions.

Presenting spiritual care as a process implies working within a conceptually defined spiritual care provision framework. We recommend this to be the default position for any institution where spiritual care is part of the daily work and routines. This so, especially because looking at spiritual care as a process highlights that moving from identifying spiritual needs in a patient, to the actual provision of spiritual care involves deliberate and considered actions that consider the patient's specific ontological grounding. This also implies the need to identify the appropriate personnel to provide spiritual care and assist the involved parties in developing the best possible spiritual care treatment plan.

By presenting spiritual care as a process, we hope to inspire the focus on spiritual care as a whole, as a relationship between the involved parties, as a way to make visible the necessities, the difficulties but, most importantly, the positive potential that lies in spiritual care. In the final instance, spiritual care has only one ambition; to help the individual human being through crisis.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

AUTHOR CONTRIBUTIONS

DTV and NCH discussed the topic and reviewed the manuscript. All authors contributed to the article and approved the submitted version.

FUNDING

This work was funded by an unrestricted grant from Pfizer Oncology Denmark.

REFERENCES

Aggarwal, N. K., Glass, A., Tirado, A., Boiler, M., Nicasio, A., Alegria, M., et al. (2014). The development of the DSM-5 cultural formulation interview-fidelity instrument (CFI-FI): a pilot study. *J Health Care Poor Underserved* 25, 1397–1417. doi: 10.1353/hpu.2014.0132

Ajamzibad, H., Foroughan, M., Shahboulaghi, F. M., Rafiey, H., and Rassouli, M. (2018). Development and validation of the elder's spiritual health scale. *Edu. Gerontol.* 44, 786–795. doi: 10.1080/03601277.2019.1565138

Andersen, A. H., Assing Hvidt, E., Hvidt, N. C., and Roessler, K. K. (2020). 'Maybe we are losing sight of the human dimension'-physicians' approaches to existential, spiritual, and religious needs among patients with chronic pain or multiple sclerosis. A qualitative interview-study. *Health Psychol. Behav. Med.* 8, 248–269. doi: 10.1080/21642850.2020.1792308

Assing Hvidt, E., Hansen, D. G., Ammentorp, J., Bjerrum, L., Cold, S., Gulbrandsen, P., et al. (2017a). Development of the EMAP tool facilitating existential communication between general practitioners and cancer patients. *Eur. J. Gen. Pract.* 23, 261–268. doi: 10.1080/13814788.2017.1326479

Assing Hvidt, E., Søndergaard, J., Hansen, D. G., Gulbrandsen, P., Ammentorp, J., Timmermann, C., et al. (2017b). 'We are the barriers': danish general practitioners' interpretations of why the existential and spiritual dimensions are neglected in patient care. *Commun. Med.* 14, 108–120. doi: 10.1558/cam.32147

Austin, P., Macdonald, J., and MacLeod, R. (2018). Measuring spirituality and religiosity in clinical settings: a scoping review of available instruments. *Religions* 9:70.

Bandini, J., Thiel, M., Meyer, E., Paasche-Orlow, S., Zhang, Q., and Cadge, W. (2018). Interprofessional spiritual care training for geriatric care providers. *Innov. Aging* 2(suppl 1):963. doi: 10.1093/geroni/igy031.3569

Barber, J. M., Parkes, M., Parsons, H., and Cook, C. C. H. (2018). Importance of spiritual well-being in assessment of recovery: the Service-user Recovery Evaluation (SeRvE) scale. *Psychiatrist* 36, 444–450. doi: 10.1192/pb.bp.111.037838

Berger, P. L. (2014). *The Many Altars of Modernity*. Boston: De Gruyter.

Berger, P. L. (2015). The hospital: on the interface between secularity and religion. *Society* 52, 410–412. doi: 10.1007/s12115-015-9941-z

Berger, PLaLT (2016). *Den Sociale Konstruktion af Virkeligheden - En vidensociologisk afhandling*. Copenhagen: Akademisk Frolag.

Bergman, B., Neuhauser, D., and Provost, L. (2011). Five main processes in healthcare: a citizen perspective. *BMJ Qual. Saf.* 20, i41–i42.

Bowman, M. (2014). *Vernacular Religion in Everyday Life. Expressions of Belief*. Milton Park: Routledge.

Burkhart, L., Schmidt, L., and Hogan, N. (2011). Development and psychometric testing of the spiritual care inventory instrument. *J. Adv. Nurs.* 67, 2463–2472. doi: 10.1111/j.1365-2648.2011.05654.x

Büssing, A., Balzat, H. J., and Heusser, P. (2010). Spiritual needs of patients with chronic pain diseases and cancer - validation of the spiritual needs questionnaire. *Eur. J. Med. Res.* 15, 266–273. doi: 10.1186/2047-783x-15-6-266

Cadge, W., and Bandini, J. (2015). The evolution of spiritual assessment tools in healthcare. *Society* 52, 430–437. doi: 10.1007/s12115-015-9926-y

Caldeira, S., Carvalho, E. C., and Vieira, M. (2013). Spiritual distress-proposing a new definition and defining characteristics. *Int. J. Nurs. Knowl.* 24, 77–84. doi: 10.1111/j.2047-3095.2013.01234.x

Chan, C. W., Wong, F. K., Yeung, S. M., and Sum, F. (2016). Holistic health status questionnaire: developing a measure from a hong kong chinese population. *Health Q. Life Outcomes* 14:28.

Clark, C. C. (1997). Recognizing spiritual needs of orthopaedic patients. *Orthop. Nurs.* 16, 27–32.

Conway, J. (2010). Integrating spiritual care as part of comprehensive cancer treatment. *Oncol. Nurse Advis.* 1, 24–27.

Crowther, S., and Hall, J. (2015). Spirituality and spiritual care in and around childbirth. *Women Birth* 28, 173–178. doi: 10.1016/j.wombi.2015.01.001

Daaleman, T. P. (2012). A health services framework of spiritual care. *J. Nurs. Manag.* 20, 1021–1028.

Damberg Nissen, R., Falkø, E., Toudal Viftrup, D., Assing Hvidt, E., Søndergaard, J., Büssing, A., et al. (2020). The catalogue of spiritual care instruments: a scoping review. *Religions* 11:252. doi: 10.3390/rel11050252

Damberg Nissen, R., Gildberg, F., and Hvidt, N. (2018). Psychiatry, a secular discipline in a postsecular world? A review. *Religions* 9:32. doi: 10.3390/rel9010032

Delgado, C. A. (2005). Discussion of the concept of spirituality. *Nurs. Sci. Q.* 18, 157–162. doi: 10.1177/0894318405274828

Descola, P. (2014). *Beyond Nature and Culture*. London: University of Chicago Press.

Dunn, K. S. (2008). Development and psychometric testing of a new geriatric spiritual well-being scale. *Int. J. Older People Nurs.* 3, 161–169. doi: 10.1111/j.1748-3743.2007.00107.x

Fitchett, G., and Risk, J. L. (2009). Screening for Spiritual Struggle. *J. Pastoral Care Counsel.* 63, 1–12. doi: 10.1177/154230500906300104

Ghorbani, M., Mohammadi, E., Aghabozorgi, R., and Ramezani, M. (2021). Spiritual care interventions in nursing: an integrative literature review. *Support. Care Cancer* 29, 1165–1181. doi: 10.1007/s00520-020-05747-9

Giddens, A. (2018). *Modernitet Og Selvidentitet*. København: Hans Reitzels Forlag.

Gijsberts, M. H. E., Liefbroer, A. I., Otten, R., and Olsman, E. (2019). Spiritual care in palliative care: a systematic review of the recent european literature. *Med. Sci. (Basel)* 7:25. doi: 10.3390/medsci7020025

Govier, I. (2000). Spiritual care in nursing: a systematic approach. *Nurs. Stand.* 14, 32–36. doi: 10.7748/ns2000.01.14.17.32.c2744

Grabenweger, R., and Paal, P. (2021). Spiritualität in der psychiatrischen Pflege-begriffsanalyse und vorschlag einer arbeitsd efinition. *Spiritual Care* 10, 53–62. doi: 10.1515/spircare-2019-0131

Group, W. (1994). Development of the WHOQOL Rationale and current status. *Int. J. Ment. Health* 23, 24–56. doi: 10.1080/00207411.1994.11449286

Harrad, R., Cosentino, C., Keasley, R., and Sulla, F. (2019). Spiritual care in nursing: an overview of the measures used to assess spiritual care provision and related factors amongst nurses. *Acta Biomed.* 90, 44–55.

Hodge, D. R. (2006). A template for spiritual assessment: a review of the JCAHO requirements and guidelines for implementation. *Soc. Work* 51, 317–326. doi: 10.1093/sw/51.4.317

Holbraad, M. M. M. (2017). *The Ontological Turn*. Cambridge: Cambridge University Press.

Hungelmann, J., Kenkel-Rossi, E., Klassen, L., and Stollenwerk, R. (1996). Focus on spiritual well-being: harmonious interconnectedness of mind-body-spirit–use of the JAREL spiritual well-being scale. *Geriatr. Nurs.* 17, 262–266. doi: 10.1016/s0197-4572(96)80238-2

Hvidt, N. C., Assing Hvidt, E., and la Cour, P. (2021). Meanings of "the existential" in a secular country: a survey study. *J. Relig. Health*. doi: 10.1007/s10943-021-01253-2 [Epub ahead of print].

Hvidt, N. C., Hvidtjørn, D., Christensen, K., Nielsen, J. B., and Søndergaard, J. (2017). Faith moves mountains-mountains move faith: two opposite epidemiological forces in research on religion and health. *J. Relig. Health* 56, 294–304. doi: 10.1007/s10943-016-0300-1

Hvidt, N. C., Kørup, A. K., Curlin, F., Baumann, K., Frick, E., Søndergaard, J., et al. (2016). The nersh international collaboration on values. Spirituality and religion in medicine: development of questionnaire, description of data pool, and overview of pool publications. *Religions* 7:107. doi: 10.3390/rel7080107

Hvidt, N. C., Mikkelsen, T. B., Zwisler, A. D., Tofte, J. B., and Assing Hvidt, E. (2019). Spiritual, religious, and existential concerns of cancer survivors in a secular country with focus on age, gender, and emotional challenges. *Support Care Cancer* 27, 4713–4721. doi: 10.1007/s00520-019-04775-4

Hvidt, N. C., Nielsen, K. T., Kørup, A. K., Prinds, C., Hansen, D. G., Viftrup, D. T., et al. (2020). What is spiritual care? Professional perspectives on the concept of spiritual care identified through group concept mapping. *BMJ Open* 10:e042142. doi: 10.1136/bmjopen-2020-042142

Johannesen-Henry CaI, H. R. (2019). *Mangefoldet tro*. Copenhagen: Eksistensen Akademisk.

Kobylarz, F. A., Heath, J. M., and Like, R. C. (2002). The ETHNIC(S) mnemonic: a clinical tool for ethnogeriatric education. *J. Am. Geriatr. Soc.* 50, 1582–1589. doi: 10.1046/j.1532-5415.2002.50417.x

Kørup, A. K., and Søndergaard, J. Christensen R. d., Nielsen C. T., Lucchetti G., Ramakrishnan P., et al. (2020). Religious values in clinical practice are here to stay. *J. Relig. Health* 59, 188–194. doi: 10.1007/s10943-018-0715-y

Ku, Y. L., Kuo, S. M., and Yao, C. Y. (2010). Establishing the validity of a spiritual distress scale for cancer patients hospitalized in southern Taiwan. *Int. J. Palliat. Nurs.* 16, 134–138. doi: 10.12968/ijpn.2010.16.3.47325

la Cour, P., and Hvidt , N. C. (2010). Research on meaning-making and health in secular society: secular, spiritual and religious existential orientations. *Soc. Sci. Med.* 71, 1292–1299. doi: 10.1016/j.socscimed.2010.06.024

Lo, C., Panday, T., Zeppieri, J., Rydall, A., Murphy-Kane, P., Zimmermann, C., et al. (2017). Preliminary psychometrics of the existential distress scale in patients with advanced cancer. *Eur. J. Cancer Care (Engl.)* 26, 1–8.

Mackinlay, E., and Trevitt, C. (2010). Living in aged care: using spiritual reminiscence to enhance meaning in life for those with dementia. *Int. J. Ment. Health Nurs.* 19, 394–401. doi: 10.1111/j.1447-0349.2010.00684.x

Mateo-Ortega, D., Limonero, J. T., Mate-Mendez, J., Beas, E., Gonzalez-Barboteo, J., Barbero, E., et al. (2019). Development of a tool to identify and assess psychosocial and spiritual needs in end-of-life patients: the ENP-E scale. *Palliat. Support Care* 17, 441–447. doi: 10.1017/s1478951518000652

Mignolo, W. (2011). *The Darker Side Of Western Modernity*. London: Duke University Press.

Moestrup, L., and Hvidt, N. C. (2016). Where is God in my dying? A qualitative investigation of faith reflections among hospice patients in a secularized society. *Death Stud.* 40, 618–629. doi: 10.1080/07481187.2016.1200160

Monod, S., Lécureux, E., Rochat, E., Spencer, B., Seematter-Bagnoud, L., Martin-Durussel, A.-S., et al. (2015). Validity of the FACIT-Sp to assess spiritual well-being in elderly patients. *Psychology* 6, 1311–1322. doi: 10.4236/psych.2015.610128

Moudatsou, M., Stavropoulou, A., Philalithis, A., and Koukouli, S. (2020). The role of empathy in health and social care professionals. *Healthcare (Basel)* 8:26. doi: 10.3390/healthcare8010026

Nelson-Becker, H., Nakashima, M., and Canda, E. R. (2007). Spiritual assessment in aging: a framework for clinicians. *J. Gerontol. Soc. Work* 48, 331–347. doi: 10.1300/j083v48n03_04

Nissen, R. (2019). . *In That Most Secular of Rooms - The Religious Patient in Secular Psychiatry*. Denmark: Odense University of Southern.

Nissen, R. D., and Hvidt, N. C. (2021). "Assessing patients' Spiritual Needs in healthcare: An overview of questionnaires," in *Spiritual Needs in Research and Practice*, ed. A. Büssing (Cham: Springer).

Nissen, R. D., Gildberg, F. A., and Hvidt, N. C. (2019a). Approaching the religious psychiatric patient in a secular country: does "subalternalizing" religious patients mean they do not exist? *Arch. Psychol. Relig.* 41, 123–140. doi: 10.1177/0084672419868770

Nissen, R. D., Gildberg, F. A., and Hvidt, N. C. (2019b). Approaching the religious patient in forensic psychiatry, with special focus on ethnic minority patients. *Ment. Health Relig. Cult.* 22, 694–710. doi: 10.1080/13674676.2019.1636368

Nolan, S. (2011). *Spiritual Care In Palliative Care-Working Towards an EAPC Task Force*. Belgium: EAPC.

Otuzoglu, M. T. M. (2019). Development of a scale to identify spiritual care needs of oncology patients. *Int. J. Med. Res. Health Sci.* 8, 39–53.

Puchalski, C. M., Lunsford, B., Harris, M. H., and Miller, R. T. (2006). Interdisciplinary spiritual care for seriously ill and dying patients: a collaborative model. *Cancer J.* 12, 398–416. doi: 10.1097/00130404-200609000-00009

Puchalski, C. M., Sbrana, A., Ferrell, B., Jafari, N., King, S., Balboni, T., et al. (2019). Interprofessional spiritual care in oncology: a literature review. *ESMO Open* 4:e000465.

Puchalski, C., Jafari, N., Buller, H., Haythorn, T., Jacobs, C., and Ferrell, B. (2020). Interprofessional spiritual care education curriculum: a milestone toward the provision of spiritual care. *J. Palliat. Med.* 23, 777–784. doi: 10.1089/jpm.2019.0375

Rykkje, L. L., Eriksson, K., and Raholm, M. B. (2013). Spirituality and caring in old age and the significance of religion-a hermeneutical study from Norway. *Scand. J. Caring Sci.* 27, 275–284. doi: 10.1111/j.1471-6712.2012.01028.x

Selman, L., Siegert, R. J., Higginson, I. J., Agupio, G., Dinat, N., Downing, J., et al. (2012). The "Spirit 8" successfully captured spiritual well-being in African palliative care: factor and Rasch analysis. *J. Clin. Epidemiol.* 65, 434–443. doi: 10.1016/j.jclinepi.2011.09.014

Shields, M., Kestenbaum, A., and Dunn, L. B. (2015). Spiritual AIM and the work of the chaplain: a model for assessing spiritual needs and outcomes in relationship. *Palliat. Support Care* 13, 75–89. doi: 10.1017/s1478951513001120

Steenfeldt, V. (2019). *Åndelig Omsorg*. København: Munksgaard.

Straßner, C., Frick, E., Stotz-Ingenlath, G., Buhlinger-Göpfarth, N., Szecsenyi, J., Krisam, J., et al. (2019). Holistic care program for elderly patients to integrate spiritual needs, social activity, and self-care into disease management in primary care (HoPES3): study protocol for a cluster-randomized trial. *Trials* 20:364.

T. L. C. (2019). *Introduction to the Patient Care Process*. Cham: Springer.

Taverna, M., Berberat, P. O., Sattel, H., and Frick, E. A. (2019). Survey on the integration of spiritual care in medical schools from the german-speaking faculties. *Adv. Med. Educ. Pract.* 10, 1009–1019. doi: 10.2147/amep.s224679

Taylor, C. A. (2007). *Secular Age*. London: The Belknap Press of Harvard University Press.

Teófilo, T. J. S., Veras, R. F. S., Silva, V. A., Cunha, N. M., Oliveira, J. D. S., and Vasconcelos, S. C. (2019). Empathy in the nurse-patient relationship in geriatric care: an integrative review. *Nurs. Ethics* 26, 1585–1600. doi: 10.1177/0969733018787228

Unsanit, P., Sunsern, R., Kunsongkeit, W., O'brien, M., and McMullen, P. (2012). Development and evaluation of the thai spiritual well-being assessment tool for elders with a chronic illness. *Pac. Rim Int. J. Nurs. Res.* 16, 13–28.

Viftrup, D. T., Nissen, R. D., and Hvidt, N. C. (2021). *Spiritual Care-A Four Dimensional Concept Submitted*. Amsterdam: Elsevier.

Vries-Schot, M. R. D. P. J., and Uden, M. H. F. (2012). Mature religiosity scale: validity of a new questionnaire. *Eur. J. Ment. Health* 7, 57–71.

Wiltjer, H. K. N. (2019). *Assessment of older people 6: assessing the spiritual domain.* Vol. 115. UK: Nursing Times [online]. 24–27.

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

The authors declare that this study received funding from Pfizer Oncology Denmark. The funder was not involved in the study design, collection, analysis, interpretation of data, the writing of this article or the decision to submit it for publication.

ORIGINAL RESEARCH
published: 09 September 2021
doi: 10.3389/fpsyg.2021.716428

Everyday Life Meaningfulness for the Community-Dwelling Oldest Old During the COVID-19 Pandemic

Elisa Tiilikainen[1]*, Inna Lisko[2,3], Eija Kekkonen[4], Alina Solomon[3,4,5], Tiia Ngandu[3,6], Miia Kivipelto[3,5,7] and Jenni Kulmala[3,6,8]

[1] Department of Social Sciences, University of Eastern Finland, Kuopio, Finland, [2] Faculty of Sport and Health Sciences and Gerontology Research Center (GEREC), University of Jyväskylä, Jyväskylä, Finland, [3] Division of Clinical Geriatrics, Center for Alzheimer Research, Department of Neurobiology, Care Sciences and Society, Karolinska Institutet, Stockholm, Sweden, [4] Institute of Clinical Medicine, School of Medicine, University of Eastern Finland, Kuopio, Finland, [5] Ageing Epidemiology Research Unit, School of Public Health, Imperial College London, London, United Kingdom, [6] Population Health Unit, Finnish Institute for Health and Welfare, Helsinki, Finland, [7] Institute of Public Health and Clinical Nutrition, University of Eastern Finland, Helsinki, Finland, [8] Faculty of Social Sciences (Health Sciences) and Gerontology Research Center (GEREC), Tampere University, Tampere, Finland

OPEN ACCESS

Edited by:
Jessie Dezutter,
KU Leuven, Belgium

Reviewed by:
Joanne Brooke,
Birmingham City University,
United Kingdom
Annemie Dillen,
KU Leuven, Belgium

***Correspondence:**
Elisa Tiilikainen
elisa.tiilikainen@uef.fi

Specialty section:
This article was submitted to
Positive Psychology,
a section of the journal
Frontiers in Psychology

Received: *28 May 2021*
Accepted: *16 August 2021*
Published: *09 September 2021*

Citation:
Tiilikainen E, Lisko I, Kekkonen E, Solomon A, Ngandu T, Kivipelto M and Kulmala J (2021) Everyday Life Meaningfulness for the Community-Dwelling Oldest Old During the COVID-19 Pandemic. Front. Psychol. 12:716428. doi: 10.3389/fpsyg.2021.716428

In many countries, the COVID-19 pandemic has led to strong restrictions and changed the everyday lives of older people. In Finland, people aged 70 and over were instructed to stay at home under quarantine-like conditions. Existing studies from other countries have reported increases in negative experiences and symptoms as a result of such restrictions, including psychosocial stress. However, little focus has been given to older people's experiences of meaningfulness during the pandemic. Using survey and interview data, we ask to what extent have community-dwelling oldest old (80+) experienced meaningfulness during the pandemic, what background factors are associated with meaningfulness and what factors have contributed to everyday life meaningfulness during the pandemic. The data was collected as part of the COVID-19 sub-study of the third follow-up of the Cardiovascular Risk Factors, Aging and Dementia (CAIDE85+) study, a Finnish population-based cohort study carried out in the eastern part of the country. In the quantitative analyses, meaningfulness was assessed as part of the Experiences of Social Inclusion Scale. The association of meaningfulness with different background factors (gender, age, living alone, self-chosen quarantine or physical isolation, self-rated health, physical functioning, and cognitive capacity) was explored with the Chi-square test. The quantitative findings indicate that the majority of the participants experienced meaningfulness during the pandemic. Participants who did not practice any physical isolation measures and participants with higher self-rated health experienced more meaningfulness. There was no evidence for difference in the prevalence of meaningfulness and other background factors. The qualitative data was analyzed using thematic analysis. The findings indicated that factors contributing to meaningfulness in everyday life were social contacts, daily chores and activities, familiar places and seasonal changes. The small sample size does not provide possibilities for generalizing the results into the wider population of older adults. However, the results provide new understanding of the oldest old's experiences of meaningfulness in everyday life during the global pandemic. The findings may help find ways to support older people's meaningfulness in challenging times.

Keywords: oldest old, meaningfulness, everyday life, COVID-19, mixed methods

INTRODUCTION

The ongoing COVID-19 pandemic and its related restrictions have put older people in a situation in which their possibility to maintain normal daily activities has been compromised. In Finland, the Emergency Powers Act was implemented on March 16, 2020 and was continued until June 16, 2020. The act included decisions such as closure of public services, e.g., libraries and museums; severe limitations of public gatherings; suspension of contact teaching; reduction of non-acute social and health care services; and a ban on visiting care institutions and hospitals. A strong recommendation was given that all older adults aged 70 and over should stay at home and avoid all physical contacts. Many of these restrictions and recommendations have been in force over a year. Although the aim has been to protect older adults and their health during the exceptional times, the consequences and older people's own experiences related to these restrictions are not fully understood.

In this article we examine community-dwelling oldest old's (80+) experiences during the COVID-19 pandemic from the perspective of *everyday life meaningfulness*. While the definition of meaningfulness varies across scholars and disciplines, it is often understood as having a sense of purpose in life and experiencing life as significant (e.g., Baumeister, 1991; King et al., 2006; Steger, 2012). According to Baumeister (1991), meaningfulness in life can be understood in terms of four main needs for meaning: purpose, value, sense of efficacy and self-worth. If these needs–fulfillment of goals, justification for actions, feeling that one can reach one's goals, and positive self-worth–are not met a person is more likely to experience less meaning in life. Moreover, Baumeister and Vohs (2002) propose that having multiple sources of meaning in life protects the individual against meaninglessness highlighting the multidimensional nature of meaningfulness: one can gain purpose and self-worth from different spheres of life, such as family and work. In older ages these spheres are often narrowed due to losses of social relations and roles and decrease in functional capabilities (e.g., Tiilikainen and Seppänen, 2016).

Drawing on the conceptualization by Steger (2012) we understand meaningfulness as a web of connections, understandings and interpretations that help comprehend individual experiences, direct efforts toward desired futures, and provide a sense that life is worthwhile. In further research, Martela and Steger (2016) have highlighted the importance of understanding the difference between meaning in life and the more philosophical question about meaning of life. Within the aim of looking at the subjective experiences of what makes live meaningful, Martela and Steger (2016) have proposed three facets of meaning: coherence, purpose and significance. These include a sense of comprehensibility and making sense of one's life, sense of core goals, aims and direction in life and a sense of life's inherent value and having a life worth living. In other words, in order to live a meaningful life, people need to comprehend the world around them, they need to find direction for their actions, and they need to find worth in their lives.

Perceiving life as meaningful plays an important part in well-being at all ages, but particularly in later life (see Jonsén et al., 2014). For the oldest old meaningfulness in life is known to contribute to not only quality in life and mental wellbeing but also physical health (e.g., King et al., 2006; Krause, 2007). In an interview study carried with the oldest old, Jonsén et al. (2014) found that the sense of meaning in life was linked to having a mission to pursue and finding beauty, joy and happiness in life. The sense of meaning also involved being connected with other people and with nature, and seeing oneself as part of a chain of generations. Moreover, a sense of meaningfulness was deeply rooted in the faith of being taken care of from birth to the afterlife. In this article, our focus is on the everyday life components providing a sense of meaningfulness rather than facets of meaningfulness itself. From the perspective of everyday life, meaningfulness provides a sense that one's daily life matters and has a purpose in this current moment and surrounding social and environmental setting, which for the oldest old is often the home environment.

Both theoretical and empirical research on meaningfulness show that social relations and having the possibility to impact one's own life play an important role in experiencing life as meaningful (e.g., Ryan and Deci, 2004; Hicks and King, 2009; Heintzelman and King, 2014). Arguably, these factors have at least been somewhat challenged due to the COVID-19 pandemic as many people have avoided physical contact and adjusted their lives governmental restrictions and recommendations. However, as some studies have already shown, older people have reported less pandemic related negative impacts than younger people (Jiang, 2020; Birditt et al., 2021; O'Connor et al., 2021; see also Kivi et al., 2021) and therefore may have been less affected by the pandemic than younger generations. Moreover, studies have found that older people have reached various coping strategies in adapting to the pandemic-related changes and challenges in everyday life (Van Tilburg et al., 2021).

To our knowledge, previous research has not focused on older people's own views of the everyday life meaningfulness during the pandemic. Yet, some qualitative COVID-19 studies have referred to perspectives that are relevant to meaningfulness (Brooke and Clark, 2020; Portacolone et al., 2021; Whitehead and Torossian, 2021). Brooke and Clark (2020) conducted a follow-up interview study in United Kingdom focusing on older people's responses to the pandemic, including protective measures, ways of coping and future plans. Their interviewees expressed the need to embrace and live life, as well as the need to be distracted from the pandemic. The findings show that older adults found watching nature and wildlife important, as well as keeping busy with daily chores. In addition, social media was seen to be important in keeping in touch with friends and family. Despite the restrictive measures, some of the interviewed older adults expressed being blessed and fortunate, and many felt that they did not fear the future.

An interview study by Portacolone et al. (2021) found that older adults living alone with cognitive impairment experienced distress, including fear and confusion, as well as extreme isolation and loneliness during the pandemic. Despite their negative experiences, the interviewees reported using a number of coping strategies, such as exercising and outdoor routines, attending religious events and thinking positively about the future. Similarly, Whitehead and Torossian (2021) focused on stressful and joyful factors in their mixed-methods study on the lives of older adults during the pandemic. Their results indicated that stress was related to confinement and/or restrictions, concern for others, isolation and loneliness. Sources of joy were found in family and friend relationships, digital social contacts, and hobbies. Faith, exercise, other forms of self-care and nature were associated with more positive psychological well-being during the pandemic. Similar factors are known to contribute to meaningfulness in later life (Jonsén et al., 2014).

Despite large amount of research on the effects of COVID-19 pandemic, the oldest old's lived experiences, as well as the positive aspects of the pandemic have received very little attention. In this article, we aim to fill this research gap by giving voice to the oldest old's own experiences of everyday life meaningfulness during the COVID-19 pandemic. Our specific research questions are:

- To what extent have the community-dwelling oldest old experienced meaningfulness during the COVID-19 pandemic and what background factors are associated with meaningfulness?
- What factors have contributed to maintaining everyday life meaningfulness during the COVID-19 pandemic?

MATERIALS AND METHODS

The study utilizes a mixed-methods approach combining quantitative and qualitative data and analysis. The purpose of using two different types of materials and methods is to gain better and more complete understanding of the lived experiences of older people during the COVID-19 pandemic. To this end, we use an explanatory mixed methods design (Ivankova and Creswell, 2009). The different data sets–surveys and telephone interviews–were collected and analyzed in sequence, proceeding from quantitative data to qualitative data. Quantitative data is used to give an overview of the study populations experiences of meaningfulness when answering the first research question. Qualitative findings are used to explain and extend the quantitative results by answering the second research question.

The data is derived from the COVID-19 sub-study of the third follow-up of the Cardiovascular Risk factors, Aging and Dementia (CAIDE85+) study. All the participants lived in Eastern Finland and came originally from five population-based cohorts who were assessed in mid-life in 1972–1992 (Barbera et al., 2020). Altogether 316 invitations were sent for the COVID-19 sub-study (survey and telephone interview). Invitations were sent in mid-July 2020 to all individuals who had participated in the main assessment of the CAIDE85+ study and given their consent for further research contact (n = 140), and to individuals who had not yet participated in the CAIDE85+ main assessment (n = 176). A round of reminder letters was sent in late August or early September, or in connection with the CAIDE 85+ main assessment. Altogether 211 individuals did not participate in the COVID-19 sub-study (141 individuals declined to participate (information was received by email or phone), 16 individuals were reported deceased by a relative, and 54 individuals were not reached). Reasons for declining to take part in the study included e.g., poor health, feeling tired/not having energy to participate, and a recent participation in the CAIDE85+ main assessment.

Altogether 103 persons provided answers to the survey from the participants (N = 105) who had given their consent. In all, 64% of them responded by the end of July, 79 % by the end of September and the rest between September 13th and December 10th. Qualitative telephone interviews were carried out with 15 participants between August and December. All the study participants were community-dwelling. A more detailed description of the participants is presented in **Table 1** in the beginning of the "Results" section.

Survey and Methods

Meaningfulness

Meaningfulness was assessed with three items drawn from the Experiences of Social Inclusion Scale (Finnish Institute for Health and Welfare, 2019) which is still under the validation process (Leemann et al., under review)[1]. The items represent the following statements: (i) "I feel that my life has purpose," (ii) "I belong to a group or community that is important for me," and (iii) I feel that what I do everyday is significant." The given answer options were (i) strongly disagree, (ii) somewhat disagree, (iii) neither agree nor disagree, (iv) somewhat agree, and (v) completely agree. In the analyses, three classes were used: (i) disagree, (ii) neither agree nor disagree, and (iii) agree. The theoretical background for these statements has been drawn from the framework by Martela and Steger (2016) (Leemann et al., under review)[1] and even though the questions have not been developed to measure meaningfulness in life *per se*, we find that these items reflect well our aim of examining meaningfulness in the context of everyday life.

Health-Related Factors

Physical functioning

Physical functioning was derived from the question "Are you capable of walking 500 meters without resting?" The answer options were (i) I can without difficulties, (ii) I can, but I have

---

[1] Leemann, L., Martelin, T., Koskinen, S., Härkänen, T., and Isola, A.-M. (under review). *Development and Psychometric Evaluation of the Experiences of Social Inclusion Scale.*

TABLE 1 | Characteristics of the participants in the CAIDE 85+ Covid-19 sub-study.

	*n**	All	*n**	Interviewees
Age, Mean (SD)	103	85.8 (5.3)	15	84.8 (7.3)
Women, %	103	58.7	15	66.7
Living alone, %	96	69.8	15	66.7
Quarantine/physical isolation currently	95		15	
No quarantine or physical isolation	21	22.1	5	33.3
Quarantine, self-imposed	5	5.3	0	0.0
Avoiding physical contacts	69	72.6	10	66.6
Self-rated health	103			
Poor	14	13.6	1	6.7
Average or higher	89	86.4	14	93.3
Cognitive capacity	83		14	
Higher capacity (MMSE score $\geq$ 25), %	71	85.5	13	92.9
Lower capacity (MMSE score < 25), %	12	14.5	1	7.1
Physical functioning, 500 m walk	101		15	
No walking difficulties, %	61	60.4	9	60.0
At least some walking difficulties, %	29	28.7	3	20.0
Unable to walk 500 m (%)	11	10.9	3	20.0

The heading "All" refers to all those answering the questionnaire (n = 103); the interviewees were a group of 15 people selected from the overall group.

**Presents the number of participants included in each studied variable or response category; For all individuals the n ranges between 83 and 103 and for interviewees 14–15, respectively.*

SD = Standard Deviation; MMSE = Mini-Mental State Examination; IQR = Interquartile range; CAIDE85+ = Third follow-up of the Cardiovascular Risk Factors, Aging and Dementia study.

some difficulties, (iii) I can, but it is very difficult, and (iv) I can't do it. The answer options (ii) and (iii) were combined.

Cognition

Cognitive status was derived from the face-to-face main study assessment and assessed with Mini-Mental-State Examination (MMSE) (Folstein et al., 1975). A score of <25 points was set to describe lower cognitive capacity. The used cut point is recommended based on Finnish older population (Hänninen et al., 2010).

Health status

Self-rated health was used as an indicator of health status (Jylhä, 2009). The used question was derived from previous data collections of the CAIDE study population: "What do you think about your current health status? Is it very bad, quite bad, average, fairly good or very good?" In the analyses, the classes were (i) poor (very bad or quite bad) and (ii) at least average.

Other factors

Age of the participants was categorized into tertiles: <85.5 years, 85.5–88.8 years, >88.8 years. Regarding living situation, the participants reported whether they lived alone or not. The current status of quarantine/physical isolation was asked and the following answer options were given (i) I am not in quarantine or avoiding social contacts, (ii) I am in self-quarantine, (iii) I am in official quarantine, (iv) I am avoiding social contacts, and (v) I am partly avoiding social contacts. The answer options (ii), (iv), and (v) were combined as self-chosen quarantine or physical isolation. None of the participants were in quarantine enforced by law (iii).

Statistical Analyses

In this article, the statistical analyses were used to provide an overview of the everyday life meaningfulness of the study participants' during the pandemic. The survey data were analyzed using IBM SPSS Statistics 27 program. Chi-square test was used in the statistical analyses and differences in perceived meaningfulness were investigated based on age, gender, living status, self-chosen quarantine or physical isolation status, cognition, physical functioning and self-rated health. It was also examined if the whole study population and the interviewees felt differently on meaningfulness. Categorical variables presented earlier were used. A p value < 0.05 was considered statistically significant.

Interview Data and Methods

The qualitative data consists of 15 telephone interviews. The interviewees were selected from survey participants who had given their consent to record the telephone conversation (N = 96). As the aim of the study was to gain comprehensive understanding of the COVID-19-related experiences of the oldest old, the interview participants were selected so that they would represent a variety of life situations (e.g., gender and marital status) and experiences (e.g., perceived health and well-being). A research nurse contacted the preselected survey participants by telephone to ask whether they were still willing to discuss their experiences further in a qualitative interview. All 15 contacted persons expressed their interest in and consent to participation in the interviews.

The number of interviewees was chosen based on the resources of the study (one experienced interviewer) and the contents of the interviews. Rather than aiming to recruit as many interviewees as possible, we wanted to gain in-depth understanding of various experiences related to the participants' everyday life during the pandemic. The interview guide was developed based on the CAIDE85+ COVID-19 survey including similar topics, such as daily life and habits, social interaction, restrictions and quarantine, psychological and health impacts, use of social and health care services and ways of coping with the pandemic. In addition to the general interview guide, some questions were added or modified based on the interviewees' responses in the survey. Additional and/or complementary questions were asked about issues expressed in the open-ended questions.

The interviews were carried out by telephone in order to ensure that the older people were able to participate in the study during a time of physical distancing. All interviewees were at their private homes during the telephone calls. On some occasions, non-participants were also present, including a spouse, neighbor or a repairman. However, in most cases the interview was carried out in a separate and quiet room, so that the interviewee was able to participate without distractions. In two cases, the interview was divided into two different sessions due to interruptions or problems with the phone line.

As highlighted by Brooke and Clark (2020) in their COVID-19 study, telephone interviews have several benefits including a greater level of anonymity and privacy, removal of visual clues and more balanced distribution of power between the researcher and the participant, which may help the interviewees to feel more comfortable in discussing their personal feelings. At the same time, the lack of visual cues and loss of non-verbal interaction may be regarded as specific challenges when interviewing via telephone. Based on our experiences, both factors–benefits and challenges–were present in the telephone interviews. For the researcher, lack of non-verbal interaction was somewhat challenging during the first interviews, especially when discussing sensitive issues such as loss of a spouse. However, the feedback from the participants was highly positive, and all of them expressed being pleased about the opportunity to discuss their experiences in this way.

The interviews lasted between 45 and 95 min and were audiotaped using a separate dictation machine. Altogether, the audiotaped data included 17 h, transcribed into 321 pages (Verdana font size 12, spacing 1). The excerpts shown in the "Results" section have been translated from Finnish to English by the first author. The final versions were approved by the other authors and a professional translator in order to ensure that the original voices of the participants were not lost (van Nes et al., 2010).

The interview data was analyzed using thematic analysis (Braun and Clarke, 2006). In the first phase of the analysis, the data was read through and a short summary of each interview was made by the first author. These summaries included basic information of the interviewee and notes of the issues discussed in each interview. After this the data was re-read by the first and last Author to obtain a sense of the whole data. During this phase meaningful units, including sentences and paragraphs, were identified and coded with labels, such as "summer cottage" and "walking the dog." After the initial coding process, codes were collated into themes that were present in all interviews and followed our second research question. The coding process and themes were discussed several times within the research team to ensure the reliability of the analysis. At the final stage, three clear themes were identified: social contacts, daily chores and activities and places and seasonal changes, which were described as meaningful factors in everyday life. Within these main themes, different sub-themes were identified (**Table 2**).

Ethics of the Study

Each participant or their legally acceptable representative signed the informed consent form in the COVID-19 sub-study as well as in the CAIDE85+ main study assessment. Ethics approval for conducting the study was received from The Research Ethics Committee of the Northern Savo Hospital District. In addition, thorough ethical consideration was used when planning and carrying out the interviews. The interviews were conducted with respect and discretion, and the participants were encouraged to contact the researchers if any questions, doubts or inconvenient feelings arose. The data was analyzed so that its reporting does not reveal the identity of the participants.

TABLE 2 | Themes and sub-themes regarding factors supporting the everyday life meaningfulness during the COVID-19 pandemic.

Social contacts
Telephone and video calls
Face-to-face with family
Friends and acquaintances outdoors
Daily chores and activities
Housekeeping and yard work
Reading and knitting
Going for walks
Places and seasonal changes
Summer cottage
Nature and outdoors
Spring and summer

RESULTS

Characteristics of the Participants

Altogether 103 persons with a mean age of 86 years participated in the CAIDE85+ COVID-19 sub-study and answered the questionnaire. The majority of respondents were female (59%) and two thirds were living alone. More than 70% were following the recommendations of the health authorities to avoid physical contacts. Of the participants, 86% had an MMSE score ≥ 25 and 60% had no walking difficulties (**Table 1**).

Five of the interviewees were men and 10 were women. At the time of the interviews the oldest participant was 93 years old and the youngest was 80. The average age was 86. The background and life situations of the participants varied: nine of the female interviewees and two of the male interviewees lived alone. One female and three of the male interviewees lived with a partner. One female participant had lost her husband during the COVID-19 pandemic. Most of the participants had kin: children, grandchildren, and great-grandchildren. Two of the female interviewees did not have children of their own but had frequent contact with their siblings' children and grandchildren. All the interviewees were able to live at home without daily help and assistance and were able to go out of the home independently (see also **Table 1**). All participants lived in urban or suburban environments located in Eastern Finland. However, two of the male interviewees spent several months at their summer cottage located in a remote area.

Factors Associated With Higher Levels of Meaningfulness

A total of 82% of participants felt that their life has purpose and 79% felt that what they do very day is significant. However, only two thirds of participants felt that they belonged to a group or community that is important for them (**Figure 1**).

When it was examined which factors were associated with the three meaningfulness items, we found that those with better (at least average) self-rated health felt more often that they have purpose in life as compared to those who reported their health to be poor ($p = 0.003$; **Figure 2**; **Supplementary Table 1**). Also those who were not following any physical isolation/quarantine

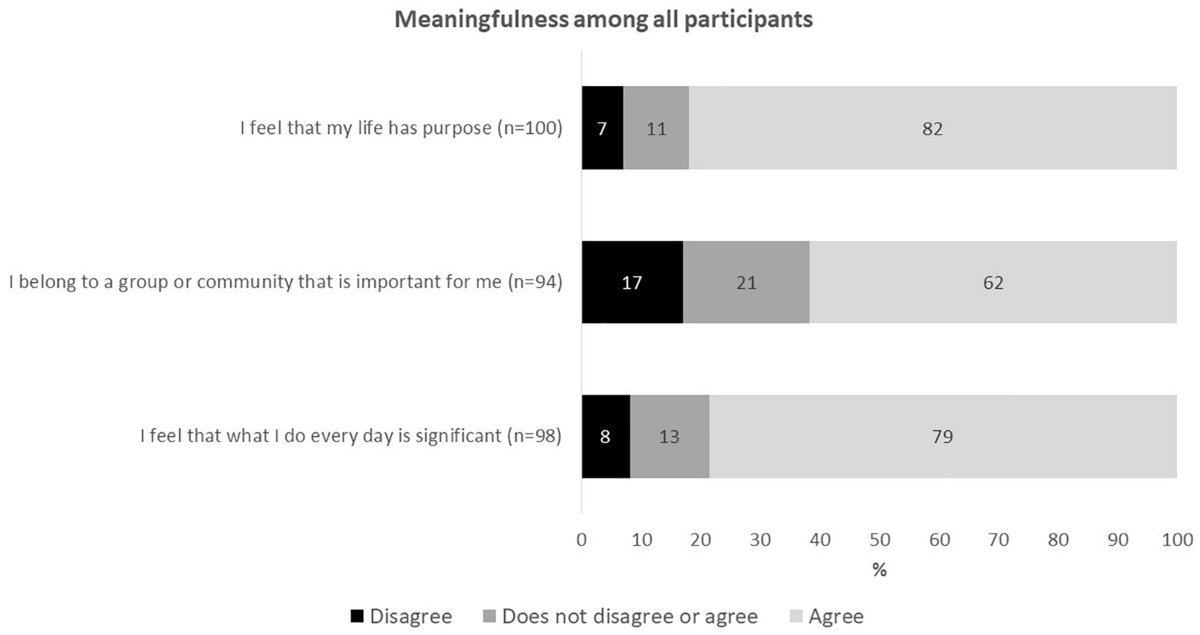


FIGURE 1 | Perceived meaningfulness in the oldest old during the Covid-19 pandemic measured with the Social Inclusion Scale.

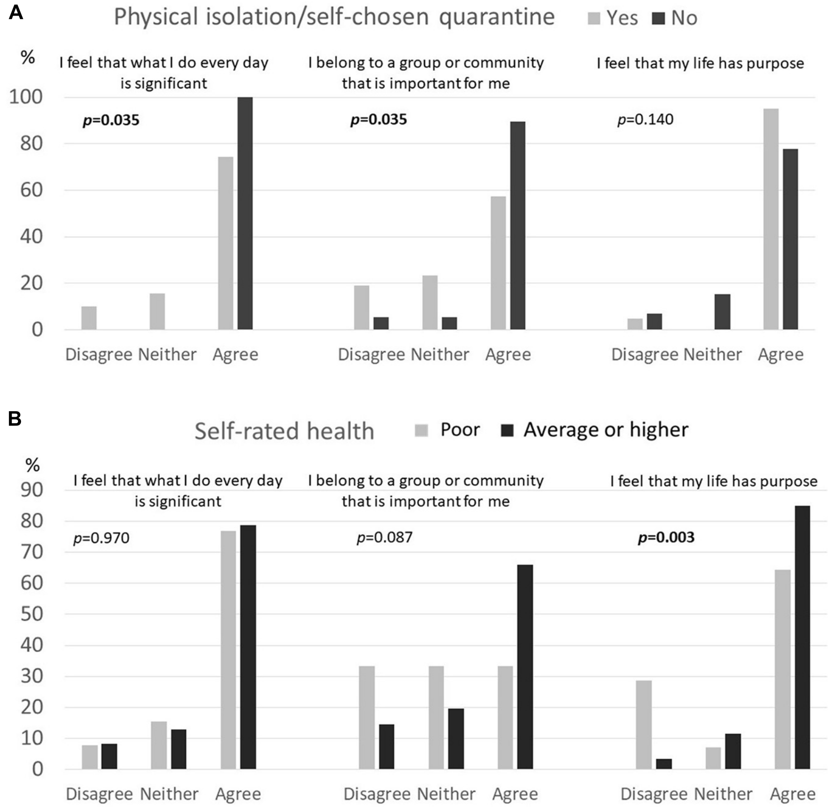


FIGURE 2 | Association of three meaningfulness items with **(A)** physical isolation/self-chosen quarantine status and **(B)** self-rated health among community-dwelling oldest old in Finland. Indicated *p* values analyzed with Chi-square test.

measures felt more often that their everyday life is significant ($p = 0.035$) and that they belong to a group or community important for them ($p = 0.035$) as compared to those who were following some self-chosen isolation/quarantine measures (**Figure 2**; **Supplementary Table 1**). We found no evidence for difference between the three meaningfulness items and age, gender, living status, physical functioning or cognitive capacity (**Supplementary Table 1**).

In addition to all the study participants, we examined meaningfulness among the interviewees. The majority of them felt that they had purpose in life (73%), that they belonged to a group or community important for them (73%) and also that what they do everyday is significant (87%) (**Figure 3**). No significant differences were observed between all participants and the interview participants regarding perceived meaningfulness. In the following, we examine the interview participants' experiences in greater depth by focusing on factors contributing to everyday life meaningfulness during the COVID-19 pandemic.

Factors Contributing to Everyday Life Meaningfulness

Based on the qualitative analysis, everyday life meaningfulness was supported by the following factors: meaningful social contacts, daily chores and activities, and meaningful places and seasonal changes. The exploration of the sub-themes (**Table 2**) is interwoven in the analysis of the main themes. Illustrative quotations (in italics) are identified with "F" referring to a female and "M" to a male interviewee, and with a specific number for each participant.

Theme 1: Social Contacts

Contacts with family, friends and acquaintances were mentioned several times during the interviews as an important part of daily life during the pandemic. Most of the interviewees kept in touch with other people daily by telephone. Both short and long phone calls were described as something that was anticipated and enjoyed when physical contacts were restricted. "*Phone bills are high this year*," one of the female participants (F13) stated, laughing. "*We call in turns, whenever something comes to mind. We talk until the batteries run out* [laugh]," described another (F13) when talking about long phone calls with old friends. For one of the interviewees the telephone was the only way to keep in contact with her sister who lived in another city. Due to the pandemic, the sisters had not had a chance to see each other face-to-face, but the relationship was continued through the phone lines:

> *Yesterday when we were talking on the phone, and even though we call so many times, we were thinking that every time we talk a new memory comes to mind and then we start discussing. And if we have watched the same television series, we call after that and discuss about what's going to happen next. Nice to wait and see if we were right.* (F9).

In addition to traditional phone calls, WhatsApp and video calls were also used to keep in touch with family members. Photos sent via WhatsApp, and seeing familiar faces on the screen of a mobile phone or tablet, were seen as meaningful things and ways of keeping the family together. One of the female participants (F2) described using video calls for the first time during the pandemic. Video calls were made with her daughters' family, who lived further away: "*There's everyone there and the whole family peeking from the screen, their children also peeking from there.*" "*Then they send loads of WhatsApp photos*," she added. WhatsApp and video calls were also familiar to the other interviewees. One of the male participants (M3) talked about their family group that was actively used for messaging family members in three generations: "*Even the grandchildren's spouses are in the group. It's*

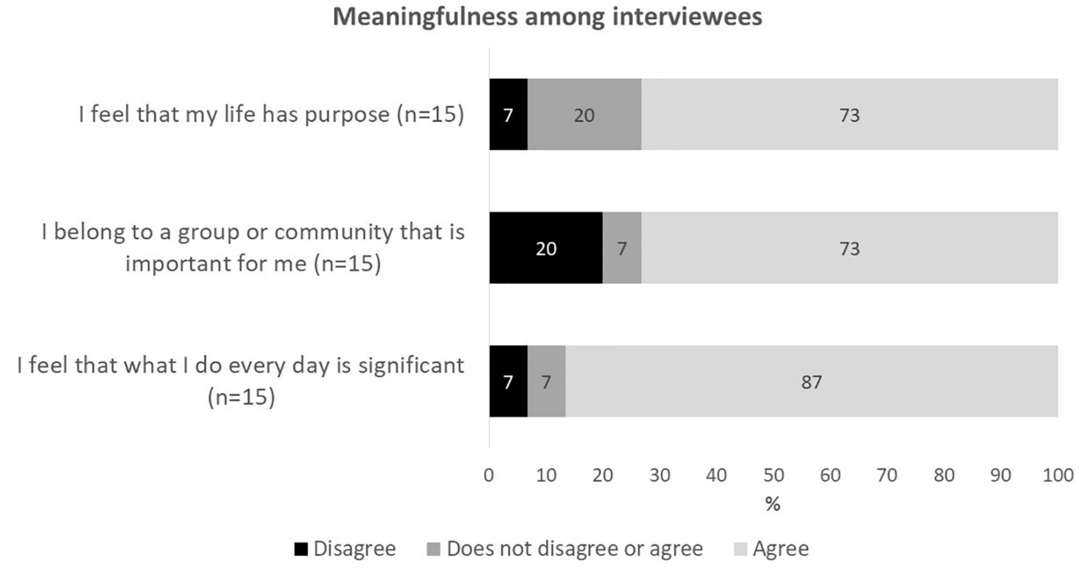


FIGURE 3 | Perceived meaningfulness among respondents participating in qualitative interviews.

a way of keeping in contact, it's something that in a way keeps the whole family together".

Video calls were especially important when new family members had been born. "*They have a little boy and I always get a video call from them. It's in a way nice because otherwise I wouldn't see how the boy has developed and grown*" (F8). Video calls were also used to keep up with the activities of older grandchildren. These remote contacts with grandchildren were meaningful in many ways:

> "*One of my grandchildren is a musician, a music teacher, and he lives in another city, so he has played some corona concerts for us. I have enjoyed them so much, especially the possibility to hear the familiar voice of a loved one.*"(F12) However, the "old fashioned" way of talking on the phone was not a stranger for younger generations too. On the contrary, it seemed to be a meaningful form of communication for both parties, as one of the female participants (F13) described:

> "*For example, the night before yesterday, at 10.30 in the evening, one of the grandsons called and said that 'granny came to mind so I had to call.' He knows that I'm a 'late bird' and sleepy in the mornings* [laughs] *so that he can call even though it's late. Other grannies sleep but we are still awake*".

In addition to remote contacts, some of the participants met face-to-face with family members on a regular basis despite the strong recommendations to avoid physical contacts. Children helped with daily chores and groceries, for example. Most importantly, these contacts made the interviewees feel that they were being taken care of. One of the female participants (F9) reported that her daughter just pops by and says: "*I have no business, I just came by to stalk you [laughing]. Is everything all right with you?*". The interviewee continued describing that: "*Sometimes the kids bring food, and even ask if I have money [laugh]*", and added that it feels good to know that they care. For another participant (F15), Saturday evenings were particularly important, as her daughter came by to take her to the sauna and wash and oil her back. Together the mother and daughter also cooked a nice meal together.

Meaningful social contacts were also maintained outside the interviewees' homes. Many of the participants described going for walks with friends and neighbors, or meeting them in the yard. "*Even though I live alone here in a terraced house, we have this little own yard and when the weather got warmer, we started meeting there. It made things easier when you could see and talk to someone face-to-face*," one of the participants (F5) depicted. Even more, spontaneous contacts with neighbors were seen as nice ways of keeping in contact with others: "*This young couple talks over the fence and last night when the young man started grilling my dog started to bark so I just called out to him that you've been spotted. It's like this in our* [neighborhood] (F2)." One male participant (M10) spoke about having neighbors with whom he could reminisce about the good old times or reflect on current feelings, even though they didn't know each other that well: "*One day I was cleaning out the yard and one older couple came across the street and the wife went through the gate but the man stayed there and we talked for a long time*".

For many, neighbors provided not only social contacts but also important support during the strictest time of physical isolation. "*We call them "the shopping bags," the two couples that have helped us with the groceries* [...] *They went shopping for us once a week in turns so that it didn't become too much of a burden for one of them* [laughing]." (F4). The interviewees also described supporting others by offering help for other older persons who had difficulties leaving the home alone. One of the female participants (F2) talked about meeting up with her relative, taking walks together or sitting in the balcony: "*She is in a bit poorer condition than me, she has a lot of illnesses. This one time I said that I will come and pick you up and bring you here and if you can walk back, I will come with you but if you don't have the strength to walk back, I will take you by car. Twice I've done this for her. Once I went to fetch her and we walked back, and then I took her home in the car. And sometimes we've just sat on her balcony. Once we've sat inside but usually we go for a walk.*" Another participant (F9) described herself as being the one who has been encouraged to go for walks by a friend: "*In the spring time it was nice that one friend always lured me out, saying let's go for a walk by the lake or do this or that outside.*" Going outside, walking and observing nature also offered meaningful contacts with other people:

> "*When you go outside for a walk and bump into someone you know, it's always nicer than being on your own. And when we sit there by the bench and watch the ducks, it's not so nice when you are alone, but if someone else is sitting next to you, it's a lot nicer, even though you don't even talk to each other.*" (F9).

Theme 2: Daily Chores and Activities

Everyday life meaningfulness was associated with having meaningful things to do in and outside one's own home. For many, familiar daily chores were described as something that supported well-being during the pandemic. One of the male participants (M7) spoke about different chores which he did both at home and at the summer cottage. Time went quickly when having meaningful things to do, such as washing and folding the laundry, and "*sorting out the tools*." He also worked as a landlord for people renting a summer cottage and enjoyed warming up the sauna for new visitors, as well as taking care of local orienteering routes voluntarily. The interviewee described living "*a modest life*" and spending a lot of time alone, which wasn't a problem for him when having meaningful things to do. Sometimes daily chores were done with other people, such as his daughter:

> "*With my daughter we have picked blueberries and lingonberries. On my own I've picked all of the currants. Now I have about 250 liters of berries, in a big freezer at home and twenty liters at the summer cottage. Enough until next summer*".

Daily chores, such as housekeeping, were also mentioned by several other participants. The last interviews were performed in late November and early December, and Christmas was on the way. One of the female participants (F13) lived with her husband in a senior house, a block of flats with individual apartments. She described social life as being mainly at the house due to the COVID-19 restrictions, and the darker winter season as being difficult because one couldn't spend time outside so much.

Preparing the home for Christmas was something she anticipated and enjoyed even though it would be spent without the wider family: "*Just a week ago we prepared our home in the same way as in the springtime for summer. Now we put some Christmas colors, a few rugs and things like that, so that the place is nice and tidy. There's a small Christmas tree waiting in the balcony, not decorated yet [laughing] but little by little we're getting ready for the celebration*".

Many of the interviewees described receiving help from their children with housekeeping and other chores, but mostly they enjoyed doing them on their own, while they were still able. The interviewee (F15), who spent Saturdays with her daughter going to sauna and cooking, mentioned that it was sometimes irritating that the family always wanted to help with everything. Doing things on your own was an important way of maintaining autonomy in everyday life. Even the smallest chores felt meaningful, which may be especially relevant during a time of restrictions and confinements. "*They always say that they can do it, and I say that let me do these things myself. It keeps me active. At least I feel that I have always been the kind of person who does things and walks al lot, I don't sit so much. If I don't have anything to do, the time feels long*".

Reading, knitting and doing crosswords were mentioned as important activities at home. Due to the lockdown, libraries were closed for several months but the interviewees had found different ways to access new books. One of the participants (F5) told about an arrangement that was made with a her niece's neighbor: "*This woman has a really big library [in her home]. I got many books by Finnish authors from her which I like to read, and we exchanged so that she brought a bag of books to my steps and took the ones I had read away. We called each other to agree on what books I would take and she had a track on what I had read and what not. It was a really great thing because I read a lot, all sorts of things on different topics*".

Some of the other participants also had family members or friends bringing them books or crosswords. "*Book service from the son*," as one of the interviewees (F8) described. "*They ordered me three different crosswords. Making sure that I have tasks to do [laughing]. It [doing crosswords] keeps the mind fresh and maintains brain activity*." said another participant (F5). Learning new things was seen as an important part of keeping everyday life meaningful, as one of the male participants described when discussing about books and other things that helped avoid boredom:

> M11: *After all, there's a wicked pile of books here, so I can just read them when I have the time. And newspapers are also coming.*
>
> Interviewer: *So, you like to read books a lot?*
>
> M11: *Well, as long as I can and when there's no other job to do. You have to read; you would get stupid if you didn't look for wisdom from the books. A person's learning does not end until their last breath.*

For a few of the female participants, knitting played an important role when staying at home. One of the interviewees (F8) described that her mood was quite low in the beginning of the pandemic and feelings of hopelessness came to mind at times. The summer went better and when autumn came, she started knitting wool socks for Christmas presents and time had gone by nicely. Later on in the interview, she stated that maybe the wool socks saved her:

> "*But have these wool socks saved me [laughing], I've knitted them so much. I have done long ones, colored ones, many kinds, and it's given me a nice job to do and I haven't had time to worry about unnecessary things*".

Another interviewee (F2) mentioned going to a craft club before the pandemic and when the meetings ended due to the lockdown, the group continued doing hand crafts at home and sharing their activities with each other. Knitting was an important task for her and she made wool socks for her relatives, especially for the younger generations. "*I've heard that now there are enough. I have some in storage if someone's wear out*." However, meaningful activities did not always stay the same, as described by one participant: "*In the spring time and part of the summer I knitted a lot but then it came to an end, I got fed up of it [laughing]. Now there's an unfinished sock waiting there patiently in a bag. But for some reason, I now hate to take the needles in my hand*." (F12).

Going outside for walks was mentioned several times during the interviews, as also reported in the previous section regarding social contacts. Many of the participants described taking long walks and enjoying the outdoors. Walks were a nice way of watching nature and seeing what has been happening in the neighborhood. They were also seen as important in keeping up functional capabilities and monitoring one's own health, as one of the male participants (M3) described: "*I have a program on my phone that measures the walked distance and so forth and I've set a daily target for myself, at least 6000 steps a day so that's what I try to do. It was a kind of encouragement to move at least that much, even though I'm not a super sportsman. Just to reach the target and satisfy the physical need*".

Going for walks was especially important for those interviewees who had dogs. It was something that had to be done, but also something that was really enjoyed in the midst of the pandemic. One of the female interviewees (F2) did not have a dog of her own but had an arrangement with her daughter. Already before the pandemic, the daughter had bought a new dog, which was assigned as "*a walker*." Together they go on walks on a daily basis. The participant picked the dog up from her daughter's house in the morning and took him back in the afternoon.

> "*Since last Autumn we have been for walks. We go along the forest track, our round was four or five kilometers. Now he is sleeping in the swing. We went for a long walk this morning too*".

Taking the dog out has also provided a chance for other meaningful encounters. Importantly, being outdoors and seeing people there was something that was considered to be a safe thing to do when the virus was still prevalent.

> "*There are so many dogs here, and they're familiar to me from the time my daughter had her previous dog. It's nice to see familiar faces here [when walking the dog]. We talk, I don't know all their names, only some of them, but it's good that you can see each other outside. I think it's safe and we've kept a safe distance*".

Theme 3: Places and Seasonal Changes

The third theme present in the interviews was connected to meaningful places and seasonal changes that were described as supportive factors in everyday life. One male participant (M6) talked about a "camp site" where he had met up with a group of men for over 30 years. The group continued meeting there after the summer, when the COVID-19 incidences had started reducing in Finland. The composition of the group varied over time, but the place stayed the same. Together the men went to the sauna and had an evening snack before heading back home. The organizer of the meetings was a local priest who felt that it was important to keep the meetings going during the pandemic: "*He was brave to open them again, now we just had to sign up for it in advance*." The same participant visited a local residential house daily when it had opened up after the lockdown. Even though contacts were restricted, and people wore masks, popping by the house and reading newspapers was an important part of his days. The interviewee also had a summer cottage where he headed occasionally: "*Fifteen nights this summer*." Sometimes alone and sometimes with his lady friend.

The summer cottage played an especially important role for two of the male interviewees who described spending most of their time there in spring, summer and autumn:

> "*When we are in the city in the wintertime it's restrictive, even though there's more stimulation there. But there's always a longing to be here* [to the summer cottage] *and as soon as the lake ice melts, we come here. And a bit before the lake freezes, we try and get back [to the city]*".

In the beginning of the pandemic, the chance to go to summer cottage felt like a big relief:

> "*There's no corona here on the island and not many cottages, people visit them rarely and we are now all alone on the island. It's like being in in palm of the Lord's hand here. We have nothing to be worried about here as long as we have something to eat. There's mushrooms and berries to pick and store, and you get fish from the lake. But we don't hunt, we buy meat from the store*".

Other interviewees described the summer cottage as a place with good nature tracks and fishing places, which offered meaningful things to do especially in the summertime. In addition to smaller chores, the summer cottage provided a place for bigger projects too: "*Last time we took down ten big aspens and the next thing is to turn them into firewood*." one of the male participants (M10) described, adding that life in the city is a lot quieter and less eventful than at the summer cottage. Enjoying nature and the outdoors was also important for those without a summer cottage. Smelling the fresh air and watching nature and wildlife was something that was meaningful in many ways:

> "*This summer my sister's children have taken me out to nature, to sit by a camp fire. So I have had a chance to enjoy nature still. They organize these trips for me because they know that I am a nature person. To listen to the birds singing and to drink coffee that's been cooked on a fire place*." (F5).

Even though most of the participants had restricted physical contacts and had taken the national recommendations seriously, all of them felt that it was important to leave the home regularly. Being outdoors was seen as a safe thing to do and importantly, as a way of maintaining well-being during the pandemic. However, it was mentioned that not all older people did the same: "*Some thought that the restrictions included going outside too. I didn't think so if you walk on your own by foot or by bike. I went outside the whole time; I didn't stay here inside four walls. I just used my common sense, I can't get it [the virus] from there [outside] if I don't meet up with anyone*." (F5).

As mentioned also within the other themes, spring and summer time played an important role in the participants' everyday life experiences. Going outdoors and enjoying nature was strongly related to the bright and warmer seasons, which were in many ways anticipated when the pandemic began. "*It was a wonderful experience when spring came after the dreary months*." one of the participants (F8) described. She had gone for long walks in the springtime and reminisced how it felt when nature started to wake up: "*There's this old road here and I remember how the birds sang there and the first coltsfoots. It felt like an old poem: the spring still dared to come without asking corona's permission*".

The final interviews were made in late 2020, when the darker days were clearly a challenge for some of the participants. Feelings of uncertainty and fear of what was going to happen with the virus was present in some of the interviewee's minds. However, even in these discussions the interviewees expressed hope for the future. And with seasonal changes, good times were about to come: "*The world doesn't look good but it's no use mourning, you just have to wait for spring. After Christmas the days start getting longer, and we will see the sun shining. Then it will be OK again*." (F13).

DISCUSSION

Our findings show that despite the changes in daily life due to the COVID-19 pandemic, the oldest old reported relatively high levels of meaningfulness of life. The prevalence was highest in items referring to having a purpose in life and experiencing daily doings as significant. The lowest prevalence was found in the experience of belonging to a meaningful group/community. Within these items, differences were found related to physical isolation and self-rated health. Individuals who were not following any physical isolation measures found more often their daily doings significant and belonging to a group or community important for them as compared to those who followed some physical isolation measures. Individuals who had higher self-rated health (at least average) felt more often that their life has purpose.

The qualitative findings show that everyday life meaningfulness was supported by meaningful social contacts, daily chores and activities, places and seasonal changes. Social contacts were maintained and pursued inside and outside one's own home. Meaningful daily chores and activities included housekeeping chores, tiding up the yard and doing housework at home or at the summer cottage. These chores kept oneself busy and contributed to one's sense of autonomy. Everyday life meaningfulness was also supported by meaningful places, such as summer cottages, forest tracks and campfires. Having the opportunity to enjoy nature and outdoor life was closely connected to seasonal changes, which were described as factors impacting well-being in everyday life. Lighter and warmer seasons were something that were looked forward to, and they also brought hope during the pandemic.

Existing research has not examined the oldest old's experiences of meaningfulness during COVID-19. However, many of our findings are in line with previous studies that have examined older adults' experiences related to the pandemic. Large-scale survey studies have shown that older people have experienced less negative impacts due the pandemic than younger people (e.g., Birditt et al., 2021; O'Connor et al., 2021), and interview studies that older people have found different ways of coping with the pandemic and maintained optimism toward the future (e.g., Brooke and Clark, 2020). Similarly, our findings indicate that the oldest old have found ways of experiencing everyday life meaningfulness at a time when many familiar and important activities have been compromised. Hence, it may argued that the ability to maintain meaningfulness may be a relatively stable experience in life and not easily affected by changes in health or by global phenomena, such as the pandemic.

Our results show that experiencing meaningfulness does not necessarily require a big effort but is built around small and even simple things in daily life, such as talking on the phone, sitting on a park bench or knitting a wool sock for a loved one. This is in line with existing meaningfulness research, which has emphasized that even "mild experiences" enhancing positive affect can promote a sense of meaning in life (Heintzelman and King, 2014). Factors supporting everyday life meaningfulness, are also closely connected to the sources of joy and comfort, found by Whitehead and Torossian (2021): family/friend relationships, digital social contacts, and hobbies. Regarding the supportive role of hobbies and other daily activities, the researchers suggest that the distraction offered by these types of activities may be particularly adaptive in situations in which stressors are outside one's control, as in the case of COVID-19.

Interestingly, our findings highlight the importance of autonomy in meaningfulness. Having the opportunity to take charge of your life and even "rebel" against governmental instructions may provide a stronger sense of meaningfulness if recommendations coming from outside are regarded as something that challenge the life worth living. Not following any physical isolation and/or quarantine measures has of course concrete impacts on social relations, which have been regarded as a foundational source of meaningfulness in life (Hicks and King, 2009). People who have kept seeing family and friends despite national restrictions, may have experienced less loneliness and social isolation and therefore felt more meaningfulness (see Heintzelman and King, 2014). Social relationships appear to be especially relevant for older adults with functional disabilities. The relation with meaningfulness and self-rated health may also reflect both disease pathology (Kananen et al., 2021) and the psychological impacts of self-rated health (Han, 2002), which requires further attention in the context of older people's everyday life.

Previous meaningfulness research has shown that meaningfulness is rooted in fulfillment of human needs, such as finding a purpose and positive self-worth in life. Less focus has been given to the everyday life factors and experiences contributing to these needs, which has been the main aim of our study. Further research is needed to investigate the long-term effects of the pandemic for everyday life meaningfulness of the oldest old, as well as the different factors impacting experiences of meaningfulness in challenging times. Most of our study participants had social contacts and interaction with others, but for many, the pandemic has cut off all social connections. In future research, it will be important to examine the impacts of extreme isolation on everyday life meaningfulness in greater depth.

Limitations and Reflections of the Study

A possible limitation of this study is the selection of study participants. Even though the CAIDE85+ study is a population-based study, it is probable that the participants who answered the COVID-19 sub-study represent older persons who have better functional capabilities compared to the general population at age 80 and over. As described in the data section, a high number of participants ($N = 157$) declined in participating in COVID-19 sub-study, and for many the reason for declining was poor health and/or poor reserves of strength. It may be that those older persons for whom the pandemic was most challenging did not participate in this study. Another limitation of the study is the relatively low sample size in the survey. Power calculation were not computed for the optimal sample size in the survey. Rather, a general aim was to receive as many survey respondents as possible from the CAIDE population that has been followed up for several decades. In future research, the previous follow-ups may be used to examine changes in meaningfulness, which was not possible with this single data set. Moreover, we cannot completely rule out the possibility that the observed statistically significant differences have been found only by chance.

Limitations in some of the measures used in the quantitative analyses are also acknowledged. The quantitative questions on meaningfulness have been drawn from a scale that has not been validated yet, and that has not been developed to measure meaningfulness *per se*. Thus, caution needs to be taken when interpretating the quantitative results on meaningfulness, as we cannot be sure whether the items tell about meaningfulness or other aspects of the participants lives. However, to our understanding the original Finnish language items may reflect meaningfulness more than the translated ones, which is an often-found challenge in research on meaningfulness and meaningful life (Leontiev, 2006). Regarding other measurements, we note that MMSE is a very crude measure to detect cognitive impairment. However, for the purpose of our analyses, we regard that it sufficiently separates individuals with higher and lower cognitive status.

As a limitation of the study, it is also important to note that e.g., ethnic minorities were not represented in this study. Their experiences may vary from those of other members of the population age group, as findings from

Portacolone et al. (2021) have shown. In addition, many of the interview participants represented older adults with good financial and material resources, including a summer cottage, for example. Further research is needed concerning the role of different socio-economic factors in the everyday life meaningfulness of the oldest old.

The timing of the data collection may have had an impact on the findings. The data was collected between July and December 2020. The first surveys were answered in July and the last phone interview was conducted on the 1st of December. This 6-month period can be described as the end of the first wave of the COVID-19 pandemic followed by a period of low numbers of COVID-19 cases and the rise of the second wave of the pandemic in Finland. However, during the 6-month study period, the incidence rate of COVID-19 was considerably lower in Eastern Finland than in many other parts of Finland, which allowed the CAIDE85+ face-to-face main study assessments to be completed between August and December 2020. If the data had been collected at the beginning of the pandemic, the findings may have been different, as many of the participants were in full physical isolation at that time and the virus was something unknown and threatening to all of us (e.g., Brooke and Clark, 2020; Portacolone et al., 2021).

Temporal aspects are present also in the seasonal timings which varied from summer to autumn and winter in our data collection. As shown in the qualitative results, the darker seasons were perceived as more difficult and challenging for well-being. Hence, the survey, which was mostly collected during the summertime, may provide a more positive picture of the oldest old's experience compared to data collected during the wintertime. However, the mixed-method approach and the rather long period of data collection did provide a nuanced view of the oldest old's experiences. The variety of seasons may also be seen as strength of the study as seasonal changes play an important role in the everyday life of older adults (e.g., Victor et al., 2015).

Conclusion and Recommendations

The study gives voice to community-dwelling oldest old's own experiences during the COVID-19 pandemic, which have received little attention in scientific research but also in the public discussion. As oldest old are the most vulnerable age group in getting a severe or fatal COVID-19 (Hägg et al., 2020; Onder et al., 2020), their experiences warrant special attention. Our findings show that despite protective measures, it is important to ensure that older people have the possibility to maintain self-determination and make decisions regarding one's everyday life. Moreover, the findings highlight supportive factors in the oldest old's daily life, as well as their own ways of pursuing meaningfulness in challenging times. Everyday life meaningfulness of the oldest old can be supported in many ways: ensuring social connections, meaningful activities and the possibility to go outdoors and to places important to oneself. In future pandemics, as in "the new normal," it is important to take into account these different factors and to develop strategies and services enabling older people to live their lives in meaningful ways.

DATA AVAILABILITY STATEMENT

The data analyzed in this study is subject to the following licenses/restrictions: Access to the data is maintained by the CAIDE research team. Requests to access these datasets should be directed to Mariagnese Barbera, mariagnese.barbera@uef.fi.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by The Research Ethics Committee of the Northern Savo Hospital District. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

ET: conceptualization, methodology, investigation, data curation (qualitative), writing—original draft, writing—review and editing, and visualization. IL: conceptualization, methodology, formal analysis, data curation (quantitative), writing—original draft, writing—review and editing, and visualization. EK: data curation (quantitative), writing—original draft, and writing—review and editing. TN: resources, data curation, project administration, and writing—review and editing. AS: resources, data curation, supervision, project administration, funding acquisition, and writing—review and editing. MK: resources, supervision, project administration, funding acquisition, and writing—review and editing. JK: conceptualization, methodology, investigation, resources, writing—original draft, writing—review and editing, visualization, and project administration. All authors contributed to the article and approved the submitted version.

FUNDING

This study was financially supported by Juho Vainio Foundation, Finnish Cultural Foundation, Yrjö Jahnsson Foundation, and Academy of Finland (grant numbers 335524, 317465, and 287490).

ACKNOWLEDGMENTS

We thank all the study participants who shared their experiences by answering the survey and/or participating in the interviews. We also acknowledge the important work performed by the whole CAIDE85+ study staff.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyg.2021.716428/full#supplementary-material

REFERENCES

Barbera, M., Kulmala, J., Lisko, I., Pietilä, E., Rosenberg, A., Hallikainen, I., et al. (2020). Third follow-up of the cardiovascular risk factors, aging and dementia (CAIDE) cohort investigating determinants of cognitive, physical, and psychosocial wellbeing among the oldest old: the CAIDE85+ study protocol. *BMC Geriatr.* 20:238. doi: 10.1186/s12877-020-01617-5

Baumeister, R. F. (1991). *Meanings of Life*. New York, NY: Guilford Press.

Baumeister, R. F., and Vohs, K. D. (2002). "The pursuit of meaningfulness in life," in *Handbook of Positive Psychology*, eds C. R. Snyder and S. J. Lopez (New York, NY: Oxford University Press), 608–618.

Birditt, K. S., Turkelson, A., Fingerman, K. L., Polenick, C. A., and Oya, A. (2021). Age differences in stress, life changes, and social ties during the COVID-19 pandemic: implications for psychological well-being. *Gerontologist* 61, 205–216. doi: 10.1093/geront/gnaa204

Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qual. Res. Psychol.* 3, 77–101. doi: 10.1191/1478088706qp063oa

Brooke, J., and Clark, M. (2020). Older people's early experience of household isolation and social distancing during COVID-19. *J. Clin. Nurs.* 29, 21–22. doi: 10.1111/jocn.15485

Finnish Institute for Health and Welfare (2019). *All Rights Reserved. Osallisuusindikaattori Mittaa Osallisuuden Kokemusta. [Social Inclusion Indicator Measures The Experience of Participation]. E. coli*. Available online at: https://thl.fi/fi/web/hyvinvoinnin-ja-terveyden-edistamisen-johtaminen/osallisuuden-edistaminen/heikoimmassa-asemassa-olevien-osallisuus/tutkimus/osallisuusindikaattori-mittaa-osallisuuden-kokemusta (accessed April 9, 2021).

Folstein, M. F., Folstein, S. E., and McHugh, P. R. (1975). "Mini-mental state". A practical method for grading the cognitive state of patients for the clinician. *J. Psychiatr. Res.* 12, 189–198.

Hägg, S., Jylhävä, J., Wang, Y., Xu, H., Metzner, C., Annetorp, M., et al. (2020). Age, frailty, and comorbidity as prognostic factors for short-term outcomes in patients with coronavirus disease 2019 in geriatric care. *J. Am. Med. Dir. Assoc.* 21, 1555–1559. doi: 10.1016/j.jamda.2020.08.014

Han, B. (2002). Depressive symptoms and self-rated health in community-dwelling older adults: a longitudinal study. *J. Am. Geriatr. Soc.* 50, 1549–1556. doi: 10.1046/j.1532-5415.2002.50411.x

Hänninen, T., Pulliainen, V., Sotaniemi, M., Hokkanen, L., Salo, J., Hietanen, M., et al. (2010). Muistisairauksien tiedonkäsittelymuutosten varhainen toteaminen uudistetulla CERAD-tehtäväsarjalla. [Early detection of cognitive changes in memory diseases: new cut-off scores for the Finnish version of CERAD neuropsychological battery]. *Duodecim* 126, 2013–2021.

Heintzelman, S. J., and King, L. A. (2014). Life is pretty meaningful. *Am. Psychol.* 69, 561–574. doi: 10.1037/a0035049

Hicks, J. A., and King, L. A. (2009). Positive mood and social relatedness as information about meaning in life. *J. Posit. Psychol.* 4, 471–482. doi: 10.1080/17439760903271108

Ivankova, N. V., and Creswell, J. W. (2009). "Mixed methods," in *Qualitative Research in Applied Linguistics: A Practical Introduction*, eds J. Heigham and R. A. Croker (New York, NY: Palgrave Macmillan), 135–161. doi: 10.4135/9781483398341.n9

Jiang, D. (2020). Perceived stress and daily well-being during the COVID-19 outbreak: the moderating role of age. *Front. Psychol.* 11:571873. doi: 10.3389/fpsyg.2020.571873

Jonsén, E., Norberg, A., and Lundman, B. (2014). Sense of meaning in life among the oldest old people living in a rural area in northern Sweden. *Int. J. Older People Nurs.* 10, 221–229. doi: 10.1111/opn.12077

Jylhä, M. (2009). What is self-rated health and why does it predict mortality? Towards a unified conceptual model. *Soc. Sci. Med.* 69, 307–316. doi: 10.1016/j.socscimed.2009.05.013

Kananen, L., Enroth, L., Raitanen, J., Jylhävä, J., Bürkle, A., Moreno-Villanueva, M., et al. (2021). Self-rated health in individuals with and without disease is associated with multiple biomarkers representing multiple biological domains. *Sci. Rep.* 11:6139.

King, L. A., Hicks, J. A., Krull, J., and Del Gaiso, A. K. (2006). Positive affect and the experience of meaning in life. *J. Pers. Soc. Psychol.* 90, 179–196.

Kivi, M., Hansson, I., and Bjälkebring, P. (2021). Up and about: older adults' well-being during the COVID-19 pandemic in a Swedish longitudinal study. *J. Gerontol. Ser. B* 76, e4–e9. doi: 10.1093/geronb/gbaa084

Krause, N. (2007). Evaluating the stress-buffering function of meaning in life among older people. *J. Aging Health* 19, 792–812. doi: 10.1177/0898264307304390

Leontiev, A. (2006). The psychological structure of meaning. *J. Russ. East Eur. Psychol.* 44, 70–82.

Martela, F., and Steger, M. (2016). The three meanings of meaning in life: distinguishing coherence, purpose, and significance. *J. Posit. Psychol.* 11, 531–545. doi: 10.1080/17439760.2015.1137623

O'Connor, R., Wetherall, K., Cleare, S., McClelland, H., Melson, A., Niedzwiedz, C., et al. (2021). Mental health and well-being during the COVID-19 pandemic: longitudinal analyses of adults in the UK COVID-19 Mental Health & Wellbeing study. *Br. J. Psychiatry* 218, 326–333. doi: 10.1192/bjp.2020.212

Onder, G., Rezza, G., and Brusaferro, S. (2020). Case-fatality rate and characteristics of patients dying in relation to COVID-19 in Italy. *JAMA* 323, 1775–1776. doi: 10.1001/jama.2020.4683

Portacolone, E., Chodos, A., Halpern, J., Covinsky, K. E., Keiser, S., Fung, J., et al. (2021). The effects of the COVID-19 pandemic on the lived experience of diverse older adults living alone with cognitive impairment. *Gerontologist* 61, 251–261. doi: 10.1093/geront/gnaa201

Ryan, R. M., and Deci, E. L. (2004). "Overview of self-determination theory: An organismic dialectical perspective," in *The Handbook of Self-Determination Research*, eds E. L. Deci and R. M. Ryan (Rochester, NY: University of Rochester Press), 3–33.

Steger, M. F. (2012). "Experiencing meaning in life–Optimal functioning at the nexus of well-being, psychopathology, and spirituality," in *The human Quest for Meaning: Theories, Research, and Applications*, ed. P. T. P. Wong (New York, NY: Routledge), 165–184.

Van Tilburg, T. G., Steinmetz, S., Stolte, E., van der Roest, H., and de Vries, D. H. (2021). Loneliness and mental health during the COVID-19 pandemic: a study among Dutch older adults. *J. Gerontol. B* 76, 249–255. doi: 10.1093/geronb/gbaa111

Tiilikainen, E., and Seppänen, M. (2016). Lost and unfulfilled relationships behind loneliness in old age. *Ageing Soc.* 37, 1068–1088. doi: 10.1017/S0144686X16000040

van Nes, F., Abma, T., Jonsson, H., and Deeg, D. (2010). Language differences in qualitative research: is meaning lost in translation? *Eur. J. Ageing* 7:3. doi: 10.1007/s10433-010-0168-y

Victor, C., Sullivan, M. P., Woodbridge, R., and Thomas, M. (2015). Dancing with loneliness in later life: a pilot study mapping seasonal variations. *Open Psychol. J.* 8, 97–104. doi: 10.2174/1874350101508010078

Whitehead, B. R., and Torossian, E. (2021). Older adults' experience of the COVID-19 pandemic: a mixed-methods analysis of stresses and joys. *Gerontologist* 61, 36–47. doi: 10.1093/geront/gnaa126

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers in Psychology

ORIGINAL RESEARCH
published: 10 September 2021
doi: 10.3389/fpsyg.2021.726621

To Live or Die: What to Wish at 100 Years and Older

Lia Araújo[1,2]*, **Laetitia Teixeira**[1,3], **Rosa Marina Afonso**[1,4] **and Oscar Ribeiro**[1,5]

[1] Center for Health Technology and Services Research (CINTESIS), Porto-Aveiro, Portugal, [2] Department Psychology and Educational Sciences, School of Education, Polytechnic Institute of Viseu, Viseu, Portugal, [3] Department of Population Studies, Institute of Biomedical Sciences Abel Salazar, University of Porto, Porto, Portugal, [4] Department Psychology and Education, University of Beira Interior, Covilhã, Portugal, [5] Department of Education and Psychology, University of Aveiro, Aveiro, Portugal

Previous research has shown that will to live is a strong predictor for survival among older people, irrespective of age, gender, and comorbidities. However, research on whether life at age 100 is perceived as worth living is limited. The available literature has presented evidence for good levels of positive attitudes and life satisfaction at such an advanced age, but it has also suggested that a longing for death is common. This study aimed to add to the existing data on this matter by exploring centenarians' will to live and the associated factors. The sample comprised 121 centenarians (mean age, 101 years; SD, 1.63 years), 19 (15.7%) of whom were males, from two centenarian studies (PT100). Answers to open questions were analyzed to identify the centenarians' will to live and the reasons behind it. Three groups were created (willing to live longer, not willing to live longer, no clear positioning) and further analyzed in terms of sociodemographic characteristics, health status, social functioning, and well-being. Of the total sample, 31.4% expressed willingness to live longer, 30.6% did not, and 38% presented no clear positioning. The presence of the Catholic religion (God) was referred for centenarians in all three groups. Annoyance, uselessness, loss of meaning, disconnection, and loneliness were the most common justifications for being reluctant to live longer. Positive valuation of life and good self-rated health, followed by having a confidant and reduced pain frequency, were the factors associated with being willing to live longer. The results of the study contribute to the understanding of the psychological functioning of individuals with exceptional longevity, particularly concerning the factors behind willingness to live at such an advanced age.

Keywords: will to live, centenarians, valuation of life, religion, PT100, longevity

OPEN ACCESS

Edited by:
Suvi-Maria Katariina Saarelainen,
University of Eastern Finland, Finland

Reviewed by:
Paul T. P. Wong,
Trent University, Canada
Lluis Oviedo,
Pontifical University Antonianum, Italy

****Correspondence:***
Lia Araújo
liajaraujo@esev.ipv.pt

Specialty section:
This article was submitted to
Health Psychology,
a section of the journal
Frontiers in Psychology

Received: *17 June 2021*
Accepted: *16 August 2021*
Published: *10 September 2021*

Citation:
Araújo L, Teixeira L, Afonso RM and Ribeiro O (2021) To Live or Die: What to Wish at 100 Years and Older. Front. Psychol. 12:726621. doi: 10.3389/fpsyg.2021.726621

INTRODUCTION

Due to the phenomenon of population aging, the length of human life has become of interest in aging and gerontological research. Particularly in developed countries, reaching 100 years of age is becoming more common (Teixeira et al., 2020), and some individuals, known as supercentenarians, will even live beyond 110 years old. This increase in life expectancy and longevity is the result of significant advances in medical, social, political, economic, and cultural domains that together have improved health, nutrition, and sanitation conditions (Mathers et al., 2015). However, this delay of mortality raises important questions about quality of life in the later years of those who achieve exceptional longevity. Although the general consensus is that living longer will only be desirable if lived with meaning, purpose, and good quality of life, the clinical, bioethical, and social implications of extended life expectancy have raised various debates (e.g., Serra et al., 2011).

Research on the desire to reach advanced ages has shown similar results across different age groups and countries. For instance, in a study of 715 university students in Austria, Norway, Poland, and Russia, Bowen et al. (2020) found that 25.8% of the participants wanted to live 100 or more years, while the great majority (74.2%) did not. Of the participants, 21.2% wanted to live fewer than 80 years, and 53% wanted to live to their 80s or 90s. In another study with a larger sample (1631) of young and middle-aged adults in the United States, Bowen and Skirbekk (2017) found that 26.4% preferred a life expectancy of 100 or more years old, 24.6% preferred a life expectancy in the 90s, and 31.9% preferred a life expectancy in the 80s.

Age (being older) has been shown to affect people's attitudes toward living an extremely long life (Huohvanainen et al., 2012; Karppinen et al., 2016). When asked about their desire to reach 100 years old, 32.9% (aged 75–96; Karppinen et al., 2016) and 37.2% (aged 72–88; Huohvanainen et al., 2012) of community-dwelling older adults from Finland wanted to live to be 100. Karppinen et al. (2016) also found that gender (male) and subjective health (positive) significantly impacted the desire to live longer. Furthermore, a qualitative analysis of the reasons why the oldest-old participants wanted to live to 100 showed the importance of health and functioning, as many of the participants wished to live longer if they could remain independent—that is, "as long as their health remains good" (Karppinen et al., 2016, p. 547). The participants who wanted to live to 100 also displayed positive attitudes (e.g., curiosity, love of life, belief) and rational reasons for living longer (e.g., significant roles, offspring).

Interestingly, when studying a sample of 115 centenarians' close family members (aged 25–86 years; mean, 64.97), Brandão et al. (2019) found that 56.5% wanted to reach 100. Thus, having close contact with a centenarian may have a positive influence on people's attitudes toward living longer. Still, the family members stated that conditional circumstances related to health and caregiving were required to make living to 100 desirable. These included, among others, having good physical health, not being bedridden, being capable of maintaining independence performing activities of daily life (ADL), having the ability to express their wishes (good cognitive status), and having family support and/or someone who provided care in case of dependency, which would allow them to continue living at home. Indeed, research on children's perceptions of challenges relating to the end of life of their centenarian parents showed that it seems to be a potential double confrontation for the offspring who are often old adults themselves, i.e., "some adult children reported that observing the centenarian was like looking into a mirror and a kind of preview of their own possible challenges" (Eggert et al., 2020, p. 7).

In a review of available theoretical and empirical work about motivation for longevity across the life span, Lang and Rupprecht (2019), identified that people have different profiles, which can be divided in three mindsets: (i) an essentialist, based on an infinite life, (ii) a medicalist, appraising aging as being primarily based on quality of health, and (iii) a stoicist mindset that associates longevity and lifetime extension with the experience of grace and meaning. The authors argued that longevity motivation depends of determinants related to context, health functioning, and personal belief systems, that there could be change in longevity motivation over time and that the mindsets have differential behavioral consequences in what ways individuals want to approach old age.

Despite the available literature on the desire to become a centenarian in several populations (e.g., younger adults, centenarians' family members) and longevity extension, whether centenarians themselves still want to live longer remains undetermined, especially since despair, depressive symptoms, and large suicide rates have been documented in this population (Shah et al., 2014). Will to live is an important indicator of well-being that can be perceived as a basic need, a goal, and a drive (Carmel, 2012). Will to live reflects a focus on the present and a person's existential motivation to live (Bornet et al., 2021). Lawton et al. (1999) presented will to live as the most concretely anchored cognitive outcome of a dynamic cognitive-affective thought process in which people weigh a variety of inputs that affect their psychological well-being. It is influenced by external and internal factors and is expressed physiologically, psychologically, and socially (Lawton et al., 1999; Carmel, 2012). Furthermore, will to live has a great association with psychological variables like resilience and life satisfaction (Bornet et al., 2021). Lawton et al. (1999) proposed that years of desired life are mediated by an intervening cognitive-affective schema, which they designated as "valuation of life" (VOL). This schema includes hope, futurity, purpose, meaningfulness, persistence, and self-efficacy as its main core constructs (Lawton et al., 2001). In his well-known Holocaust memoir, Man's Search for Meaning, Frankl (1963) associated will to live with purpose; using Nietzsche's words, he stated that "he who has a why to live for can bear with almost any how" (p. 84).

Although heterogeneity is expected in the functionality of those of advanced age, most centenarians face high constraints in terms of physical, sensory, and cognitive function (Serra et al., 2011). However, many centenarians are still able to maintain good levels of life satisfaction, positive affect, and happiness (Cheng et al., 2021). Psychological strengths, such as optimistic outlook (Jopp and Rott, 2006), positive life attitudes (Wong et al., 2014; Kato et al., 2015; Mackowicz and Wnek-Gozdek, 2016), purpose (Araújo et al., 2016), and existential beliefs (Araújo et al., 2017), may be of particular importance for centenarians' well-being. Additionally, faith and social relationships seem to affect the way centenarians experience and perceive their old age, regardless of personal limitations and differences (Mackowicz and Wnek-Gozdek, 2016). In a study investigating the relationship between meaning in life, will to live, and age-associated health restrictions (e.g., number of diseases), Jopp et al. (2017) found that both meaning in life and will to live have strong, direct effects on well-being. Health factors were, in comparison, less important or non-significant.

Understanding older adults' will to live is important since they are increasingly aware of the approaching end of life and face cumulative losses in almost all domains of life (Carmel, 2012). Nevertheless, will to live has not been a main focus of research;

a greater number of studies have investigated attitudes toward death and dying, especially in end of life care. Empirical research of the oldest-old (Fleming et al., 2016) and older adults without a serious medical condition (Van Wijngaarden et al., 2015) is limited. A recent study of German and Portuguese centenarians reported that a notable portion of the participants did not think about the end of their lives; however, most of these centenarians experienced health or social problems (Boerner et al., 2019). This study used both quantitative and qualitative approaches to deepen the available scientific understanding of will to live in extreme longevity and to explore its associated factors.

METHODS

Data Collection

The data for this study came from two centenarian studies - the Oporto Centenarian Study (PT100) and the Beira Interior Centenarian Study (PT100 Beira Interior)—which were conducted in two distinct geographical regions of Portugal, each one with an area of ∼60 km^2. A total of 291 individuals aged 100 years and older between December 2013 and December 2014 were identified through voter registration files, churches, nursing homes, local media newspapers, and snowball sampling. Of the 291 centenarians, 50 were excluded because they died in the interim or because their relatives refused their participation due to advanced dementia, other major health problems, or lack of interest in the study. The 241 participants were interviewed face-to-face, and a sample of 121 centenarians who were not affected by severe cognitive impairment and who answered the questions about their thoughts and own perceptions required for the study were included.

The data were collected during one or two sequential interview sessions either with the centenarian and/or a proxy respondent. Following recommended strategies (Sachdev et al., 2012), age validation was performed by a protocol entailing personal identity document verification (e.g., birth certificate) and milestones assessments (e.g., wedding date, date of firstborn, subsequent birthdates of children). An informed consent previously approved by the National Commission on Data Protection was used. More information about the methodological procedures of both centenarian studies can be found in Ribeiro et al. (2015).

Measures

Socio-Demographic Characteristics

The following variables were considered in this set: age, sex (male/female), education (having/not having formal education), and living in an institution (yes/no).

Health Condition

The following objective and subjective health measures were determined: pain frequency (never, seldom, sometimes, often/always), presence of physical fatigue (yes/no), and self-rated health (SRH). To determine SRH, the following question was asked: "In general, would you say your health is…?" Five response options were given: excellent, very good, good, reasonable, and bad. The responses were scored 1 for a bad SRH, 2 for a reasonable SRH, and 3 for a positive SRH (i.e., excellent, very good, or good).

The total number of self-reported health conditions was obtained from a list of age-related problems commonly observed in the older population, including high blood pressure, a heart condition, diabetes, chronic lung disease, ulcers or other serious stomach issues, cirrhosis or other liver problems, a kidney condition, frequent urinary infections, incontinence, prostate problems, problems with vision or hearing, arthritis, osteoporosis, stroke, cancer, pneumonia, and falls, among others. Functional capacity was assessed through the Older Americans Resources and Services (OARS) Multidimensional Functional Assessment Questionnaires (Fillenbaum and Smyer, 1981). This questionnaire includes seven items that assess basic ADL (e.g., the capacity for walking, bathing, eating, going to the toilet) and seven items to assess instrumental activities of daily living (IADL; e.g., the capacity to use the telephone, go shopping, do housework, prepare meals). The participants were asked to rate how much difficulty they had performing each of these activities on a three-point scale (2 = no difficulty; 1 = can complete the activity with some help; 0 = cannot complete the activity without help). The seven items of ADL and the seven items of IADL were summed to obtain the total scores of each domain, with a higher score indicating greater independence.

Social Functioning

The following questions from the Social Resources subscale of the OARS (Fillenbaum and Smyer, 1981) were considered: the number of visits the centenarians had on a regular basis (none; 1–2; 3–4; 5 or more), how often the centenarian felt lonely (many times, sometimes, almost never, or never), and the time spent with people the centenarian did not live with (none, once/week, 2–6 times/week, once/day, or more). Four questions from the Lubben Social Network Scale (Lubben, 1988) were also used: the number of relatives and friends that the centenarian saw or heard from at least once a month and the number of relatives and friends that the centenarian has as a confidant, i.e., that could talk to about private matters (none; 1–2; 3+).

Well-Being

The Satisfaction with Life Scale (SWLS; Diener et al., 1985) is a short, five-item instrument that was designed to measure global cognitive judgments of satisfaction with one's life. The format of the questionnaire was modified after reported methodological constraints in assessing centenarians who described their difficulties in understanding self-referent statements and using five or six answering categories (Jopp and Rott, 2006). To avoid these difficulties, the questionnaire was changed from statements to questions, with a response of 0 being no, 1 being in between, and 2 being yes.

The Positive Valuation of Life Scale (Positive VOL; Lawton et al., 2001) is a 13-item scale that was formulated to examine the factors that may influence a person's will to continue to live and affect end-of-life attitudes and behaviors. In the Portuguese version used in this study, two factors were identified: existential beliefs and perceived control (Araújo et al., 2015). The answering format was changed from five to three options (0 = no, 1 =

in between, and 2 = yes) due specific difficulties in assessing centenarians (see Jopp and Rott, 2006).

Will to Live

The outcome variable was derived from the qualitative analysis of responses to two open questions (To what age would you like to live? and Do you long for death?). The responses were coded as yes (willing to live longer), no (not willing to live longer), and no indicators of will (without a clear positioning).

Analysis

The answers given to the questions were audiotaped, transcribed, and subjected to qualitative analysis. The first and last authors carefully read all the transcripts and defined the three major categories of the centenarians' will to live: willing to live longer, unwilling to live longer, and without a clear positioning. Then, the two authors met to match their independent ratings and discuss the differences and interpretations of the data.

In the next phase, the transcripts were examined to identify common themes using open coding, clustering, and theme identification (Hsieh and Shannon, 2005). These themes regarded the common reasons presented for willingness to live longer (or not), as well as the reasons for not presenting a clear positioning. Then, both authors independently analyzed the data and discussed discrepancies until reaching consensus. All answers were carefully reread, and final categorization of the emergent themes was defined (Braun and Clarke, 2006). Final categories were later discussed with the other authors.

Quantitative and descriptive analyses were used to characterize the sample according to sociodemographic characteristics, health status, social functioning, and well-being. To calculate the total score of the scales (e.g., satisfaction with life), the items missing data were replaced, and the mean was considered when at least 50% of the items were completed. The comparison of groups, which was defined by the outcome "will to live," was performed using a Chi-square test or Fisher's exact test and one-way ANOVA. In all quantitative analyses, a significance level of 0.05 was considered. All analyses were performed in IBM SPSS software (version 26.0).

RESULTS

Sample Characteristics

The sample comprised 121 centenarians with an overall mean age of 101 years (*SD* = 1.5 years); 19 (15.7%) were male. A majority of the centenarians (45.5%) had no formal education, and 40.5% were institutionalized. Regarding health status, 44.6% reported that their health was perceived as being "good, very good, or excellent," while 42.6% reported physical fatigue, and 17.5% reported never having pain. The mean scores of ADL and IAL were 3.71 (*SD* = 3.21) and 8.23 (*SD* = 4.26), respectively. Finally, the average number of diagnoses was 3.26 (*SD* = 1.94). Concerning social function, 36.2% of the centenarians had 5 or more visits, 51.0% reported missing people around them, and 25.7% never felt alone. The mean score of the SWLS was 6.54 (*SD* = 1.93). The mean scores of the Positive VOL Scale, factor 1 (existential beliefs), and factor 2 (perceived control) were 16.7 (*SD* = 6.0), 9.39 (*SD* = 3.58), and 7.32 (*SD* = 2.81), respectively.

TABLE 1 | Reasons for willingness to live longer and the number of quotations for each.

Category (*n*)[a]	Examples of quotations
God (14)	I'm ready as soon as God understands [it's the time], but I want to live at least until I am 103 years old.
Family (10)	I would like to see my grandson's [university] graduation.
Conditional wish: if in the presence of similar functioning levels and without being a burden (3)	[Would like to live] one more year […] but without being a burden to others or being bedridden.
Enjoying living (3)	Now that the good weather comes [springtime approaching], I want to live!

[a] *Frequencies were not mutually exclusive.*

Overview of Qualitative Responses

Of the sample, 31.4% expressed their willingness to live longer (group 1), 30.6% did not (group 2), and 38% presented no clear positioning (group 3). Explanations for being (un)willing to live were given by 63% (*n* = 38) of those in the first group and by 78% (*n* = 37) of those in the second group; the other participants did not give any justification for their answers. From the third group (*n* = 46), 38 participants referred to aspects related with God; this were the only topic of reference for their answers.

The reference to God appeared in all three groups but with different meanings. Those who reported wanting to live longer asked God to provide them additional time ("Living another month or two is already good, but I put it in God's hands"). Those reporting being unwilling to live longer asked God to take them/asked God for death ("I would like to die, but God gave me this punishment of living so many years, and I must accept it"). Finally, those who did not demonstrate a clear presence/absence of will to live stated that their future was in God's hands ("We do not command anything, only God knows"). **Tables 1**, **2** present the reasons given by groups 1 and 2, respectively, as well as the number of quotations in each category and illustrative quotations.

In the first group (i.e., those willing to live longer), the most frequent reasons besides those related to God concerned family (*n* = 14), such as the wish to meet new great-grandchildren or see a grandchild's achievements (e.g., wedding, university graduation). Further reasons were conditionally related to the centenarian's future functioning in the sense that the participants only wanted to live longer if they were in the same condition they were at the time of the interview, without being a burden to others. Three participants reported enjoying life, in the sense that they want to live longer to appreciate the good things of life.

The centenarians in group 2 (i.e., those unwilling to live longer) presented a greater diversity of reasons for their answers. Along with aspects related to God, important reasons included annoyance (*n* = 14), uselessness (*n* = 6), and loss of meaning (*n* = 5). The participants stated that they did not desire to live

TABLE 2 | Reasons for being unwilling to live longer and the number of quotations for each.

Category (*n*)[a]	Examples of quotations
God (10)	I would like to die, but God gave me this punishment for living, and I have to accept it.
Annoyance (9)	Time passes so slowly, especially the nights; it seems that the day never comes again.
Uselessness (6)	(Because) a person wanting to work and not being able to […] is not worthy.
Loss of meaning (5)	I often ask myself "What am I still doing here?"
(Social) disconnection and loneliness (5)	I go to the street to have a coffee [...] people always come, look at me but I don't know anyone.
Sense of burden (3)	I cannot do anything; I am here just to overwhelm [the others].
Dependency (3)	Because I am getting older, with less strength, and I'm no longer able to drag myself.
(Fear of) suffering (3)	I wanted to die so I do not have to be here in suffering. I have a lot of pain.
Living outside my own home (3)	I am very scorned here. I didn't need to be here at the nursing home.
Loss of family members (1)	I wish I had already died when my little children died.

[a] *Frequencies were not mutually exclusive.*

longer because "time passes so slowly" and because every day was alike. This reason was related to a feeling of being useless; several participants complained about doing nothing/not being able to work or about the loss of meaning due to lack of purpose in life. Disconnection and loneliness constituted other reasons; some participants felt detached from the place they lived ("I go to the street [...] I don't know anyone anymore") or lonely, especially those who spent long periods of time alone. Dependency, sense of burden, and suffering (or the fear of being in suffering) were referenced each as reasons by three participants and related to situations of lacking functionality and pain. Three participants (who lived in nursing homes) stated that living outside their home was the reason they were unwilling to live longer. Lastly, one participant mentioned the loss of his children as the life event that made him lose all desire to live longer (**Table 2**).

Factors Associated With Will to Live

Table 3 presents the relationships between the three groups and sociodemographic characteristics, health status, social functioning, and well-being. Sociodemographic characteristics were not associated with will to live. Regarding health status, pain frequency and SRH were significantly associated with will to live. Group 2 (unwilling to live longer) presented higher pain frequency (50.0% as often/always) compared to the other groups (22.9% in group 1 and 27.5% in group 3). Additionally, 58.3% of the individuals who were willing to live longer expressed having a good, very good, or excellent SRH, while only 27.3% of individuals unwilling to live longer presented such a positive SRH. Regarding social functioning, having a friend confidant was the only variable associated with will to live. In the group unwilling to live longer, a higher percentage (87.5%) did not have any confidant compared to the other two groups (42.9% in the group willing to live and 52.6% in the group with no clear positioning). For well-being, positive VOL was significantly associated with the outcome variable. Group 1 presented higher mean scores of positive VOL (mean = 20), including factor 1 (mean = 11.1) and factor 2 (mean = 8.84), compared to the other two groups.

DISCUSSION

Centenarians are an elite group, significantly exceeding the average life expectancy. This study explored the will to live and associated factors in a sample of these long-lived individuals by considering both quantitative indicators and qualitative data. The number of participants willing and unwilling to live longer was similar (31%) but lower than those without clear positioning (38%). Compared with the findings of studies of preferred life expectancy that also considered a non-response group, this was a very high percentage. For instance, in a study of 1,631 younger and middle-aged adults, Bowen and Skirbekk (2017) found that 15.9% of the sample did not clarify their preferred life expectancy. However, due to the lack of studies similar to the present one, whether the greater percentage was related to the centenarians' characteristics or the methodology of the study cannot be determined. Nevertheless, this group may have represented a stoic mindset in which individuals express a valuation of life *per se* and "as it comes" with discomfort or unwillingness to reflect about lifetime extension (Lang and Rupprecht, 2019).

Still, the qualitative exploration of this group's answers showed that almost everyone justified their lack of answer/positioning by mentioning God, stating that their remaining time to live was a matter that was not in "their hands" (i.e., one they could not control). This follows the idea that a sense of control through the sacred may come when life seems out of control (Wong et al., 2014). Although a sense of control is recognized as an important source of human life-strength, individuals who accept that declining control over environment comes with aging and focus on their ability to control their own internal states and behaviors demonstrate a more successful adjustment to aging (Hyer et al., 2011). Indeed, this group presented a satisfaction with life score very close to the group reporting willingness to live longer.

Regarding the reference to God, which was also present in the other two groups, religion and spirituality play an important role in the lives of older adults, as they help older people find meaning in later life (Frankl, 1963; Atchley, 2009; Wong et al., 2018) and are thus associated with how long one desires to live (Lang and Rupprecht, 2019). Different studies focusing on the centenarian population have confirmed the positive impact of religion and spirituality in well-being, which may be even more significant since this age group may fail to derive basic resources (Bishop, 2011). Archert et al. (2005) found that

TABLE 3 | Distribution of sample characteristics by total and will to live groups.

	n	**Total**	**Will to Live**			***p***
		***n* (%) or mean (SD)**	**No** ***n* (%) or mean (SD)**	**Yes** ***n* (%) or mean (SD)**	**No clear positioning** ***n* (%) or mean (SD)**	
Total	121	121 (100.0)	37 (30.6)	38 (31.4)	46 (38.0)	-
Sociodemographic characteristics						
Age, mean (SD)	121	101.0 (1.5)	100.9 (1.5)	101.0 (1.4)	101.2 (1.5)	0.665**
Sex [male]	121	19 (15.7)	4 (10.8)	8 (21.1)	7 (15.2)	0.473*
Education [no formal education]	121	55 (45.5)	15 (40.5)	17 (44.7)	23 (50.0)	0.687*
Institutionalized [yes]	121	49 (40.5)	17 (45.9)	15 (39.5)	17 (37.0)	0.701*
Health condition						
Pain frequency	109					0.040*
Never		19 (17.4)	4 (11.8)	10 (28.6)	5 (12.5)	
Seldom		22 (20.2)	4 (11.8)	10 (28.6)	8 (20.0)	
Sometimes		32 (29.4)	9 (26.5)	7 (20.0)	16 (40.0)	
Often/always		36 (33.0)	17 (50.0)	8 (22.9)	11 (27.5)	
SRH	112					<0.001*
Bad		20 (17.9)	14 (42.4)	3 (8.3)	3 (7.0)	
Reasonable		42 (37.5)	10 (30.3)	12 (33.3)	20 (46.5)	
Good, very good, excellent		50 (44.6)	9 (27.3)	21 (58.3)	20 (46.5)	
IADL, mean (SD)	118	3.71 (3.21)	2.99 (2.56)	3.86 (3.49)	4.18 (3.39)	0.240**
ADL, mean (SD)	121	8.23 (4.26)	7.63 (4.16)	8.04 (4.53)	8.87 (4.13)	0.402**
Number of health conditions, mean (SD)	121	3.61 (1.94)	3.30 (1.61)	4.00 (2.19)	3.54 (1.94)	0.281**
Physical fatigue [yes]	115	49 (42.6)	17 (51.5)	15 (39.5)	17 (38.6)	0.471*
Social functioning						
Number of visits	105					0.457***
None		8 (7.6)	2 (6.1)	3 (8.8)	3 (7.9)	
1–2		35 (33.3)	16 (48.5)	9 (26.5)	10 (26.3)	
3–4		24 (22.9)	7 (21.2)	7 (20.6)	10 (26.3)	
5+		38 (36.2)	8 (24.2)	15 (44.1)	15 (39.5)	
Time with people centenarians did not live with	104					0.122*
None		16 (15.4)	8 (24.2)	4 (12.5)	4 (10.3)	
Once/week		18 (17.3)	9 (27.3)	6 (18.8)	3 (7.7)	
2–6/week		38 (36.5)	9 (27.3)	13 (40.6)	16 (41.0)	
One or more/day		32 (30.8)	7 (21.2)	9 (28.1)	16 (41.0)	
See or hear from relatives	98					0.317*
None		3 (3.1)	1 (3.0)	1 (3.1)	1 (3.0)	
1–2		22 (22.4)	7 (21.2)	11 (34.4)	4 (12.1)	
3+		73 (74.5)	25 (75.8)	20 (62.5)	28 (84.8)	
Have relatives as confidants	81					0.128*
None		21 (25.9)	9 (39.1)	6 (20.7)	6 (20.7)	
1-2		35 (43.2)	11 (47.8)	14 (48.3)	10 (34.5)	
3+		25 (30.9)	3 (13.0)	9 (31.0)	13 (44.8)	
See or hear from friends	83					0.134*
None		25 (30.1)	12 (50.0)	8 (26.7)	5 (17.2)	
1–2		18 (21.7)	4 (16.7)	7 (23.3)	7 (24.1)	
3+		40 (48.2)	8 (33.3)	15 (50.0)	17 (58.6)	
Have friends as confidants	71					0.015***
None		43 (60.6)	21 (87.5)	12 (42.9)	10 (52.6)	
1–2		19 (26.8)	2 (8.3)	11 (39.3)	6 (31.6)	
3+		9 (12.7)	1 (4.2)	5 (17.9)	3 (15.8)	
Feel alone	74					0.928*

(Continued)

TABLE 3 | Continued

	n	**Total**	**Will to Live**			***p***
		***n* (%) or mean (SD)**	**No** ***n* (%) or mean (SD)**	**Yes** ***n* (%) or mean (SD)**	**No clear positioning** ***n* (%) or mean (SD)**	
Yes, many times		15 (20.3)	5 (20.8)	4 (15.4)	6 (25.0)	
Sometimes		22 (29.7)	8 (33.3)	9 (34.6)	5 (20.8)	
Almost never		18 (24.3)	5 (20.8)	7 (26.9)	6 (25.0)	
Never		19 (25.7)	6 (25.0)	6 (23.1)	7 (29.2)	
Well-being						
Satisfaction with life, mean (SD)	78	6.54 (1.93)	5.79 (2.06)	6.93 (2.00)	6.81 (1.59)	0.072**
Positive VOL (total), mean (SD)	81	16.7 (6.0)	11.1 (4.9)	20.0 (4.9)	18.2 (4.5)	<0.001**
Positive VOL factor 1, mean (SD)	81	9.39 (3.58)	6.08 (3.04)	11.1 (2.8)	10.5 (2.8)	<0.001**
Positive VOL factor 2, mean (SD)	81	7.32 (2.81)	5.07 (2.60)	8.84 (2.48)	7.71 (2.06)	<0.001**

**Chi-square test; **one-way ANOVA; ***Fisher's exact test.*

religiosity was one of the major themes that emerged from a qualitative analysis about adaptation and coping in the lives of centenarians; when asked about the most important thing in their lives, 58% of the respondents mentioned church and/or God. Interestingly, a female centenarian shared a sentence very similar to one of the participants in the present study, arguing that the future is held in God's hands (Archert et al., 2005). Furthermore, Manning et al. (2012) found that centenarians place considerable importance on divine support in their lives. This study found an interconnectedness of spirituality with religion for centenarians; in other words, these two constructs overlap. Through a phenomenological examination of life-satisfaction and compensatory strategies in Jewish-Canadian centenarians, Milevsky (2021) found that compensatory, cultural, and religious processes were imbued into several of the themes, such as "Maintaining connections with family, friends, and God" (p. 101) and "Remaining positive and kind" (p. 104). It is expected to have an intrinsic need to have hope that goes beyond this life and have faith either in something or in someone, which can be religiously oriented or without any religiosity (Saarelainen et al., 2020). But the huge presence of religion in centenarians' discourses found in the present study may echo the importance of church and military in shaping the lives of this older Portuguese generation (Birmingham, 2003), as well as the overall impact of religious beliefs, practices, and culture (Boerner et al., 2019).

The quantitative results of the present study revealed the significant contribution of health (pain frequency and SRH), social functioning (friends as confidants), and well-being (positive valuation of life). These findings confirmed that will to live is the summation of individuals' biopsychosociospiritual dimensions (Bornet et al., 2021) and depends on both external (e.g., social networks) and intra-personal factors (e.g., health and self-perceptions; Lawton et al., 1999). No sociodemographic variable was found to be relevant, which agreed with the findings of a scope review on will to live conducted by Bornet et al. (2021). Positive VOL had the strongest significant association with will to live, which was expected. Despite the great importance being attributed to variables like physical and health functionality in longevity and quality of life (Rowe and Kahn, 1997), some studies have emphasized the importance of psychological functioning and well-being, especially for very old individuals. For instance, a comparison of components in the World Health Organization's (WHO) active aging model by age group (< 75 years vs. ≥ 75 years) revealed the major relevance of the psychological component to the older age group (Paúl et al., 2017). Likewise, the operationalization of the successful aging model (Rowe and Kahn, 1997) in centenarians revealed the importance of subjective appraisals and psychological variables (Araújo et al., 2016).

The fact that the number of health conditions and levels of fatigue and functional capacity presented no significant association with will to live in this study supported the argument that individuals with problems related to physical health and functioning may be able to maintain subjective well-being. This agreed with the paradox of well-being, i.e., reporting experiences of positive psychological functioning despite decline in physical health, as the evidence of resilience in old age (Wiesmann and Hannich, 2014). Interestingly, pain and SRH, the two health factors with a significant impact on will to live, have also been associated with resilience in centenarians (Amaral et al., 2020). Gu and Feng (2018) argued that higher resilience could yield a greater protection for SRH and life satisfaction among centenarians compared with younger elderly groups. Thus, resilience may also be associated with will to live, as identified in younger groups (Bornet et al., 2021). This was supported by the qualitative analysis; aspects related to health, such as dependency, sense of burden, and fear of suffering, were referred to less than uselessness, annoyance, and loss of meaning by centenarians who were unwilling to live longer.

In advanced age, some aspects of purpose in life are more difficult to fulfill, such as having goals for the far future or feeling useful (Pinquart, 2002). This study found that these variables continue to be very important, specifically for (un)willingness to live. Conversely, will to live has strong, direct effects on well-being, including life and aging satisfaction (Jopp et al., 2017). The large influence of positive VOL on will to live meets Lawton et al.'s (1999) assumptions (i.e., years of desired life are mediated by VOL) in an age group in which this issue was not studied. Both existential beliefs and perceived control were higher in the group willing to live longer—that is, they represented important aspects for centenarians' reason for living, even under difficult conditions of functional impairment and disease. This confirmed that a "possible mechanism for the potency of VOL as a determinant of Years of Desired Life is the ability of people to adjust their standards for what is acceptable in everyday life in accord with changes in both their personal characteristics and the circumstances under which they live" (Lawton et al., 2001, p. 25).

Social factors also seem to have a contribution to will to live (Bornet et al., 2021), being an important source of meaning in life among older people (Saarelainen et al., 2020). Social relationships and support may be particularly important for centenarians (Boerner et al., 2016). The loss of friends and relatives that is typical in these long-lived individuals can make social contacts even more significant by reducing opportunities for (intra- and intergenerational) relationships (Randall et al., 2010). In the present study, the only social variable significantly associated with will to live was the number of friends as confidants. Thus, support—rather than size—may be the most significant aspect of social networks. Previous studies of the oldest old have shown the importance of having a close friend for independence (Pin et al., 2005) and well-being (Johnson and Barer, 1997). Indeed, maintaining a confidant is suggested as a strategy that centenarians use to compensate for losses and increase well-being (Araújo and Ribeiro, 2012). From the qualitative data, (social) disconnection and loneliness emerged as an important motive for losing will to live, as was also the case of feeling like a burden.

This last reason, which is typically referred to in studies on will to live (Bornet et al., 2021) since its related to the high burden of taking care of a person in the end of life, shows the need to acknowledge those who are supporting centenarians. The few studies that investigated will to live and end of life issues in centenarian's caregivers and offspring indicated concerns of family members that they'd become a burden for caregivers and would face the unavailability of family support if they became centenarians (Brandão et al., 2019). The fact that caregivers value this aspect so much, reinforces their potential burdens and needs. If being willing to live at 100 years old depends on the availability of social support, more must be invested in these caregiving offspring who are confronted with their own advanced age and the burdens of their parents' very old age (Eggert et al., 2020).

Despite the richness of this study's findings, some limitations should be considered. The cross-sectional design of the study prevented the ability to determine the direction of the relationships between variables, which could be of particular interest in this topic since willingness to live could be a predictor of well-being. Furthermore, those who shared their opinion (i.e., mostly individuals with mild or no cognitive impairment) represented only a part of the original sample, so these findings should not be generalized to the centenarian population.

CONCLUSION

The current study added to the literature on will to live by presenting empirical research on an understudied population and focusing on a under-researched topic. A long life is an ambition and desire for many people, but the proportion of individuals who are willing to live longer at 100 years of age is the same as those who do not. Health factors appear to be significant in shaping such will, but social and psychological factors also play a role, which can be observed by the importance given to God and religious meaning and to connectivity. These results provide researchers suggestions for further investigation and highlight the importance of inquiring and understanding very old people's values and views on their will to live and their future wishes, and of creating conditions that promote very old people's meaning in life.

DATA AVAILABILITY STATEMENT

The datasets presented in this article are not readily available because this study is part of a larger. Requests to access the datasets should be directed to Laetitia Teixeira, laetitiateixeir@gmail.com.

ETHICS STATEMENT

The study was approved by Portuguese National Data Protection Commission and the participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

OR, LA, and LT were responsible for the study conception and design. OR supervised data collection and helped write the manuscript. LA wrote the manuscript. LA and OR performed the qualitative analysis. LT performed the quantitative data analysis and helped write the manuscript. RA critically revised the paper for important intellectual content. All authors contributed to the article and approved the submitted version.

FUNDING

This article was supported by National Funds through Fundação para a Ciência e a Tecnologia (FCT) within the CINTESIS R&D Unit (reference UIDB/4255/2020).

ACKNOWLEDGMENTS

The authors would like to thank the guidance of Dr. Daniela Jopp and Dr. Christoph Rott from the Second Heidelberg Centenarian Study (Germany), the support of the study team and the participation of the centenarians and their families.

REFERENCES

Amaral, A., Afonso, R., Brandão, D., Teixeira, L., and Ribeiro, O. (2020). Resilience in very advanced ages: a study with centenarians. *Int. J. Aging Hum. Dev*. 93, 601–618. doi: 10.1177/0091415020926839

Araújo, L., and Ribeiro, O. (2012). Centenários: que redes sociais. *Kairós* 15, 57–74. doi: 10.23925/2176-901X.2012v15iEspecial11p57-74

Araújo, L., Ribeiro, O., and Paúl, C. (2017). The role of existential beliefs within the relation of centenarians' health and well-being. *J. Relig. Health* 56, 1111–1122. doi: 10.1007/s10943-016-0297-5

Araújo, L., Ribeiro, O., Teixeira, L., Jopp, D., Rott, C., and Paúl, C. (2015). Measuring attachment to life in old age: the Portuguese version of the Positive Valuation of Life Scale (Positive VOL). *Qual. Life Res.* 24, 2385–2389. doi: 10.1007/s11136-015-0981-z

Araújo, L., Ribeiro, O., Teixeira, L., and Paúl, C. (2016). Successful aging at 100 years: the relevance of subjectivity and psychological resources. *Int. Psychogeriatr.* 28, 179–188. doi: 10.1017/S1041610215001167

Archert, S., Brathwaite, F., and Fraser, H. (2005). Centenarians in Barbados: the importance of religiosity in adaptation and coping and life satisfaction in the case of extreme longevity. *J. Relig. Spiritual Aging* 18, 3–19. doi: 10.1300/J496v18n01_02

Atchley, R. C. (2009). *Spirituality and Aging*. Maryland: The John Hopkins University Press.

Birmingham, D. (2003). *A Concise History of Portugal, 2nd Edn*. Cambridge: Cambridge University Press. doi: 10.1017/CBO9781107280212

Bishop, A. (2011). "Spirituality and religiosity connections to mental and physical health among the oldest old," in *Understanding Well-Being in the Oldest Old*, eds L. Poon and J. Cohen-Mansfield (Cambridge Cambridge: University Press), 227–239. doi: 10.1017/CBO9780511920974.014

Boerner, K., Jopp, D., Kim, K., Butt, A., Ribeiro, O., Araujo, A., et al. (2019). Thinking about the end of life when it is near: a comparison of German and Portuguese centenarians. *Res. Aging* 41, 65–285. doi: 10.1177/0164027518807919

Boerner, K., Jopp, D., Park, M.-K., and Rott, C. (2016). Whom do centenarians rely on for support? Findings from the second Heidelberg centenarian study. *J. Aging Soc. Policy* 28, 165–186. doi: 10.1080/08959420.2016.1160708

Bornet, M.-A., Bernard, M., Jaques, C., Truchard, E., Borasio, G., and Jox, R. (2021). Assessing the will to live: A scoping review. *J. Pain Symptom Manage.* 61, 845–857.e18. doi: 10.1016/j.jpainsymman.2020.09.012

Bowen, C., Christiansen, S., Emelyanova, A., Golubeva, E., Stonawski, M., and Skirbekk, V. (2020). Living too long or dying too soon? Exploring how long young adult university students in four countries want to live. *J. Adult Dev.* 27, 157–169. doi: 10.1007/s10804-019-09335-y

Bowen, C., and Skirbekk, V. (2017). Old age expectations are related to how long people want to live. *Ageing Soc.* 37, 1898–1923. doi: 10.1017/S0144686X16000726

Brandão, D., Ribeiro, O., and Jopp, D. (2019). Would I want to reach age 100? Perspectives of centenarians' family members on reaching exceptional longevity. *J. Fam. Issues* 40, 1086–1101. doi: 10.1177/0192513X19833094

Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qual. Res. Psychol.* 3, 77–101. doi: 10.1191/1478088706qp063oa

Carmel, S. (2012). Gender differences and the will-to-live in old age. *Przeglad Lek.* 69, 49–53.

Cheng, A., Leung, Y., and Brodaty, H. (2021). A systematic review of the associations, mediators and moderators of life satisfaction, positive affect and happiness in near-centenarians and centenarians. *Aging Ment. Health* 1, 1–17. doi: 10.1080/13607863.2021.1891197

Diener, E., Emmons, R., Larsen, R., and Griffin, S. (1985). The satisfaction with life scale. *J. Pers. Assess.* 49, 71–75. doi: 10.1207/s15327752jpa4901_13

Eggert, S., Wenzel, A., Suhr, R., Gellert, P., and Drager, D. (2020). Caregiving adult children's perceptions of challenges relating to the end of life of their centenarian parents. *Scand. J. Caring Sci.* doi: 10.1111/scs.12921. [Epub ahead of print].

Fillenbaum, G. G., and Smyer, M. A. (1981). The development, validity, and reliability of the OARS multidimensional functional assessment questionnaire. *J. Gerontol.* 36, 428–434. doi: 10.1093/geronj/36.4.428

Fleming, J., Farquhar, M., CC75C study collaboration, Brayne, C., and Barclay, S. (2016). Death and the oldest old: Attitudes and preferences for end-of-life care—Qualitative research within a population-based cohort study. *PLoS ONE* 11:e0150686. doi: 10.1371/journal.pone.0150686

Frankl, V. E. (1963). *Man's Search for Meaning: An Introduction to Logotherapy*. Washington, DC: Washington Square Press.

Gu, D., and Feng, Q. (2018). Psychological resilience of Chinese centenarians and its associations with survival and health: a fuzzy set analysis. *J. Gerontol. B. Psychol. Sci. Soc. Sci.* 73, 880–889. doi: 10.1093/geronb/gbw071

Hsieh, H. F., and Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qual. Health Res.* 15, 1277–1288. doi: 10.1177/1049732305276687

Huohvanainen, E. A., Strandberg, T. E., Pitkala, K. H., Karppinen, H., and Tilvis, R. S. (2012). Do you wish to live to the age of 100? A survey of older men. *J. Am. Geriatr. Soc.* 60, 1983–1984. doi: 10.1111/j.1532-5415.2012.04174.x

Hyer, L., Yeager, C., and Scott, C. (2011). "Late-life psychotherapy: challenges and opportunities to enhance well-being in the oldest old," in *Understanding Well-Being in the Oldest Old*, eds L. Poon, and J. Cohen-Mansfield (Cambridge: Cambridge University Press), 332–363. doi: 10.1017/CBO9780511920974.019

Johnson, C., and Barer, B. (1997). *Life Beyond 85 Years: The Aura of Survivorship*. New York, NY: Springer.

Jopp, D., Meystre, C., and Lampraki, C. (2017). Meaning in life and will to live as predictors of well-being in centenarians. *Innov. Aging* 1(Suppl. 1):1294. doi: 10.1093/geroni/igx004.4729

Jopp, D., and Rott, C. (2006). Adaptation in very old age: exploring the role of resources, beliefs, and attitudes for centenarians' happiness. *Psychol. Aging* 21, 266–280. doi: 10.1037/0882-7974.21.2.266

Karppinen, H., Laakkonen, M.-L., Strandberg, T., Huohvanainen, E., and Pitkala, K. (2016). Do you want to live to be 100? Answers from older people. *Age Ageing* 45, 43–549. doi: 10.1093/ageing/afw059

Kato, K., Zweig, R., Schechter, C., Barzilai, N., and Atzmon, G. (2015). Positive attitude toward life, emotional expression, self-rated health, and depressive symptoms among centenarians and near-centenarians. *Aging Ment. Health* 20, 930–939. doi: 10.1080/13607863.2015.1056770

Lang, F., and Rupprecht, F. (2019). Motivation for longevity across the life span: an emerging issue. *Innov. Aging* 3, 1–11. doi: 10.1093/geroni/igz014

Lawton, M. P., Moss, M., Hoffman, C., Grant, R., Have, T., and Kleban, M. (1999). Health, valuation of life, and wish to live. *Gerontologist* 39, 406–416. doi: 10.1093/geront/39.4.406

Lawton, M. P., Moss, M., Hoffman, C., Kleban, M., Ruckdeschel, K., and Winter, L. (2001). Valuation of life: a concept and a scale. *Aging Ment. Health* 13, 3–31. doi: 10.1177/089826430101300101

Lubben, J. (1988). Assessing social networks among elderly populations. *Fam. Community Health* 11, 42–52. doi: 10.1097/00003727-198811000-00008

Mackowicz, J., and Wnek-Gozdek, J. (2016). The process of (non) ageing in the perception of Polish centenarians. *Educ. Gerontol.* 43, 101–111. doi: 10.1080/03601277.2016.1263926

Manning, L., Leek, J., and Radina, E. (2012). Making sense of extreme longevity: explorations into the spiritual lives of centenarians. *J. Relig. Spiritual Aging* 24, 345–359. doi: 10.1080/15528030.2012.706737

Mathers, C., Stevens, G., Ties, B., White, R., and Tobias, M. (2015). Causes of international increases in older age life expectancy. *Lancet* 385, 7–13. doi: 10.1016/S0140-6736(14)60569-9

Milevsky, A. (2021). The centenarian transition: a phenomenological examination of life-satisfaction and compensatory strategies in aging Jewish-Canadians. *Ment. Health Relig. Cult.* 24, 97–110. doi: 10.1080/13674676.2021.1882976

Paúl, C., Teixeira, L., and Ribeiro, O. (2017). Active aging in very old age and the relevance of psychological aspects. *Front. Med.* 4:181. doi: 10.3389/fmed.2017.00181

Pin, S., Guilley, E., Spini, D., and Lalive d'Epinay, C. (2005). The impact of social relationships on the maintenance of independence in advanced old age: findings of a Swiss longitudinal study. *Zeitschrift für Gerontologie und Geriatrie* 38, 203–209. doi: 10.1007/s00391-005-0250-9

Pinquart, M. (2002). Creating and maintaining purpose in life in old age: a meta-analysis. *Ageing Int.* 27, 90–114. doi: 10.1007/s12126-002-1004-2

Randall, G., Martin, P., McDonald, M., and Poon, L. (2010). Social resources and longevity: findings from the Georgia centenarian study. *Gerontology* 56, 106–111. doi: 10.1159/000272026

Ribeiro, O., Araújo, L., Teixeira, L., Brandão, D., Duarte, N., and Paúl, C. (2015). "Oporto centenarian study," in *Encyclopedia of Geropsychology*, ed N. Pachana (Singapore: Springer-Verlag), 1–7. doi: 10.1007/978-981-287-080-3_141-1

Rowe, J., and Kahn, R. (1997). Successful aging. *Gerontologist* 37, 433–440. doi: 10.1093/geront/37.4.433

Saarelainen, S.-M., Mäki-Petäjä-Leinonen, A., and Päyhiä, R. (2020). Relational aspects of meaning in life among older people – a group-interview gerontechnology study. *Ageing Soc.* 1–19. doi: 10.1017/S0144686X20001300

Sachdev, P., Levitan, C., and Crawford, J. (2012). Methodological issues in centenarian research: pitfalls and challenges. *Asian J. Gerontol. Geriatr.* 7, 44–48.

Serra, V., Watson, J., Sinclair, D., and Kneale, D. (2011). *Living Beyond 100: A Report on Centenarians*. London: International Longevity Centre.

Shah, A., Zarate-Escudero, S., Bhat, R., De Leo, D., and Erlangsen, A. (2014). Suicide in centenarians: the international landscape. *Int. Psychogeriatr.* 26, 1703–1708. doi: 10.1017/S1041610214001112

Teixeira, L., Araújo, L., Paul, C., and Ribeiro, O. (2020). *Centenarians: An European Overview*. New York, NY: Springer. doi: 10.1007/978-3-030-52090-8

Van Wijngaarden, E., Leget, C., and Goossensen, A. (2015). Ready to give up on life: the lived experience of elderly people who feel life is completed and no longer worth living. *Soc. Sci. Med.* 138:257e264. doi: 10.1016/j.socscimed.2015.05.015

Wiesmann, U., and Hannich, H. J. (2014). A salutogenic analysis of the well-being paradox in older age. *J. Happiness Stud.* 15, 339–355. doi: 10.1007/s10902-013-9425-z

Wong, S., Pargament, K., and Faigin, C. (2018). "Sustained by the sacred: religious and spiritual factors for resilience in adulthood and aging," in *Resilience in Aging: Concepts, Research, and Outcomes,* eds N. Resnick, L. Gwyther, and K. Roberto (New York, NY: Springer), 191–214. doi: 10.1007/978-3-030-04555-5_10

Wong, W.-C., Lau, H.-P., Kwok, C.-F., Leung, Y.-M., Chan, M.-Y., Chan, W.-M., et al. (2014). The well-being of community-dwelling near-centenarians and centenarians in Hong Kong: a qualitative study. *BMC Geriatr.* 14:63. doi: 10.1186/1471-2318-14-63

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers
in Psychology

ORIGINAL RESEARCH
published: 17 September 2021
doi: 10.3389/fpsyg.2021.700285

Older Adults' Experience of Meaning at the End of Life in Two Danish Hospices: A Qualitative Interview Study

Dorte Toudal Viftrup[1], Christina Prinds[2,3], Ricko Damberg Nissen[1], Vibeke Østergaard Steenfeldt[4], Jens Søndergaard[1] and Niels Christian Hvidt[1,5]*

[1] Research Unit of General Practice, Department of Public Health, University of Southern Denmark, Odense, Denmark, [2] Research Unit of Gynecology and Obstetrics, Department of Clinical Research, University of Southern Denmark, Odense, Denmark, [3] Department for Research and Development, University College South Denmark, Haderslev, Denmark, [4] Centre for Nursing, University College Absalon, Roskilde, Denmark, [5] Academy of Geriatric Cancer Research (AgeCare), Odense University Hospital, Odense, Denmark

OPEN ACCESS

Edited by:
Jessie Dezutter,
KU Leuven, Belgium

Reviewed by:
Liesbeth Van Humbeeck,
Ghent University Hospital, Belgium
Daan Duppen,
Vrije Universiteit Brussel, Belgium

****Correspondence:***
Dorte Toudal Viftrup
dviftrup@health.sdu.dk

Specialty section:
This article was submitted to
Health Psychology,
a section of the journal
Frontiers in Psychology

Received: *25 April 2021*
Accepted: *23 August 2021*
Published: *17 September 2021*

Citation:
Viftrup DT, Prinds C, Nissen RD, Steenfeldt VØ, Søndergaard J and Hvidt NC (2021) Older Adults' Experience of Meaning at the End of Life in Two Danish Hospices: A Qualitative Interview Study. Front. Psychol. 12:700285. doi: 10.3389/fpsyg.2021.700285

The aim of this study was to explore how older adults (aged > 65) confronted with imminent death express their thoughts and feelings about death and dying and verbalize meaning. Furthermore, the aim was to investigate how health professionals could better address the needs of this patient group to experience meaning at the end of life. The study applied a qualitative method, involving semi-structured interviews with 10 participants at two hospices. The method of analysis was interpretative phenomenological analysis. We found three chronological time-based themes: (1) Approaching Death, (2) The time before dying, and (3) The afterlife. The participants displayed scarce existential vernacular for pursuing meaning with approaching death. They primarily applied understanding and vocabulary from a medical paradigm. The participants' descriptions of how they experienced and pursued meaning in the time before dying were also predominantly characterized by medical vernacular, but these descriptions did include a few existential words and understandings. When expressing thoughts and meaning about the afterlife, participants initiated a two-way dialogue with the interviewer and primarily used existential vernacular. This indicates that the participants' scarce existential vernacular to talk about meaning might be because people are not used to talking with healthcare professionals about meaning or their thoughts and feelings about death. They are mostly "trained" in medical vernacular. We found that participants' use of, respectively, medical or existential vernacular affected how they experienced meaning and hope at the end of life. We encourage healthcare professionals to enter into existential dialogues with people to support and strengthen their experiences of meaning and hope at the end of life.

Keywords: meaning, hospice, end of life, concrete hope, absolute hope, interpretative phenomenological analysis, qualitative method

INTRODUCTION

This study focuses on how older people facing death at two Danish hospices experience meaning in the prospect of death. Denmark is one of the most secularized countries in the world – among researchers it is described as "the world's least religious society" (Zuckerman, 2008). Studies also indicate that devout Christians in Denmark exhibit high degree of private and individualized religious faith (Viftrup et al., 2016, 2017; Nissen et al., 2019). Furthermore, studies have found that Danes generally have fewer spiritual or religious resources compared to less secularized societies. Therefore, spiritual and religious ways to experience meaning in life are less available (Ausker et al., 2008; la Cour, 2008; Pedersen et al., 2012). Despite this, studies have found that Danes increase their need for spiritual and religious meaning when facing severe illness or being confronted with death and dying (la Cour, 2005; Ausker et al., 2008). One study has also demonstrated a correlation between the severity of illness and the tendency to spiritual and religious thoughts and practices among Danes (la Cour, 2008). In recent years, the Danish State Church has set up the greatest number of support groups in the country related to grief and loss. This also indicates the relevance of religious and spiritual meaning among Danes. The State Church groups focus more on spiritual and religious aspects of meaning than do secular grief groups (Thomsen et al., 2014; Larsen, 2019). The preference among the general Danish population for Church-run groups indicates an increasing need in the population to find and express meaning in illness, loss, death, and crisis, through the use of spiritual and religious understandings and existential vernacular. However, due to the increased secularization and individualization of the Danish society, there is a paucity of knowledge on religious and spiritual meaning among Danes (Zuckerman, 2008; Stimpel and Raakjær, 2017). Pedersen et al. (2018) found religious characteristics to be more strongly associated with meaningfulness than socio-demographic variables in a study of Danish people's personal meaning in life. Generativity was most strongly associated with meaningfulness, followed by spirituality, attentiveness, and explicit religiosity (Pedersen et al., 2018). The latter study was based on the Danish version of the Sources of Meaning Scale (SoMe-DA) in association with socio-demographic and religious characteristics. These studies indicate the relevance of religious and spiritual meaning among Danes and in other highly secularized countries, especially when facing severe illness and the prospect of death.

International studies also point to an increase in need for spiritual and existential meaning among older people, for whom death naturally becomes more present (Fleischer and Jessen, 2008). Furthermore, older people more often experience "existential loneliness" and "invisibility." They have very few people to talk with about their thoughts on death, dying, and other existential dilemmas, and this increases their risk of isolation and depression (Heap, 2001). Several studies from different Europeans countries points out how older people don't get sufficient help with their spiritual and existential concerns, care organizations had few active policies on dealing with older people's existential questions, and professionals need training and appropriate qualifications to address older people's existential loneliness related to existential aspects of aging and care (Harder and Friis, 2010; Erichsen and Büssing, 2013; Evans et al., 2014; van der Vaart and van Oudenaarden, 2018; Sundström et al., 2019). Both Danish and international studies suggest that terminally ill people can improve their quality of life by talking about their feelings and thoughts concerning death and the afterlife with healthcare staff (Strang et al., 2001; McClain-Jacobson et al., 2004; Murray et al., 2004; la Cour, 2008; Balboni et al., 2010). The European Association for Palliative Care (EAPC), in collaboration with the World Health Organization (WHO) European Office have developed a comprehensive list of learning goals that are essential to multidisciplinary postgraduate palliative care education within Europe (Paal et al., 2019). The EAPC points out the importance of spiritual care as an integral part of palliative care and, accordingly, suggests incorporating it into educational activities and training models in palliative care (Best et al., 2020). To improve palliative care for older people, for whom death and dying are naturally more present, knowledge of their experiences of meaning at the end of life seems highly relevant. One significant way, people experience spiritual and existential meaning is through feelings and experiences of hope (Graven and Olsen, 2018).

Hope is of particular importance for terminally ill people in the experience of meaning in dying (Owen, 1989; Nierop-van Baalen et al., 2016; Baczewska et al., 2019). A study showed how hope changes with disease progression. Initially, people hope for miraculous healing, but when treatment is no longer effective in curing, their hope changes and they start to prepare for the end of life (Daneault et al., 2016). A study on the meaning of hope among people with cancer in the palliative phase points to people using different strategies to increase their hope. This is described as the "the work of hope," and increasing health professionals' understanding of people's "work of hope" may lead to better care and support (Nierop-van Baalen et al., 2016). A recent study on hope among terminal cancer patients found their highest levels of hope were in the spiritual-religious areas (e.g., hope in a deeper meaning), while the lowest levels of hope were related to finding a cure for the disease (Baczewska et al., 2019). Danish studies with terminally ill people indicate that religious and spiritual meaning is central to their well-being (Graven, 2015; Boelsbjerg, 2017, 2018). Several qualitative studies reveal that terminally ill people articulate spiritual notions and understanding about death and the afterlife. However, they rarely discuss these thoughts with the healthcare professionals (Moestrup, 2016; Moestrup and Hvidt, 2016; Boelsbjerg, 2018). Several studies have found that physicians and health professionals find it difficult to talk with patients about death, even when patients would like to (Singer et al., 1999; Wenrich et al., 2001; Wright et al., 2008; Assing Hvidt et al., 2016). A study suggests such hesitation could be because physicians are deeply rooted in a dominant medical paradigm characterized by a solution-focused medical vernacular, and because they are afraid of religious faith. This was their primary barrier to entering into spiritual and existential dialogs with people (Assing Hvidt et al., 2016). Furthermore, conceptualizations and vocabulary belonging to a medical paradigm are increasingly being implemented into the general language in secularized societies. This also seem to limit other ways for people to express meaning about what it means to fall sick, face a crisis, get older, or die (Illich, 1975; Bury, 2009; Hvas et al., 2011; Brinkmann and Petersen, 2015).

The present study qualitatively explores how older people confronted with imminent death express their thoughts and feelings about death and dying and how they verbalize meaning. This knowledge is highly relevant to improving healthcare and enhancing experiences of not only meaning and hope, but also quality of life at the end of life for older people. The aim of the study is to provide knowledge that may give health professionals better insight into older people's need for meaning at the end of life, and how to address this need better.

MATERIALS AND METHODS

To study older people's subjective thoughts and verbally articulated descriptions of their experiences of meaning while at a hospice at the end of life, a qualitative study was conducted. It included semi-structured interviews with older people at two hospices in Denmark. The research method and design applied were interpretative phenomenological analysis (IPA). IPA is a qualitative research method that uses a hermeneutic-phenomenological approach that focuses on how people perceive and make meaning of their life experiences or of the particular situations they face (Smith and Osborn, 2003, 2008; Assing Hvidt, 2018). IPA was therefore considered an appropriate method to study older people's descriptions of their thoughts and experiences about meaning when facing death and dying.

Setting and Participants

A convenience sampling strategy was applied (Farrokhi and Mahmoudi-Hamidabad, 2012; Palinkas et al., 2015). Interview participants were selected in close consultation with the hospices′ staff, based on considerations of the participants′ physical and mental resources to engage in interviews, and their ability to verbalize their thoughts and feelings. The vast majority of patients at the two hospices are older (aged > 65), ethnic Danes and their primary diagnosis is cancer (Sundhedsstyrelsen, 2011). However, variation in gender (six women and four men) was sought. The participants had various terminal cancer diagnoses and the mean age was 71. Based on ethical considerations, participants should meet the inclusion and exclusion criteria. The inclusion criteria were: older people (aged > 65) staying at one of the two hospices. They should voluntarily participate in the interviews, after receiving information about the study. The exclusion criteria were: Individuals suffering from a distorted perception of reality, severe cognitive or memory problems, or individuals who for other reasons were considered by the healthcare professionals to be physically or mentally too weak to participate in an interview. Interviews with the 10 participants took place in the participants' own rooms and lasted between 19 and 56 min (average 29 min). All interviews were recorded and transcribed in an anonymized manner, showing only age, gender, marital status, cancer type, and time since terminal diagnosis. Audio files were thereupon deleted (Kvale and Brinkmann, 2009).

Data Collection

Data collection took place from December 2017 to November 2018. The qualitative approach with 10 semi-structured interviews provided a good basis for insights and understanding into the subject from an IPA perspective. IPA has an idiographic focus and semi-structured interviews with deep and detailed first-person perspectives of the phenomenon are therefore a highly recommended data collection method. The interview guide centered on open-ended questions concerning the participants' thoughts and feelings about death, dying, and meaning. The first and last authors were involved in establishing relationships with the hospices and designing the study. The interview guide was developed in collaboration with two groups of staff from each hospice and the first and last authors. Thereby, the interview guide was informed by the practical knowledge of hospice practice and the studies presented in the introduction. We were also interested in the participants' verbalization of meaning, and therefore the interviewer would prompt the participants to elaborate on their thoughts. IPA requires an interviewer to have an empathetic attitude and the ability to facilitate a safe environment in which participants share their thoughts and feelings frankly and honestly. The interviews were conducted by the first author. She is a clinical psychologist with professional experience of loss and grief processes, and she received psychological supervision during the time of the interviews. **Table 1** presents examples from the interview guide.

Data Analysis

In line with IPA's idiographic focus, themes were developed inductively. However, IPA aims to account for both the important generic themes in an analysis as well as the individual experiences of life of the particular participant who has told their story. It operates at a level that is solidly grounded in the text and also moves beyond the text to a more interpretative and psychological level (Smith, 2004). The themes of this study are therefore further discussed and interpreted in relation to a broader theoretical perspective on *hope*. This theoretical framework will be presented further down in the text. The 10 interviews were thematically

TABLE 1 | Examples from the interview guide.

Open Ended Questions	Prompting Questions
As a patient, what do you often think about here at the hospice?	*Will you explain to me what concerns you the most these days?* *What does it feel like, for you, to be in your situation (here at the end of life)?*
Can you tell me what you think about death?	*Will you tell me more about how you feel when thinking about death (dying)?* *What do you think happens when you die/someone dies?*

analyzed with a focus on participants' descriptions of their thoughts about meaning at the end of their lives. Interviews were transcribed by the first author, and the meaning content was accentuated in the transcripts; speech sounds and repetitions were omitted, while pauses for thought and expressions of emotion were included, so that the transcripts emphasized the understanding of the participants' statements and meanings.

The analysis followed the four steps recommended for an IPA analysis (Smith et al., 2009): The *first* step consisted of close reading of the 10 interviews; each interview was read several times and the authors wrote comments in the text where each participant had expressed particular understandings and thoughts about their experiences of meaning at the end of life. In the *second* step, we returned and reread each interview again, and attempts were made to rewrite the comments from the first step into more precise phrases about participants' verbally expressed meanings about death and the afterlife. The comments from each interview were reformulated into incipient themes across all 10 interviews. In the *third* step, incipient themes were compared, and connections between them were explored to allow for a more analytical understanding of the themes. In the *fourth* step, we assigned the groupings of themes general names, and a structure emerged about participants' experiences of meaning about death and the afterlife. Themes that were not firmly rooted across the 10 interviews, together with themes that were not considered relevant to the dominant structure, were deleted. It was the authors who assessed which themes should be eliminated and which should be focused on. Three overarching chronological time-based themes were generated: (1) Approaching Death, (2) The time before dying, and (3) The afterlife. In the fourth step, we also identified two ways through which the participants verbally expressed their experiences of meaning, which ran across the three main themes. These concerned how the participants talked of meaning about death with either medical or existential expressions and concepts.

Ethical Considerations

Ethical principles for oral and written informed consent, voluntariness, anonymity, and confidentiality were followed, so that all participation took place in accordance with the ethical requirements of the Declaration of Helsinki (, 2013). The project was registered at SDU Research & Innovation Organisation (RIO) (notification number 10.467) and carried out in accordance with RIO's guidelines and Danish legislation on managing personal data. Ethical implications of the project's research activities and the special ethical implications in relation to patients in hospices (e.g., the participants would be dead by the time the study was completed) were continuously discussed among the authors.

Rigor and Trustworthiness

A qualitative methodology was applied, as this seeks to increase depth and understanding of the subject under investigation (Kvale and Brinkmann, 2009). The goal of qualitative research is to produce a credible analysis and generate hypotheses, rather than provide a definite analysis (Bryman, 2001). The four qualitative criteria for validity, as presented by Yardley (2000), are widely used in and recommended for IPA studies, and these were addressed throughout the study: (1) *Sensitivity to context* was maintained by immersive and disciplined attention to the accounts of the participants; (2) *commitment and rigor* were sought through involvement and collaboration between authors, participants, and staff at the hospices at all points during the study; (3) *transparency and coherence* were upheld by describing the different stages of the research process; and (4) *impact and importance* were sought by emphasizing how the study should tell the reader something interesting, important, or useful.

The first author conducted the interviews while being supervised on personal feelings, interview approach, and data saturation by both another psychologist and the second and last authors. The analysis was performed by the first, second, and last authors. Furthermore, to ensure reliability in IPA studies, participants are often involved in validating the researchers interpretations. The staff at the hospices participated in validating the themes on behalf of the 10 participants, who had all died by the time the analysis was conducted. This validation process led to discussions on *hope* in relation to meaning at the end of life, which inspired the theoretical discussion of this manuscript. All authors were involved in discussing the data, analysis, and writing of the manuscript.

In order to keep awareness of the various motivations, interests, goals, personal beliefs, values, and preconceptions of researchers as well as the hospices, the first author wrote notes at all stages of the research process and discussed these with the other authors. Authors were aware of being as transparent as possible about their own preconceptions concerning death, dying, religiosity, spirituality, and meaning and about being embedded in a specific caring paradigm. The authors represented six different fields within healthcare: Psychology, midwifery, psychiatry, nursing, general practice, and theology.

The software program NVivo version 12 was used to manage and structure the data material.

Theoretical Framework

For this study, we use the definition of meaning in life as presented by Tatiana Schnell (Schnell, 2009, 2021): *Meaning in life can be determined as the direction – or purpose – that someone pursues, and the ensuing subjective and dynamic evaluation of their life as more or less meaningful*" (p. 6). Furthermore, we differentiate between whether the interviewed participants expressed their pursuit of meaning in a medical or existential vernacular. We understand the notion of medical vernacular as the verbalization of human challenges and life circumstances primarily as medical conditions that must be understood, examined, prevented, or treated medically and physically (Illich, 1975). We define existential vernacular as the use of verbalization, concepts, and understandings within three existential domains of meaning in a framework of existential meaning-making. *The secular domain* encompasses relationships with aspects of life that are meaningful to the individual but are not religious, e.g., values or meaning of family or work. *The spiritual domain* represents the transcendent, inner spiritual life experienced by the individual. *The religious domain* covers beliefs and understandings that are shared and practised with others, e.g., bible reading or church attendance (la Cour and Hvidt, 2010).

To discuss and interpret how our older participants experienced and verbalized meaning of death and dying, the notion of hope was included. This theoretical framework was not included in the interview guide, as the notion of hope first came to attention during the validation process with the staff from the two hospices. Another Danish hospice study, by Vibeke Graven (2015), addressed hope as a concept for understanding how terminally ill people experience meaning at the end of life. It became clear that existential and medical vernacular, respectively, affected people's experiences of hope as a source of meaning (Graven, 2015). Graven's study presents the analysis of hope by French existentialist philosopher and theologian Gabriel Marcel (Marcel, 1951). Marcel distinguished between desire and hope. *Desire* is when one wants or seeks something in particular. Desire is the concrete hope that looks to the near future. *Hope*, however, is an open-ended expectation in which one anticipates without knowing exactly what it is one is waiting or hoping for. Hope is not something one can dictate or create by oneself alone. Rather, it is a grace which one receives. Marcel explains: "The only genuine hope is hope in what does not depend on ourselves, hope springing from humility and not from pride" (p. 32).

In this understanding, the medical vernacular is based on *desire*, e.g., hoping to get well, to have a good day in spite of pain, or to be able to die in one's own home. *Desire* represents people's concrete hopes for the near future, and it can bring stability, joy, or meaning to life. However, desire is also conditioned by external circumstances and can therefore easily be disappointed (Graven, 2015; Graven and Olsen, 2018). Conversely, *hope* is of a transcendent and existential nature that embraces man's whole existence and being, and therefore it is called "the absolute hope" (Marcel, 1951; Knox, 2003). *Hope* has a metaphysical, relational, and existential significance that extends beyond death and external circumstances. Marcel describes this as "the mystery of hope" and explains that the absolute hope comes to humans when opening oneself to being (Marcel, 1951; Knox, 2003). In her study at hospices, Graven describes Marcel's concept of absolute hope as the "hope of being" (Graven, 2015; Graven and Olsen, 2018). She presents three forms of hope of being: (1) The hope of love, (2) The hope of universal emotions, and 3. The hope of an afterlife. *The hope of love* is of an ethical, relational nature and is expressed through acts of love and charity in relationships between people. These actions become hopeful because they express a love that cannot die but, rather, transcends earthly life. *The hope of universal emotions* derives power from aesthetic expressions, such as nature, art, music, and traditions and it can open up to universal and shared emotions. *The hope of an afterlife* can be a religious hope of an afterlife, which involves beliefs in a personal God. It can also entail more individualized notions of an afterlife, where the individual finds hope in an eternity dimension that transcends earthly life (Graven, 2015).

Marcel's distinction between *concrete hope (or desire)* and *absolute hope*, and Graven's elaboration on the hope of being, seem particularly relevant when exploring how older people experience meaning at the end of life.

RESULTS

Table 2 presents summarized information about the participants This information has been obtained during the interviews with the participants.

Approaching Death

The first theme, *Approaching death*, is characterized by participants trying to comprehend that they are dying from their disease. In the interviews, the participants explained how they received information at the hospital that curative treatment was no longer possible. For most of the participants, this message was given after a long treatment trajectory; some had been in and out of hospitals and received a range of treatments for years. Statements such as: "*It was the doctor who told me that there was nothing more that could be done for me...*" *(No. 4)* are found repeatedly in the data material. It was during these situations the participants became aware that their death was imminent. Their verbalization and descriptions in relation to pursuing meaning in those situations were characterized by an extensive medical vernacular:

TABLE 2 | Participants information.

	Age	Gender	Dominating Cancer Type	Marital Status	Time Since Terminal Diagnosis
1.	65	Female	Kidney and liver cancer	Single	3–4 months ago
2.	67	Male	Leukemia	Married	6–8 weeks ago
3.	85	Female	Stomach	Widowed	3 months ago
4.	72	Female	Lung/breast	Widowed	2.5 months ago
5.	65	Male	Leukemia	Single	3 weeks ago
6.	69	Male	Lung cancer	Married	8–9 weeks ago
7.	72	Male	Lung cancer	Widowed	6–8 months ago
8.	69	Female	Breast cancer	Cohabiting	Approx. 2 years ago
9.	66	Female	Stomach cancer	Married	6 weeks ago
10.	71	Female	Leukemia	Divorced	2–3 months ago

> *"They gave me seven treatments to beat it, but it turned out that it could not cure it. On the contrary, the metastasis had instead grown quite a lot. Then they stopped that treatment, and there was only one more bullet left in the gun, and that was chemo. I was given that until recently. I was at a control scan last week and then I got the answer on Monday... the chemo had not changed anything, on the contrary the cancer had spread a lot more. And yes, then they gave up the treatment. There is nothing more to do. It was of course a hard message to receive, and yes, I would have liked to have had a few more years..." (No. 5).*

This quote illustrates how the participants needed to feel that their life and death had some meaning when approaching death. They described the treatment trajectory and gave medical details about no longer being able to receive curative treatment. It was recurrent across interviews that participants began by describing the overall course of the disease in medical terms when they were asked about their thoughts on death. Their descriptions of their disease trajectory were detailed and exhaustive with comprehensive use of several medical words and understandings. However, in these descriptions about their meaning about death, participants would also include a short comment of a more existential nature, most often as a concluding comment, like the one in the quote above: "*It was of course a hard message to receive, and yes, I would have liked to have had a few more years..."(No. 5).* Although they were prompted to elaborate on these comments of more existential nature during the interviews, it was characteristic that these elaborations remained quite brief and concise, such as: *"Yes, you always want more years, right..." (No. 8)* or *"No, it was not what I was hoping to hear..."(No. 5)* or *"It was difficult to hear..."(No. 2).*

The Time Before Dying

The second theme, *The time before dying*, concerns how participants talked about their thoughts about the final time, up until death occurs, and how they verbally express meaning at the end of life. The theme involves both the participants' thoughts on the very last minutes or hours before death occurs as well as the present time, their thoughts on being in the hospice right now and up until they would die. In their descriptions we again found a predominant use of medical vernacular to describe the existential experiences of dying:

> *"When dying, I am afraid that I would just lie there in bed with huge pain... or get suffocated... because I now have cancer in my lungs, and that feeling of suffocation... If that's how you feel when... the idea of that makes me feel anxious, but if it's just that like you feel more and more sleepy, and then in the end you do not open your eyes again. Then I think it's ok..."(No. 4).*

This participant talked about her thoughts on the last minutes or hours before death. Verbally, she mainly expressed concerns related to the physical aspects of dying. However, the participant primarily applied medical vernacular to express her thoughts. It was recurrent across the interviews with the 10 participants, that when describing these kinds of thoughts, they talked extensively about the medical/physical aspects of dying. Despite this, however, it was found that they mixed existential words and understandings into the dominating medical vernacular. They did this to a greater extent than when expressing how they approach. This is for example seen in the above quote, where, in between the predominantly medical vernacular the participant talks about "feeling anxious," "not opening your eyes again," and "thinking it is ok." This may be because the participants are talking about the time before dying in the present time, whereas approaching death was expressed in the past tense.

There was one interview that differed from the others. This participant used a predominantly existential vernacular when describing her thoughts on the time leading up to death.

> *"Of course, I would rather live but that's not how God intended it. So now I'm here, and I can feel it in my body day by day which way it goes now... So, I spend the days here (at the hospice) turning away from this world and bidding this world goodbye and turning to God's eternity. It's a bit of a process..."(No. 1).*

This participant used existential vernacular to describe her religious meaning and idea of what dying meant to her. None of the other nine participants used existential vernacular with religious understandings to the same extent, despite some of them also displaying other forms of religious beliefs or spirituality. The participant further elaborated on her faith being helpful in pursuing meaning during the time leading up to dying:

> *"Of course, I am sad sometimes [...] but this is what has become my lot. Yes, then I place it in God's hands and say: Only in the hope in God, my soul is quiet. And the soul has really become quiet, and the hope has grown big, but that does not mean that there are no dark moments... There certainly are. But God gives you power in the midst of it all to bear it, and I do not know how I could handle this if I did not have an eternal God with eternal arms reaching out to me. And he really does that quite literally."* (*No. 1).*

This participant had an extensive and detailed existential vernacular for religious meaning. This may be explained by her having practised the Christian faith most of her life and thereby learning "to talk religiously" in interaction with other Christians and in church. However, several of the other participants also displayed religious and/or spiritual understandings in their pursuit of meaning. These were characterized by being expressed forms of spiritual/religious practices, as this quote shows:

> *"... This (shows a stone with a spiritual text printed on it), I hold it and hug it every morning when I wake up... so I do believe in something... I have never been one who has been much of a church goer, but I have always believed in something anyway... I also had a visit from our own chaplain at home before I came down here (to the hospice)." (No. 9).*

This participant used existential vernacular to describe a meaningful spiritual practice in which she handled her thoughts and concerns about dying. However, just prior to this quote, the participant had described in great detail with medical vernacular how she was ensured medical pain relief up until the time of death. She had thoroughly explained and showed the interviewer how the morphine pump worked.

The Afterlife

The third theme: *The afterlife* is characterized by the participants' describing their hopes about and beliefs in what happens after death has occurred. The theme primarily derived from the participants' answers to the question: "What do you think happens when you die/someone dies?" It was apparent across the interviews that participants answered this question and talked about this topic with a predominantly existential and far less medical vernacular.

An obvious explanation for the dominant existential vernacular among the participants when talking about the afterlife may be found in the fact that medical science has very little to say about that. Therefore, the medical vernacular is limited or not relevant when discussing perceptions or ideas about what may happen after death. However, the question could also be answered in the medical vernacular related to the dying body, such as: The heart stops beating, the organs set out, the cancer won, it becomes hard to breathe, or similar examples of medical concepts of what happens when you die. However, none of the participants responded with any notions of medical vernacular; instead, their answers reflected existential thoughts and understandings about the afterlife, regardless of whether they affirmed or denied any belief in an afterlife. Furthermore, a change in the form of communication for the interview also became apparent. When answering the question about what might happen when death occurs, the participants would initiate more dialog with the interviewer, instead of just being the one answering questions. For example, one participant said:

> *"I believe in God, but it's not that I think that you resurrect in a new way. I think when I die, I just sleep... I just stay asleep next to [name of the late spouse] and then we continue to sleep together. I do not believe anything else but that [.] we did, and I still do, when I fall asleep every night, I always say; thank you for this day I've had. But it's not like I'm religious and go to church and... I don't, but I still believe that there is something spiritual, but you cannot know what...What do you think happens?"(No. 3).*

The quote is an example of how the participants would also begin asking the interviewer about her thoughts concerning the afterlife. When asking them about their thoughts on what happens when death occurs, the participants would initiate a change from mainly a one-way interview to a dialog between participant and interviewer. This was recurrent across the interviews. The interviewer (first author) felt it essential to respond to this initiative by entering into the dialog with her own thoughts, beliefs, and doubts about the afterlife. Although she was still focused on exploring the participants' perspectives in the dialog, she experienced that the participant incited sincerity in her response as well as a genuine dialog. For example, she responded to the above question with: *"I also think there is something... I also really hope so"* and the participant interrupted her: *"Oh, you are still young [...] but perhaps we'll meet again... (both laughing)" (No. 3).* They continued talking about their thoughts, hopes, beliefs, doubts, and concrete notions of what actually might happen when they (both participant and interviewer) would die; it became a dialog where they shared their mutual thoughts, concerns, and notions about the afterlife. The interviewer entered into a pursuit of meaning about the afterlife together with the participant, where they together used existential vernacular.

The participants expressed varied thoughts and meanings about the afterlife, ranging from religious understandings to individual spiritual conceptions, to atheistic notions that, however, were more reminiscent of agnosticism. None of the 10 participants actually expressed a form of atheism, in which they fully wrote off notions of God or a transcendent understanding of an afterlife.

Furthermore, it was characteristic of all of them that their descriptions and meanings about the afterlife were rooted in their individual and specific life circumstances, as the example above also shows. This participant's (no. 3) thoughts about the afterlife were rooted in her life circumstances with a deceased spouse, and having lived without any particular concern with religion and church attendance. She primarily pursued meaning, applied existential vernacular, and related to the unknown of death and dying through the life circumstances already at hand. For this participant (no. 3), it is important to note that her use of existential vernacular seemed to bring her comfort in terms of experiencing meaning about the afterlife. However, not all participants' thoughts about the afterlife were comforting to them. For example, another participant explained:

> *"I do not know what I believe, but I believe in something... I have always said that there is something... there is something after death... my youngest son he says: "Non-sense"... and then I say: "But that's my faith, I'm allowed to have it"... and yet I also say to myself that I also know very well... because I have seen... that we have had many in the family who have died from cancer... well, I know that when they are gone, then they are no longer here... but therefore I still cannot really understand it, and then I still think that there must be... there must be something... so I have a faith..."(no. 9).*

During the interview, this statement was followed up by a question about whether she had some more specific thoughts about this "something," and she responded: *"No, I just do not think that... no, I just do not believe... it cannot be that there is nothing and that you just... (cries)..." (No. 9)*

This participant also asked the interviewer about her thoughts and beliefs on what happens when you die and initiated a dialog about the topic. She asked directly: *"Do you think that there is something... when I die?"* and the interviewer (first author) replied: *"Yes, I think there is something..."* and then they had an emotional and genuine dialog about the possibility of an eternity and their feelings of both hopes and doubts.

It became clear that this participant also expressed thoughts and meanings about the afterlife and related to the unknown of death through her life circumstances already at hand. However, her life circumstances involved a son, who apparently did not believe in an afterlife, as well as circumstances with other family members who had died from cancer. The existential vernacular, she applied in pursuing meaning about the afterlife, stemmed from these life circumstances. However, contrary to the other participant (No. 3) whose quotation was presented above, this participant's (No. 9) existential vernacular and experiences of meaning about the afterlife did not seem to be of much comfort to her.

Theoretical Interpretation: Concrete Hope, Absolute Hope, and Meaning

Studies suggest that participants' perception of hope changes with disease progression (Daneault et al., 2016). In this study, we saw a change in participants' use of, respectively, medical and existential vernacular that follows their temporal realization of approaching death (theme 1), the time before dying (theme 2), and the afterlife (theme 3). The participants' predominant use of medical vernacular to describe their experiences and meaning of death becoming imminent (theme 1) may be due to the fact that, in connection with the course of their illness, they have primarily *desired* to recover from the illness. The *concrete hope* seems to relate well with the medical paradigm and vernacular, where their challenges are seen as a physical condition that can be "solved" (Illich, 1975). The *concrete hope* is related to desiring that the medical treatment have a positive and curative effect. In contrast, the *absolute hope* is characterized by not being solution-focused; instead it implies aspects of faith and trust that extend beyond death and external circumstances (Marcel, 1951). The *absolute hope* contrasts with the medical paradigm and vernacular. Healthcare professionals embedded within a medical paradigm might primarily tend to communicate the *concrete hope* in their dialog with people, instead of using existential vernacular that could facilitate the *absolute hope* for people.

Despite the fact that hospice residents usually no longer hope for survival from their illness, the participants' descriptions of meaning in relation to the time before dying (theme 2) were still characterized by *concrete hope*. For example, we found that they expressed *concrete hope* of a painless death and to just sleep into dying. When the participants predominantly used medical vernacular to talk about the time before death occurs, this indicates that they were primarily concerned about the medical and physical aspects of dying. In that light, it becomes essential for healthcare professionals to talk with dying people about medical and physical aspects of dying. Studies found that, even in conversations with hospital chaplains, much of the conversation concerned what you eventually die from and how death comes about in practical terms (Strang and Strang, 2002). However, it may also be, as previously explained, that participants are more "trained" in medical rather than existential vernacular.

Graven (2015) found in her study that dying people exhibit both *concrete hope* and *absolute hope*. People benefit from speaking with healthcare professionals with a mixture of the two forms of hope and using both medical and existential vernacular (Graven, 2015). In the present study, we did not find that the dying older people mixed the two forms of hope to a significant extent. Instead, we found that their vernacular changed as time went on, where they moved from primarily medical vernacular and *concrete hope* to existential vernacular and *absolute hope*. The *hope of the afterlife* became particularly present and relevant for the participants' thoughts and meaning about afterlife (theme 3).

Whether the participants' experience of meaning and hope were comforting to them, depended on their life circumstances; for example, a deceased spouse, a son who did not believe in the afterlife, or healthcare professionals who may or may not enter into an existential dialog about the afterlife.

All the three types of absolute hope, the *hope of love*, the *hope of universal emotions*, and the *hope of an afterlife* (Graven, 2015; Graven and Olsen, 2018) are at stake when people experience meaning, by talking about eternal rest with a beloved spouse, focusing on God's eternity, hugging a stone that has a spiritual text written on it, or initiating an existential dialog about the afterlife. We found that, when the participants' life circumstances did not support meaning and hope, they may end up not experiencing hope in the face of the unknown of death. For example, the son who thinks that meaning about the afterlife is inconsequential may prevent his mother from the *absolute hope*, or a healthcare professional who only offers *concrete hope* in relation to a solution-focused medical paradigm may also hinder people' experience of meaning and hope at the end of life.

DISCUSSION

Overall, our study supports such an assertion that being faced with death can lead to an intensification of spiritual, and/or religious considerations (Thune-Boyle et al., 2006; Jones et al., 2010), need for meaning (Fleischer and Jessen, 2008), and that spiritual and religious thoughts and practices may become more prominent (la Cour, 2008). Based on the present study, it is difficult to assess whether it also increased participants' quality of life to talk about their thoughts and meaning about death and the afterlife with health professionals (Strang et al., 2001; McClain-Jacobson et al., 2004; Murray et al., 2004; la Cour, 2008; Balboni et al., 2010). However, our analysis indicates that it is important that participants' life circumstances (including relatives and health professionals at hospice) support their existential vernacular and meaning. Furthermore, the participants in our present study used religious and/or spiritual elements in their existential vernacular, in particular when talking about their thoughts and meanings about the afterlife. This points to religious and spiritual concerns and feelings being central to the pursuit of meaning when faced with death and dying, even in a secular culture (Graven, 2015; Boelsbjerg, 2017; Boelsbjerg, 2018).

Existential and Medical Vernacular

We found that our participants used scarce existential vernacular in the pursuit of meaning at the time when death was first acknowledged as imminent (theme 1) and they primarily applied understandings and vocabulary belonging to a medical paradigm (Illich, 1975; Bury, 2009; Hvas et al., 2011; Brinkmann and Petersen, 2015). The participants' descriptions of how they experienced and pursued meaning in the time before dying (theme 2) were also predominantly characterized by the medical vernacular, but these descriptions did include a few existential words and understandings. However, there was no indication of this being caused by a high degree of privacy of thoughts and concerns about religious or spiritual issues as found in other studies (Andersen and Lüchau, 2011). All participants expressed themselves openly about their thoughts on death and dying. We did not find that the participants were reluctant to talk about their thoughts and meaning about death and dying, despite making little use of existential vernacular.

It seemed that participants in general applied their "most trained vernacular" to talk about death and meaning. They have learned to master this best after long courses of treatment and conversations with health professionals who primarily talk in the medical vernacular and are embedded within a solution-focused medical paradigm. This is also supported by the religious participant, who, unlike the other participants, used a predominantly existential vernacular, because she was highly trained in that. However, we found an increased use of existential vernacular and participants initiating two-ways dialog instead of continuing the one-way interviews when talking about the afterlife (theme 3). To discuss their thoughts and meaning concerning the afterlife, it seemed that the participants needed existential vernacular. However, because their existential vernacular was scarce, they also needed relationship and dialog to "train" the existential vernacular and to express meaning and hope that could not be conceived within medical vernacular.

The 10 participants expressed diverse meaning concerning the afterlife (theme 3). These were religious, individual, spiritual, as well as atheistic/agnostic notions and understandings. Their descriptions of their meaning about the afterlife and relating to the unknown of death were characterized by being relational and existential as well as rooted in their life circumstances. It was seen that the existential vernacular was comforting for some participants but not for others. This seemed to depend on whether the participant's life circumstance supported his or her existential vernacular and experience of meaning about the afterlife.

IMPLICATIONS

Health professionals may have an important role to play in strengthening people's experience of meaning and hope when facing death (Graven and Olsen, 2018). An important aspect of caring for dying people may be to support and strengthen the person's *absolute hope* in the face of the unknown of death, especially by entering into an existential dialog with people, and by being aware of not primarily using the medical vernacular when taking with terminally ill people.

Furthermore, findings indicate that participants' existential vernacular had a much more relational and dialogical foundation. Relational and dialogical aspects of communication seem to be particularly relevant for people when expressing and pursuing meaning about death and the afterlife. However, this points to further difficulties for the healthcare professionals when engaging in existential dialog, as they tend to be deeply rooted in a solution-focused medical vernacular. To engage in a dialog about the afterlife, in the way that the interviewer did with the participants, might require a mutual sharing of thoughts, concerns, hopes, and doubts about the afterlife. Therefore, the study also points to a need for an increased focus on communication skills and critical reflection upon the dominant medical paradigm in current healthcare educational programs, as well as focus of further research on how specific communication affect patients' well-being at the end of life. Further research in how dominating vernacular within healthcare is maintained and affects people, as well as research in the effect of dialogical communication are warranted. Hoping in some sort of a spiritual or religious realm was also found to be central to the participants' experience of meaning (Baczewska et al., 2019). The existential vernacular seemed to support their religious and/or spiritual thoughts, beliefs, hopes, and meaning. It is found that quality of life increases when people are given better opportunities to express their thoughts, feelings, and meaning about the unknown of death (Balboni et al., 2010). This study suggests that healthcare professionals also should apply existential and not just medical vernacular when addressing terminally ill people, because this may strengthen their experience of meaning and hope in the face of death. Furthermore, this also emphasizes the importance of spiritual care as an integral part of palliative care and that it is important to incorporate it into educational activities and training models in palliative care, as recommended by the EAPC (Best et al., 2020).

LIMITATIONS

In this study, we sought to examine older dying people's subjective descriptions of their experiences of meaning in death and dying. Even though the length of the interviews considered the physical condition of the participants, we believe the qualitative approach with 10 semi-structured interviews provided a good basis for insights and understandings of a qualitative nature. The participants were selected by hospice staff, which may be a weakness of the study. To obtain a nuanced and complete data base, a strategic selection of participants could have been desirable (Patton, 1990). We have tried to ensure that the participants represented variation in gender and marital status, and as the participants of this study all are older (>65), ethnic Danes diagnosed with cancer, they are representative of people at Danish hospices (Sundhedsstyrelsen, 2011). Furthermore, IPA is explicit that homogenous samples work best in conjunction with its philosophical foundations and analytical processes (Smith et al., 2009). However, the socio-demographic characteristics of the sample reduce the transferability of the findings to other contexts, apart from Danish hospices. On the other hand, the findings related to how the participants' use of, respectively, the medical or existential vernacular affected how they experienced meaning and hope at the end of life might be relevant for anyone faced with death and dying in secularized societies in which there is a highly dominant medical paradigm.

The research method of the study stems from IPA, which emphasizes description and interpretation of the data material. IPA moves from the participants' subjective descriptions to a more theoretical level of interpretation, which depends on the authors' interpretations and choice of theory. This means that the identified themes reflect the authors' interpretations and that aspects of participants' experiences on meaning may have been overlooked.

Many of the participants knew the interviewer as a psychologist. Being a clinical psychologist could be both an advantage and a disadvantage: An advantage, in the sense that her psychological knowledge and skill set could deepen her insights into and sensitivity for the life world of the participants; A disadvantage in the sense that a psychological interpretation of the subject matter could dominate and constitute bias and blind spots when analyzing the data. The other authors paid attention to and sought to avert such disadvantages and limitations.

However, our focus was the participants' perspectives and descriptions of meaning about death and dying. Especially in relation to hope, we find that the results call for further research, which also involves an exploration at how healthcare professionals may sense and support different forms of hope among dying people.

For brevity, we have chosen to limit the theoretical framework of this study to the notion of hope as a specific approach to experiencing meaning, but it is obvious that concepts such as dignity or "the good death," seen in similar studies, could also be included. In healthcare practice with dying people, these concepts can also be expected to be influenced by, respectively, existential and medical vernacular.

Further limitations could include the researcher's approach to interviewing. She experienced it essential to respond to the participants' initiative to enter into a dialog about the afterlife (theme 3). She entered the dialog with her own thoughts, beliefs, and doubts about death and dying. Thereby, she influenced the participants' thoughts and expressions. On the one hand, her existential input in the dialog may have resulted in the increased existential vernacular of the third theme, which might not fully reflect the participants' experiences of meaning. On the other hand, her relational sensitivity and response during the interview may also have contributed to new understanding about the relational foundation of existential vernacular, and the participants' experiences of meaning about death may otherwise not have come to our knowledge.

CONCLUSION

When studying how older people experience meaning about death and dying, we found three chronological time-based themes: (1) Approaching Death, (2) The time before dying, and (3) The afterlife. The participants expressed meaning variously through these three themes. They verbally expressed their experiences of meaning in two ways: respectively, in the medical and the existential vernacular. The participants would used great amounts of medical and low amounts of existential vernacular to express meaning about dying. However, when talking about the afterlife (theme 3), the participants used more existential notions and they also initiated a dialog with the interviewer.

Themes were discussed through an theoretical framework with the notion of hope. It seemed that participants' use of vernacular affected how they experienced meaning and hope at the end of life. The *concrete hope* seems to be communicated through medical words and focus, whereas *absolute hope* was articulated through dialog that used existential vernacular. The study points to the importance of spiritual care (including strengthening communication skills and facility with existential vernacular) as an integral part of palliative care and current healthcare education.

DATA AVAILABILITY STATEMENT

The dataset, both the transcripts and the analysis based on the four steps recommended in IPA for this study can be made available on request to DV, dviftrup@health.sdu.dk.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by RIO SDU (notification number 10.467). The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

DV conducted the study and drafted the work. NH was involved in establishing relationships with the research field and designing the study. DV, CP, and NH coded and analyzed the data. All authors ensured reliability in the themes, revised and discussed the final manuscript, contributed to the article, and approved the submitted version.

FUNDING

A warm word of gratitude for the financial support secured for the study: JaschaFonden, Academy of Geriatric Cancer Research (AgeCare), M. L. Jørgensen og Gunnar Hansens fond, Helsefonden, Arresødal Hospice, and Hospice Sydfyn.

ACKNOWLEDGMENTS

We wish to thank all the participants in the study, particularly the participants who were willing to share with us some of their limited time. We would also like to thank all the staff at Arresødal Hospice and Hospice Sydfyn.

REFERENCES

Andersen, P. B., and Lüchau, P. (2011). "Individualisering og aftraditionalisering af danskernes religiøse værdier," in *Små og Store forandringer Danskernes værdier siden 1981*, ed. P. Gundelach (København: Hans Reizels Forlag).

Assing Hvidt, E. (2018). "Kap. 12 Interpretative fænomenologisk analyse (IPA)," in *Kvalitative Analysemetoder i Sundhedsforskning*, eds F. A. Gildberg and L. Hounsgaard (Aarhus: Klim), 180–192.

Assing Hvidt, E., Søndergaard, J., Hansen, D. G., Gulbrandsen, P., Ammentorp, J., Timmermann, C., et al. (2016). 'We are the barriers': danish general practitioners' interpretations of why the existential and spiritual dimensions are neglected in patient care. *Comun. Med.* 14, 1–9. doi: 10.1558/cam.32147

Ausker, N., La Cour, P., Busch, C., Nabe-Nielsen, H., and Mørk, P. L. (2008). Danske patienter intensiverer eksistentielle tanker og religiøst liv. *Videnskab og Praksis* 1157:6.

Baczewska, B., Block, B., Kropornicka, B., Niedzielski, A., Malm, M., Zwolak, A., et al. (2019). Hope in hospitalized patients with terminal cancer. *Int. J. Environ. Res. Public Health* 16:3867. doi: 10.3390/ijerph16203867

Balboni, T. A., Paulk, M. E., Balboni, M. J., Phelps, A. C., Loggers, E. T., Wright, A. A., et al. (2010). Provision of spiritual care to patients with advanced cancer: associations with medical care and quality of life near death. *J. Clin. Oncol.* 28, 445–452. doi: 10.1200/JCO.2009.24.8005

Best, M., Leget, C., Goodhead, A., and Paal, P. (2020). An EAPC white paper on multi-disciplinary education for spiritual care in palliative care. *BMC Palliat Care* 19:9. doi: 10.1186/s12904-019-0508-4

Boelsbjerg, H. B. (2017). *At Nærme sig Døden, Menneskeligt og Metodisk. En Kvalitative Undersøgelse af Kristne og Muslimske Kræftpatienter i Palliative Forløb*. Odense: Syddansk Universitet.

Boelsbjerg, H. B. (2018). Tro blandt døende. *Omsorg* 35, 25–28.

Brinkmann, S., and Petersen, A. (2015). *Diagnoser. perspektiver, kritik og diskussion*. Aarhus: Klim

Bryman, A. (2001). *Social Research Methods*. New York, NY: Oxford University Press.

Bury, M. (2009). The medicalization of society: on the transformation of human conditions into treatable disorders - by conrad. P. *Soc. Health Illness* 31, 147–148. doi: 10.1111/j.1467-9566.2008.01145_1.x

Daneault, S., Lussier, V., Mongeau, S., Yelle, L., Cote, A., Sicotte, C., et al. (2016). Ultimate journey of the terminally ill: ways and pathways of hope. *Can Fam Phys.* 62, 648–656.

Erichsen, N.-B., and Büssing, A. (2013). Spiritual needs of elderly living in residential/nursing homes. *Evidence-Based Complementary Alternative Med.* 2013:913247. doi: 10.1155/2013/913247

Evans, N., Costantini, M., Pasman, H. R., Van den Block, L., Donker, G. A., Miccinesi, G., et al. (2014). End-of-life communication: a retrospective survey of representative general practitioner networks in four countries. *J. Pain Symptom Manage* 47, 604–619.e3. doi: 10.1016/j.jpainsymman.2013.04.008

Farrokhi, F., and Mahmoudi-Hamidabad, A. (2012). Rethinking convenience sampling: defining quality criteria. *Theory Practice Lang. Stud.* 2, 784–792.

Fleischer, E., and Jessen, G. (2008). Eksistentielle samtaler med ældre - vanskelige samtaler og tunge emner. *Suicidologi* 2, 16–19.

Graven, V. (2015). *Hospicefilosofi i Praksis. Eksistientiel/åndelig Omsorg for Døende på Hospice*. Aalborg Universitet: Aalborg Universitetsforlag.

Graven, V., and Olsen, J. B. (2018). *Hvor der er håb. Fra Teori til Praksis*. Frederiksberg: Samfundslitteratur.

Harder, I., and Friis, L. K. (2010). Plejehjemsbeboeres oplevelse af livet på plejehjem. *Sygeplejersken* 11, 48–52.

Heap, K. (2001). *Samtalen i Eldreomsorgen*. Oslo: Kommuneforlaget.

Hvas, L., Brodersen, J., Hovelius, B., and Bentzen, N. (2011). Kan sundhedsvæsenet skabe usundhed? *Månedsskrif for Almen Praksis* 89, 877–885.

Illich, I. (1975). The medicalization of life. *J. Med. Ethics* 1, 73–77. doi: 10.1136/jme.1.2.73

Jones, J. M., Cohen, S. R., Zimmermann, C., and Rodin, G. (2010). Quality of life and symptom burden in cancer patients admitted to an acute palliative care unit. *J. Palliat Care* 26, 94–102. doi: 10.1177/082585971002600205

Knox, J. B. L. (2003). *Gabriel Marcel. Håbets Filosofi, Fortvivlensens Dramatiker*. Odense: Syddansk Universitetsforlag.

Kvale, S., and Brinkmann, S. (2009). *InterView: Introduktion til et håndværk [Interview: Introduction to a craftmanship]*, 2 Edn. København: Hans Reizels Forlag.

la Cour, P. (2005). "Danskernes gud i krise [The Danes' God in Crisis]," in *Gudstro i Danmark [Belief in God in Denmark]*, eds M. T. Højsgaard and H. R. Iversen (København: Anis), 59–82.

la Cour, P. (2008). Existential and religious issues when admitted to hospital in a secular society: patterns of change. *Mental Health Religion Culture* 11, 769–782. doi: 10.1080/13674670802024107

la Cour, P., and Hvidt, N. C. (2010). Research on meaning-making and health in secular society: secular, spiritual and religious existential orientations. *Soc. Sci. Med.* 71, 1292–1299. doi: 10.1016/j.socscimed.2010.06.024

Larsen, T. G. (2019). *Flere tør Tale Med Børn om Sorg*. Copenhagen: Bibelselskabet.

Marcel, G. (1951). *Homo Viator. Introduction to a Metaphysics of Hope*. London: Victro Gollancz.

McClain-Jacobson, C., Rosenfeld, B., Kosinski, A., Pessin, H., Cimino, J. E., and Breitbart, W. (2004). Belief in an afterlife, spiritual well-being and end-of-life despair in patients with advanced cancer. *Gen Hosp Psychiatry* 26, 484–486. doi: 10.1016/j.genhosppsych.2004.08.002

Moestrup, L. (2016). Forestillingen om mødet efter døden. *Omsorg*. 1, 7–13.

Moestrup, L., and Hvidt, N. C. (2016).). Where is god in my dying? a qualitative investigation of faith reflections among hospice patients in a secularized society. *Death Studies* 40, 618–629. doi: 10.1080/07481187.2016.1200160

Murray, S. A., Kendall, M., Boyd, K., Worth, A., and Benton, T. F. (2004). Exploring the spiritual needs of people dying of lung cancer or heart failure: a prospective qualitative interview study of patients and their carers. *Palliat Med.* 18, 39–45. doi: 10.1191/0269216304pm837oa

Nierop-van Baalen, C., Grypdonck, M., van Hecke, A., and Verhaeghe, S. (2016). Hope dies last. a qualitative study into the meaning of hope for people with cancer in the palliative phase. *Eur. J. Cancer Care* 25, 570–579. doi: 10.1111/ecc.12500

Nissen, R. D., Gildberg, F. A., and Hvidt, N. C. (2019). Approaching the religious psychiatric patient in a secular country: does "subalternalizing" religious patients mean they do not exist? *Arch. Psychol. Religion* 41, 123–140. doi: 10.1177/0084672419868770

Owen, D. C. (1989). Nurses' perspectives on the meaning of hope in patients with cancer: a qualitative study. *Oncol. Nurs. Forum* 16, 75–79.

Paal, P., Brandstötter, C., Lorenzl, S., Larkin, P., and Elsner, F. (2019). Postgraduate palliative care education for all healthcare providers in Europe: results from an EAPC survey. *Palliat Support Care* 17, 495–506. doi: 10.1017/s1478951518000986

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., and Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Adm Policy Ment Health* 42, 533–544. doi: 10.1007/s10488-013-0528-y

Patton, M. Q. (1990). *Qualitative Evaluation and Research Methods*. Newburry Park, CA: Sage Publications.

Pedersen, H. F., Birkeland, M. H., Jensen, J. S., Schnell, T., Hvidt, N. C., Sørensen, T., et al. (2018). What brings meaning to life in a highly secular society? a study on sources of meaning among danes. *Scand. J. Psychol.* 59, 678–690. doi: 10.1111/sjop.12495

Pedersen, H. F., Pedersen, C. G., Pargament, K. I., and Zachariae, R. (2012). Religious coping and quality of life among severely Ill lung patients in a secular society. *Int. J. Psychol. Religion* 23, 188–203. doi: 10.1080/10508619.2012.728068

Schnell, T. (2009). The sources of meaning and meaning in life questionnaire (SoMe): relations to demographics and well-being. *J. Positive Psychol.* 4, 483–499. doi: 10.1080/17439760903271074

Schnell, T. (2021). *The Psychology of Meaning in Life*. London: Routledge.

Singer, P. A., Martin, D. K., and Kelner, M. (1999). Quality end-of-life care: patients' perspectives. *JAMA* 281, 163–168. doi: 10.1001/jama.281.2.163

Smith, J. A. (2004). Reflecting on the development of interpretative phenomenological analysis and its contribution to qualitative research in psychology. *Qual. Res. Psychol.* 1, 39–54.

Smith, J. A., and Osborn, M. (2003). "Interpretative phenomenological analysis," in *Qualitative Psychology: A Practical Guide to Research Methods*, ed. J. A. Smith (London: Sage), 51–80.

Smith, J. A., and Osborn, M. (2008). "Interpretation phenomenological analysis," in *Qualitative Psychology: A Practical Guide to Reseach Methods*, ed. J. A. Smith (London: SAGE Publications Ltd.), 51–88.

Smith, J. A., Flowers, P., and Larkin, M. (2009). *Interpretative Phenomenological Analysis. Theory, Method and Research*. London: SAGE Publications Ltd.

Stimpel, B. B., and Raakjær, O. (2017). "Religiøsitet, spiritualitet og død [Religiosity, spirituality and dead]," in *Hospice - Æstetik, Eksistens, Omsorg*, eds V. Ø Steenfeldt and F. T. Hansen (København: Munksgaard).

Strang, S., and Strang, P. (2002). Questions posed to hospital chaplains by palliative care patients. *J. Palliat Med.* 5, 857–864. doi: 10.1089/10966210260499041

Strang, S., Strang, P., and Ternestedt, B. M. (2001). Existential support in brain tumour patients and their spouses. *Support Care Cancer* 9, 625–633. doi: 10.1191/026921600701536426

Sundhedsstyrelsen (2011). *Anbefalinger for Den Palliative Indsats*. København: Sundhedsstyrelsen.

Sundström, M., Blomqvist, K., Edberg, A. K., and Rämgård, M. (2019). The context of care matters: older people's existential loneliness from the perspective of healthcare professionals-A multiple case study. *Int. J. Older People Nurs.* 14:e12234. doi: 10.1111/opn.12234

Thomsen, M. H., Hansen, L. B., and Busch, C. J. (2014). *Når Sorgen Bæres Sammen. En Undersøgelse af Folkekirkens Sorggruppepraksis. Resultater, Anbefalinger og Perspektiver*. Løgumkloster: Folkekirkens Uddannelses-og Videnscenter.

Thune-Boyle, I. C., Stygall, J. A., Keshtgar, M. R., and Newman, S. P. (2006). Do religious/spiritual coping strategies affect illness adjustment in patients with cancer? a systematic review of the literature. *Soc. Sci. Med.* 63, 151–164. doi: 10.1016/j.socscimed.2005.11.055

van der Vaart, W., and van Oudenaarden, R. (2018). The practice of dealing with existential questions in long-term elderly care. *Int. J. Qual. Stud. Health Well-being* 13:1508197. doi: 10.1080/17482631.2018.1508197

Viftrup, D. T., Hvidt, N. C., and Buus, N. (2017). Religious coping in a christian minority group: a qualitative study among pentecostal danes. *Nordic J. Religion Soc.* 30, 115–135. doi: 10.18261/issn.1890-7008-2017-02-02

Viftrup, D. T., la Cour, P., Buus, N., and Hvidt, N. C. (2016). Religious transformation among danish pentecostals following personal crisis and group psychotherapy: a qualitative study. *J. Spirituality Mental Health* 18, 1–23. doi: 10.1080/19349637.2014.998753

Wenrich, M. D., Curtis, J. R., Shannon, S. E., Carline, J. D., Ambrozy, D. M., and Ramsey, P. G. (2001). Communicating with dying patients within the spectrum of medical care from terminal diagnosis to death. *Arch. Int. Med.* 161, 868–874. doi: 10.1001/archinte.161.6.868

World Medical Association (2013). World Medical Association Declaration of Helsinki ethical principles for medical research involving human subjects. *J. Am. Med. Assoc.* 310, 2191–2194. doi: 10.1001/jama.2013.281053

Wright, A. A., Zhang, B., Ray, A., Mack, J. W., Trice, E., Balboni, T., et al. (2008). Associations between end-of-life discussions, patient mental health, medical care near death, and caregiver bereavement adjustment. *JAMA* 300, 1665–1673. doi: 10.1001/jama.300.14.1665

Yardley, L. (2000). Dilemmas in qualitative health research. *Psychol. Health* 15, 215–228.

Zuckerman, P. (2008). *Society Without God. What the Least Religious Nations Can Tell us About Contentment*. New York, NY: NYU Press.

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers
in Psychology

ORIGINAL RESEARCH
published: 28 September 2021
doi: 10.3389/fpsyg.2021.734198

Meaning Making for Psychological Adjustment and Quality of Life in Older Long-Term Breast Cancer Survivors

Marianne Nilsen[1]*, Ragna Stalsberg[2], Kari Sand[3], Gørill Haugan[4] and Randi Johansen Reidunsdatter[2]

[1] Department of Social Work, Norwegian University of Science and Technology (NTNU), Trondheim, Norway, [2] Department of Circulation and Medical Imaging, Norwegian University of Science and Technology (NTNU), Trondheim, Norway, [3] Department of Health Research, SINTEF Digital, Trondheim, Norway, [4] Department of Public Health and Nursing, Norwegian University of Science and Technology (NTNU), Trondheim, Norway

OPEN ACCESS

Edited by:
Hyemin Han,
University of Alabama, United States

Reviewed by:
Peter Halama,
Slovak Academy of Sciences (SAS),
Slovakia
Andreia Teques,
Polytechnic Institute of Maia, Portugal
Carol Ochoa,
University of Southern California,
United States

***Correspondence:**
Marianne Nilsen
marn@ntnu.no

Specialty section:
This article was submitted to
Health Psychology,
a section of the journal
Frontiers in Psychology

Received: 30 June 2021
Accepted: 02 September 2021
Published: 28 September 2021

Citation:
Nilsen M, Stalsberg R, Sand K, Haugan G and Reidunsdatter RJ (2021) Meaning Making for Psychological Adjustment and Quality of Life in Older Long-Term Breast Cancer Survivors. Front. Psychol. 12:734198. doi: 10.3389/fpsyg.2021.734198

Objectives: This study aims to explore in depth the meaning and meaning discrepancies among older Norwegian breast cancer survivors in light of the meaning making model by Park (2013).

Design: We utilized a qualitative design collecting data using semi-structured interviews of 23 elderly breast cancer survivors 7–8 years after treatment. The interviews followed an interview guide structured along three main themes: "everyday life activities," "follow-up-care experiences" and "health status and QoL."

Results: Several health problems were reported by the women in the aftermaths of the disease, such as sleeping problems, pain, and fatigue—including cognitive and emotional impairments. Meaning discrepancies were concentrated on six main themes: shifting perspectives and priorities, growing sense of autonomy, widening the limits of normality, dissociating oneself from the disease, embracing alternative health services, and feeling lucky. The women engaged in a wide range of coping techniques as efforts to change global meaning, and to develop a more positive view on the cancer experience. Common coping efforts across the six main themes were social comparison, denial, positive reappraisal, problem-focused coping, and revaluing ordinary events.

Conclusion: Many cancer patients report on unmet needs for help with their meaning making, and the facilitation of meaning making processes is rarely included in the follow-up care of cancer survivors. The findings of the present study may help health care professionals provide care for women who have experienced breast cancer. The concrete knowledge of common coping efforts in the meaning making process may contribute to the development of future interventions and for gaining a deeper understanding for older survivors of breast cancer.

Keywords: survivorship, breast cancer, meaning making, quality of life, coping, well-being

INTRODUCTION

As breast-cancer treatments have become more advanced, more than 90% of women experiencing breast cancer enters long-term survivorship (>5 years after diagnosis) (Ferlay et al., 2018). From 1989 to 2006, the breast cancer mortality rate among middle aged and older women decreased with more than 20% across many European countries, including Norway (Autier et al., 2010). Struggles with somatic and mental late effects after treatment are well documented (Bower et al., 2005; Koch et al., 2013; Fielding and Lam, 2014; Kenne Sarenmalm et al., 2014; Sekse et al., 2019). Accordingly, a large proportion of women will enter retirement with complex health care needs. Estimates based on the United States population conclude that by 2040, 73% of all cancer survivors of any type will be older than 65 years (Bluethmann et al., 2016). Moreover, living beyond breast cancer as a life-threatening illness may raise fears of recurrence and existential concerns, accompanied by increased vulnerability; all which challenge people's perceived meaning in life (Gall and Cornblat, 2002; Heine et al., 2006). Hence, meaning making processes to adjust to adversity will be initiated. In general, to perceive one's life as meaningful is crucial to people's mental and existential wellbeing and health, and perceived meaning in life is found to be a vital health-promoting resource among vulnerable populations such as cancer patients and survivors (Park et al., 2008; Park and George, 2013; van der Spek et al., 2017; Haugan and Dezutter, 2021). Furthermore, from a developmental perspective, with age follows a need to look back on life, rather than to the future, and create meaning from all the experiences of the past (Erikson, 1980). The importance of meaning making for older individuals are supported by several studies linking meaning making to QoL and well-being for this population (Drageset et al., 2017; Haugan et al., 2020; Haugan and Dezutter, 2021). Consequently, relevant supportive health care interventions addressing not only the comorbidity burden among older long-term breast cancer survivors, but also promoting existential and mental wellbeing will be even more important in the years to come (Winger et al., 2020). However, studies addressing perceived meaning and meaning making as a health-promoting resource among long-term breast cancer survivors are scarce (Schroevers et al., 2004; van der Spek et al., 2013). To improve older breast cancer survivors' health and wellbeing, knowledge about meaning making processes in this population is important (Haugan and Eriksson, 2021; Lopez and Klainin-Yobas, 2021). Therefore, this study addresses this knowledge gap, exploring in depth the meaning making among older long-term breast cancer survivors.

Meaning Making and Psychological Adjustment Among Cancer Patients

Breast cancer is a life-threatening disease in which the patients lack influence on the outcomes of the illness. In such low-control situations, meaning making—the ability to transform meaning—is found to be a highly adaptive coping strategy for psychological adjustment (Park et al., 2001, 2008). Perceived meaning in life is understood as expectations or schemes, enabling people to have control of oneself and one's environment and thus feeling secure while facing difficulties (Proulx and Inzlicht, 2012). The meaning making model developed by Park (2013) separates meaning in two levels:(1) *global meaning*, i.e., general understanding of how the universe works, self-identity, control, justice, God, goals, sense of meaning/purpose, and (2) *situational meaning*, i.e., meaning of specific events such as an illness (Park, 2013).

A strong sense of *global meaning*, across all domains (i.e., personal control, purpose in life) relates to increased psychological health and quality of life (QoL) among cancer patients (Tomich and Helgeson, 2002; Laubmeier et al., 2004; Winger et al., 2016; Majerníková and Obročníková, 2017). According to the meaning making model, *situational meaning* is the specific evaluations of the cancer illness, such as viewing the event as (un)controllable and (un)fair, and to what degree it violates the persons own goals (Park and Gutierrez, 2013). In comparison to global meaning, situational meaning seems to be a weaker and less consistent predictor of QoL (Sherman et al., 2010). A longitudinal study of breast cancers survivors (median of 24 months since diagnosis) reported that "having found illness-specific meaning" was not related to either distress, health related QoL, or breast cancer problems 4 months after being diagnosed (Sherman et al., 2010). Searching for (as opposed to having found meaning) illness-specific meaning, on the other hand, predicted poorer adaptation in terms of increased distress and poor QoL (Sherman et al., 2010). The relationship between searching for meaning in the illness and less adaptive outcomes may be explained by rumination—the tendency to engage in repetitive, aversive, and uncontrollable thoughts such as asking why the illness happened to me. As a breast cancer patient moves beyond the initial treatment phase, ruminations about the causal attributes of the disease are likely counterproductive for psychological adjustment, and if the "search for meaning" do not lead to "meanings made," it may amplify distress (Segerstrom et al., 2003; Park et al., 2008). Such a pattern was evident for $n = 328$ long-term breast cancer survivors and a matched control group, in which a continued search for meaning in life >5 years after diagnosis had a negative impact on QoL (Tomich and Helgeson, 2002). Despite of the less consistent association between situational meaning and QoL in general, the ability to find benefits of cancer disease is linked to positive psychological adjustment (Casellas-Grau et al., 2017).

Incongruence and Meaning-Based Coping

When a discrepancy between global meaning and situational meaning appears, a meaning making process to reduce this discrepancy will be initiated: the positive outcome supporting wellbeing and coping is *meaning made*. The meaning made can take the form of acceptance, "making sense" of the situation and perceptions of growth (Park, 2010). Reports from cancer survivors find occurrence of a cancer diagnosis and treatment to leave a discrepancy between the current life situation and one's life goals—and over time, meaning making may lead to creating new meanings of the disease, a change in life goals, acceptance and growth (Gall and Cornblat, 2002; Park, 2010; Fallah et al., 2012; Rashidi et al., 2020).

Results of several studies report on both increased meaning (i.e., in relation to others, new conscious way of living), and loss of meaning after cancer (i.e., in relation to relational distress, physical impairment) (Folkman and Greer, 2000; Folkman and Moskowitz, 2000a; Krok and Telka, 2018). In the meaning making process attempting to reduce incongruence between situational meaning and global meaning, the meaning-based coping techniques might be grouped into (1) Changing the meaning of the event (assimilation), and (2) Changing global meaning (accommodation) (Park, 2010; Park and George, 2013). The process of assimilation means that the meaning of the specific situation (i.e., cancer illness) needs to be modified in order to bring congruence to one's global meaning, and both reattributions and illusions are used to change the situational meaning (Skaggs and Barron, 2006). Attributions and reattributions refer to a continual process of finding the cause of the event, and it is common to look at past behaviors and beliefs in searching for such a cause (Cassel, 1982). Notably, one study found that 42% of survivors of breast cancer (n = 322) attribute their illness to be caused by increased levels of psychological stress (Stewart et al., 2001). Attributing the cause of somatic illness to the psyche (i.e., stress) may for many serve as means to regain a sense of control over the illness as the psyche may be perceived as easier to change (Sontag, 1978, pp. 54–56). Such attributions or reattributions may sometimes fall within the categories of illusions, in the sense that they serve as means to regain control of the situation (Skaggs and Barron, 2006).

Becoming overly optimistic and engaging in downward social comparison, where people compare oneself to others who are perceived as worse off, is also common in the assimilation process (Bellizzi et al., 2006). In one of the earlier studies on social comparison among a group of breast cancer patients (n = 78), the use of downward social comparison was common (>60% of the women) (Wood et al., 1985). Others have reported similar results where downward social comparison was associated with active coping, seeking social support, reinterpretation of the event and psychological growth (Van der Zee et al., 2000). Patients who suffers from chronic illness, including breast cancer tend to engage in downward social comparison to gain a sense of well-being when they are overwhelmed, unsecure, or feel loss of control over their illness (Terol Cantero et al., 2021). Ascribing new meaning to the cancer illness through assimilation may be beneficial or potentially harmful, and according to the meaning making model, beneficial outcomes are likely when there is a reduction of discrepancy between the new meaning ascribed to the situation and global meaning. In the case of downward comparison, a cancer patient may feel lucky and grateful by comparing oneself to someone who he/she perceives as impaired by illness. Nevertheless, feelings of fear of what might happen to themselves in the future may emerge, thereby increasing the discrepancy to global meaning and cause more distress.

The process of accommodation is initiated when attempts to change the meaning of an event are unsuccessful in reducing incongruence to global meaning (Park and Folkman, 1997). People tend to use different methods to redefine their priorities, set new goals in life, and to revise their belief systems. By applying strategies such as positive reappraisal, problem-focused coping, and revaluing ordinary events, the cancer illness may be viewed in a more positive way.

Positive reappraisal is a cognitive process in which people place greater focus on the good things that have happened to them (Folkman and Moskowitz, 2000b). Positive evaluations of the cancer illness are linked to a positive mood and a more optimistic perspective on one's health (Sears et al., 2003). One study using a Cognitive Emotion Regulation Questionnaire, found a positive association between cancer patients who perceived their illness as an experience they could learn from, and positive psychological outcomes (Schroevers et al., 2011). A qualitative study of 23 women with breast cancer reported spiritual growth, increased personal strength and appreciation for life as a results of the breast cancer experience (Fallah et al., 2012). For both early stage breast cancer patients and long-time survivors, positive reappraisal is linked to less emotional distress (Sears et al., 2003; Urcuyo et al., 2005), while post-traumatic growth is associated with positive reappraisal for cancer survivors in short and long term (Sears et al., 2003; Widows et al., 2005; Thornton and Perez, 2006; Schroevers and Teo, 2008).

Problem-focused coping involves strategies such as searching for information, problem solving, and the direct actions involved in solving a problem (Folkman and Greer, 2000). Problem-focused strategies may be central in the search for meaning as the focus is on what to prioritize in the situation at hand, evaluating existing goals in life, and setting new goals according to the current situation (Folkman and Greer, 2000; Folkman and Moskowitz, 2000a; Riley and Park, 2014). Although problem-focused coping is important in the early phases of the cancer illness, problem-focused coping may facilitate psychological adjustment even 2 years after diagnosis of breast cancer (Bussell and Naus, 2010). This is in line with conceptualizing cancer to be a chronic illness, "where adjustment is a long-term process of goal adaptation over time" (Naus et al., 2009, p. 64).

Finally, a change in global meaning may also involve increasing the value of events that previously were considered more "ordinary." This may apply to everyday events such as having dinner, getting together with friends and family, and enjoying nature and beautiful sceneries (Folkman and Moskowitz, 2000a). Despite of increased likelihood of health problems among breast cancer survivors, one Norwegian study reported that the breast cancer survivors were equal to the general population on being physically active (Stalsberg et al., 2019). Furthermore, a recent study of breast cancer survivors find women who place a greater significance on some everyday activities to experience higher levels of QoL (Magnus et al., 2020). As long-term survivors, these women placed more importance on engaging in activities perceived to be good for the body and soul and inspired to creativity, in addition to spending time with family and friends (Magnus et al., 2020).

Many cancer patients report on unmet needs for help with their meaning making processes (van der Spek et al., 2013). Since the efficacy of existential meaning making interventions in cancer patients show positive results in terms of increasing well-being, QoL, hope and self-efficacy, and in reducing depression (Oh and Kim, 2014; Vos et al., 2015; Bauereiss et al., 2018), such interventions have the potential to improve the quality of follow-up care. Based on the empirical literature presented herein, the meaning making process and the outcomes of meanings made depend on the type of stressor, and who is coping with it. It is also common for older individuals to be more oriented toward the past, compared to younger people who are more future oriented (Erikson, 1980). Consequently, age of the person and time since diagnosis are important aspects to consider in studies on meaning making, as the process of meaning making may differ across populations. Furthermore, the majority of previous studies of meaning making among breast cancer survivors are quantitative studies based on questionnaire data (e.g., Sears et al., 2003; Majerníková and Obročníková, 2017; Krok and Telka, 2018). Although studies taking the interpretative phenomenological perspective on meaning making in the population of breast cancer survivors exist, most include data from both young and older survivors (Gall and Cornblat, 2002; Collie et al., 2006; Fallah et al., 2012; Raque-Bogdan et al., 2018; Rashidi et al., 2020). Keeping in mind the increased rate of older cancer survivors in the future, there is a lack of qualitative studies focusing on meaning making in the group of older breast cancer survivors. Therefore, in the current study we aimed to explore meaning making in the lifeworld of older breast cancer survivors using a qualitative approach. By gaining in depth information on the experiences of meaning and meaning discrepancies of this highly homogenous group we aimed to answer the following research question: "How is meaning making shaped between actual situations (situational meaning) and more superior goals and beliefs (global meaning) in older long-term breast cancer survivors?"

MATERIALS AND METHODS

Study Design and Informants

We utilized a qualitative (descriptive and analytic) design involving semi-structured interviews of 23 elderly female breast cancer survivors 7–8 years after their treatment for breast cancer. The interviews followed an interview guide structured along three main themes: "everyday life activities," "follow-up-care experiences," and "health status and QoL." This third theme included both physical, mental, and existential dimensions of QoL.

Recruitment of Informants

As a part of a larger long-term follow-up study 6–8 years after breast cancer treatment at Trondheim University Hospital, the patients were consecutively invited (by their oncologist or nurse) to participate in an explorative interview-study about life beyond cancer. Patients who agreed to participate were contacted by the last author, and appointments were made for the interviews (place and time). None of the patients received any incentives for participating.

Research Team and Reflexivity

The interviews were conducted either at the participant's home or at an arranged meeting place, most often at a dedicated room at the University hospital. The interviews were performed face-to-face by the last and the second author, working within the research fields of psycho-oncology and medical sociology. The remaining authors were engaged in research in the fields of psychology, health informatics, and nursing. The interviews, which lasted for 90 min on average, were electronically recorded, and verbatim transcribed by two independent research assistants. Two researchers analyzed the transcripts, and all subcodes, themes and final categories, including the quotes, were translated into English and thoroughly discussed among all members of the team aiming to strengthen the results' reliability.

Data Analyses

The data analysis followed a stepwise, iterative strategy including both inductive, open coding and theoretical discussions, similar to the stepwise-deductive induction approach introduced by Tjora (2018). After transcripts were read thoroughly, we approached the initial data analyses from an inductive perspective, allowing codes to emerge from the data, independent of theory (i.e., the two coders where not familiar with the theory of meaning making at this point in time). In the next step, similar codes were grouped into broader themes. For example, initial codes such as *"life has become harder," "I do not suffice," "I am not the same as before,"* and *"I am tired"* were merged into the joint *"life has become completely different."* All coding in these two steps were conducted using the QSR NVivo 12 software.

The third step of the analysis involved research team discussions of preliminary themes from step two, guided by the theoretical framework of meaning making (Park and Folkman, 1997; Park, 2010). This step was followed by re-categorizations and inclusion of themes fitting the theoretical model. More specifically, we identified themes that reflected the discrepancy between appraised and global meaning, and/or the process in which the informants seemed to attempt reducing this discrepancy (i.e., the meaning making process). As an example, the initial codes *"I am not the same as before,"* and *"I am trying to live as normal"* reflected both a discrepancy between being healthy (normal life before disease) and being tired (normal life after disease), and a tendency of reducing that discrepancy by widening the notion of what includes living a "normal life." Hence, the final theme *"redefining the limits of normal life"* was established. To resolve any disagreements in coding, and thereby strengthen the validity of the results, the research team met frequently for discussions.

The analyses generated a total of six themes which are presented in the section "Results" with illustrating quotes presented in italics. In order to give a trustworthy representation of the informants' perspectives, the results are presented with rich descriptions of the categories and several quotes.

TABLE 1 | Characteristics of the participants ($n = 23$).

Age (years)	
Mean (SD)M	67 (7)
Range	60–86
Marital status, *n* (%)	
Married / cohabited	14 (61)
Divorced / widowed / single	9 (39)
Employment status, *n* (%)	
Old-age pensioners	12 (52)
Disabled	6 (26)
Full or part-time employed	5 (22)

RESULTS

The informants were between 60 and 86 years (mean age = 67 years) at the time of being interviewed. Most of the women were married/cohabited and old-age pensioners. Current or previous occupation was cleaning, administration, health (shorter education) or farming. The women who were still working held executive-, health worker- or management positions. Characteristics of the participants are displayed in **Table 1**.

In general, the informants experienced life as quite different from the life before being treated for breast cancer. Many told stories about sleeping problems, pain and fatigue including cognitive and emotional impairments in addition to a sense of emptiness, and a general apprehension of not contributing sufficiently to society. An apt metaphor for returning to ordinary life was that it felt like *jumping on a train in motion.* The interviews also bore evidence of an insoluble conflict potentially arising from incompatible expectations encountered when the women came back to life—cured from cancer and full of desires, but not necessarily being at *good enough* health to live up to neither their own, nor to other's expectations.

Despite the discernible contrasts between the past and the present, the women seemed to perceive high levels of QoL, focusing on the good things in life rather than getting caught up in trifles or fearing recurrence of cancer. The initial analysis revealed universal and global thematic issues that were perceived as meaningful, such as being healthy, having family and friends, sharing life with a partner, commitment to working, gardening and being outdoors. In addition to these general meaning-categories, descriptions that were more clearly related to having experienced breast cancer, having received treatment, and subsequently the long-term impact on daily life, revealed the more situational meaning categories.

The following text presents the main themes that emerged from the theory-based analysis of the meaning making processes that occurred when the breast cancer survivors attempted to adjust their situational meaning to their overall global meaning system, or vice versa. These themes are more abstract in their construction than the general ones mentioned above, and relate to shifting perspectives and priorities, a strengthened autonomy, widening the limits of normal life, dissociating oneself from the disease, embracing alternative health services, and feeling lucky. The themes are presented with illustrative quotes identified by a pseudonym for each person. All quotes are translated from Norwegian to English.

Shifting Perspectives and Priorities

Many informants perceived the disease and the following new life situations as a turning point toward a novel awareness that life is not a matter of course, which, in turn, became a reason for living their lives differently and not put things on hold.

All those things, buy, buy, buy, it's not important anymore. Rather try to live in presence; it's better spending your money on nice experiences (rather than things) (May).

Some of the women even reflected on a possible purpose of the disease, and that the new situation (having experienced cancer) made them change direction in life:

I believe there's a meaning to everything that happens. Perhaps it was meant to be, so that I could learn to be more relaxed, blessing in disguise, in a way (Mary).

Likewise, a more conscious distinction between important and unimportant issues in life was prominent in the material, especially matters that were associated with energy capacity. For many informants, yesterday's problems had become today's trifles; *I don't attach importance to details anymore. When you realize how fragile life can be... Today I really think life is even more valuable. I don't focus on details anymore (Linda).*

As a result of such changing priorities, there seemed to be a growing awareness of things that previously were taken for granted. It was often referred to as being more aware of their supportive family and close friendships, and of being more present in the very moments. In addition, the women explicitly pronounced a determinate gratification of being able to convey values and important life contents from generation to generation:

I'm happy for every birthday I celebrate. I've grown much more conscious—after having such a diagnosis. I am grateful for the children having managed so well, and I've got two grandchildren who will always remember their granny. If I disappear (die), they will always remember me (Elizabeth).

In sum, the shift in priorities was closely linked both to new ways of thinking, acting and reacting, and in the wake of these alterations, new values were identified.

Growing Sense of Autonomy

The informants reported that their individual needs and preferences had become increasingly important after experiencing breast cancer. It seemed that the fragility of life had become more visible, resulting in a growing awareness that they must live their life "right now." Some of the women described it as "an egoism without shame." Previously in life, they often felt bad when prioritizing their own needs above others'. After having lived through cancer and all its associated experiences, these feelings had changed dramatically. Paying more attention to their own needs and desires and at the same time releasing themselves from bad conscience and shame was a typical reaction observed:

You must pull yourself together and prioritize your own needs. You can't sacrifice your own life for others. I try to protect my weekends, use the time on myself. It's not always feasible, but I try:

I feel I need it, need to do pleasurable things—to get my strength back (Linda).

Because it has been so busy for so many years, I feel that it's okay to cool down a bit. If I want to go away for a weekend, I'll do it, and if I fancy a trip downtown, I'll do that as well—without getting anyone's permission... And yes, sometimes I have felt that it was nice having someone visiting me, now and then, but I can decide that myself, it's my choice (Maria).

The notion of grasping life events instantly, being more decisive and not wait until tomorrow etc., had become an unambiguously global value among the elderly breast cancer survivors in this study.

I have become very stingy with my time. I don't care about so many things. . . I hear people saying, "you must go there," and "you should do that". . . I live here, among my closest family. . . Why should I go to Mexico? I don't see the point (Margaret).

These shifts in global values did not happen rapidly. Rather, they required specific actions (from the women) to reach there. Many of the breast cancer survivors described their everyday life quite different from the life they lived before the cancer (and in their younger days), especially in terms of lack of energy. The breast cancer survivors felt they were not able to do things that they used to do before the illness. For example, many of them expressed that it was too demanding to invite family and friends for dinner, to join interest groups, or to make any long-term plans. The women told how they actively decided how and with whom they spent their time and how they were "forced" to reorganize their lives to redistribute their energy to live meaningful lives:

I held positions in several organizations, and surely, I fulfilled my obligations. Now I have reduced such activities. You turn more egoistic and self-centered, and you think; No, I don't want to bite off more than I can chew (Lisa).

People (friends) call me, asking me to join them at different events, but I have become so stubborn and weird; I hide, and I only join things that suit me. My friends must humor me. In earlier days (before) I was amenable, but nowadays I'm not, I become easily irritated/annoyed (Karen).

The discrepancy or experienced gap between the previous "shame over being selfish" and the current "proud of taking own needs seriously" could be interpreted as a growing sense of autonomy and be the outcome of this meaning making process.

Widening the Limits of Normality

Redefining the notion of "a normal life" emerged as another weighty theme in our material. Many reported having a good health, even though they struggled with several health issues. Being healthy was likely a global desire and perceived important to be associated with. Being an ill and weak person was difficult to adapt to. The women seemed to be reducing the discrepancy between the self-perception of being a healthy human and the current feeling of being impaired, by widening the limits of what defines a normal life. Almost all informants explained their current health problems, such as pain, reduced cognition, or physical capacity (the situation) to be a consequence of growing older rather than resulting from late effects of treatment. Typical thoughts were:

It happens a lot to your body when you get cancer, and all you've been through . . .It's difficult to know whether they (the problems) are due to the disease, all you've been through, or only a result of aging. I don't know (Mary).

At the same time as they accepted the changes, some of the women emphasized that even managing everyday tasks, such as making dinner, gave evidence of living as normal:

I try to live as normal as possible [. . .] Yes, I do—I make dinner and all. . . I'm living a quite normal life now, so I have returned to the good old me. . .even if it's. . .you know. . .you'll never be the same. I just have to take my time. . .(May).

Redefining the notion of normality became apparent likely because the breast cancer survivors strongly wished to appear as active members of society, even though many were both physically and cognitively impaired.

Dissociating Oneself From the Disease

An opposite strategy to widening the limits of normality was the denial, or at least striving to keep distance to the disease and anything that could be associated with it. Such strategy was often materialized by avoiding any participation in breast cancer supporting groups, as described by this woman:

I don't want to attend such a (BC-support) group. I don't want to talk about disease. I don't want to keep company with people with cancer. I want to lift me up—want to be with people who don't talk about disease (Karen).

Another way of dissociating oneself from the cancer disease, was to make no place for breast cancer in their lives, as quoted: *I don't think about it. I don't worry or speculate. In fact, I pretend to be healthy (Linda).*

Dissociating oneself from illness and patient experiences, simply by defining oneself not belonging to the patient group, seemed decisive for many of the women in maintaining the important perception of being connected to society.

Embracing Alternative Health Services

Many of the survivors were struggling with various health problems, which were ascribed to either late effects of breast cancer treatment, or as a part of getting older. Even though most of the women accepted that their health and daily life were totally different compared to the situation prior to their breast cancer history, some of them praised different alternative and self-initiated ways of improving their health and thereby the quality of everyday life. For example, one of the informants reflected a deep interest in yoga and mindfulness and seemingly believed in the positive effect of these activities for improving sleeping quality and pain relief:

I must admit, there have been some bodily alterations, both physically and mentally. I have attended some courses in mindfulness that I found very helpful. I easily fell asleep every evening afterward. I also decided to start with yoga—it is once a week. I found that I needed to stretch the muscles—I feel that it helps for the pain in my arm—I have a lymph node removed. . . (Mary).

Another informant talked enthusiastically about the health-related impact of healing methods/techniques:

I believe it is more to heaven and earth. Our travel guide practiced a Japanese treatment technique called Reiki. It is a kind of energy transference. . .how should I explain? You get more energy, better quality of life, better sleep, and such things. I had one "treatment," and I've never felt so relaxed in all my life. It was very strange. . . Later she arranged courses, and I attended with several others, and it was useful/instructive (Maria).

The positive effect of homeopathy and acupuncture were mentioned by some informants, especially the benefits related to better sleeping quality and increased physical surplus:

One of my colleagues had good experience with acupuncture. So, I have spent 4000 (NOK), no matter whether it works or not, but I've got better. Although I'm still not completely healthy, I manage to sleep better at nights (Sandra).

I had reached rock bottom when I returned to work. I went to a homeopath who offered acupuncture, and that got me on top. I visited him for a year. I think that was the reason why I manage to work after the cancer treatment. I had a great confidence in homeopathy, and my general practitioner agreed with me (Helen).

Lastly, some of the breast cancer survivors also stated a firm belief that dietary supplements could be useful in improving the level of energy. One woman expressed the fortune of knowing someone who could provide these health promoting remedies, as follows:

I have my own methods, you know, through acquaintances, I've got some tips. Last year I heard about something special, expensive though! Something named "Synergy"—a lot of vitamins and minerals and other ingredients. I have used it since July last year and I feel a great difference. It works very good for me. I've got a quite different everyday life since I started (Ruth).

Feeling Lucky

Luck was a recurrent construct in our material. Even though the women had been through a breast cancer diagnosis, subsequent treatment accompanied by anxiety and worries, and still were experiencing bothersome late effects; almost all of them stated -in one way or another- how lucky they felt after all. The luck they explained was associated with various aspects in life; from the most fundamental aspect of having survived to the gratitude over different life events, which they previously had taken for granted. Many of the breast cancer survivors reported that all in all, they had been very lucky compared to others—whether it was someone they knew or other persons they had heard about. The consequences of the disease could have been so much worse, such as loss of life, worse adaption to the treatment, spread of cancer, or a myriad of late effects. The feeling of luck was extensively expressed by the breast cancer survivors:

I'm praising every new day I get, and I don't understand why I should be the one who survived. . ., because. . . they died like flies around me (Sarah).

Afterward, when I reflected on what I've been through, I thought that I've really been lucky, because the cancer hadn't spread to other organs (Elise).

I'm lucky for being as healthy as I am. I know so many people who had a relapse of the cancer, and suddenly they're gone. So, I feel lucky to be so content with my life (Lucy)!

Although some of the women were striving with both late effects of treatment, other comorbidities, and even challenging family situations, they still adopted a perspective of luck. The women explained their luck or gratitude in several ways:

My breast is deformed, and I find it disgusting, but I don't care. That's how it turned out, and I'm lucky who got cured (Evelyn).

I've got the best treatment and I've been strong enough to tolerate it, so I've been very lucky (Mary).

DISCUSSION

Guided by the meaning making model developed by Park (2013), the present study aimed to explore the meaning making in the lifeworld of older breast cancer survivors, with a main focus on exploring discrepancies between situational and global meaning. As expected, the contrast between past and present was a highlighted theme in the interviews. Based on analyses of the women's narratives, the process of meaning making and efforts to adjust discrepancies between situational and global meaning were grouped into six main themes; (1) shifting perspectives and priorities, (2) growing sense of autonomy, (3) widening the limits of normal life, (4) dissociating oneself from the disease, (5) embracing alternative health services, and (6) feeling lucky. However, as the third and the fourth theme both relates to an adjustment to normal life, they are discussed under the same heading.

Shifting Perspectives and Priorities

The general finding that the women perceived a shift from before the cancer illness were expressed as major turning points in life. Sudden and profound changes in global meaning was reported as a direct cause of the illness. Some came to see the cancer experience as a blessing—the meaning of cancer illness was to facilitate a stronger focus on what they considered important in life. Such positive appraisals of the cancer illness are linked to a reduction of incongruence to global meaning (Park and Folkman, 1997). For the women reported on here, a revision of their belief system was common. They became more conscious about how they spent money and their time, and many issues they considered important before were now considered trivial. Furthermore, by revaluing ordinary events, the women's global meaning shifted toward generativity, which includes individual (and societal) goals of providing for the next generation (McAdams and de St Aubin, 1992); they expressed gratitude for being able to convey values and important life contents to children and grandchildren, and the value of a supporting family and friends were highlighted. All in all, the women used different coping strategies (i.e., positive reappraisal, problem-focused coping, revaluing ordinary events) to view the cancer illness in a more positive light, accommodating a shift in global meaning. The ability to transform the meaning of a traumatic experience to a positive experience is associated with the outcomes of a more positive mood, optimistic view on one's health, less emotional distress, and post-traumatic growth (Sears et al., 2003;

Urcuyo et al., 2005; Widows et al., 2005; Thornton and Perez, 2006; Schroevers and Teo, 2008; Schroevers et al., 2011). A qualitative study of 11 breast cancer survivors aged 40–86 years reported what they termed "identity transformation" which was a turning point toward promoting positive meaning making, empowerment, and control. The profound changes in global meaning after the cancer disease were described as a sudden shift toward living a more authentic life (Rashidi et al., 2020). In our study, the women's sudden shift in global meaning was experienced as a positive turning point in life, which is in line with the evidence of meaning in life as a buffer against distress and a promotor for well-being and QoL (Tomich and Helgeson, 2002; Winger et al., 2016; Majerníková and Obročníková, 2017).

Growing Sense of Autonomy

The shift toward greater levels of autonomy can be conceptualized as accommodations of global meaning (Park and Folkman, 1997). From the cancer experience the women became more aware of the fundamental existential fact that life is not infinite. Both a stricter practice and an expansion of own boundaries grew from this new perspective on life. This involved making an autonomic choice of "no action" in situations they previously had acted (i.e., stop having large dinner parties)—and "acting" when they previously did not (i.e., travel and engage in activities without asking "permission" from others). Some women viewed the cancer experience as a blessing that made them act in accordance with what was most important in life. These findings are in line with the process of positive reappraisals of the cancer disease (Folkman and Moskowitz, 2000b), which is linked to well-being and optimistic perspectives on own health (Sears et al., 2003). All in all, the women in our study were able to transform meaning discrepancies into a new global meaning boosting autonomy.

The ability to feel a full sense of ownership to one's behavior, regardless of traumatic life event also develops with age (Sheldon et al., 2006). According to self-determination theory people have an innate need to seek out autonomy because it is a universal inherent psychological need—and as people grow older they might find new ways to take control over their lives (Deci and Ryan, 2000). Non-internalized parts of oneself will with time be assimilated into a coherent whole (Deci and Ryan, 1991). Indeed, one study revealed that in the case of younger cancer patients a more intense search for meaning was more common compared to older patients (Schroevers et al., 2004). On the other hand, with age follows a general trend of cognitive decline and a higher likelihood of physical impairment (Ferraro and Carr, 2021), that may for some reduce the experience of autonomy (Sánchez-García et al., 2019). For the older women in the current study lack of autonomy was not expressed, even though these women report on several mental and physical health complaints. Thus, the increase of autonomy following cancer survivorship (for the women in the study) could (to some degree) be linked to their age and their likelihood of knowing themselves more. On the other hand, older age in combination with the cancer experience could cause the development of a stronger autonomy as trauma affects peoples evaluations of their capabilities, in a positive way, to face life problems in the future (Lelorain et al., 2010).

Widening the Limits of Normal Life and Dissociating Oneself From the Disease

Despite physical and cognitive impairments, being normal was important. The women defined normality as the ability to engage in the same everyday activities as before the cancer. Furthermore, a sense of normality was maintained by explaining physical and cognitive challenges to be a result of aging—a "normal" process—as opposed to a consequence of the disease, which is unexpected and generally less likely to occur. Maintaining age as an explanation of health problems may facilitate a feeling of being normal, and of having more control of the situation.

Similar to the present findings, one qualitative study of a mixed group of cancer survivors (n = 40) reported that upholding a more or less unchanged everyday life was important to them in life after cancer treatment (Henshall et al., 2016). A goal for the informants who expressed a "restitution illness narrative" was to do everything as before, including hobbies, travels, and other activities. However, somewhat contrasting to the findings presented here was that the informants presented themselves outward as if all were normal (when it was not), motivated by not wanting to be labeled, or being a burden to others (Henshall et al., 2016). Another group of informants in Henshall et al. (2016) study reported on a "quest illness narrative" which was more in line with findings of the present study where survivors had accepted that they needed to learn how to live with the cancer, which is more in line with a definition of normality as accommodations of global meaning. Although the women in the present study held on to their image of having good health and being active members of society, it appeared that they had become more flexible in terms of what it means to be "healthy" and "active" after the cancer.

As the present findings support an adjustment of global meaning through developing new meanings of "normality," the women also explained that they did not want to associate themselves with the disease and refrained from e.g., participating in cancer support groups. These two strategies may both be viewed as a form of denial with the goal of preserving some level of normality –accommodation through expanding the notion of normality, and assimilation through distancing from the disease. The paradox of denial coping is that it may affect the psychological functioning in either a beneficial or detrimental way depending on active versus passive denial, respectively (Vos and De Haes, 2007). Positive psychological outcomes of denial are reported for distractive strategies that have the function of facilitating a positive outlook on life. The more passive escape strategies, on the other hand, is related to poorer psychological functioning (Goyal et al., 2018). It is evident that the women reported on here show a preponderance of active mobilization toward something positive, while denying the illness. In this way, they expand the boundaries of normality, accommodating global meaning.

A review of several longitudinal studies of patients with various types of cancer with study periods varying from 6 months to 3–5 years after diagnosis reported that denial coping diminished with time. On the other hand, the review found that when faced with death, an increase in denial coping became evident (Vos and De Haes, 2007). Indeed, a qualitative study of a mixed group of older cancer survivors (>65 years) reported that the cancer disease in the context of the aging body and decline became rather normalized. Approaching death was a theme for the informants, but as a consequence of age and not cancer (Hannum et al., 2016). Relative to other problems in old age, the potential detrimental consequences of cancer disease were denied by the informants. In line with the findings reported here, denial served for the most part as an adaptive coping strategy facilitating well-being and QoL (Hannum et al., 2016).

Embracing Alternative Health Services

The women were engaged in various complementary and alternative medicine (CAM), trying to ease or eliminate poor mental and physical health to improve their QoL such as practicing yoga and mindfulness, use of healing techniques, homeopathy, acupuncture and taking dietary supplements. A previous study reported that 59% of middle age- and older long-term breast cancer survivors use CAM, and these women had a higher prevalence of co-morbidities and poorer emotional functioning (Carpenter et al., 2009). The reasons for engaging in CAM is linked to the concept of health empowerment which is the ability of a person to use the necessary resources in order to achieve an improvement in one's health (Bann et al., 2010). Indeed, among cancer patients the use of CAM could be motivated toward reducing feelings of helplessness, to be actively engaged in- and to increase control over own health. The use of CAM may therefore be an active and problem focused coping strategy to prevent and relieve physical and mental problems after cancer illness. This is in line with the findings of the present study as the women report that their own initiatives to CAM activities relieve pain, improve sleep quality, and increase energy. The outcome of assimilation and accommodation in "meanings made" for situational and global meaning was therefore quite common for the breast cancer survivors. The women have developed their understanding of the causal relationships between the cancer illness (consequences of the disease) and health outcomes. Placing themselves as active agents able to reduce detrimental consequences of the disease with CAM is a way of empowering themselves and giving new meaning to the illness. Furthermore, the women in our study shared that they also experienced new global meaning—that the engagement in CAM had altered their outlook and perspective in life. Engagement in CAM was an eye-opener to the life ahead, and they got new perspectives on their everyday life. Similar to our findings, a previous study on benefit-finding after cancer experience, reported that the use of some types of CAM was associated with finding benefit from the illness regarding personal priorities, daily activities and family as a result of changed attitudes and behavior caused by their experience of cancer (Garland et al., 2013).

Feeling Lucky

The current study reported that feelings of luck and gratitude thinking about current life situation was a common theme among the breast cancer survivors. The women reflected on the increased risk for losing their lives to cancer, complications, and late effects of the cancer disease. Comparing themselves with others, including fictive persons, who were perceived as worse off, was common. Such coping methods of downward social comparison is common for assimilating new meaning to an adverse situation (Van der Zee et al., 2000; Bellizzi et al., 2006). The dichotomy sick versus healthy may for the women reflect the discrepancies between situational and global meaning. They conceptualized their own situation to be closer to the "healthy" end of the dichotomy. This adjustment was done by assimilating new meaning to the cancer, the meaning of feeling lucky. Through these mechanisms, the women were able to see the cancer illness and themselves in a more positive light. Downward social comparison may promote QoL for cancer patients, and is associated with active coping styles such as reinterpretations and seeking social support (Van der Zee et al., 2000). However, several studies report that health promoting mechanisms related to downward social comparison depend on identification vs. contrast processes (Van der Zee et al., 2000; Brakel et al., 2012a,b; Buunk et al., 2012). That is, positive outcomes of downward social comparison is more likely when the person identifies with, as opposed to feel very different from (e.g., situation, personality etc.) the comparable person (Van der Zee et al., 2000). In the current study we do not tap into the level of strong or weak identification with the comparable persons the women refer to, but the common experience of breast cancer could increase feelings of identifying with other cancer survivors. Breast cancer is a women's disease in which most are diagnosed from the mid-40s and up. Furthermore, international establishments of "breast cancer culture" in the public also comes with a set of attitudes and values that may facilitate connectedness to others with cancer (Bell, 2014). Consequently, it is likely that many women strongly empathize with others who have experienced breast cancer. Furthermore, the time since diagnosis may also influence on the beneficial versus negative result of downward social comparison; in early stages of diagnosis and treatment, you may look at others who are worse off and fear what awaits you when the disease advances. The long-term survivors in the current study is more likely to have a distance to the initial treatment and they have a more stable situation in which recurrence of the disease is likely smaller. Therefore, feeling lucky as "meanings made" to the cancer illness reduce the gap between situational and global meaning, and seem beneficial for increased well-being and QoL.

CONCLUSION

This study provided an in-depth exploration of meaning and meaning discrepancies of older breast cancer survivors 7–8 years after diagnosis. The women struggled with several health problems in the aftermaths of the disease, such as sleeping problems, pain, and fatigue—including cognitive and emotional impairments. Meaning and meaning discrepancies was concentrated on six main themes: shifting perspectives and priorities, growing sense of autonomy, widening the limits of normal life, dissociating oneself from the disease, embracing alternative health services, and feeling lucky. In light of the meaning making model by Park (2013), a wide range of coping techniques were initiated to change global meaning in order to transform the cancer disease into a more positive experience. Common coping efforts across the six main themes were social comparison, denial, positive reappraisal, problem-focused coping, and revaluing ordinary events. Through the process of accommodation involving different coping strategies the women experienced a comprehensive shift in their global meaning, sorting out and acting on the important things in life. The women became more respectful for their own needs through increased autonomy, and expressed kindness toward themselves with redefining what before the disease was considered a "normal" way of living. In the assimilation process, social comparison was common as they viewed their own personal experience with cancer disease as easier compared to others, and therefore they expressed luckiness. Denial coping were used to distance themselves from the cancer disease, distracting themselves and focusing on the positive. Attributing possible cancer-related late effects to age was also pronounced. Although cancer disease may lose significance among older survivors due to increased comorbidities as health problems becomes the norm (Hannum et al., 2016), this was not reported here. Problem-focused coping was also common as they, among other initiatives, sought aid in CAM. Not so common was reattributions of the cause of the cancer disease. In general, the women had come to terms with, and accepted their destiny. In case of attributions, the disease was viewed as having higher purpose, bringing positive changes to their lives. In comparison, younger cancer survivors tend to struggle more, and searching more intensely for the purpose of the disease (Schroevers et al., 2004). In conclusion, a rich pool of coping efforts, often complementing each other, were used by these women to decrease the discrepancy between global and situational meaning.

The study's strengths centered on the homogenous sample of older (60–87 years) breast cancer survivors, all being equal in time since cancer treatment (7–8 years) which allows for generalizing the findings to older, long-term survivors of breast cancer. On the other hand, the long timeline could result in recall bias and thereby influence the study's reliability. The interviews were conducted to gain knowledge on life beyond cancer, and the semi-structured interviews were not specifically designed for gaining in depth information on meaning making. Although the number of interviews (n = 23) provided rich material, and the process of analyzing the data was comprehensive due to the introduction of the meaning making model halfway in the analysis, the interviewer could not at this point ask the informants to clarify or invite the women to further explore themes relevant specifically for meaning making. Future studies should therefore focus specifically on meaning and meaning making. Furthermore, some additional constructs evinced significant for coping and meaning making such as self-compassion and emotional intelligence should be included to get a deeper understanding of the phenomena of the meaning making process for older breast cancer survivors (Teques et al., 2016; Ewert et al., 2021). Finally, future research should aim for conducting longitudinal qualitative research on meaning making for gaining knowledge on meaning making trajectories from onset of the cancer illness, to long-term survivorship. This is especially valuable given that cancer survivorship is a process of living after a diagnosis—and lasts throughout life (Mullan, 1985).

Meta-analyses provide evidence that existential meaning making interventions are effective and helpful for patients across all stages and types of cancer (Oh and Kim, 2014; Vos et al., 2015; Bauereiss et al., 2018). They are found to enhance perceived meaning in life, well-being, and mental health, and to reduce psychological distress after cancer (Henry et al., 2010; van der Spek et al., 2017). Like the findings of the current study, meaning making efforts can be successful as the life for many survivors become more meaningful after cancer disease. Contrary, many cancer patients report on unmet needs for help with their meaning making (van der Spek et al., 2013), and the facilitation of meaning making processes is rarely included in the follow-up care for cancer survivors (Selby et al., 2017). Thus, the practical implications from the current study may help health care professionals provide care for women who have experienced breast cancer. The concrete knowledge of common coping efforts in the meaning making process may help in developing future interventions and gaining a deeper understanding for older survivors of breast cancer.

DATA AVAILABILITY STATEMENT

The datasets presented in this article are not readily available because participant consent don't allow to share data with third parties. Requests to access the datasets should be directed to marn@ntnu.no.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Regional Committee for Medical and Health Research Ethics (REC Central 2009/108.4.2006.2856). The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

RS, KS, GH, MN, and RJR made substantial contributions to the study, including conceptualization, design, methodology, and analyses. RS, KS, and RJR were mainly performed the data analyses. MN did mainly perform the introduction, discussion, and conclusion. RS and RJR wrote the methods and results. All authors reviewed and edited the manuscript and approved the final version of the manuscript.

REFERENCES

Autier, P., Boniol, M., LaVecchia, C., Vatten, L., Gavin, A., Héry, C., et al. (2010). Disparities in breast cancer mortality trends between 30 European countries: retrospective trend analysis of WHO mortality database. *BMJ* 341:c3620. doi: 10.1136/bmj.c3620

Bann, C. M., Sirois, F. M., and Walsh, E. G. (2010). Provider support in complementary and alternative medicine: exploring the role of patient empowerment. *J. Altern. Complement. Med.* 16, 745–752. doi: 10.1089/acm.2009.0381

Bauereiss, N., Obermaier, S., Ozunal, S. E., and Baumeister, H. (2018). Effects of existential interventions on spiritual, psychological, and physical well-being in adult patients with cancer: systematic review and meta-analysis of randomized controlled trials. *Psychooncology* 27, 2531–2545. doi: 10.1002/pon.4829

Bell, K. (2014). The breast-cancer-ization of cancer survivorship: implications for experiences of the disease. *Soc. Sci. Med.* 110, 56–63. doi: 10.1016/j.socscimed.2014.03.031

Bellizzi, K. M., Blank, T. O., and Oakes, C. E. (2006). Social comparison processes in autobiographies of adult cancer survivors. *J. Health Psychol.* 11, 777–786. doi: 10.1177/1359105306066637

Bluethmann, S. M., Mariotto, A. B., and Rowland, J. H. (2016). Anticipating the "Silver Tsunami": prevalence trajectories and comorbidity burden among older cancer survivors in the United States. *Cancer Epidemiol. Biomarkers Prev.* 25, 1029–1036. doi: 10.1158/1055-9965.EPI-16-0133

Bower, J. E., Meyerowitz, B. E., Desmond, K. A., Bernaards, C. A., Rowland, J. H., and Ganz, P. A. (2005). Perceptions of positive meaning and vulnerability following breast cancer: predictors and outcomes among long-term breast cancer survivors. *Ann. Behav. Med.* 29, 236–245. doi: 10.1207/s15324796abm2903_10

Brakel, T. M., Dijkstra, A., and Buunk, A. P. (2012a). Effects of the source of social comparison information on former cancer patients' quality of life. *Br. J. Health Psychol.* 17, 667–681. doi: 10.1111/j.2044-8287.2012.02064.x

Brakel, T. M., Dijkstra, A., Buunk, A. P., and Siero, F. W. (2012b). Impact of social comparison on cancer survivors' quality of life: an experimental field study. *Health Psychol.* 31:660.

Bussell, V. A., and Naus, M. J. (2010). A longitudinal investigation of coping and posttraumatic growth in breast cancer survivors. *J. Psychosoc. Oncol.* 28, 61–78. doi: 10.1080/07347330903438958

Buunk, A. P., Bennenbroek, F. T., Stiegelis, H. E., van den Bergh, A. C., Sanderman, R., and Hagedoorn, M. (2012). Follow-up effects of social comparison information on the quality of life of cancer patients: the moderating role of social comparison orientation. *Psychol. Health* 27, 641–654. doi: 10.1080/08870446.2011.613994

Carpenter, C. L., Ganz, P. A., and Bernstein, L. (2009). Complementary and alternative therapies among very long-term breast cancer survivors. *Breast Cancer Res. Treat.* 116, 387–396. doi: 10.1007/s10549-008-0158-3

Casellas-Grau, A., Ochoa, C., and Ruini, C. (2017). Psychological and clinical correlates of posttraumatic growth in cancer: a systematic and critical review. *Psychooncology* 26, 2007–2018. doi: 10.1002/pon.4426

Cassel, E. J. (1982). The nature of suffering and the goals of medicine. *N. Engl. J. Med.* 306, 639–645. doi: 10.1056/nejm198203183061104

Collie, K., Bottorff, J. L., and Long, B. C. (2006). A narrative view of art therapy and art making by women with breast cancer. *J. Health Psychol.* 11, 761–775. doi: 10.1177/1359105306066632

Deci, E. L., and Ryan, R. M. (1991). "A motivational approach to self: integration in personality," in *Nebraska Symposium on Motivation, 1990: Perspectives on Motivation*, ed. R. A. Dienstbier (Lincoln, NE: University of Nebraska Press), 237–288.

Deci, E. L., and Ryan, R. M. (2000). The "What" and "Why" of goal pursuits: human needs and the self-determination of behavior. *Psychol. Inquiry* 11, 227–268. doi: 10.1207/S15327965PLI1104_01

Drageset, J., Haugan, G., and Tranvåg, O. (2017). Crucial aspects promoting meaning and purpose in life: perceptions of nursing home residents. *BMC Geriatr.* 17:254. doi: 10.1186/s12877-017-0650-x

Erikson, E. H. (1980). *Identity and the Life Cycle*. New York, NY: Norton.

Ewert, C., Vater, A., and Schröder-Abé, M. (2021). Self-compassion and coping: a meta-analysis. *Mindfulness* 12, 1063–1077. doi: 10.1007/s12671-020-01563-8

Fallah, R., Keshmir, F., Lotfi Kashani, F., Azargashb, E., and Akbari, M. E. (2012). Post-traumatic growth in breast cancer patients: a qualitative phenomenological study. *Middle East J. Cancer* 3, 35–44.

Ferlay, J., Colombet, M., Soerjomataram, I., Dyba, T., Randi, G., Bettio, M., et al. (2018). Cancer incidence and mortality patterns in Europe: estimates for 40 countries and 25 major cancers in 2018. *Eur. J. Cancer* 103, 356–387. doi: 10.1016/j.ejca.2018.07.005

Ferraro, K., and Carr, D. (2021). *Handbook of Aging and the Social Sciences*. Cambridge, MA: Academic Press.

Fielding, R., and Lam, W. (2014). Psychosocial and physical outcomes after surgery for breast cancer: 5-to-6-year follow-up. *Hong Kong Med. J.* 20(Suppl. 7), 9–12.

Folkman, S., and Greer, S. (2000). Promoting psychological well-being in the face of serious illness: when theory, research and practice inform each other. *Psychooncology* 9, 11–19.

Folkman, S., and Moskowitz, J. T. (2000a). Positive affect and the other side of coping. *Am. Psychol.* 55, 647–654. doi: 10.1037//0003-066x.55.6.647

Folkman, S., and Moskowitz, J. T. (2000b). Stress, positive emotion, and coping. *Curr. Dir. Psychol. Sci.* 9, 115–118. doi: 10.1111/1467-8721.00073

Gall, T. L., and Cornblat, M. W. (2002). Breast cancer survivors give voice: a qualitative analysis of spiritual factors in long-term adjustment. *Psychooncology* 11, 524–535. doi: 10.1002/pon.613

Garland, S. N., Valentine, D., Desai, K., Li, S., Langer, C., Evans, T., et al. (2013). Complementary and alternative medicine use and benefit finding among cancer patients. *J. Altern. Complement. Med.* 19, 876–881. doi: 10.1089/acm.2012.0964

Goyal, N. G., Levine, B. J., Van Zee, K. J., Naftalis, E., and Avis, N. E. (2018). Trajectories of quality of life following breast cancer diagnosis. *Breast Cancer Res. Treat.* 169, 163–173. doi: 10.1007/s10549-018-4677-2

Hannum, S. M., Clegg Smith, K., Coa, K., and Klassen, A. C. (2016). Identity reconstruction among older cancer survivors: age and meaning in the context of a life-altering illness. *J. Psychosoc. Oncol.* 34, 477–492. doi: 10.1080/07347332.2016.1221017

Haugan, G., and Dezutter, J. (2021). "Meaning-in-Life: a vital salutogenic resource for health," in *Health Promotion in Health Care–Vital Theories and Research*, 1 Edn, eds G. Haugan and M. Eriksson (Berlin: Springer Scientific Publisher), 85–101.

Haugan, G., and Eriksson, M. (2021). "An introduction to the health promotion perspective in the health care services," in *Health Promotion in Health Care – Vital Salutogenic Theories and Research*, 1 Edn, eds G. Haugan and M. Eriksson (Cham: Springer).

Haugan, G., Kuven, B. M., Eide, W. M., Taasen, S. E., Rinnan, E., Xi Wu, V., et al. (2020). Nurse-patient interaction and self-transcendence: assets for a meaningful life in nursing home residents? *BMC Geriatr.* 20:168. doi: 10.1186/s12877-020-01555-2

Heine, S., Proulx, T., and Vohs, K. (2006). The meaning maintenance model: on the coherence of social motivations. *Pers. Soc. Psychol. Rev.* 10, 88–110. doi: 10.1207/s15327957pspr1002_1

Henry, M., Cohen, S. R., Lee, V., Sauthier, P., Provencher, D., Drouin, P., et al. (2010). The meaning-making intervention (MMi) appears to increase meaning in life in advanced ovarian cancer: a randomized controlled pilot study. *Psychooncology* 19, 1340–1347. doi: 10.1002/pon.1764

Henshall, C., Greenfield, S., and Gale, N. (2016). The role of self-management practices as mechanisms for re-establishing normality in cancer survivors. *Qual. Health Res.* 27, 520–533. doi: 10.1177/1049732316651252

Kenne Sarenmalm, E., Browall, M., and Gaston-Johansson, F. (2014). Symptom burden clusters: a challenge for targeted symptom management. A longitudinal study examining symptom burden clusters in breast cancer. *J. Pain Symptom Manage.* 47, 731–741. doi: 10.1016/j.jpainsymman.2013.05.012

Koch, L., Jansen, L., Herrmann, A., Stegmaier, C., Holleczek, B., Singer, S., et al. (2013). Quality of life in long-term breast cancer survivors - a 10-year longitudinal population-based study. *Acta Oncol.* 52, 1119–1128. doi: 10.3109/0284186x.2013.774461

Krok, D., and Telka, E. (2018). Meaning in life in cancer patients: relationships with illness perception and global meaning changes. *Health Psychol. Rep.* 6, 171–182. doi: 10.5114/hpr.2018.71636

Laubmeier, K. K., Zakowski, S. G., and Bair, J. P. (2004). The role of spirituality in the psychological adjustment to cancer: a test of the transactional model of stress and coping. *Int. J. Behav. Med.* 11, 48–55. doi: 10.1207/s15327558ijbm1101_6

Lelorain, S., Bonnaud-Antignac, A., and Florin, A. (2010). Long term posttraumatic growth after breast cancer: prevalence, predictors and relationships with psychological health. *J. Clin. Psychol. Med. Settings* 17, 14–22. doi: 10.1007/s10880-009-9183-6

Lopez, V., and Klainin-Yobas, P. (2021). "Health Promotion Among Cancer Patients: Innovative Interventions," in *Health Promotion in Health Care–Vital Salutogenic Theories and Research*, 1 Edn, eds G. Haugan and M. Eriksson (Cham: Springer).

Magnus, E., Jakobsen, K., and Reidunsdatter, R. J. (2020). Meaningful everyday life projects and activities in breast cancer survivors. *Moravian Geogr. Rep.* 28, 299–307.

Majerníková, L', and Obročníková, A. (2017). Relationship between the quality of life and the meaning of life in cancer patient. *Pielegniarstwo XXI wieku* 16, 13–17. doi: 10.1515/pielxxiw-2017-0012

McAdams, D. P., and de St Aubin, E. (1992). A theory of generativity and its assessment through self-report, behavioral acts, and narrative themes in autobiography. *J. Pers. Soc. Psychol.* 62, 1003–1015. doi: 10.1037/0022-3514.62.6.1003

Mullan, F. (1985). Seasons of survival: reflections of a physician with cancer. *N. Engl. J. Med.* 313, 270–273. doi: 10.1056/nejm198507253130421

Naus, M. J., Ishler, M. D., Parrott, C. E., and Kovacs, S. A. (2009). Cancer survivor adaptation model: conceptualizing cancer as a chronic illness. *J. Clin. Psychol.* 65, 1350–1359. doi: 10.1002/jclp.20622

Oh, P. J., and Kim, S. H. (2014). The effects of spiritual interventions in patients with cancer: a meta-analysis. *Oncol. Nurs. Forum* 41, E290–E301. doi: 10.1188/14.Onf.E290-e301

Park, C. L. (2010). Making sense of the meaning literature: an integrative review of meaning making and its effects on adjustment to stressful life events. *Psychol. Bull.* 136, 257–301. doi: 10.1037/a0018301

Park, C. L. (2013). The meaning making model: a framework for understanding meaning, spirituality, and stress-related growth in health psychology. *Eur. Health Psychol.* 15, 40–47.

Park, C. L., Edmondson, D., Fenster, J. R., and Blank, T. O. (2008). Meaning making and psychological adjustment following cancer: the mediating roles of growth, life meaning, and restored just-world beliefs. *J. Consult. Clin. Psychol.* 76, 863–875. doi: 10.1037/a0013348

Park, C. L., and Folkman, S. (1997). Meaning in the context of stress and coping. *Rev. Gen. Psychol.* 1, 115–144. doi: 10.1037/1089-2680.1.2.115

Park, C. L., Folkman, S., and Bostrom, A. (2001). Appraisals of controllability and coping in caregivers and HIV+ men: testing the goodness-of-fit hypothesis. *J. Consult. Clin. Psychol.* 69, 481–488. doi: 10.1037//0022-006x.69.3.481

Park, C. L., and George, L. S. (2013). Assessing meaning and meaning making in the context of stressful life events: measurement tools and approaches. *J. Posit. Psychol.* 8, 483–504. doi: 10.1080/17439760.2013.830762

Park, C. L., and Gutierrez, I. A. (2013). Global and situational meanings in the context of trauma: relations with psychological well-being. *Couns. Psychol. Q.* 26, 8–25. doi: 10.1080/09515070.2012.727547

Proulx, T., and Inzlicht, M. (2012). The five "A" s of meaning maintenance: finding meaning in the theories of sense-making. *Psychol. Inquiry* 23, 317–335. doi: 10.1080/1047840X.2012.702372

Raque-Bogdan, T. L., Hoffman, M. A., Joseph, E. C., Ginter, A. C., White, R., Schexnayder, K., et al. (2018). Everything is more critical: a qualitative study of the experiences of young breast cancer survivors. *Couns. Values* 63, 210–231. doi: 10.1002/cvj.12089

Rashidi, E., Morda, R., and Karnilowicz, W. (2020). "I will not be defined by this. I'm not going to live like a victim; it is not going to define my life": exploring breast cancer survivors'. *Exp. Sense Self Qual. Health Res.* 31, 349–360. doi: 10.1177/1049732320968069

Riley, K. E., and Park, C. L. (2014). Problem-focused vs. meaning-focused coping as mediators of the appraisal-adjustment relationship in chronic stressors. *J. Soc. Clin. Psychol.* 33, 587–611. doi: 10.1521/jscp.2014.33.7.587

Sánchez-García, S., García-Peña, C., Ramírez-García, E., Moreno-Tamayo, K., and Cantú-Quintanilla, G. R. (2019). Decreased autonomy in community-dwelling older adults. *Clin. Intervent. Aging* 14, 2041–2053. doi: 10.2147/CIA.S225479

Schroevers, M. J., Kraaij, V., and Garnefski, N. (2011). Cancer patients' experience of positive and negative changes due to the illness: relationships with psychological well-being, coping, and goal reengagement. *Psychooncology* 20, 165–172. doi: 10.1002/pon.1718

Schroevers, M. J., Ranchor, A. V., and Sanderman, R. (2004). The role of age at the onset of cancer in relation to survivors' long-term adjustment: a controlled comparison over an eight-year period. *Psycho Oncol. J. Psychol. Soc. Behav. Dim. Cancer* 13, 740–752. doi: 10.1002/pon.780

Schroevers, M. J., and Teo, I. (2008). The report of posttraumatic growth in Malaysian cancer patients: relationships with psychological distress and coping strategies. *Psychooncology* 17, 1239–1246. doi: 10.1002/pon.1366

Sears, S. R., Stanton, A. L., and Danoff-Burg, S. (2003). The yellow brick road and the emerald city: benefit finding, positive reappraisal coping and posttraumatic growth in women with early-stage breast cancer. *Health Psychol.* 22, 487–497. doi: 10.1037/0278-6133.22.5.487

Segerstrom, S. C., Stanton, A. L., Alden, L. E., and Shortridge, B. E. (2003). A multidimensional structure for repetitive thought: what's on your mind, and how, and how much? *J. Pers. Soc. Psychol.* 85, 909–921. doi: 10.1037/0022-3514.85.5.909

Sekse, R. J. T., Dunberger, G., Olesen, M. L., Østerbye, M., and Seibæk, L. (2019). Lived experiences and quality of life after gynaecological cancer—an integrative review. *J. Clin. Nurs.* 28, 1393–1421. doi: 10.1111/jocn.14721

Selby, D., Seccaraccia, D., Huth, J., Kurppa, K., and Fitch, M. (2017). Patient versus health care provider perspectives on spirituality and spiritual care: the potential to miss the moment. *Ann. Palliat. Med.* 6, 143–152. doi: 10.21037/apm.2016.12.03

Sheldon, K. M., Houser-Marko, L., and Kasser, T. (2006). Does autonomy increase with age? Comparing the goal motivations of college students and their parents. *J. Res. Pers.* 40, 168–178. doi: 10.1016/j.jrp.2004.10.004

Sherman, A. C., Simonton, S., Latif, U., and Bracy, L. (2010). Effects of global meaning and illness-specific meaning on health outcomes among breast cancer patients. *J. Behav. Med.* 33, 364–377. doi: 10.1007/s10865-010-9267-7

Skaggs, B. G., and Barron, C. R. (2006). Searching for meaning in negative events: concept analysis. *J. Adv. Nurs.* 53, 559–570. doi: 10.1111/j.1365-2648.2006.03761.x

Sontag, S. (1978). *Illness as Metaphor*. New York, NY: Farrar, Straus and Giroux.

Stalsberg, R., Eikemo, T. A., Lundgren, S., and Reidunsdatter, R. J. (2019). Physical activity in long-term breast cancer survivors–a mixed-methods approach. *Breast* 46, 126–135. doi: 10.1016/j.breast.2019.05.014

Stewart, D. E., Cheung, A. M., Duff, S., Wong, F., McQuestion, M., Cheng, T., et al. (2001). Attributions of cause and recurrence in long-term breast cancer survivors. *Psychooncology* 10, 179–183. doi: 10.1002/pon.497

Teques, A. P., Carrera, G. B., Ribeiro, J. P., Teques, P., and Ramón, G. L. (2016). The importance of emotional intelligence and meaning in life in psycho-oncology. *Psychooncology* 25, 324–331. doi: 10.1002/pon.3921

Terol Cantero, M. C., Bernabé, M., Martín-Aragón, M., Vázquez, C., and Buunk, A. P. (2021). Social comparison and stress appraisal in women with chronic illness. *Int. J. Environ. Res. Public Health* 18:5483. doi: 10.3390/ijerph18105483

Thornton, A. A., and Perez, M. A. (2006). Posttraumatic growth in prostate cancer survivors and their partners. *Psychooncology* 15, 285–296. doi: 10.1002/pon.953

Tjora, A. H. (2018). *Qualitative Research as Stepwise-Deductive Induction*. Abingdon: Oxon.

Tomich, P. L., and Helgeson, V. S. (2002). Five years later: a cross-sectional comparison of breast cancer survivors with healthy women. *Psychooncology* 11, 154–169. doi: 10.1002/pon.570

Urcuyo, K. R., Boyers, A. E., Carver, C. S., and Antoni, M. H. (2005). Finding benefit in breast cancer: Relations with personality, coping, and concurrent well-being. *Psychol. Health* 20, 175–192. doi: 10.1080/08870440512331317634

van der Spek, N., Vos, J., van Uden-Kraan, C. F., Breitbart, W., Cuijpers, P., Holtmaat, K., et al. (2017). Efficacy of meaning-centered group psychotherapy for cancer survivors: a randomized controlled trial. *Psychol. Med.* 47, 1990–2001. doi: 10.1017/s0033291717000447

van der Spek, N., Vos, J., van Uden-Kraan, C. F., Breitbart, W., Tollenaar, R. A., Cuijpers, P., et al. (2013). Meaning making in cancer survivors: a focus group study. *PLoS One* 8:e76089. doi: 10.1371/journal.pone.0076089

Van der Zee, K., Buunk, B., Sanderman, R., Botke, G., and van den Bergh, F. (2000). Social comparison and coping with cancer treatment. *Pers. Individ. Dif.* 28, 17–34. doi: 10.1016/S0191-8869(99)00045-8

Vos, J., Craig, M., and Cooper, M. (2015). Existential therapies: a meta-analysis of their effects on psychological outcomes. *J. Consult. Clin. Psychol.* 83, 115–128. doi: 10.1037/a0037167

Vos, M. S., and De Haes, J. (2007). Denial in cancer patients, an explorative review. *Psycho Oncol. J. Psychol. Soc. Behav. Dim. Cancer* 16, 12–25. doi: 10.1002/pon.1051

Widows, M. R., Jacobsen, P. B., Booth-Jones, M., and Fields, K. K. (2005). Predictors of posttraumatic growth following bone marrow transplantation for cancer. *Health Psychol.* 24, 266–273. doi: 10.1037/0278-6133.24.3.266

Winger, J. G., Adams, R. N., and Mosher, C. E. (2016). Relations of meaning in life and sense of coherence to distress in cancer patients: a meta-analysis. *Psychooncology* 25, 2–10. doi: 10.1002/pon.3798

Winger, J. G., Ramos, K., Steinhauser, K. E., Somers, T. J., Porter, L. S., Kamal, A. H., et al. (2020). Enhancing meaning in the face of advanced cancer and pain: qualitative evaluation of a meaning-centered psychosocial pain management intervention. *Palliat. Support. Care* 18, 263–270. doi: 10.1017/S1478951520000115

Wood, J. V., Taylor, S. E., and Lichtman, R. R. (1985). Social comparison in adjustment to breast cancer. *J. Pers. Soc. Psychol.* 49, 1169–1183. doi: 10.1037/0022-3514.49.5.1169

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers
in Psychology

ORIGINAL RESEARCH
published: 29 September 2021
doi: 10.3389/fpsyg.2021.731017

Late Adulthood, COVID-19-Related Stress Perceptions, Meaning in Life, and Forgiveness as Predictors of Mental Health During the COVID-19 Pandemic

Loren Toussaint[1*†], **Alyssa Cheadle**[2†], **Jessie Dezutter**[3†] **and David R. Williams**[4,5]

[1] Department of Psychology, Luther College, Decorah, IA, United States, [2] Department of Psychology, Hope College, Holland, MI, United States, [3] Meaning Research Late Life Lab, School Psychology & Development in Context, University of Leuven, Leuven, Belgium, [4] Department of African and African American Studies, Harvard University, Cambridge, MA, United States, [5] Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health, Boston, MA, United States

Edited by:
Leon T. de Beer,
North-West University, South Africa

Reviewed by:
Kathryn Anne Nel,
University of Limpopo, South Africa
Marcos Carmona-Halty,
Universidad de Tarapacá, Chile

***Correspondence:**
Loren Toussaint
tousl01@luther.edu

†ORCID:
Loren Toussaint
orcid.org/0000-0001-8876-1848
Alyssa Cheadle
orcid.org/0000-0003-1298-2470
Jessie Dezutter
orcid.org/0000-0002-3457-5334

Specialty section:
This article was submitted to
Positive Psychology,
a section of the journal
Frontiers in Psychology

Received: *25 June 2021*
Accepted: *24 August 2021*
Published: *29 September 2021*

Citation:
Toussaint L, Cheadle A, Dezutter J and Williams DR (2021) Late Adulthood, COVID-19-Related Stress Perceptions, Meaning in Life, and Forgiveness as Predictors of Mental Health During the COVID-19 Pandemic.
Front. Psychol. 12:731017.
doi: 10.3389/fpsyg.2021.731017

The purpose of this study was to examine multiple direct and indirect pathways of the association between older age and mental health through COVID-19-related stress perceptions, meaning in life, and forgiveness of situations. Participants were 1,382 U.S. adults who were part of the Harvard Digital Lab for the Social Sciences panel who volunteered to complete a 12 min survey in the spring of 2020. The sample had an average age of 56 years, was slightly more male (55%) than female (44%) or other (2%), mostly White (88%), well-educated (70% bachelors degree or more), and middle-income ($60,000–$75,000 annually). Measures included: COVID-19-related stress perceptions (e.g., concerns about infection, job, lack of necessities), presence of and search for meaning in life, forgiveness of situations, psychological distress, hopelessness, and optimism. A latent mental health variable was created that was comprised of psychological distress, hopelessness, and optimism. All hypothesized direct effects were in evidence, and all but one indirect effect were observed. Specifically, older age was related to better mental health through higher presence of meaning and lower search for meaning. Older age was also related to better mental health through a serial indirect pathway from lower COVID-19-related stress perceptions to higher presence of and lower search for meaning and higher forgiveness of situations to mental health. The proposed model was largely supported and confirms existing theory and research on aging, positive psychological processes, and mental health. Findings also offer new insights on the unique potential role of forgiveness of situations and its theoretical relevance to offending situations such as the COVID-19 pandemic. The present study offers a beginning for theorists, researchers, and practitioners to consider the connections between aging and mental health and the intricate interconnections between stress appraisal and positive coping resources that may serve to support it.

Keywords: old age, late adulthood, forgiveness, meaning in life, mental health, stress appraisals, COVID-19

INTRODUCTION

The COVID-19 pandemic presents challenges in all walks of life for people around the world (American Psychological Association, 2020; Pandey et al., 2020; Varga et al., 2021). Often these challenges are either buffered or exacerbated by sociodemographic variables (e.g., net worth, social support, and job-security) (McKnight-Eily et al., 2021). One notable example is the importance of age in terms of one's risk for contracting the coronavirus (The Novel Coronavirus Pneumonia Emergency Response Epidemiology Team, 2020) and experiencing adverse outcomes including mortality (Nanda et al., 2021). However, while advanced age may create biological vulnerability to disease including COVID-19, generally older adults report good mental health (Westerhof and Keyes, 2010). In the specific context of the COVID-19 pandemic, community-dwelling, older adults may experience fewer COVID-19-related stressors and appraise them as less threatening (Park et al., 2020). Beyond the effects of less exposure to and less threatening appraisals of common pandemic-related stressors such as job loss or lack of necessities, there may also be other mechanisms that could protect older adults' mental health during the COVID-19 pandemic. A key focus of the present study is to highlight the importance of two key psychosocial mechanisms for protecting older adults' mental health—meaning and forgiveness. More specifically, we will examine presence of and search for meaning in life and forgiveness of situations, an all too often overlooked or dimension of forgiveness that could be apropos to the COVID-19 pandemic circumstances. We chose to examine these two factors because older adults show higher levels of presence of meaning and lower levels of search for meaning (Steger et al., 2009) and higher levels of multiple forms of forgiveness (Toussaint et al., 2001). This raises two key questions. First, could the appraisal of less stress related to the COVID-19 pandemic serve as a mechanism for increased presence of meaning, decreased search for meaning, and increased forgiveness of situations? Second, could the resulting increased presence of meaning, decreased search for meaning, and increased forgiveness of the COVID situation have benefits for mental health?

Late Adulthood, Stress, and Mental Health

Lifespan development theorists argue that development continues well into late adulthood. Notable theorists such as Carstensen et al. (2003), Charles (2010), Erikson (1982), and Tornstam (2005) offer perspectives that suggest that in later adulthood, aging individuals confront key challenges and can resolve them in ways that lead to mental health and well-being. More specifically, Charles (2010) suggests in her Strength and Vulnerability Integration model that older adults are more likely to engage strategies that limit negative experiences. Erikson (1982) suggests that the integrity versus despair stage of development occurs in late life and consists of feelings of regret about missed opportunities, unachieved goals, or lack of productivity (i.e., despair) or a sense of meaning, coherence, and satisfaction with how life has turned out (i.e., integrity). Tornstam (2005) argues in his Gerotranscendence theory that as individuals age, they become less self-centered and more other-oriented and transcendent in their perspective. Carstensen et al. (2003) suggests in their Socioemotional Selectivity Theory that as individuals age they prioritize meaningful goals and selectively invest in relationships and people who provide positive emotional outcomes. Collectively, these theories support the hypothesis that older adults, in the course of resolving late-life issues (Erikson), transforming perspectives and goals (Tornstam), avoiding negative stimuli and stressors (Charles), and selectively investing in relationships (Carstensen), might build personal and social resources that allow one to experience less threatening stress appraisals, cope better with stress, and enjoy better mental health and well-being.

Although the evidence is not entirely clear-cut (Jorm, 2000), considerable research does support the assertion that older adults experience less stress (Aldwin, 1990), less depression and enjoy more positive emotions (Blazer and Hybels, 2005; Kessler et al., 2010a). This has been especially true during the COVID-19 pandemic. For instance, older adults experienced such things as less stress, depression, and anxiety and better emotional well-being and resilient coping in several studies including: (a) a sample of older adults from 26 countries (Kowal et al., 2020), (b) an international sample from 63 countries (Varma et al., 2021), (c) a U.S. sample (Carstensen et al., 2020), and (d) a U.S. and Canadian sample (Klaiber et al., 2020). Additional U.S. studies showed that older adults reported less exposure to COVID-19-related stressors specifically, and importantly, rated COVID-19 events as less stressful (i.e., less threatening stress appraisals) (Park et al., 2020), and reported less negative impact of COVID-19 on well-being (Knepple Carney et al., 2021). In summary, both theoretical and empirical work suggest that older adults who progress through stages of late life development that lead to a sense of integrity, altruism, other-orientedness, and strong social support can enjoy less stress, less concerning stress appraisals, and better mental health and well-being. These advantages of late life have particular relevance for the COVID-19 pandemic because they facilitate adjustment during a time of unbearable stress and mental health crises (American Psychological Association, 2020).

Late Adulthood, Stress, Meaning, and Forgiveness

From a broad view, much of the collective work done by Carstensen et al. (2003), Charles (2010), Erikson (1982), and Tornstam (2005) could be viewed as coalescing around the idea that individuals in later adulthood who have cognitive and emotional skills that promote positive aging can do better in coping with life stress and thereby experience better mental health. Two important implied aspects of these theories that are central to the present work are meaning and forgiveness. Meaning making and forgiveness are coping strategies relevant to the integrity-despair life stage (Erikson, 1982), are in support of the transformation from inward to outward other-focused thought and altruism (Tornstam, 2005), and are key to selectively investing and *maintaining* emotionally support social networks (Carstensen et al., 2003). Forgiveness, including forgiveness of situations, has been shown to be higher in older adults (Toussaint et al., 2001; Kaleta and Mróz, 2018) and an important part of the late life process of integrity and despair resolution which can contribute to better mental health (Dezutter et al., 2016; Derdaele et al., 2019). Presence of meaning in life has also been shown to be higher and search for meaning in life has been shown to be lower in older adults as compared to younger adults and both are correlated with mental health and emotional well-being in the late life stage (Steger et al., 2009). Importantly, these age differences in forgiveness and meaning may come about as a result of the late-life developmental changes discussed by lifespan theorists (Erikson, 1982; Carstensen et al., 2003; Tornstam, 2005; Charles, 2010) which may also modulate stress appraisal through more ego-integration, altruism, and social support, and hence make forgiveness and meaning in later years even more likely. Indeed, both the stress-and-coping theory of forgiveness (Worthington and Scherer, 2004) and logotherapy (Frankl, 1985) suggest that it is the appraisal of a stressful event or set of circumstances that prompts an individual to consider the need to engage in forgiveness or make sense of a life event or social circumstance that has caused harm to oneself or others.

Meaning, Forgiveness, and Mental Health

Central to our understanding of forgiveness and meaning is that both processes are healthy, adaptive forms of coping with life events and circumstances deemed stressful. Indeed, making sense of one's life has been shown to be connected with improved mental and physical health (Cohen et al., 2016; Thir and Batthyány, 2016; Musich et al., 2018), and this is equally true for individuals in late life as in younger individuals (Steger et al., 2009). Results of a meta-analysis show that meaning is also inversely related to post-traumatic stress disorder symptom severity (Schäfer et al., 2019), and an additional meta-analysis shows that meaning is connected to a broad range of improved mental health and well-being outcomes including depression, satisfaction with life, pain, cognitive function, health-related quality of life, and several other health outcomes in older adults (Koelen et al., 2017). Similar to research on meaning and health, a good deal of research on forgiveness and mental health has shown that forgiveness is related to better mental health outcomes and these relations are at least as strong if not stronger for older adults (Toussaint et al., 2001; Webb and Toussaint, 2020). Much of the research on forgiveness and health relies on the stress-and-coping theory of forgiveness (Worthington and Scherer, 2004) to explain associations between the stress of unforgiveness, forgiveness, and mental health. That is, unforgiveness is considered stressful and can have deleterious connections to mental health, whereas the reverse is true for forgiveness which has a beneficial connection to mental health. In line with theories of late-life development (Erikson, 1982; Carstensen et al., 2003; Tornstam, 2005), if older adults are more inclined toward altruism and selective investment in relationships which they are highly motivated to maintain, then forgiveness may be especially helpful for older adults. It is important to note, however, that most research on forgiveness and health is focused on self-forgiveness or forgiveness of others and rarely does forgiveness of broader situations get considered. Bad situations can be viewed as offending an individual's sense of justice, just-world beliefs, or meaning (Thompson et al., 2005). As such, situations can be forgiven in a fashion roughly akin to self-forgiveness or forgiveness of others wherein the primary transformation is from negative thoughts, feelings, and motivations regarding the situation to more positive thoughts, feelings, and motivations. Offending situations abound, and exemplars would include catastrophic events such as natural disaster or terminal or chronic illness (e.g., COVID-19). It is uncanny that forgiveness has been theoretically and empirically tied to human-made and natural disasters and acts of god (Worthington Jr et al., 2016; Toussaint et al., 2017; Fincham and May, 2021), but consideration of forgiveness of situations and its role in resilience and recovery has been virtually absent. This is a significant omission in the literature. Hence, it is important to empirically examine forgiveness of situations and understand its potentially unique role in aging, stress, and mental health.

A Comprehensive Model

Based on the review of the literature above, the model tested in this study examines two main research questions. First, we examine the association of older age and its relation to COVID-19-related stress perceptions, presence of and search for meaning, and forgiveness of situations. Further, we examine the extent to which age differences in presence of and search for meaning and forgiveness of situations might be indirectly conveyed through reduced COVID-19-related stress perceptions. Second, we examine indirect associations of age with mental health through presence of and search for meaning and forgiveness of situations, and further examine serial indirect associations from age to COVID-19-related stress perceptions to presence of and search for meaning and forgiveness of situations to mental health.

Present Study

The present study examines a model of age, COVID-19-related stress perceptions, presence of and search for meaning, forgiveness of situations, and mental health in a national sample of U.S. residents who completed an online survey between April 17, 2020 and July 17, 2020. We hypothesize that individuals age 65 and over will have lower COVID-19-related stress perceptions and that these will allow greater presence of meaning and forgiveness of the situation as well as less search for meaning. Presence of meaning along with forgiveness of situations will be positively and search for meaning will be negatively related to mental health. As such we hypothesize all possible direct (see **Figure 1**) and 10 indirect (both single-mediator and serial mediator, see below) associations will be present in the model. The hypothesized indirect associations are as follows:

↑Age 65+ → ↓COVID-19 stress perceptions → ↑Mental health

↑Age 65+ → ↓COVID-19 stress perceptions → ↑Presence of meaning

↑Age 65+ → ↓COVID-19 stress perceptions → ↓Search for meaning

↑Age 65+ → ↓COVID-19 stress perceptions → ↑Forgiveness of situations

↑Age 65+ → ↑Presence of meaning → ↑Mental health

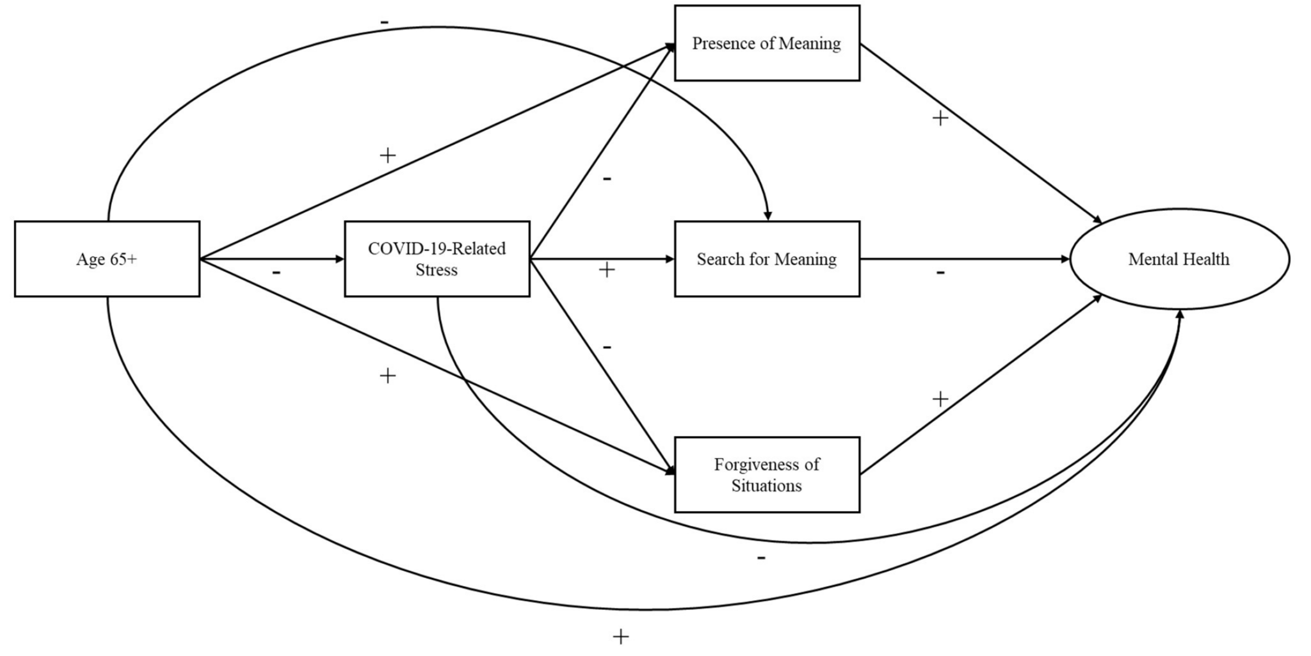


FIGURE 1 | Hypothesized structural model. + and – indicate predicted positive and negative associations.

↑Age 65+ → ↓Search for meaning → ↑Mental health
↑Age 65+ → ↑Forgiveness of situations → ↑Mental health
↑Age 65+ → ↓COVID-19 stress perceptions → ↑Presence of meaning → ↑Mental health
↑Age 65+ → ↓COVID-19 stress perceptions → ↓Search for meaning → ↑Mental health
↑Age 65+ → ↓COVID-19 Stress Perceptions → ↑Forgiveness of Situations → ↑Mental Health

METHOD

Participants

Participants in this study were individuals who were part of the Harvard Digital Lab for the Social Sciences (DLABSS). This is an international panel of 16,000 volunteer respondents who participate in social science research. For the present study, a U.S. national sample of 1,382 respondents completed, on average, a 12 min survey between April 17, 2020 and July 17, 2020 that included multiple measures of health, psychosocial, religious and spiritual, and COVID-19-related stress perceptions and anxiety. **Table 1** contains descriptive statistics for all socio-demographic variables. Participants had a median age of 56 years. In terms of sex, 41% were female, 55% were male, and 2% other. The predominant race was "White" (88%) while each of the other racial categories represented 5% or less of the sample. The sample was well-educated with ∼70% of participants having an undergraduate or graduate degree. The median annual household income category (chosen from 25 categories) was $60,000–$75,000. Institutional review board approval was obtained for this study (IRB20-0599), and all participants were provided with informed consent.

Measures

Age

Respondents provided their birth year. Birth year was subtracted from 2020 to obtain an individual's age. Although age was collected and computed in this continuous form, for the purposes of this study and special issue, we chose to focus on the differences between individuals 65 years of age and older compared to adults who were younger than 65.

COVID-19-Related Stress Perceptions

COVID-19-related stress perceptions were assessed by asking respondents to indicate their levels of concern regarding four issues facing them in the pandemic. The issues included concerns about: oneself or one's family members being infected with the coronavirus, one's job, business, or personal finances, and running out of necessities like food, toilet paper, or medications. Each item was rated on a 1 (*not at all*) to 5 (*extremely*) response scale. Internal consistency for this scale in the present study was 0.67.

Meaning in Life

Meaning in life was assessed using four items from the Meaning in Life Questionnaire-Short Form (Steger and Samman, 2012). The original scale measures presence of and search for meaning in life with six items. Because of time constraints of the survey (12 mins or less required for adequate participation), we sought to shorten this assessment by 33% (two items). As all six items had very high loadings on their respective presence and meaning factors, we chose two items from each factor with the clearest face-validity. An example presence of meaning item is, "My life has a clear sense of purpose," and an example search for meaning

TABLE 1 | Socio-demographic characteristics.

Variable	*Mdn* (*N*)	Range (%)
Age (Missing—*N* = 23, 1.7%)	56.0	19–120
Sex		
Female	572	41.4
Male	764	55.3
Other/prefer not to answer	23	1.7
Race		
Asian	24	1.7
Black	27	2.0
Hispanic/Latino	28	2.0
Native American	7	0.5
Native Hawaiian or Pacific Islander	2	0.1
White	1,210	87.6
Other	67	4.8
No response	17	1.2
Education		
Elementary school	1	0.1
Some high school	5	0.4
High school graduate	224	16.2
Associate degree	178	12.9
Bachelor degree	474	34.3
Master degree	352	25.5
Doctoral degree	106	7.6
No response	42	3.0
Income (Missing—*N* = 149, 10.8%)	$60k–$75k	<= 3k–150k+

item is, "I am searching for meaning in my life." The scale has excellent factorial and construct validity with measures of well-being. Each item was rated on a 1 (*absolutely untrue*) to 5 (*absolutely true*) response scale. Internal consistency of the presence and search subscales in the present study was 0.87 and 0.75, respectively.

Forgiveness of Situations

Forgiveness of situations was assessed using a shortened form of the scale developed by Thompson et al. (2005). Forgiveness of situations is conceived of by Thompson et al. (2005) as being similar to forgiveness of oneself and others because situations can create affronts to one's sense of justice or fairness and hence can be the source of offense. Victims of offensive situations might be those affected by natural or human-made disasters or may be patients diagnosed with terminal or chronic diseases, or may simply be an individual caught in adverse or challenging circumstances for which an easy target of blame cannot be identified. The forgiveness of situations scale was shortened from six to two items because of time constraints of the overall survey. Based on the results of factor analyses of four independent datasets totaling 4,050 respondents, we chose the consistently highest loading two items to include as the forgiveness of situations scale in this study. These items were: "With time I can be understanding of bad circumstances in my life," and "I eventually make peace with bad situations in my life." Each item was rated using the original response options given by Thompson et al. (2005) of 1 (*almost always false of me*) to 7 (*almost always true of me*). Internal consistency for this scale in the present study was 82.

Mental Health

Three aspects of mental health were assessed with the intent to create a latent variable that taps cognitive and emotional aspects of positive mental health and well-being. Psychological distress was measured using the Kessler-6 (Kessler et al., 2010a,b). This scale contains six items assessing key symptoms of non-specific psychological distress. Examples include feeling "nervous," "hopeless," and "worthless." Each item was responded to with response options of 0 (*none of the time*) to 3 (*most of the time*). The Kessler-6 is one of the most commonly used measures of psychological distress and has excellent psychometric properties (National Comorbidity Survey, 2005). Internal consistency for this scale in the present study was 0.89.

Hopelessness was measured as the second component of mental health. We used a brief two-item index of hopelessness (Everson et al., 1996, 1997). The items are: "The future seems to me to be hopeless, and I can't believe that things are changing for the better," and "I feel it is impossible for me to reach the goals that I would like to strive for." Each item was responded to with 1 (*strongly disagree*) to 5 (*strongly agree*) response options. The scale has good construct validity and has been used in several population-based studies (Fraser et al., 2014). Internal consistency for this scale in the present study was 0.77.

Optimism was measured as the third component of mental health. We used the three-item optimism subscale of the Life Orientation Test developed by Scheier et al. (1994). An example item is, "In uncertain times, I usually expect the best." Each item was responded to with 1 (*I disagree a lot*) to 4 (*I agree a lot*) response options. This scale is one of the most widely used measures of optimism and possesses excellent reliability and validity (Scheier et al., 1994). Internal consistency for this scale in the present study was 0.85.

Socio-Demographics

Socio-demographic variables (other than age) included sex, race, education, and income and were included as covariates in the model.

Analyses

Descriptive statistics and bivariate analyses were conducted. The hypothesized model was tested using the lavaan package in R. The lavaan package offers the ability to test the proposed serial mediation model and examine direct, indirect, and serial indirect effects. Indirect effects were tested using bias-corrected bootstrapped confidence intervals ($N = 1{,}000$) as recommended by Hayes (2013). Model fit was determined using χ^2, confirmatory fit index (CFI), root mean-square error of approximation (RMSEA), and standardized root mean residual (SRMR) and recommended by Kline (2015). Evidence of an acceptable-fitting model was taken by CFI ≥ 0.90, RMSEA ≤ 0.08, SRMR ≤ 0.08, and evidence of a good-fitting model was taken by CFI ≥ 0.95, RMSEA ≤ 0.05, SRMR ≤ 0.05 (Schermelleh-Engel et al., 2003; Kline, 2015). Power to reject an ill-fitting model (parameters: RMSEA $= 0.08$, $p = 0.05$, $N = 1{,}382$) was 0.99. Model estimation was performed using maximum likelihood with full information maximum likelihood used to account for missing data. The Bollen-Stine χ^2 statistic ($p < 0.0001$) indicated a significant departure from multivariate normality so robust, bootstrap-adjusted fit indices are reported. All reported parameter estimates controlled for biological sex, race, education, and income. Statistical significance was set at $p < 0.05$.

RESULTS

Table 2 contains means, standard deviations, and bivariate correlations for main study variables. Participants aged 65 and older showed less COVID-19-related stress perceptions, search for meaning, psychological distress, and hopelessness ($rs = -0.12$ to -0.25), and more presence of meaning, forgiveness of situations, and optimism ($rs = 0.08$–0.26). More COVID-19-related stress perceptions was associated with less presence of meaning, forgiveness of situations, and optimism ($rs = -0.12$ to -0.37), and more search for meaning, psychological distress, and hopelessness (rs 0.18–0.53). More presence of meaning was associated with less search for meaning, psychological distress, and hopelessness ($rs = -0.12$ to -0.41), and more forgiveness of situations and optimism ($rs = 0.32$–0.46). Search for meaning was associated with more psychological distress and hopelessness ($rs = 0.18$–0.28) and less optimism ($r = -0.14$) but was unrelated to forgiveness of situations ($r = -0.03$). Forgiveness of situations was related to less psychological distress and hopelessness (rs -0.23 to -0.26) and more optimism ($r = 0.38$). Psychological distress was related to more hopelessness ($r = 0.66$) and less optimism ($r = -0.54$) and more hopelessness was related to less optimism ($r = -0.58$).

The hypothesized serial mediation model was tested and results are summarized in **Figure 2**. To reduce measurement error and improve the precision of our structural estimates we created a latent mental health variable comprised of indicators including psychological distress, hopelessness, and optimism. Standardized loadings for psychological distress, hopelessness, and optimism were -0.81, -0.78, and 0.72, respectively. Overall model fit was good: $\chi^2 = 52.39$, $p < 0.001$; CFI $= 0.99$; RMSEA $= 0.03$; SRMR $= 0.03$. Participants age 65 and older showed less COVID-19-related stress perceptions ($B = -0.16$, $\beta = -0.09$, $p < 001$), more presence of meaning ($B = 0.43$, $\beta = 0.07$, $p = 0.009$), less search for meaning ($B = -0.60$, $\beta = -0.09$, $p = 0.002$), no relation to forgiveness of situations ($B = 0.26$, $\beta = 0.05$, $p = 0.076$), and better mental health ($B = 1.15$, $\beta = 0.15$, $p < 0.001$). COVID-19-related stress perceptions was related to less presence of meaning ($B = -0.59$, $\beta = -0.16$, $p < 0.001$), more search for meaning ($B = 0.63$, $\beta = 0.16$, $p < 0.001$), less forgiveness of situations ($B = -0.35$, $\beta = -0.11$, $p < 0.001$), and poorer mental health ($B = -1.96$, $\beta = -0.44$, $p < 0.001$). Presence of meaning ($B = 0.39$, $\beta = 0.33$, $p < 0.001$) and forgiveness of situations ($B = 0.25$, $\beta = 0.17$, $p < 0.001$) were related to better, and search for meaning ($B = -0.11$, $\beta = -0.10$, $p < 0.001$) was related to poorer mental health.

There are several indirect effects that are of interest in this study (see **Table 3**). There were seven single-mediator indirect associations to examine. Participants age 65 and older experienced less COVID-19-related stress perceptions which was associated with poorer mental health, and the indirect association was statistically significant ($B = 0.32$, $\beta = 0.04$, 95% CI of $B = 0.15$–0.50). Participants age 65 and older experienced less COVID-19-related stress perceptions which was associated with less presence of meaning, and the indirect association was statistically significant ($B = -0.10$, $\beta = -0.01$, 95% CI of $B = -0.17$ to -0.04). Participants age 65 and older experienced less COVID-19-related stress perceptions which was associated with more search for meaning, and the indirect association was statistically significant ($B = 0.10$, $\beta = 0.01$, 95% CI of $B = 0.04$–0.18). Participants age 65 and older experienced less COVID-19-related stress perceptions which was associated with less forgiveness of situations, and the indirect association was statistically significant ($B = -0.06$, $\beta = -0.01$, 95% CI of $B = -0.11$ to-0.02). Participants age 65 and older experienced more presence of meaning which was associated with better mental health, and the indirect association was statistically significant ($B = 0.17$, $\beta = 0.02$, 95% CI of $B = 0.05$–0.30). Participants age 65 and older experienced less search for meaning which was associated with poorer mental health, and indirect association

TABLE 2 | Descriptive statistics and bivariate correlations for main study variables.

	M	SD	1.	2.	3.	4.	5.	6.	7.	8.
1. Age 65+	0.34	0.48	–							
2. COVID-19-related stress perceptions	2.61	0.82	−0.12***	–						
3. Presence of meaning	9.95	3.05	0.12***	−0.17***	–					
4. Search for meaning	8.28	3.25	−0.13***	0.18***	−0.12***	–				
5. Forgiveness of situations	10.74	2.55	0.08**	−0.12***	0.32***	−0.03	–			
6. Psychological distress	4.97	4.48	−0.25***	0.53***	−0.35***	0.28***	−0.23***	–		
7. Hopelessness	2.65	2.39	−0.19***	0.42***	−0.41***	0.18***	−0.26***	0.66***	–	
8. Optimism	8.57	2.41	0.26***	−0.37***	0.46***	−0.14***	0.38***	−0.54***	−0.58***	–

***p < 0.01, ***p < 0.001.*

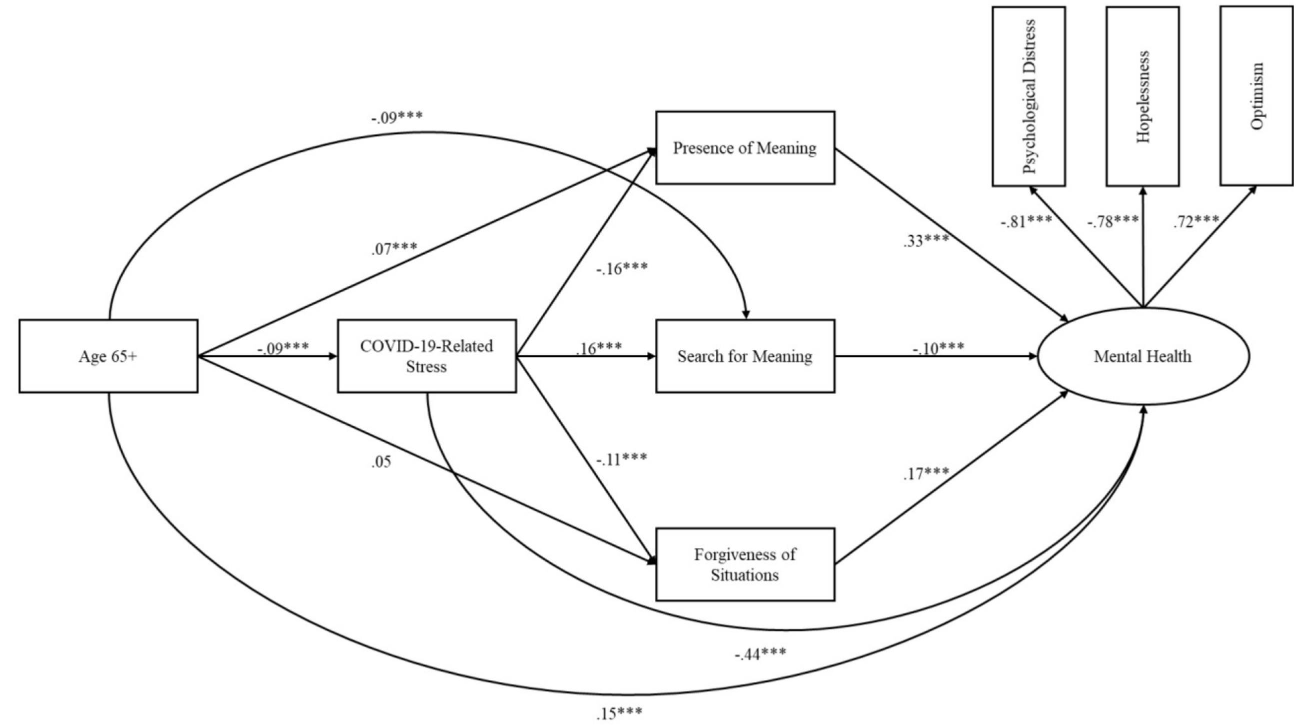


FIGURE 2 | Results of structural equation model showing associations between older age, COVID-19-related stress perceptions, meaning, forgiveness, and mental health. Structural equation model of direct and indirect associations of older age with COVID-19-related stress perceptions, presence of and search for meaning, forgiveness of situations, and mental health. All coefficients are standardized and adjusted for sex, race, education, and income. $^{***}p < 0.001$.

TABLE 3 | Indirect associations.

Indirect association	B	β	95% C.I.	
			LCL	UCL
Age → COVID-19 stress perceptions → Mental health	0.32	0.04	0.15	0.50
Age → COVID-19 stress perceptions → Presence of meaning	−0.10	−0.01	−0.17	−0.04
Age → COVID-19 stress perceptions → Search for meaning	0.10	0.01	0.04	0.18
Age → COVID-19 stress perceptions → Forgiveness of situations	−0.06	−0.01	−0.11	−0.02
Age → Presence of meaning → Mental health	0.17	0.02	0.05	0.30
Age → Search for meaning → Mental health	0.07	0.01	0.02	0.13
Age → Forgiveness of situations → Mental health	0.06	0.01	−0.01	0.14
Age → COVID-19 stress perceptions → Presence of meaning → Mental health	0.04	0.00	0.02	0.07
Age → COVID-19 stress perceptions → Search for meaning → Mental health	0.01	0.00	0.00	0.02
Age → COVID-19 stress perceptions → Forgiveness of situations → Mental health	0.01	0.00	0.01	0.03

LCL, UCL, lower and upper confidence limits.

was statistically significant ($B = 0.07$, $\beta = 0.01$, 95% CI of $B = 0.02$–0.13). Age was not associated with forgiveness of situations which was associated with better mental health, but the indirect association was not statistically significant ($B = 0.06$, $\beta = 0.01$, 95% CI of $B = -0.01$ to 0.14).

There were three serial (two-mediator) indirect associations to examine. Participants age 65 and older experienced less COVID-19-related stress perceptions which was associated with more presence of meaning which was associated with better mental health, and this serial indirect association was statistically significant ($B = 0.04$, $\beta = 0.01$, 95% CI of $B = 0.02$–0.07). Participants age 65 and older experienced less COVID-19-related stress perceptions which was associated with more search for meaning which was associated with poorer mental health, and this serial indirect association was statistically significant ($B = 0.01$, $\beta = 0.01$, 95% CI of $B = 0.00$–0.02). Participants age 65 and older experienced less COVID-19-related stress perceptions which was associated with more forgiveness of situations which was associated with better mental health, and this serial indirect association was statistically significant ($B = 0.01$, $\beta = 0.01$, 95% CI of $B = 0.01–0.03$).

DISCUSSION

The present study sought to examine direct and indirect pathways through which older age was associated with better mental health during the height of the first wave of the COVID-19 pandemic in the United States from April 2020 to July 2020. Our results provide the first known data linking age, COVID-19-related stress perceptions, meaning and forgiveness, and mental health. Older age was directly associated with less COVID-19-related stress perceptions, less search for meaning, and more presence of meaning and forgiveness of situations, and better mental health. Of equal interest in this study was the indirect association of older age with mental health through single and serial indirect pathways. Older age was associated with better mental health through single indirect pathways including COVID-19-related stress perceptions as well as presence of and search for meaning, but not forgiveness of situations. Older age was associated with better mental health through serial indirect pathways including older age and less COVID-19-related stress perceptions as the first association and COVID-19-related stress perceptions and each of the meaning and forgiveness variables as the second association in which each of these, in turn, was associated with mental health. In the case of both direct and indirect associations, the associations demonstrated in this model provide theoretical confirmation and empirical basis for continued examination in future studies.

More specifically, all of the hypothesized direct effects in this model were confirmed and were the most robust associations identified. Perhaps most importantly, the hypothesized direct associations between older age and lower COVID-19-related stress perceptions and better mental health were confirmed. This offers support for our theoretical model, grounded in lifespan theories (Erikson, 1982; Carstensen et al., 2003; Tornstam, 2005; Charles, 2010), suggesting that older individuals who develop stronger ego-integrity, altruistic perspectives, attention to positive vs. negative aspects of life, and social support may be able to appraise stressful situations in less threatening ways and enjoy better mental health. The present findings also coincide with existing empirical work on stress and mental health in general (Blazer and Hybels, 2005; Kessler et al., 2010a) and in specific reference to the COVID-19 pandemic (Carstensen et al., 2020; Klaiber et al., 2020; Kowal et al., 2020; Park et al., 2020; Knepple Carney et al., 2021; Varma et al., 2021).

Findings from this study also support empirical research regarding meaning and forgiveness. That is, the present findings confirm that, compared to younger individuals, older individuals experience higher presence of and lower search for meaning (Steger et al., 2009). The present findings also confirm the work of Kaleta and Mróz (2018) in Poland and show higher levels of forgiveness of situations in older U.S. adults. Existing empirical work has also shown that both meaning and forgiveness are connected with better mental health (Toussaint et al., 2015; Cohen et al., 2016; Musich et al., 2018), and the present findings add to this work, and in the case of forgiveness of situations, importantly contribute uniquely to the literature.

Testing the indirect associations of older age with mental health through COVID-19-related stress perceptions and meaning and forgiveness of situations revealed several unique findings. First, single-mediator models revealed that lower COVID-19-related stress perceptions and higher presence of and lower search for meaning all served as routes for indirect associations between older age and better mental health. The only hypothesized indirect effect that did not get supported was that older age was not connected to better mental health through higher levels of forgiveness of situations. Because this indirect association was being tested simultaneously with other indirect associations to mental health, this likely reflects the relative importance of meaning over forgiveness of situations in the context of the COVID-19 pandemic.

Examination of the serial indirect associations included in the model showed that all three hypothesized associations were confirmed. Older age was associated with lower COVID-19-related stress perceptions which was associated with more presence of and less search for meaning, and more forgiveness of situations, and presence of meaning and forgiveness of situations were associated with better mental health while search for meaning was associated with poorer mental health. Confirming the existence of these three indirect pathways from older age to better mental health is important. These findings offer what might be initial evidence of a model of positive aging that emphasizes the role of stress perceptions and positive psychological processes that promote mental health. This model could be expanded to include other positive psychological states and traits likely to develop in older age such as wisdom and awe (Krause and Hayward, 2015) to consider their role in the connection between older age and mental health. Other positive psychological variables such as grace, temperance, and curiosity could also be incorporated into this type of model.

LIMITATIONS

Limitations regarding sample, measurement, and design and analysis of this study should be considered. First, despite the Harvard DLABSS panel being a diverse one (Strange et al., 2019), the respondents to this study were overwhelmingly White, highly educated, and middle-upper income. This is a considerable limitation, given that so much of the COVID-19 pandemic's impact was felt disproportionately by people of color and those with less education and income (McKnight-Eily et al., 2021). Nevertheless, data collection of this type without specific funding was only possible using tools such as the DLABSS. Second, our COVID-19-related stress perceptions variable was not a validated stress appraisal measure but was constructed by the authors to assess key areas of stress/concern in the face of the pandemic. While content- and face-valid, other reliability and validity statistics are not available. For a short measure, the internal consistency of the measure was acceptable, but further examination of this measure could be useful. At the time of our study we were unaware of any well-validated measures of this type for use. Third, regarding design and analysis, there are key considerations. The design is a cross-sectional one and causal conclusions cannot be made. The analyses are structural equation models that include several manifest and latent variables and multiple single- and serial-indirect associations. With all this competition for direct and indirect predictors of variance in the outcome, it is not surprising that several of the effect sizes (β) of the parameters are small. Nevertheless, effect sizes do not have to be large in size for them to have considerable impact on large populations or across a lifetime of years (Abelson, 1985; Prentice and Miller, 2003). It is also important to note that age 65+ variable is a dichotomous one in our model and while standardized parameter estimates are provided for interested readers, interpreting effect size using these estimates (β) should be done with caution (Gelman, 2008) and some analysts recommend placing equal or more emphasis on interpreting unstandardized coefficients in this case (Baguley, 2009; Hayes, 2017).

CONCLUSIONS

The present study seeks to examine a model of older age, COVID-19-related stress perceptions, meaning and forgiveness, and mental health and better understand the multiple routes of connection that older age has to better mental health during the COVID-19 pandemic. The strongest routes are through reduced COVID-19-related stress perceptions and improved presence of meaning in life. However, more intricate connections do exist, and while smaller in magnitude, offer important avenues to consider in continued theoretical and empirical work. Furthermore, knowing that COVID-19-related stress perceptions and presence of meaning have been important mechanisms through which older adults might have experienced better mental health during the pandemic, and further, knowing that COVID-19-related stress perceptions and both meaning and forgiveness may act in direct, indirect and serial-indirect ways to promote mental health in older adults, it may be wise for gerontologists, counselors, and other practitioners to consider the implications of these findings, continue to observe theoretical and empirical developments in these areas, and envision how these findings may impact their own practice with older adults. As older adults continue to develop into one of the largest segments of our population and as the threat of more frequent pandemics in the future looms, all relevant tools for protecting vulnerable older adults from mental health impairments should come to the fore and be considered for possible use in the collection of tools for psychotherapeutic uses in these times. Of course, this will require further theoretical and empirical development, and we hope that the present study can serve as a beginning in that way.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation upon reasonable request.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Human Research Protection Program, Harvard University. Written informed consent was not provided because informed consent was obtained electronically in the electronic survey.

AUTHOR CONTRIBUTIONS

DW and AC led data collection with all authors contributing to measure selection and survey development. AC cleaned, checked, and organized the database and codebook. LT performed the statistical analysis and wrote the first draft of the manuscript. All authors contributed to conception and design of the study, manuscript revision, read, and approved the submitted version.

REFERENCES

Abelson, R. P. (1985). A variance explanation paradox: when a little is a lot. *Psychol. Bull.* 97, 129–133. doi: 10.1037/0033-2909.97.1.129

Aldwin, C. M. (1990). "The elders life stress inventory: egocentric and nonegocentric stress," in *Stress and Coping in Later-Life Families*, eds M. A. P. Stephens, J. H. Crowther, S. E. Hobfoll, and D. L. Tennenbaum (Washinton, DC: Hemisphere Publishing Corp), 49–69. doi: 10.4324/9781315803074-4

American Psychological Association (2020). *Stress in America^{TM} 2020: A National Mental Health Crisis.* Worcester, MA: American Psychological Association.

Baguley, T. (2009). Standardized or simple effect size: what should be reported? *Br. J. Psychol.* 100, 603–617. doi: 10.1348/000712608X377117

Blazer, D. G. 2nd, and Hybels, C. F. (2005). Origins of depression in later life. *Psychol. Med.* 35, 1241–1252. doi: 10.1017/S0033291705004411

Carstensen, L. L., Fung, H. H., and Charles, S. T. (2003). Socioemotional selectivity theory and the regulation of emotion in the second half of life. *Motiv. Emot.* 27, 103–123. doi: 10.1023/A:1024569803230

Carstensen, L. L., Shavit, Y. Z., and Barnes, J. T. (2020). Age advantages in emotional experience persist even under threat from the COVID-19 pandemic. *Psychol. Sci.* 31, 1374–1385. doi: 10.1177/0956797620967261

Charles, S. T. (2010). Strength and vulnerability integration: a model of emotional well-being across adulthood. *Psychol. Bull.* 136, 1068–1091. doi: 10.1037/a0021232

Cohen, R., Bavishi, C., and Rozanski, A. (2016). Purpose in life and its relationship to all-cause mortality and cardiovascular events: a meta-analysis. *Psychosom. Med.* 78, 122–133. doi: 10.1097/PSY.0000000000000274

Derdaele, E., Toussaint, L., Thauvoye, E., and Dezutter, J. (2019). Forgiveness and late life functioning: the mediating role of finding ego-integrity. *Aging Mental Health* 23, 238–245. doi: 10.1080/13607863.2017.1399346

Dezutter, J., Toussaint, L., and Leijssen, M. (2016). Forgiveness, ego-integrity, and depressive symptoms in community-dwelling and residential elderly adults. *J. Gerontol. Ser. B Psychol. Sci. Soc. Sci.* 71, 786–797. doi: 10.1093/geronb/gbu146

Erikson, E. H. (1982). *The Life Cycle Completed: A Review*. New York, NY: Norton.

Everson, S. A., Goldberg, D. E., Kaplan, G. A., and Cohen, R. D. (1996). Hopelessness and risk of mortality and incidence of myocardial infarction and cancer. *Psychosom. Med.* 58, 113–121. doi: 10.1097/00006842-199603000-00003

Everson, S. A., Kaplan, G. A., Goldberg, D. E., Salonen, R., and Salonen, J. T. (1997). Hopelessness and 4-year progression of carotid atherosclerosis. The Kuopio Ischemic Heart Disease Risk Factor Study. *Arterioscler. Thromb. Vasc. Biol.* 17, 1490–1495. doi: 10.1161/01.ATV.17.8.1490

Fincham, F. D., and May, R. W. (2021). Divine forgiveness protects against psychological distress following a natural disaster attributed to God. *J. Posit. Psychol.* 16, 20–26. doi: 10.1080/17439760.2019.1689411

Frankl, V. E. (1985). *Man's Search for Meaning*. New York, NY: Simon and Schuster.

Fraser, L., Burnell, M., Salter, L. C., Fourkala, E.-O., Kalsi, J., Ryan, A., et al. (2014). Identifying hopelessness in population research: a validation study of two brief measures of hopelessness. *BMJ Open* 4:e005093. doi: 10.1136/bmjopen-2014-005093

Gelman, A. (2008). Scaling regression inputs by dividing by two standard deviations. *Stat. Med.* 27, 2865–2873. doi: 10.1002/sim.3107

Hayes, A. F. (2013). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*. New York, NY: Guilford Press.

Hayes, A. F. (2017). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach (2 ed.)*. New York, NY: Guilford Press.

Jorm, A. F. (2000). Does old age reduce the risk of anxiety and depression? A review of epidemiological studies across the adult life span. *Psychol. Med.* 30, 11–22. doi: 10.1017/S0033291799001452

Kaleta, K., and Mróz, J. (2018). Forgiveness and life satisfaction across different age groups in adults. *Pers. Individ. Dif.* 120, 17–23. doi: 10.1016/j.paid.2017.08.008

Kessler, R. C., Birnbaum, H., Bromet, E., Hwang, I., Sampson, N., and Shahly, V. (2010a). Age differences in major depression: results from the National Comorbidity Survey Replication (NCS-R). *Psychol. Med.* 40, 225–237. doi: 10.1017/S0033291709990213

Kessler, R. C., Green, J. G., Gruber, M. J., Sampson, N. A., Bromet, E., Cuitan, M., et al. (2010b). Screening for serious mental illness in the general population with the K6 screening scale: results from the WHO World Mental Health (WMH) survey initiative. *Int. J. Methods Psychiatr. Res.* 19, 4–22. doi: 10.1002/mpr.310

Klaiber, P., Wen, J. H., DeLongis, A., and Sin, N. L. (2020). The ups and downs of daily life during covid-19: age differences in affect, stress, and positive events. *J. Gerontol. Ser. B* 76, e30–e37. doi: 10.1093/geronb/gbaa096

Kline, R. B. (2015). *Principles and Practice of Structural Equation Modeling*. New York, NY: Guilford Publications.

Knepple Carney, A., Graf, A. S., Hudson, G., and Wilson, E. (2021). Age moderates perceived COVID-19 disruption on well-being. *Gerontologist* 61, 30–35. doi: 10.1093/geront/gnaa106

Koelen, M., Eriksson, M., and Cattan, M. (2017). "Older people, sense of coherence and community," in *The Handbook of Salutogenesis*, eds. M. B. Mittelmark, S. Sagy, M. Eriksson, G. F. Bauer, J. M. Pelikan, B. Lindström, and G. A. Espnes (Berlin: Springer International Publishing), 137–149. doi: 10.1007/978-3-319-04600-6_15

Kowal, M., Coll-Martin, T., Ikizer, G., Rasmussen, J., Eichel, K., Studzinska, A., et al. (2020). Who is the most stressed during the COVID-19 pandemic? Data from 26 countries and areas. *Appl. Psychol. Health Well Being* 12, 946–966. doi: 10.1111/aphw.12234

Krause, N., and Hayward, R. D. (2015). Assessing whether practical wisdom and awe of God are associated with life satisfaction. *Psycholog. Relig. Spiritual.* 7, 51–59. doi: 10.1037/a0037694

McKnight-Eily, L. R., Okoro, C. A., Strine, T. W., Verlenden, J., Hollis, N. D., Njai, R., et al. (2021). Racial and ethnic disparities in the prevalence of stress and worry, mental health conditions, and increased substance use among adults during the COVID-19 pandemic—United States, April and May 2020. *Morbid. Mortal. Wkly. Rep.* 70, 162–166. doi: 10.15585/mmwr.mm7005a3

Musich, S., Wang, S. S., Kraemer, S., Hawkins, K., and Wicker, E. (2018). Purpose in life and positive health outcomes among older adults. *Popul. Health Manag.* 21, 139–147. doi: 10.1089/pop.2017.0063

Nanda, S., Chacin Suarez, A. S., Toussaint, L., Vincent, A., Fischer, K. M., Hurt, R., et al. (2021). Body mass index, multi-morbidity, and COVID-19 risk factors as predictors of severe COVID-19 outcomes. *J. Prim. Care Commun. Health* 12:21501327211018559. doi: 10.1177/21501327211018559

National Comorbidity Survey (2005). *K10 and K6 Scales*. Available online at: https://www.hcp.med.harvard.edu/ncs/k6_scales.php

Pandey, J., Chakraborty, S., Chakraborty, I., Ghosal, P., Singh, N., and Majumdar, S. (2020). Can developing countries handle the mental burden due to the lockdown situation?: understanding the uncertainty and management of Covid-19 pandemic. *Asia Pac. J. Health Manag.* 15, 72–79. doi: 10.24083/apjhm.v15i3.401

Park, C. L., Russell, B. S., Fendrich, M., Finkelstein-Fox, L., Hutchison, M., and Becker, J. (2020). Americans' COVID-19 stress, coping, and adherence to CDC guidelines. *J. Gen. Intern. Med.* 35, 2296–2303. doi: 10.1007/s11606-020-05898-9

Prentice, D. A., and Miller, D. T. (2003). "When small effects are impressive," in *Methodological Issues and Strategies in Clinical Research*, eds. A. E. Kazdin (American Psychological Association), 127–137.

Schäfer, S., Becker, N., King, L., Horsch, A., and Michael, T. (2019). The relationship between sense of coherence and post-traumatic stress: a meta-analysis. *Eur. J. Psychotraumatol.* 10:1562839. doi: 10.1080/20008198.2018.1562839

Scheier, M. F., Carver, C. S., and Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): a reevaluation of the Life Orientation Test. *J. Pers. Soc. Psychol.* 67, 1063–1078. doi: 10.1037/0022-3514.67.6.1063

Schermelleh-Engel, K., Moosbrugger, H., and Müller, H. (2003). Evaluating the fit of structural equation models: tests of significance and descriptive goodness-of-fit measures. *Methods Psychol. Res. Online* 8, 23–74.

Steger, M. F., Oishi, S., and Kashdan, T. B. (2009). Meaning in life across the life span: Levels and correlates of meaning in life from emerging adulthood to older adulthood. *J. Posit. Psychol.* 4, 43–52. doi: 10.1080/17439760802303127

Steger, M. F., and Samman, E. (2012). Assessing meaning in life on an international scale: Psychometric evidence for the meaning in life questionnaire-short form among Chilean households. *Int. J. Wellbeing* 2, 182–195. doi: 10.5502/ijw.v2i.i3.2

Strange, A. M., Enos, R. D., Hill, M., and Lakeman, A. (2019). Online volunteer laboratories for human subjects research. *PLoS ONE* 14:e0221676. doi: 10.1371/journal.pone.0221676

The Novel Coronavirus Pneumonia Emergency Response Epidemiology Team (2020). The epidemiological characteristics of an outbreak of 2019 novel coronavirus diseases (COVID-19)—China. *China CDC Weekly* 2, 113–122. doi: 10.46234/ccdcw2020.032

Thir, M., and Batthyány, A. (2016). "The state of empirical research on logotherapy and existential analysis," in *Logotherapy and Existential Analysis* (Berlin: Springer), 53–74. doi: 10.1007/978-3-319-29424-7_7

Thompson, L. Y., Snyder, C. R., Hoffman, L., Michael, S. T., Rasmussen, H. N., Billings, L. S., et al. (2005). Dispositional forgiveness of self, others, and situations. *J. Pers.* 73, 313–359. doi: 10.1111/j.1467-6494.2005.00311.x

Tornstam, L. (2005). *Gerotranscendence: A Developmental Theory of Positive Aging*. Berlin: Springer Publishing Company.

Toussaint, L. L., Kalayjian, A., Herman, K., Hein, A., Maseko, N., and Diakonova-Curtis, D. (2017). Traumatic stress symptoms, forgiveness, and meaning in life in four traumatized regions of the world. *Int. Perspect. Psychol. Res. Pract. Consult.* 6, 5–16. doi: 10.1037/ipp0000064

Toussaint, L. L., Williams, D. R., Musick, M. A., and Everson, S. A. (2001). Forgiveness and health: age differences in a U.S. probability sample. *J. Adult Dev.* 8, 249–257. doi: 10.1023/A:1011394629736

Toussaint, L. L., Worthington, E. L. Jr., and Williams, D. R. (2015). *Forgiveness and Health: Scientific Evidence and Theories Relating Forgiveness to Better Health*. Berlin: Springer Science + Business Media. doi: 10.1007/978-94-017-9993-5

Varga, T. V., Bu, F., Dissing, A. S., Elsenburg, L. K., Bustamante, J. J. H., Matta, J., et al. (2021). Loneliness, worries, anxiety, and precautionary behaviours in response to the COVID-19 pandemic: a longitudinal analysis of 200,000 Western and Northern Europeans. *Lancet Reg. Health Eur.* 2:100020. doi: 10.1016/j.lanepe.2020.100020

Varma, P., Junge, M., Meaklim, H., and Jackson, M. L. (2021). Younger people are more vulnerable to stress, anxiety and depression during COVID-19 pandemic:

a global cross-sectional survey. *Prog. Neuro-Psychopharmacol. Biol. Psychiatry* 109:110236. doi: 10.1016/j.pnpbp.2020.110236

Webb, J. R., and Toussaint, L. L. (2020). "Forgiveness, well-being, and mental health," in *Handbook of Forgiveness, 2nd ed,* eds. E. L. Worthington, Jr. and N. G. Wade (New York, NY: Routledge/Taylor and Francis Group), 188–197. doi: 10.4324/9781351123341-18

Westerhof, G. J., and Keyes, C. L. (2010). Mental illness and mental health: the two continua model across the lifespan. *J. Adult Dev.* 17, 110–119. doi: 10.1007/s10804-009-9082-y

Worthington Jr, E. L., Griffin, B. J., Toussaint, L. L., Nonterah, C. W., Utsey, S. O., and Garthe, R. C. (2016). Forgiveness as a catalyst for psychological, physical, and spiritual resilience in disasters and crises. *J. Psychol. Theol.* 44, 152–165. doi: 10.1177/009164711604400206

Worthington, E. L., and Scherer, M. (2004). Forgiveness is an emotion-focused coping strategy that can reduce health risks and promote health resilience: theory, review, and hypotheses. *Psychol. Health* 19, 385–405. doi: 10.1080/0887044042000196674

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers
in Psychology

MINI REVIEW
published: 21 October 2021
doi: 10.3389/fpsyg.2021.734049

Older Adults Who Experience Their Lives to Be Completed and No Longer Worth Living: A Systematic Mini-Review Into Used Terminology, Definitions, and Interpretations

***Judith E. Appel*[1,2]* *and Els J. van Wijngaarden*[3]**

[1]Faculty of Psychology and Educational Sciences, Research Group School Psychology and Development in Context KU Leuven, Leuven, Belgium, [2]Research Foundation Flanders, Brussels, Belgium, [3]Research Group Care Ethics, University of Humanistic Studies, Utrecht, Netherlands

OPEN ACCESS

Edited by:
Gørill Haugan,
Norwegian University of Science and Technology, Norway

Reviewed by:
Cristina Monforte-Royo,
International University of Catalonia, Spain
Kenneth Chambaere,
Ghent University, Belgium

****Correspondence:***
Judith E. Appel
judith.appel@kuleuven.be

Specialty section:
This article was submitted to Health Psychology, a section of the journal Frontiers in Psychology

Received: *30 June 2021*
Accepted: *03 September 2021*
Published: *21 October 2021*

Citation:
Appel JE and van Wijngaarden EJ (2021) Older Adults Who Experience Their Lives to Be Completed and No Longer Worth Living: A Systematic Mini-Review Into Used Terminology, Definitions, and Interpretations. Front. Psychol. 12:734049. doi: 10.3389/fpsyg.2021.734049

In the Netherlands and in Belgium, a political debate emerged regarding the possibility of euthanasia and assisted suicide (EAS) for older adults who experience their lives as completed and no longer worth living, despite being relatively healthy. This mini-review aimed to (1) present an overview of the terms used to denote this phenomenon as well as their definitions and to (2) explore how the underlying experiences are interpreted by the study authors. A systematic search was performed in Web of Science, MEDLINE, PsycINFO, and CINAHL, yielding 35 articles meeting the selection criteria. We selected empirical, English-language articles published in peer-reviewed journals. Participants had to have a first-person experience of the phenomenon or be assessed for it, or have a third-person experience of the phenomenon. Results show that the terms tiredness of life (ToL) and weariness of life (WoL) were used most frequently, also in the broader literature on suicidal expressions across the life span. Many studies mentioned operational definitions or synonyms rather than theoretical definitions. Moreover, inside the EAS debate, the term ToL was more common, its definition incorporated death wishes, and it was regularly framed existentially. Outside of this debate, the phenomenon was generally considered as a part of suicidal ideation distinct from death wishes, and its experience was often associated with underlying psychopathology. We discuss the need to establish consensus definitions and conclude that only a multidimensional view may be suitable to capture the complex nature of the phenomenon.

Keywords: systematic review, tiredness of life, life-weariness, completed life, older adults, euthanasia and assisted suicide, suicidal ideation, death wishes

INTRODUCTION

Old age is associated with numerous losses, such as of cognitive and physical abilities and social ties. Still, the majority of older adults maintains high levels of life satisfaction up to an advanced age (Gana et al., 2013), with reductions in wellbeing usually only being observed in the very last phase of life (i.e., terminal decline; Gerstorf et al., 2008). A number of older adults, however, appear to cope less well with the challenges of late life and start to lack a sense of meaning. They develop the feeling that their life is not worth living anymore, sometimes reporting an associated death wish. These experiences also seem to develop in the absence of severe physical and mental disorders (van Wijngaarden et al., 2015; Van Humbeeck et al., 2020).

Research into this phenomenon is still an emerging area. Different terms, such as completed life, tiredness of life (ToL), or life fatigue, have been used to denote the phenomenon, but the terms lack agreed-upon definitions as well an integration with other research areas. Additionally, the terminology is influenced by the political debate that emerged in the Netherlands and in Belgium, surrounding the possibility of euthanasia and assisted suicide (EAS) for older adults experiencing their life as not worth living anymore (e.g., Oosterom and van de Wier, 2020). For example, the term completed life is a literal translation of the Dutch term "*voltooid leven*," which is central in the EAS debate in the Netherlands. Hence, to advance the knowledge on the phenomenon, the use of consistent and well-defined terms as well as an integration with the broader literature is needed.

This mini-review therefore has two main aims: First, we seek to present an overview of the terms that have been used in the empirical literature to describe the phenomenon that older adults experience their lives as completed and no longer worth living. We will present both definitions/descriptions of these terms and the contexts and populations they are associated with, thus not restricting our search to their use in late life populations. Second, we aim to explore how the underlying experiences are interpreted by study authors (e.g., as a normative experience, a pathological condition, an existential problem).

By taking a broad approach, we hope to gain insight into the extent to which the various terms describe the same or differing (severities of) underlying phenomena, in how far they reflect a different theoretical approach, and where terminological and theoretical overlap with other research areas might lie.

MATERIALS AND METHODS

Search Strategy

We systematically searched four databases: MEDLINE, PsycINFO (both *via* Ovid), CINAHL (*via* EBSCO), and Web of Science core collections. Databases were searched from inception until 16-03-2021.[1] Keywords were completed life, tiredness of life, suffering from life, weariness of life, finished with life, life fatigue, and their variations (e.g., "tired of living"; based on van Wijngaarden, 2016; for the full search strings per database see OSF). In addition to the database search, we examined the reference lists of included articles as well as of related reviews that were identified through our search for further references.

Study Selection and Data Extraction

Articles were eligible if they (a) were written in English, (b) published in a peer-reviewed journal, (c) discussed the topic of "tiredness of life" (or an alternative term), (d) used an empirical study design, and (e) investigated either participants with a personal, first-person experience of the phenomenon or assessed them for this experience, or studied participants with a third-person experience of the phenomenon (such as caregivers). We focused on empirical English-language articles and a study population with experience with the phenomenon as we were interested in the international use of the terminology compared to the use within the national political debate.

Study selection was performed using Mendeley and Rayyan (Ouzzani et al., 2016). In the title/abstract screening, the first 50 references were screened independently by both authors, reaching an agreement of 98%. Consequently, the first author conducted the rest of the title/abstract screening as well as the full-text screening and data extraction. From all studies, we extracted general study details (first author, year of publication, country, and study design), study focus (main aims and results), terminology, definition/description/operationalization, and interpretation/framing. Depending on the type of sample studied, we also extracted information regarding participants' age and gender (first-person experience) or role/occupation and work experience (third-person experience). Doubts during screening and extraction were discussed with the second author.

Data Analysis

For the first aim, we made an overview of all (main) terms used for the phenomenon in the articles and then grouped them (e.g., combining tired of living and tiredness of life). For each of these terms, we then created an overview of the characteristics of the studies that applied a given term – namely country, publication year range, age range, type of sample, first- versus third-person perspective, and conducted inside versus outside EAS debate – as well as the definitions given. For the second aim, we assigned one or multiple primary and secondary perspectives to the articles based on the authors' explicit descriptions and interpretations as well as related phenomena and mentioned theories. We tried to stay as close as possible to the authors' wording. Then, similar to the first aim, we made an overview of study characteristics for every perspective.

RESULTS

Study Selection and Characteristics

The database search identified 533 records. After duplicate deletion, 299 records remained. Sixty full-texts were assessed for eligibility, leading to 35 studies being included in the synthesis. The reference list search did not identify any additional articles (for PRISMA flow chart see **Supplementary Figure S1**; Moher et al., 2009). An overview of the included articles is presented in **Tables 1** and **2**. Studies were published between 1972 [9] and 2021 [10;35] and conducted in 14 different countries. Twenty-seven studies included participants that reported a first-person experience of

---

[1] More detailed information on the methodology can be found on the OSF page of the study: https://osf.io/c48j6/.

TABLE 1 | Characteristics of studies on first-person experience of the phenomenon.

Study details	Main aims	Main results	Participants details	Main term	Definition	Framing
[1] Barnow and Linden, 1997, Germany, Quantitative	Investigate prevalence of suicidal ideation in very old persons. Investigate whether suicidal expressions show (similar/different) trends over time and gender.	Weighted 14.7% of the elderly population experienced tiredness of life (ToL), with more females than males. Significant interaction between age groups and severity of suicidality, but increase especially marked in the more severe categories.	*N* = 516 *Type*: late life, stratified sample *Age*: R = 70–105 *Gender*: n.a.	Tiredness of life	Part of suicidal ideation; "feels life not worth living"	Psycho-pathological
[2] Barnow and Linden, 2000, Germany, Quantitative	Investigate whether the wish to die or suicidal ideation is widespread among the elderly, and whether it is related to psychiatric morbidity.	The higher the intensity of the suicidality, the higher the probability that the person is suffering from a psychiatric disorder.	*N* = 54 (from study [1]) *Type*: late life, "suicidal group" *Age*: M(SD) = 89.58 (8) *Gender*: 61.1% female	Tiredness of life	"feels life not worth living"	Psycho-pathological (rational)
[3] Brådvik and Berglund, 1993, Sweden, Quantitative	Compare characteristics of individuals with melancholia who died by suicide to those with melancholia.	Weariness of life (WoL) in connection with depression was more frequently reported by people who died by suicide who had brittle/sensitive personality. Even within brittle/sensitive group, WoL was more frequent among people who died by suicide than controls.	*N* = 89 (per group) *Type*: case records of people who died by suicide, matched controls *Age*: $M_{male} = 45$; $M_{female} = 48$ *Gender*: 51 women	Life-weariness	Part of suicidal behavior	Psycho-pathological
[4] Brunoni et al., 2015, Brazil, Quantitative	Investigate suicidal ideation and its association with clinical and demographic variables (in Brazil).	3.11% of participants presented WoL thoughts in the previous 7 days. Common mental disorder (CMD) and WoL thoughts were robustly associated. Other positive associations: female, single, past stressful life event, antidepressant use, poor perceived health; negative associations: Catholic/Espiritism religion, college education.	*N* = 15.105 *Type*: civil servants *Age*: R = 35–74 (22% 35–44; 39% 45–54; 28% 55–64; 11% 65–74) *Gender*: 54% female	Life-weariness thoughts	Part of suicidal ideation; ToL or tedium vitae; "feels life not worth living"	Psycho-pathological (societal)
[5] Copeland, 1987, United States, Quantitative	Analyze case files and suicide notes of people who died by suicide due to drowning.	Regarding reasons for suicide, depression is common and often concerns poor health, the death of a loved one, or being "tired of living" (ToL mentioned by 4.3%).	*N* = 70 *Type*: case files of people who died by suicide *Age*: 1.43% 0–20; 4.3% 21–25; 11.4% 26–30; 4.3% 31–35; 4.3% 36–40; 10% 41–45; 7.1% 46–50; 4.3% 51–55; 2.9% 56–60; 5.7% 61–65; 5.7% 66–70; 38.6% 70+ *Gender*: 41.4% female	Tired of living	n.a. (but experience self-reported in suicide notes)	Psycho-pathological
[6] Dennis et al., 2007, United Kingdom, Quantitative	Examine association between mental disorder and spectrum of suicidal ideation. Explore how social and general health factors correlate with suicidal ideation in 'young elderly' and compare it to younger age groups.	Past year ToL was reported by 6%, with younger people being more likely to experience it. CMD and depression strongly associated with ToL (stronger in 55–74 age group compared to younger people). For age 55–74 the strongest relationships for ToL were: poor perceived social support, widowhood, fair/poor self-rated general health, limitations in activity of daily living.	*N* = 8,580 *Type*: nationally representative sample Age: R = 16–74 (28.9% 16–34; 39.5% 35–54; 31.6% 55–74) *Gender*: 55.1% female	Tiredness of life	Part of suicidal ideation; "thought life not worth living"	Psycho-pathological
[7] Hällström, 1977, Sweden, Quantitative	Show the frequency of various degrees of suicidal tendency earlier in life in a representative group of middle-aged women.	22.3% of participants had the feeling that life was not worth living.	*N* = 800 *Type*: representative group, middle-aged *Age*: R = 38–54 *Gender*: 100% female	Life-weariness	Part of suicidal ideation; "felt life not worth living"	Psycho-pathological

(Continued)

TABLE 1 | Continued

Study details	Main aims	Main results	Participants details	Main term	Definition	Framing
[8] Herrera Rodríguez et al., 2006, Nicaragua, Quantitative	Examine the prevalence of self-reported suicidal expressions among young people in Nicaragua, identify associated socio-demographic factors.	33.5% reported last year WoL. There were no significant associations in either gender to socio-demographic conditions.	$N=278$ *Type*: young people, randomly selected *Age*: R = 15–24, $M_{male}=19.6$, $M_{female}=20.0$ *Gender*: 47.8% female	Life-weariness	Part of suicidal behavior; "felt life not worth living"	Psycho-pathological
[9] Humphrey et al., 1972, United States, Quantitative	Systematically investigate certain problematic life events that precede suicide.	ToL was generally experienced after problems with drinking/family/work/sex and prior psychiatric treatment, and preceded suicide attempts and threats.	$N=158$ *Type*: patient charts, people who died by suicide *Age*: n.a. *Gender*: n.a.	Tiredness with life	"despondency with life" (used interchangeably)	Psycho-pathological (social)
[10] Koskinen et al., 2021, Finland, Qualitative	Deepen understanding of older men's life after the loss of their life partners.	Informants experienced loneliness, which could make life feel empty and lead to thoughts that living is no longer worthwhile.	$N=5$ *Type*: late life, lost life partners *Age*: R = 81–91 *Gender*: 0% female	Life weariness	n.a (but experience emerged in interviews)	Existential
[11] Lindner et al., 2014, Germany, Quantitative	Gain more insight into the inner world, intrapsychic conflicts and psychosocial conditions of suicidal geriatric patients.	Patient group: trend of more experiences with death of an important person, bombing, sexual abuse, displacement/flight, persecution; more depression; more psychiatric/psychotherapeutic treatments. Triggers of lifetime suicidal ideation differed from triggers of current suicidal ideation.	$N=20$ (per group) *Type*: late life; patients (suicidal or T/WoL), matched controls *Age*: $M(SD)_{patient}=79.3$ (7.6), $M(SD)_{control}=81$ (5.9) *Gender*: 65/70% female (patient/control)	Life weariness	Part of suicidal ideation; "thought life not worth living"	Psycho-pathological
[12] Ojagbemi and Bello, 2019, Nigeria, Quantitative	Investigate the association between first-ever stroke and tedium vitae using a comparative cross-sectional design.	Tedium vitae was experienced by 12.3% patients compared with 3.8% controls. Retired patients were more likely to report tedium vitae.	$N=130$ (per group) *Type*: stroke survivors, matched controls *Age*: $M(SD)_{patient}=59.5$ (11.1), $M(SD)_{control}=58.8$ (11.2) *Gender*: 53.8/51.5% female (patient/control)	Tedium vitae	Tedium vitae represents the thought that life is not worth living or feeling tired of life; "felt life not worth living"	Psycho-pathological
[13] Omma et al., 2013, Sweden, Quantitative	Explore suicidal expressions among young Sami compared to Swedes in general.	Suicidal expressions were common among young Sami and Swedes but the Sami reported a higher prevalence of WoL (63% *vs.* 50%), death wishes and suicidal ideation. Per group, women reported more WoL and death wishes than men.	$N=516$; 218 *Type*: young Swedish Sami; age-matched Swedes as reference *Age*: R = 18–29 *Gender*: 57.2/51.8% female (Sami/reference)	Life weariness	Part of suicidal expressions; "felt life not worth living"	Existential, cultural (psycho-logical)
[14] Pac et al., 2013, Poland, Quantitative	Assess change in the role of gender-related mortality predictors over 20 years in older Krakow citizens.	A strong feeling of WoL was an important all-cause mortality risk factor for women (but not for men). It was related to the 14% increase in mortality.	$N=2{,}472$ *Type*: late life, random sample 65+ *Age*: M(SD) = 72.4 (5.7) *Gender*: 65.1% female	Feeling of life-weariness	n.a.	n.a.

(Continued)

TABLE 1 | Continued

Study details	Main aims	Main results	Participants details	Main term	Definition	Framing
[15] Ramberg and Wasserman, 2000, Sweden, Quantitative	Investigate differences in prevalence of suicidal thoughts and suicide attempts between mental health-care staff (and professional categories) and general population.	Taking age and gender into account, disparities in lifetime thoughts of life is not worth living and death wishes between professional categories are significant, with fewer nurses than psychologists/social workers having had thoughts of life not worth living and death wishes.	*N* = 1,010; 8,171 *Type*: mental health-care staff; general population *Age*: $M_{staff} = 41.6$ (R = 19–63), $M_{general} = 42.7$ (R = 20–66) *Gender*: 71.8/53.4% female (staff/general)	Life-weariness	Part of suicidal behavior; "felt life not worth living"	Psycho-pathological
[16] Rancāns et al., 2003, Latvia, Quantitative	Assess prevalence of suicidal behaviours in the general population, identify risk groups, examine the suggested continuous sequence of suicidal behaviours.	19.7% (weighted 36.3%) of the population reported WoL. Risk factors: non-cohabitation status, lower education (males), higher education (females). 39.1% reported non-continuous pattern of past year suicidal behaviours (13.4% when starting from death wishes).	*N* = 667 *Type*: general population *Age*: 28% 18–34; 33.1% 35–54; 38.9% 55+ *Gender:* 71.8% female	Life-weariness	Part of suicidal behaviors; "felt life not worth living"	Psycho-pathological
[17] Rancāns et al., 2016, Latvia, Quantitative	Determine last year prevalence of different types of self-reported suicidal behaviour, socio-demographic risk factors, sequence of suicidal behaviours.	Last year prevalence for WoL was 16.6%, with a significantly higher prevalence for women. Risk factors (mild types, both genders): older/middle age, non-cohabitation status, low education. 79.6% reported continuous pattern of past year suicidal behaviours.	*N* = 2,816 *Type:* representative sample 18+, weighted *Age*: weighted 42.3% 15–34; 41.2% 35–54; 16.4% 55–64 *Gender*: weighted 51.4% female	Life-weariness	Part of suicidal behavior; "felt life not worth living"	Psycho-pathological
[18] Renberg, 2001, Sweden, Quantitative	Assess prevalence and incidence of suicidal expressions in a general population, make comparisons over time, identify risk groups, examine continuous sequence of suicidal expression.	In 1986 (survey 1), higher combined prevalence for all types of suicidal expression for: women, younger groups, persons living alone. In 1996 (survey 2), higher prevalence for persons living alone. No simple cumulative relationship between the different types of suicidal expression.	*N* = 509/623 *Type*: general population; survey 1/2 *Age*: Survey 1 = 31% 18–30; 23% 31–40; 21% 41–50; 18% 51–60; 7% 61–65; Survey 2 = 29% 18–30; 20% 31–40; 24% 41–50; 20% 51–60; 7% 61–65 *Gender*: 56/55% female (survey 1/survey 2)	Life-weariness	Part of suicidal process; "felt life not worth living"	Psycho-pathological
[19] Spiers et al., 2014, United Kingdom, Quantitative	Test the hypothesis that age-specific prevalence of suicidal ideation declined between 2000 and 2007, in line with the incidence of suicide.	Little evidence of trends in prevalence of suicidal ideation. Prevalence of suicidal ideation in the past year followed a W-shaped profile with age, with peaks at the transition to adulthood, in the forties, and in the oldest participants.	*N* = 6,799/6,815 *Type*: representative sample; survey 1 (2000)/survey 2 (2007) *Age*: $R_1 = 16–71$; $R_2 = 16–78$ *Gender*: n.a.	Tiredness of life	Part of suicidal ideation; "felt life not worth living"	Psycho-pathological
[20] Stanford et al., 2017, Australia, Quantitative	Identify factors that predict self-harm. Assess effect of self-harm on subsequent outcomes.	Without previous self-harm: ToL univariately strongest predictor of self-harm (non-significant when controlled for depression, abuse, stress). With previous self-harm: ToL, stress, and number of dieting behaviors predictors of self-harm.	*N* = 5,765 *Type*: young women, random, survey s1–s5 *Age*: $R_{s1} = 18–23$, $R_{s2} = 22–27$, $R_{s3} = 25–30$, $R_{s4} = 28–33$, $R_{s5} = 31–36$ *Gender*: 100% female	Tiredness of life	Part of suicidal behavior; "felt life not worth living"	Psycho-pathological (psycho-social)
[21] Sumathipala et al., 2004, Sri-Lanka, Quantitative	Examine whether patients with suicidal thoughts and WoL volunteer them. Examine relationship between WoL, suicidal ideation, and underlying CMD.	No patient volunteered suicidal ideation or WoL. When directly questioned, 59% in index group and 26% of controls admitted experiencing WoL. In both groups, people with WoL, hopelessness, and suicidal ideations had a higher probability of CMD.	*N* = 100 (per group) *Type*: index group (medically unexplained multiple symptoms), random control patients *Age*: $R_{control} = 16–65$ (index group n.a.) *Gender:* n.a.	Life weariness	Feeling sick of life	Psycho-pathological

(Continued)

TABLE 1 | Continued

Study details	Main aims	Main results	Participants details	Main term	Definition	Framing
[22] Tuvesson et al., 2018, Sweden, Quantitative	Investigate point prevalence of WoL and suicidal thoughts and their possible relationships with socio-demographic characteristics in a population of older adults in Sweden.	10.7% of respondents felt WoL. Compared to those with no WoL or suicidal thoughts, those with WoL were: older, in (semi-)urban areas, in residential care facilities/other-than ordinary homes, with low education, widowed, unmarried, divorced, born in non-Nordic European countries, with low financial resources.	*N* = 7,913 *Type*: late life, from 10 age cohorts (60–96+) *Age*: M(SD) = 73.2 (10.7) *Gender:* 58.9% female	Life weariness	Part of suicidal expressions	Psycho-pathological
[23] Zawisza et al., 2015, Poland, Quantitative	Assess relationship of sleep duration and all-cause mortality among Polish community dwelling older citizens during 22 years follow-up. Investigate modification effect of demographic, psychosocial, health-related conditions.	Those who slept fewer hours more often reported feelings of WoL. Individuals reporting no WoL had about 10% decreased risk of death as compared to the group reporting a low level of WoL. The expected U-shaped mortality risk associated with sleep duration was observed among individuals with high WoL, whereas among those without WoL the relation was linear.	*N* = 2,449 *Type*: late life, random sample 65+ *Age*: $M(SD)_{male}$ = 72 (5.8), $M(SD_{female})$ = 72.5 (5.7) *Gender*: 65% female	(Feeling of) life weariness	Long lasting psychosocial condition considering several experiences like general life dissatisfaction, long-lasting physical and mental tiredness, loss of energy and general lack of 'internal drive' regardless of its background (economical, psychosocial or medical)	Psycho-pathological, psycho-social, physio-logical, physical
[24] Dees et al., 2011, the Netherlands, Qualitative	Explore the constituent elements of suffering of patients who explicitly request EAS, better understand unbearable suffering from the patients' perspective.	Suffering was constituted by medical, psycho-emotional, socio-environmental, existential aspects. Regarding the existential dimension: hopelessness inevitably gave rise to feelings of pointlessness that resulted in ToL (54.8% mentioned ToL).	*N* = 31 *Type*: patients who had requested EAS *Age*: R = 32–94, M = 67.9 *Gender*: 54.8% female	Tired of life	n.a (but experience emerged in interviews)	Existential
[25] Hartog et al., 2020, the Netherlands, Quantitative	Investigate prevalence of older adults with a persistent death wish without severe illness and their characteristics, existential issues and the nature of their death wishes.	1.25% of participants reported a persistent death wish without severe illness. There was no significant overall difference in age distribution. The group with a persistent death wish had significantly worse health.	*N* = 21.294 *Type*: late life, representative sample Dutch adults 55+ *Age*: $Median_{Q1–Q3}$ = 65 *Gender*: 50.3% female	Completed life (CL); Tiredness of life	CL: persons, mostly of old age, who do not see a future for themselves and, as a result, have developed a persistent, active death wish, without suffering that (mainly) originates in a medically classifiable condition. ToL: suffering caused by the prospect of having to continue living with a very poor quality of life, not predominantly caused by a physical or psychiatric disease, and closely associated with a death wish	Physical, social, existential
[26] Snijdewind et al., 2015, the Netherlands, Quantitative	Study how often the different possible outcomes of applications for EAS occur and which factors are associated with the outcome.	27.5% of requests from patients who were ToL were granted.	*N* = 645 *Type*: application forms, requested EAS *Age*: 10.2% <40; 21.9% 40–60; 29.1% 60–80; 38.8% >80 *Gender*: 61.9% female	Tired of living	n.a (but experience self-reported in application files)	n.a.
[27] van Wijngaarden et al., 2015, the Netherlands, Qualitative	Develop an in-depth understanding of the phenomenon that 'life is completed and no longer worth living'.	Essential meaning of phenomenon: 'a tangle of inability and unwillingness to connect to one's actual life'. Constituents: loneliness; not mattering; inability to express oneself; multidimensional tiredness; aversion towards feared dependence.	*N* = 25 *Type*: late life, considered their lives completed *Age*: M = 82 *Gender*: 56% female	Completed life	n.a (but interviews conducted to describe phenomenon)	Societal, narrative, existential

Studies highlighted in gray are conducted outside the EAS debate. Framing in brackets refers to secondary perspectives. Study [1] and [2] as well as [6] and [19] are partially based on the same data. R. range; M(SD), mean (standard deviation); and n.a. not available.

the phenomenon or were assessed for its presence [**Table 1** (1–27)], whereas eight studies investigated participants with a third-person experience of the phenomenon (**Table 2** [28–35]). All studies on third-person experiences were conducted in the Netherlands or in Belgium and were related to the political debate surrounding EAS. Regarding the 27 studies on participants with a first-person experience, the age of samples studied varied from young people to oldest old individuals. Overall, the majority of studies focused on older adults [1–2;10–11;14;22–23;25;27], the general population [4;6–7;15–19], or healthcare professionals [28–35]. Other samples investigated were individuals who died by suicide, young adults, individuals who requested EAS, and medical samples. Most studies took a quantitative approach [1–9;11–23;25–26;28–31;33;35]. The most prevalent type of research question concerned the prevalence and/or predictors of the ToL phenomenon [1;2;4;6–8;11–13;15–19;21–22;25], while others examined ToL as a predictor, aimed at gaining an in-depth understanding of ToL or related phenomena, or concerned end-of-life decision making.

Which Terms Are Used in the Literature and How Are They Defined?

Variations of the terms tiredness of life (ToL; e.g., tired of living/life) and weariness of life (WoL; e.g., life-weariness; feeling of life-weariness) were used most frequently and sometimes interchangeably. Both terms were employed in various countries, with ToL being more prevalent in the Netherlands and in Belgium and WoL being more prevalent in Scandinavian and non-western countries. Similarly, both terms have been used since the 1970s [7;9] and were still present in the recent literature [10;35]. The populations in which the terms were applied were varied and largely overlapping. However, ToL was much more common in samples of healthcare professionals and of individuals requesting EAS, or, more broadly speaking, in studies conducted within the EAS debate. Another term used as a main term in two articles, both of which were conducted in the Netherlands and related to the EAS debate was "completed life" [25;27]. Other literally translated terms from the EAS debate were hardly adopted in the empirical literature [but see 24], and never used as main terms. We did, however, find some terminological overlap in a study that interpreted WoL in the light of a theory of caring sciences that proposes the existence of different kinds of suffering, one of which is termed "life suffering"/"suffering of life" [10]. Despite not specifying this term in our keywords, another synonym for ToL/WoL was "tedium vitae." Tedium vitae was the major term in Ojabemi et al. [12] and a synonym in Brunoni et al. [4], both studies conducted outside of the EAS debate.

In line with the previous finding, also the definitions/descriptions of all employed terms revealed much similarity. In general, many studies mentioned synonyms or operational definitions or lacked any description at all, instead of providing a theoretical definition. Again, differences primarily emerged between studies that were conducted inside versus outside of the EAS debate. Outside of the EAS debate, most studies mentioned "the thought/feeling that life is not worth living" as their (theoretical) definition/description or operationalization/measurement of the phenomenon [1;2;4;6–8;11–13;15–20]. Moreover, the majority of these studies regarded the phenomenon as a part of suicidal ideation with a low level of intent, independent of the specific term applied [1;3–4;6–8;11;13;15–20;22]. Interestingly, although these studies usually regarded death wishes as a more severe form of suicidal ideation in the suicidal process, some studies grouped ToL/WoL together with death wishes in their measurement or analysis [8;15–17;22]. Likewise, the supposed incremental relationship from ToL/WoL over death wishes to suicidal thoughts and attempts was found by some [1;17] but not all studies [16;18].

In studies conducted within the EAS debate, in contrast, the phenomenon was not explicitly linked to suicidal ideation. Multiple studies, sometimes considering WoL and life fatigue as synonyms, defined ToL as "suffering caused by the prospect of having to continue living with a very poor quality of life, not predominantly caused by a physical or psychiatric disease, and closely associated with (/leading to) a death wish" [25,29,34–35]. One study additionally provided a definition of "completed life," namely, "persons, mostly of old age, who do not see a future for themselves and, as a result, have developed a persistent, active death wish, without suffering that (mainly) originates in a medically classifiable condition" [25]. Usually, studies employing these definitions also mentioned the experience of feeling that "life is not worth living" in their further description of the phenomenon [25,27,34–35]. Hence, definitions/descriptions provided by studies inside and outside the EAS debate partly overlapped. Within this debate, however, definitions of the phenomenon explicitly incorporated death wishes, though their exact role and severity remained unclear. Additionally, these definitions often specified the cause for the experience as at least partly situated outside of the medical domain.

How Is the Phenomenon Interpreted?

The majority of study authors adopted a *psychopathological* perspective [1–9,11–12,15–23], thus, for instance, viewing the phenomenon as a condition closely associated with psychiatric disorders and as requiring treatment. This perspective in many cases was the only interpretation given and was taken across countries and populations. Studies from the Netherlands and Belgium and concerning healthcare professionals or individuals requesting EAS formed an exception. Indeed, all studies adopting a psychopathological perspective were conducted outside of the EAS debate. The second most common way of framing the phenomenon was *existential* [10,13,24–25,27,29;31;34–35]. These studies related the phenomenon to a lack of meaning, experiences of emptiness, or difficulties with constructing a (cultural) identity. The existential perspective was predominantly found in studies from the Netherlands and from Belgium and thus within the EAS debate, though also two Scandinavian studies on young and old adults, respectively, adopted this perspective. Notably, the psychopathological and existential perspective never appeared in combination. Merely two studies with an existential perspective additionally discussed the phenomenon's possible relation to *psychological* (but not necessarily psychopathological) factors [13,34].

In addition, various studies interpreted the phenomenon as grounded in *social/societal/cultural* issues [4,9,13,25,27;32] or

TABLE 2 | Characteristics of studies on third-person experience of the phenomenon.

Study details	Aims	Main results	Participant details	Main term	Definition	Framing
[28] Bergman et al., 2020, the Netherlands, Quantitative	Determine frequency of consultations that are perceived as difficult by SCEN physicians, which complexities they perceive, characteristics associated with perceiving a consultation as difficult.	1 out of 5 consultations are perceived as difficult.8.4% of the consultations perceived as difficult due to ToL, while 2.7% of the consultations perceived not to be difficult concerned requests due to ToL.	*N* = 498/573 *Type:* SCEN physicians; 2015 and 2016/17 survey *Work exp.:* Number consultations/year: 6.3% <5; 26.2% 5–9; 27.45% 10–14; 40.05% 15+	Tired of living	n.a.	n.a.
[29] Bolt et al., 2015, the Netherlands, Quantitative	Describe whether physicians can conceive of granting (or have granted) EAS in patients with cancer, another physical disease, psychiatric disease, dementia or who are ToL (without severe disease).	For patients being ToL with medical grounds for suffering: 3% performed EAS, 27% finds it conceivable or has performed, 73% finds it inconceivable. Without medical grounds for suffering: 2/18/82%	*N* = 1,456 (708, 287, 461) *Type:* physicians (GPs, elderly care physicians, clinical specialists) *Work exp.* (years): R = 1–42, M(SD) = 18 (9)	Tired of living	Suffering caused by the prospect of having to continue living with a very poor quality of life, not predominantly caused by a physical or psychiatric disease, leading to a persistent death wish	Psycho-social, existential
[30] Brinkman-Stoppelenburg et al., 2014, the Netherlands, Quantitative	Study why requests are sometimes judged not to meet requirements of due care, find out which patient/SCEN physician characteristics are associated with judgments.	The reason to request euthanasia was "being tired with life" in 6% of the cases; being ToL was associated with a higher likelihood that the requirements of due care were judged not to be met.	*N* = 415 *Type*: SCEN physicians (77% GPs, 11% nursing home physicians, 12% medical specialists); *Work exp.* (years): as SCEN, 21% <4; 55% 4–8; 24% 8+	Being tired with life	n.a.	n.a.
[31] Rietjens et al., 2009, the Netherlands, Quantitative	Study whether there are any differences between physicians, consultants and members of the review committees (RTE) in their judgements of patients' suffering.	For ToL, 92% GPs, 97% consultants, 71% RTE could imagine such a case in their practice. Suffering in early dementia and being ToL was least often considered unbearable (all <35%).	*N* = 231 (115, 99, 17) *Type*: total (GPs, consultants, RTE) *Work exp.* (years): GPs = 25% <10, 26% 10–20, 49% >20; Consultants = M(SD) = 4.5(2.1); RTE = M(SD) = 5.4 (2.7)	Tired of living	n.a.	Psycho-social, existential
[32] Rurup et al., 2005a, the Netherlands, Qualitative	Estimate incidence of requests for EAS in the absence of a severe disease, get insight in characteristics and reasons of patients who make such requests, learn more about how physicians deal with requests.	Requests based on WoL were almost never granted. 79% had non-severe illness(es.). Reasons for requests: through with life (55%), physical decline (55%), ToL (48%), suffering from life (28%).	*N* = 410 (77, 125, 208) *Type*: physicians (nursing home physicians, GPs, clinical specialists) *Work exp.*: min. 2 years	Weary of life	n.a. (but requests for EAS in the absence of disease are explained)	Physical, social/ societal (rational)

(Continued)

TABLE 2 | Continued

Study details	Aims	Main results	Participant details	Main term	Definition	Framing
[33] Rurup et al., 2005b, the Netherlands, Quantitative	Study to what extent being ToL, as reason to request EAS, occurs in the presence or absence of a severe disease, as well as characteristics, symptoms, and reasons of these patients, and physician decisions.	Of patients for whom 'being ToL' played a major role in the request, 47% had cancer, 25% had another severe disease, 28% had no severe disease. 54% of requests by patients without severe disease were refused.	*N* = 3,994 *Type*: GPs *Work exp.*: n.a.	Tired of living	n.a.	Medical
[34] Van Humbeeck et al., 2020, Belgium, Qualitative	Acquire a deeper understanding of what it is to be a nurse in a home care context or nursing home taking care of residents/patients being ToL, and gain insight into nurses' (a) perceptions of (b) attitude(s) toward, and (c) ways of dealing with ToL.	The confrontation with persons having ToL instigates a cognitive process of searching to understand the state a person is in, which on its turn ensues in an emotional balancing between courage and powerlessness and a behavioral approach of action or dialogue.	*N* = 25 *Type*: nurses *Work exp.* (years): R = 1–33, M(SD) = 13 (8.7), all experience with caring for patients who were ToL	Tiredness of life	ToL (WoL, life fatigue): suffering caused by the prospect of having to continue living with a very poor quality of life, not predominantly caused by a physical or psychiatric disease, and closely associated with a death wish. This term concerns the idea that "life is not worth living, or that you'd be better off dead."	Existential (psychological)
[35] Van Humbeeck et al., 2021, Belgium, Quantitative	Explore the legal understanding and attitudes of nurses and physicians regarding euthanasia within the context of ToL in older people.	Acute care healthcare professionals were more often confronted with patients who report ToL, compared to chronic care. In case of ToL without underlying pathology, nurses showed more comprehension for the euthanasia request compared to physicians	*N* = 345 (135, 59, 75, 76) *Type*: total (GPs, geriatricians, nurses acute care, nurses chronic care) *Work exp.* (years): GPs =21% <10; 9% 10–20; 70% >20; Geriatricians = 31% <10; 32% 10–20; 37% >20; Nurses acute = 35% <10; 29% 10–20; 36% >20; Nurses chronic = 29% <10; 29% 10–20; 42% >20	Tiredness of life	ToL ('WoL', 'life fatigue'): suffering caused by the prospect of having to continue living with a very poor quality of life, not predominantly caused by a physical or psychiatric disease, and closely associated with a wish to die.	Narrative (existential)

All studies were conducted inside the EAS debate. Framing in brackets refers to secondary perspectives. Work exp., work experience; R, range; M(SD), mean (standard deviation); and n.a., not available.

psychosocial problems [20,23,29,31]. These perspectives were always mentioned alongside other perspectives and were adopted independent of country and population, both inside and outside the EAS debate. Some ways of framing the phenomenon were exclusively found in studies linked to old age. These studies, for instance, stressed the importance of *physical/medical* aspects [23,25,32–33], such as of fatigue and physical deterioration, or suggested an intertwinement with *physiological* aspects [23]. Moreover, a *narrative* perspective explaining the phenomenon as a potential consequence of perceiving one's life story as completed was adopted by two studies within the EAS debate [27,35]. Lastly, the hypothesis that life-weariness and death wishes are the result of *rationally considering* one's life situation was put forward as a (secondary) perspective [2,32]. Importantly, other studies explicitly questioned this interpretation [25,27].

Of note, we could not infer a perspective for four studies [14,26,28,30], mainly from inside the EAS debate and concerning end-of-life decision making. Therefore, these studies were not included in this part of the analysis.

DISCUSSION

Some of the terms used to denote the phenomenon that relatively healthy older adults experience their life as completed and not worth living are also employed in the broader empirical literature, especially on suicidal expressions across the life span. ToL and WoL are found most frequently, with many studies mentioning operational definitions or synonyms rather than theoretical definitions. Moreover, which terms are used, how these terms are defined, and how the experience is interpreted differs depending on country and whether a study is related to the EAS debate. Inside the EAS debate, the term ToL is common, its definition incorporates death wishes, and it is regularly framed as an existential problem. Outside of this debate, the term WoL is applied as well, the phenomenon is generally considered as a part of suicidal ideation distinct from death wishes, and its experience is often associated with psychopathology.

These differences can be understood in the light of the criteria that have to be met to be eligible for EAS in the Netherlands and in Belgium, which specify that an individual's suffering must be grounded in a medical condition (De Jong and van Dijk, 2017). There is debate about whether older adults who do not suffer from a severe somatic or psychiatric disease but experience their lives to be completed and wish for death should have the option to request EAS (van Wijngaarden et al., 2017; Holzman, 2021). The definition of ToL inside the EAS debate is thus tailored towards this very specific group and is inherently inconsistent with a strictly psychopathological framing.

Despite their differences, the two lines of research on the phenomenon have similar limitations that future research needs to address. For instance, an overall lack of theoretical definitions and an inconsistency concerning the relationship between ToL/WoL and death wishes was observed. Clarifying this question and establishing consensus definition(s) is not only crucial for comparability among studies but will simultaneously elucidate the appropriateness of viewing the phenomenon as a part of suicidal ideation. For example, while in suicide research advances have been made by distinguishing between suicidal ideation and suicide attempts (Klonsky et al., 2018), it is – especially for older adults – still unclear whether there are also qualitative differences within suicidal ideation (O'Riley et al., 2014; Van Orden and Conwell, 2016). Currently, age differences are difficult to determine, as inside the EAS debate the phenomenon is viewed as unique to late life, whereas outside this debate similar definitions are applied for varying age groups. It is conceivable, however, that reflecting about the worth of one's life and thinking about or even hoping for one's death can have different origins and meanings depending on an individual's life stage. In later life, it might be indicative both of normative developmental processes of dealing with mortality as well as of underlying suicidality (Van Orden and Conwell, 2016). One possibility to gain insight into these nuances is the adoption of more diverse study designs and of theory-derived research questions that move beyond investigations of prevalence, predictors, and end-of-life decisions. Indeed, the latter has been previously emphasized with regard to late-life suicide (Van Orden and Conwell, 2016).

At the same time, combining aspects from the two lines of research could deepen the current understanding of the phenomenon. For example, the idea that "life is (not) worth living" which was included in many descriptions of the phenomenon has also been conceptualized as an evaluative component of experienced meaning in life (Martela and Steger, 2016). Thus, incorporating an existential perspective more broadly outside the EAS debate seems warranted and might offer one theoretical route forward. Concurrently, even in the study on "completed life" that selected individuals without severe diseases, individuals with death wishes displayed poor mental health and sometimes reported the lifelong presence of their death wishes (Hartog et al., 2020). Therefore, also when studying seemingly healthy samples as often done inside the EAS debate, attention for (sub-clinical) psychopathology should be kept. Actually, the distinction between existential and psychopathological factors itself might be artificial given various accounts stressing their interplay (Yalom, 1980; Maxfield et al., 2014). Similarly, results point to social-relational as well as societal-cultural influences on the experience of the phenomenon. Introducing studies on the perspectives of caregivers and relatives also outside of the EAS debate could be one way to gain more insight into these dynamics.

The current findings are strengthened by the reviews' broad approach, including articles independent of, for example, their publication year, studied age group, or geographical location. Thereby, a comprehensive overview of research into the phenomenon was created which allows to discern variations as well as overlap in results depending on cultural developments and type of sample. At the same time, a limitation that should be kept in mind is that the findings on terminology are restricted by our keywords. There might be even more terms used to refer to the phenomenon, or related culture-specific phenomena.

Concluding, it is likely that only an integration of various perspectives will be able to do justice to the multidimensional nature of the phenomenon and can uncover potential variations in its experience across cultures, developmental stages, and health statuses. Ideally, this multidimensionality will also be reflected in the terminology used to denote the phenomenon(/a) – which is currently usually biased toward either a psychopathological or a political discourse, as well as in the applied measurement tools.

AUTHOR CONTRIBUTIONS

JA: conceptualization, data collection, data analysis, and writing – original draft. EW: conceptualization, data collection, data analysis, and writing – review and editing. All authors approved the final version of the manuscript.

FUNDING

This study was supported by the Research Foundation Flanders (FWO, Belgium; grant 1152421N to JA). The University for Humanistic Studies provided funds for open access publication fees. These funding sources had no role in the study design, collection, analysis, or interpretation of the data.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articless/10.3389/fpsyg.2021.734049/full#supplementary-material

REFERENCES

* = Article was included in review.

*Barnow, S., and Linden, M. (1997). Suicidality and tiredness of life among very old persons: results from the Berlin aging study (base). *Arch. Suicide Res.* 3, 171–182. doi: 10.1080/13811119708258269

*Barnow, S., and Linden, M. (2000). Epidemiology and psychiatric morbidity of suicidal ideation among the elderly. *Crisis* 21, 171–180. doi: 10.1027//0227-5910.21.4.171

*Bergman, T. D., Pasman, H. R. W., and Onwuteaka-Philipsen, B. D. (2020). Complexities in consultations in case of euthanasia or physician-assisted suicide: a survey among SCEN physicians. *BMC Fam. Pract.* 21, 1–11. doi: 10.1186/s12875-019-1063-z

*Bolt, E. E., Snijdewind, M. C., Willems, D. L., van der Heide, A., and Onwuteaka-Philipsen, B. D. (2015). Can physicians conceive of performing euthanasia in case of psychiatric disease, dementia or being tired of living? *J. Med. Ethics* 41, 592–598. doi: 10.1136/medethics-2014-102150

*Brådvik, L., and Berglund, M. (1993). Risk factors for suicide in melancholia: A case-record evaluation of 89 suicides and their controls. *Acta Psychiatr. Scand.* 87, 306–311. doi: 10.1111/j.1600-0447.1993.tb03377.x

*Brinkman-Stoppelenburg, A., Vergouwe, Y., van der Heide, A., and Onwuteaka-Philipsen, B. D. (2014). Obligatory consultation of an independent physician on euthanasia requests in the Netherlands: what influences the SCEN physicians judgment of the legal requirements of due care? *Health Policy* 115, 75–81. doi: 10.1016/j.healthpol.2013.12.002

*Brunoni, A. R., Nunes, M. A., Lotufo, P. A., and Benseñor, I. M. (2015). Acute suicidal ideation in middle-aged adults from Brazil. Results from the baseline data of the Brazilian longitudinal study of adult health (ELSA-Brasil). *Psychiatry Res.* 225, 556–562. doi: 10.1016/j.psychres.2014.11.047

*Copeland, A. R. (1987). Suicide by drowning. *Am. J. Forensic Med. Pathol.* 8, 18–22. doi: 10.1097/00000433-198703000-00005

De Jong, A., and van Dijk, G. (2017). Euthanasia in the Netherlands: balancing autonomy and compassion. *World Med. J.* 63, 10–15.

*Dees, M. K., Vernooij-Dassen, M. J., Dekkers, W. J., Vissers, K. C., and Van Weel, C. (2011). 'Unbearable suffering': a qualitative study on the perspectives of patients who request assistance in dying. *J. Med. Ethics* 37, 727–734. doi: 10.1136/jme.2011.045492

*Dennis, M., Baillon, S., Brugha, T., Lindesay, J., Stewart, R., and Meltzer, H. (2007). The spectrum of suicidal ideation in Great Britain: comparisons across a 16-74 years age range. *Psychol. Med.* 37, 795–805. doi: 10.1017/S0033291707000013

Gana, K., Bailly, N., Saada, Y., Joulain, M., and Alaphilippe, D. (2013). Does life satisfaction change in old age: results from an 8-year longitudinal study. *J. Gerontol. B Psychol. Sci. Soc. Sci.* 68, 540–552. doi: 10.1093/geronb/gbs093

Gerstorf, D., Ram, N., Röcke, C., Lindenberger, U., and Smith, J. (2008). Decline in life satisfaction in old age: longitudinal evidence for links to distance-to-death. *Psychol. Aging* 23:154. doi: 10.1037/0882-7974.23.1.154

*Hällström, T. (1977). Life-weariness, suicidal thoughts and suicidal attempts among women in Gothenburg, Sweden. *Acta Psychiatr. Scand.* 56, 15–20. doi: 10.1111/j.1600-0447.1977.tb06658.x

*Hartog, I. D., Zomers, M. L., van Thiel, G. J., Leget, C., Sachs, A. P., Uiterwaal, C. S., et al. (2020). Prevalence and characteristics of older adults with a persistent death wish without severe illness: a large cross-sectional survey. *BMC Geriatr.* 20, 1–14. doi: 10.1186/s12877-020-01735-0

*Herrera Rodríguez, A., Caldera, T., Kullgren, G., and Salander Renberg, E. (2006). Suicidal expressions among young people in Nicaragua. *Soc. Psychiatry Psychiatr. Epidemiol.* 41, 692–697. doi: 10.1007/s00127-006-0083-x

Holzman, T. (2021). The final act: An ethical analysis of Pia Dijkstra's euthanasia for a completed life. *J. Bioethical Inq.* 18, 165–175. doi: 10.1007/s11673-020-10084-x

*Humphrey, J. A., Puccio, D., Niswander, G. D., and Casey, T. M. (1972). An analysis of the sequence of selected events in the lives of a suicidal population: a preliminary report. *J. Nerv. Ment. Dis.* 154, 137–140. doi: 10.1097/00005053-197202000-00006

Klonsky, E. D., Saffer, B. Y., and Bryan, C. J. (2018). Ideation-to-action theories of suicide: a conceptual and empirical update. *Curr. Opin. Psychol.* 22, 38–43. doi: 10.1016/j.copsyc.2017.07.020

*Koskinen, C., Nyman, G. B., and Nyholm, L. (2021). Life has given me suffering and desire–A study of older men's lives after the loss of their life partners. *Scand. J. Caring Sci.* 35, 163–169. doi: 10.1111/scs.12831

*Lindner, R., Foerster, R., and von Renteln-Kruse, W. (2014). Physical distress and relationship problems. *Z. Gerontol. Geriatr.* 47, 502–507. doi: 10.1007/s00391-013-0563-z

Martela, F., and Steger, M. F. (2016). The three meanings of meaning in life: distinguishing coherence, purpose, and significance. *J. Posit. Psychol.* 11, 531–545. doi: 10.1080/17439760.2015.1137623

Maxfield, M., John, S., and Pyszczynski, T. (2014). A terror management perspective on the role of death-related anxiety in psychological dysfunction. *Humanist. Psychol.* 42, 35–53. doi: 10.1080/08873267.2012.732155

Moher, D., Liberati, A., Tetzlaff, J., and Altman, D. G., Prisma Group (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *PLoS Med.* 6:e1000097. doi: 10.1371/journal.pmed.1000097

*Ojagbemi, A., and Bello, T. (2019). Tedium vitae in stroke survivors: a comparative cross-sectional study. *Top. Stroke Rehabil.* 26, 195–200. doi: 10.1080/10749357.2019.1590971

*Omma, L., Sandlund, M., and Jacobsson, L. (2013). Suicidal expressions in young Swedish Sami, a cross-sectional study. *Int. J. Circumpolar Health* 72:19862. doi: 10.3402/ijch.v72i0.19862

Oosterom, R., and van de Wier, M. (2020). Waarom het debat over voltooid leven pas net begint. Trouw. Available at: https://www.trouw.nl/binnenland/waarom-het-debat-overvoltooid-leven-pas-net-begint~bcdb3660/.

O'Riley, A. A., Van Orden, K., and Conwell, Y. (2014). "Suicidal ideation in late life," in *The Oxford Handbook of Clinical Geropsychology*. eds. N. A. Pachana and K. Laidlaw (Oxford, UK: Oxford University Press).

Ouzzani, M., Hammady, H., Fedorowicz, Z., and Elmagarmid, A. (2016). Rayyan—a web and mobile app for systematic reviews. *Syst. Rev.* 5, 1–10. doi: 10.1186/s13643-016-0384-4

*Pac, A., Tobiasz-Adamczyk, B., Brzyska, M., and Florek, M. (2013). The role of different predictors in 20-year mortality among Krakow older citizens. *Arch. Gerontol. Geriatr.* 56, 524–530. doi: 10.1016/j.archger.2012.11.008

*Ramberg, I. L., and Wasserman, D. (2000). Prevalence of reported suicidal behaviour in the general population and mental health-care staff. *Psychol. Med.* 30, 1189–1196. doi: 10.1017/S003329179900238X

*Rancāns, E., Lapiņš, J., Renberg, E. S., and Jacobsson, L. (2003). Self-reported suicidal and help seeking behaviours in the general population in Latvia. *Soc. Psychiatry Psychiatr. Epidemiol.* 38, 18–26. doi: 10.1007/s00127-003-0602-y

*Rancāns, E., Pulmanis, T., Taube, M., Spriņģe, L., Velika, B., Pudule, I., et al. (2016). Prevalence and sociodemographic characteristics of self-reported suicidal behaviours in Latvia in 2010: a population-based study. *Nord. J. Psychiatry* 70, 195–201. doi: 10.3109/08039488.2015.1077887

*Renberg, E. S. (2001). Self-reported life-weariness, death-wishes, suicidal ideation, suicidal plans and suicide attempts in general population surveys in the north of Sweden 1986 and 1996. *Social Psychiatry Psychiatr. Epidemiol.* 36, 429–436. doi: 10.1007/s001270170020

*Rietjens, J. A., van Tol, D. G., Schermer, M., and van der Heide, A. (2009). Judgement of suffering in the case of a euthanasia request in the Netherlands. *J. Med. Ethics* 35, 502–507. doi: 10.1136/jme.2008.028779

*Rurup, M. L., Muller, M. T., Onwuteaka-Philipsen, B. D., Van Der Heide, A., Van Der Wal, G., and Van Der Maas, P. J. (2005a). Requests for euthanasia or physician-assisted suicide from older persons who do not have a severe disease: an interview study. *Psychol. Med.* 35, 665–671. doi: 10.1017/S003329170400399X

*Rurup, M. L., Onwuteaka-Philipsen, B. D., Jansen-van der Weide, M. C., and van der Wal, G. (2005b). When being 'tired of living' plays an important role in a request for euthanasia or physician-assisted suicide: patient characteristics and the physician's decision. *Health Policy* 74, 157–166. doi: 10.1016/j.healthpol.2005.01.002

*Snijdewind, M. C., Willems, D. L., Deliens, L., Onwuteaka-Philipsen, B. D., and Chambaere, K. (2015). A study of the first year of the end-of-life clinic for physician-assisted dying in the Netherlands. *JAMA Intern. Med.* 175, 1633–1640. doi: 10.1001/jamainternmed.2015.3978

*Spiers, N., Bebbington, P. E., Dennis, M. S., Brugha, T. S., McManus, S., and Jenkins, R. (2014). Trends in suicidal ideation in England: the National Psychiatric Morbidity Surveys of 2000 and 2007. *Psychol. Med.* 44, 175–183. doi: 10.1017/S0033291713000317

*Stanford, S., Jones, M. P., and Loxton, D. J. (2017). Understanding women who self-harm: predictors and long-term outcomes in a longitudinal community sample. *Aust. N. Z. J. Psychiatry* 51, 151–160. doi: 10.1177/0004867416633298

*Sumathipala, A., Siribaddana, S., and Samaraweera, S. D. (2004). Do patients volunteer their life weariness and suicidal ideations? A Sri Lankan study. *Crisis* 25, 103–107. doi: 10.1027/0227-5910.25.3.103

*Tuvesson, H., Hellström, A., Sjöberg, L., Sjölund, B. M., Nordell, E., and Fagerström, C. (2018). Life weariness and suicidal thoughts in late life: a national study in Sweden. *Aging Ment. Health* 22, 1365–1371. doi: 10.1080/13607863.2017.1348484

*Van Humbeeck, L., Dillen, L., Piers, R., and Van Den Noortgate, N. (2020). Tiredness of life in older persons: a qualitative study on nurses' experiences of being confronted with this growing phenomenon. *The Gerontologist* 60, 735–744. doi: 10.1093/geront/gnz088

*Van Humbeeck, L., Piers, R., De Bock, R., and Van Den Noortgate, N. (2021). Flemish healthcare providers' attitude towards tiredness of life and euthanasia: a survey study. *Aging Ment. Health* 1–7. [Preprint]. doi: 10.1080/13607863.2020.1870205

Van Orden, K. A., and Conwell, Y. (2016). Issues in research on aging and suicide. *Aging Ment. Health* 20, 240–251. doi: 10.1080/13607863.2015.1065791

van Wijngaarden, E. (2016). Ready to give up on life: A study into the lived experience of older people who consider their lives to be completed and no longer worth living. PhD dissertation. Utrecht: University of Humanistic Studies.

van Wijngaarden, E. J., Klink, A., Leget, C., and The, A. M. (2017). Assisted dying for healthy elderly people in the Netherlands: a step too far? *The BMJ.* 357:j2298. doi: 10.1136/bmj.j2298

*van Wijngaarden, E., Leget, C., and Goossensen, A. (2015). Ready to give up on life: The lived experience of elderly people who feel life is completed and no longer worth living. *Soc. Sci. Med.* 138, 257–264. doi: 10.1016/j.socscimed.2015.05.015

Yalom, I. D. (1980). *Existential Psychotherapy*. New York: Basic Books.

*Zawisza, K., Tobiasz-Adamczyk, B., Galas, A., and Brzyska, M. (2015). Sleep duration and mortality among older adults in a 22-year follow-up study: an analysis of possible effect modifiers. *Eur. J. Ageing* 12, 119–129. doi: 10.1007/s10433-014-0318-8

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers
in Psychology

ORIGINAL RESEARCH
published: 28 October 2021
doi: 10.3389/fpsyg.2021.726150

Meaning Reflectivity in Later Life: The Relationship Between Reflecting on Meaning in Life, Presence and Search for Meaning, and Depressive Symptoms in Older Adults Over the Age of 75

Laura Dewitte and Jessie Dezutter*

Faculty of Psychology and Educational Sciences, KU Leuven, Leuven, Belgium

OPEN ACCESS

Edited by:
Mirna Nel,
North-West University, South Africa

Reviewed by:
Jaco Hoffman,
North-West University, South Africa
Pierre Smith,
Catholic University of Louvain,
Belgium

****Correspondence:***
Laura Dewitte
laura.dewitte@kuleuen.be

Specialty section:
This article was submitted to
Positive Psychology,
a section of the journal
Frontiers in Psychology

Received: *16 June 2021*
Accepted: *05 October 2021*
Published: *28 October 2021*

Citation:
Dewitte L and Dezutter J (2021)
Meaning Reflectivity in Later Life:
The Relationship Between Reflecting
on Meaning in Life, Presence
and Search for Meaning,
and Depressive Symptoms in Older
Adults Over the Age of 75.
Front. Psychol. 12:726150.
doi: 10.3389/fpsyg.2021.726150

Background: Over the last decades, there is growing attention for the importance of meaning in life for older adults. However, there is virtually no insight into the mental processes that contribute to this experience. Some scholars recently called for an investigation of meaning reflectivity, or the process of reflecting on issues specifically related to meaning in life. In this study, we explored to what extent older adults talk and think about issues of meaning in life, and how this meaning reflectivity is related to the search for and presence of meaning in life, and to depressive symptoms.

Method: In this cross-sectional observational study, 282 community-residing older adults (75 or older) in Belgium filled in paper questionnaires on meaning in life (presence and search), depressive symptoms, and meaning reflectivity (categorical item). ANOVA analyses were used to explore differences in meaning in life and depressive symptoms across the meaning reflectivity categories. Regression and negative binomial models investigated the association between meaning reflectivity and presence, search and depressive symptoms. Finally, an exploratory structural equation model examined whether presence of meaning statistically mediated the relationship between meaning reflectivity and depressive symptoms.

Results: The majority of participants (42.4%) indicated that they had thought about meaning in life before, 23.2% indicated that they had talked about it before, 18% indicated that they hadn't thought about it before but found it interesting, and 16.4% indicated that they were indifferent/unconcerned about meaning in life. The latter group reported lower levels of presence of meaning and search for meaning and higher levels of depressive symptoms. Belonging to this category was also associated with lower presence and search in regression analyses, but not with depressive symptoms above the effect of presence of meaning. Exploratory mediation analyses suggested that presence of meaning may be a mediator between meaning reflectivity and depressive symptoms.

Conclusion: Meaning reflectivity is an important process to consider in the context of the experience of meaning in life for older adults. Those older adults who are indifferent about issues of meaning in life might be more vulnerable to experience a lack of meaning and depressive symptoms.

Keywords: meaning in life, meaningfulness, old age, ageing, psychological well-being, eudaimonic well-being, depression

INTRODUCTION

Meaning in Life in Old Age

More and more, scholars in the field of aging research are pointing to the psychological experience of meaning in life as a crucial variable to consider in the context of positive late life functioning. In contemporary psychology, meaning in life is defined as an interplay of three *components*: (a) purpose in life, or a sense of being directed by valued life aims, (b) significance, or a sense that life matters and is worth living, and (c) coherence, or a sense that life is logical and comprehensible (Heintzelman and King, 2014; George and Park, 2016; Martela and Steger, 2016). Furthermore, the *presence* of meaning in life can be distinguished from the *search* for meaning in life (Steger et al., 2006), in which the former refers to the extent that people tend to experience their lives as purposeful, significant, and coherent, while the later refers to the extent that people tend to make efforts to establish or strengthen this experience (Steger et al., 2008a,b). A sense of meaning in life can be derived from different *sources* of meaning, like family, friends, work, health, religion or spirituality, personal development, leisure activities, creativity, material possessions, etc. (e.g., Debats, 1999; Schnell, 2009; Delle Fave et al., 2013). Both theoretical and empirical work suggest that in the later stages of life, more individualistic sources often tend to make way for more communal and transcendental sources such as spirituality and religion, nature, and community engagement and societal commitment (Bar-Tur et al., 2001; Fegg et al., 2007; Wong, 2016).

Despite the many challenges involved in growing older, many older adults seem able to sustain a solid sense of meaning in life. They may even experience higher presence of meaning than middle aged adults; some research suggests a curvilinear relationship between meaning in life and age, with presence of meaning being higher in early and later life, and search for meaning being lower in early and later life (Fegg et al., 2007; Steger et al., 2009). In other words, from middle adulthood onward, presence of meaning in life tends to increase with age, while search for meaning tends to decrease. On the other hand, a recent study focusing specifically on older adults found that in advanced age, meaning in life may decrease again for the oldest old (85 +) compared to the younger old (Steptoe and Fancourt, 2019). Other findings also suggest that especially the component of purpose in life is likely to decrease somewhat in old age, although there are important inter-individual differences (Pinquart, 2002; Hill and Weston, 2019).

Whether or not an older adult is able to maintain a sense of meaning in life is not a trivial matter. An increasing body of empirical evidence shows that higher levels of presence of meaning or purpose in life in older adults are predictive of a broad range of physical and mental health outcomes, both cross-sectionally and over time (e.g., Krause, 2007; Boyle et al., 2010; Windsor et al., 2015; Irving et al., 2017; Steptoe and Fancourt, 2019; Volkert et al., 2019). This is leading researchers in aging to believe that the presence of meaning in life is an especially important aspect of positive aging. When it comes to search for meaning and its relation to well-being, the picture is less straight-forward. One study found that searching for meaning was more strongly associated with psychological distress and diminished well-being in older adults (Steger et al., 2009). The authors suggested that explorative processes such as searching for meaning may be more developmentally adaptive in earlier life stages such as adolescence. However, in line with findings in the general population (Park et al., 2010), other work suggests that searching for meaning in older adults is mainly related to more psychological distress when these adults also experience low presence of meaning (Van der Heyden et al., 2015).

The Role of Meaning Reflectivity

Taken together, researchers have made good progress in understanding what the components, sources, and benefits of experiencing meaning in life are for older adults (Reker and Wong, 2012; Irving et al., 2017; Hupkens et al., 2018). However, another important aspect for understanding meaning has received relatively less attention: how does an individual derive a subjective sense of meaning from their sources of meaning? Or in other words, what are the mental processes through which this sense of meaning is arrived at? An exception for the lack of attention for meaning processes comes from the *meaning making* literature. However, this work has focused mainly on meaning making in the face of threats to meaning, like stressful or traumatic events (Heine et al., 2006; Park, 2010). Park's (2010) meaning making model, for instance, distinguishes between global and situational meaning. The former represents a personal system of overarching life goals and global beliefs about the world and the self; the latter represents the meaning that is encountered in specific situations. In stressful or traumatic events, the situational meaning encountered can violate the expectations from the global meaning system. In response, people may employ a range of different meaning making processes (e.g., positive reappraisal, accommodation of prior beliefs) in an attempt to solve the discrepancy and alleviate distress. This model provides a helpful framework for understanding how people can restore a sense of meaning in challenging circumstances. However, the model provides no account of how a subjective sense of meaning is derived from the global meaning system and sustained on a daily basis (Park and George, 2018).

Although there is almost no insight into the cognitive processes that contribute to the construction and maintenance of a sense of meaning in old age, a limited numbers of studies in the general adult population can provide some direction. Recently, Hill et al. (2019) suggested that an important aspect of daily meaning construction could be *meaning reflectivity,* or the process of reflecting on issues specifically related to meaning in life. They even propose that reflectivity about meaning in life should be added to the conceptualization of meaning in life because "a propensity to reflect on MIL [meaning in life] is as important as concluding that one has it." (p. 207–208). It is important to note that meaning reflectivity is different from the search for meaning. While the latter is characterized by a desire to augment your sense of meaning, meaning reflectivity does not necessarily originate from a wish to change current circumstances and can appear in individuals who are not searching for more meaning in life. Furthermore, while searching for meaning is focused on meaning in the future, meaning reflectivity can deal with the past, present, and future (Hill et al., 2019). However, as individuals who are searching for meaning likely also reflect on it more, search and reflectivity can be expected to be positively related. Furthermore, if reflecting on meaning is a process that orients people toward finding or constructing meaning in their lives, it can also be expected to be positively related to presence of meaning. In a cross-sectional investigation of their newly developed meaning reflectivity subscale, Hill et al. (2019) indeed found a positive correlation between meaning reflectivity and both presence and search for meaning in a sample of middle-aged US adults. Furthermore, meaning reflectivity also showed a positive correlation with subjective well-being and a small negative correlation with depression and emotional instability. These findings suggest that meaning reflectivity could indeed be an important process through which people derive a sense of meaning in life and which contributes to their well-being.

A few years back, Allan and Shearer (2012) already investigated a similar idea. They developed the scale for "existential thinking" to assess individual differences in "the tendency to engage with ultimate concerns and the capacity to carry out a meaning-making process that locates oneself in relation to these existential issues" (p. 22). This concept is related to the concept of meaning reflectivity but broader, as it also includes other existential themes (e.g., death, the universe, eternity). They hypothesized that this process of existential thinking may be "a critical part in understanding how people establish, discover, or maintain a sense of meaning in their lives." As preliminary support, they showed that existential thinking was positively related to presence and search for meaning in life and to existential well-being in a broad adult sample, and that meaning in life statistically mediated the relation between existential thinking and existential well-being. However, another study in a similar broad adult population (ages 17–78) only found a positive relation between existential thinking and search for meaning but not presence for meaning (Kretschmer and Storm, 2018).

More indirectly relevant, some studies have focused on the role of a general reflective cognitive style (i.e., the tendency to be self-reflective in general, not specifically focused on meaning or existential issues) for the experience of meaning in life. Being able to think reflectively has indeed been proposed to be a crucial condition for experiencing meaning (Martela and Steger, 2016), but findings are mixed. One study found that reflection was positively related to presence of meaning and positive affect (Boyraz and Efstathiou, 2011) while another found that reflection was predictive of search for meaning and negative affect (Newman and Nezlek, 2019).

Reflecting on meaning in life may also not be unambiguously beneficial for psychological functioning. In a large multi-national study, Joshanloo and Weijers (2014) used a single item to explore whether the extent that people think about the meaning or purpose of life was related to their overall life satisfaction. They found that this relationship was moderated by religiosity and globalization. More specifically, for those high on religious attendance, thinking more about meaning in life was related to higher life satisfaction. For those low in religious attendance, the relation was negative. Moreover, the relation was also more negative for individuals living in more globalized countries. The authors suggest that thinking about meaning in life can be detrimental for well-being when the cultural and societal context does not provide straightforward positive answers to these questions, such as in more secular and globalized societies.

In sum, studies suggest that meaning reflectivity may be a process spurring both the search and the construction of a sense of meaning in life. Through its relation with meaning in life, meaning reflectivity may also be related to outcomes of positive psychological functioning. However, the limited empirical evidence available shows a somewhat mixed picture and no studies have focused on meaning reflectivity specifically in older adults. For older adults, meaning reflectivity could potentially become more prominent. Tornstam's gerotranscendence theory, for example, proposes that old age is accompanied by "a shift in meta-perspective from a materialistic and rational view to a more cosmic and transcendent one" (Tornstam, 1989, 1997). According to this view, older adults who are nearing the end of life are invited to come to terms with their past lives and prepare for death, which requires a fundamental shift in perspective "from mundane issues to a concern with universal values" (Yount, 2008, p. 81). Importantly, this process involves both reflecting back and looking forward to the future, beyond the self. Other developmental views on aging have similarly suggested that older adults engage in more contemplation and reflection on their lives and its place in the larger scheme of things (Cohen, 2005; Hupkens et al., 2018). Therefore, as life enters its later phases, reflecting on issues of meaning in life may be a core process in the psychological functioning of older adults.

Present Study

The present study had as objective to explore the frequency and importance of meaning reflectivity in older adults living in the community. More specifically, we examined to what extent older adults aged 75 or older (i.e., the old-old and oldest old) talk and think about issues of meaning in life, and how this meaning reflectivity is related to the search for and presence of meaning in life and to depressive symptoms. We focused on depressive symptoms as a key indicator of late life psychological functioning. Population based studies across different countries suggest that depressive symptoms are prevalent in older adults and increase with age (e.g., Minicuci et al., 2002; van't Veer-Tazelaar et al., 2008; Glaesmer et al., 2011). Moreover, it is one of the most recurring findings in the empirical meaning literature that older adults with higher levels of meaning in life also have less depressive symptoms. This is in line with the theoretical view of meaning as a human strength and resource for dealing with life challenges (e.g., Frankl, 1968; Davis et al., 1998). We therefore deemed it particularly interesting to examine whether meaning reflectivity could statistically predict additional variation in depressive symptoms above this already established association with presence of meaning in life.

Based on developmental views of aging as a life stage of more deepened contemplation, we expected the majority of older adults to engage in some form of meaning reflectivity (thinking or talking about meaning in life). Based on the limited empirical findings in general adult samples, we also expected that older adults who engaged in thoughts or conversations about meaning in life would have higher rates of presence and search for meaning in life than older adults who did not practice any meaning reflectivity. Furthermore, we hypothesized that these adults would report less depressive symptoms. Previous work suggests that meaning reflectivity may be related to better psychological functioning (Hill et al., 2019). This may be especially so for more religious individuals (Joshanloo and Weijers, 2014). While the present study unfortunately did not include a measure for religion, in secularized Western nations such as the country in which this study was conducted (Belgium), older adults tend to be more religious than younger generations, likely both due to cohort differences and developmental changes (Bengtson et al., 2015).

In addition, we examined whether differences in meaning reflectivity would statistically predict presence of meaning and search for meaning after adjusting for covariates, and would predict depressive symptoms above any predictive effect of presence of meaning, search for meaning, and covariates. As a more exploratory investigation, finally, we wanted to examine the potential mediating role of meaning in life in the relation between meaning reflectivity and depressive symptoms (cf. Allan and Shearer, 2012).

Gaining insight into how much older adults reflect on meaning in life and how this is related to their psychological functioning and overall sense of meaning in life can provide important information for understanding why some older adults struggle with feelings of meaninglessness while others do not, and can help to identify pathways through which these struggles can be tackled.

MATERIALS AND METHODS

Participants and Procedure

Data collection was part of a larger study conducted in Belgium (the TiMe project)[1], which aimed to investigate older adults' meaning in life experience and future time perspective. At the end of 2017 and beginning of 2018, Dutch-speaking older adults of 75 years or older living at home (i.e., not in a residential care setting) without an acute medical condition or severe cognitive problems were sampled by three master thesis students through different channels (personal network, senior organizations). Three hundred and seventy six paper questionnaires with informed consent were distributed, of which 325 were completed independently by older adults in their home environment and returned to the researchers. Thirty one of these questionnaires were excluded because they did not contain the completed informed consent. Another 12 participants were excluded because they were younger than 75, leading to a final convenience sample of 282 older adults. Their mean age was 81.9 years (*SD* = 4.33, range 75–94) and 175 of them (62%) were women. Most participants were married (139; 49%), 105 were widowed (37%), 12 living together with a partner (4%), 11 single (4%), 8 divorced (3%), and for 7 participants data on civil state was missing (3%). Most participants had higher secondary education as highest degree (110; 39%), 74 had higher education (college or university; 26%), 61 had lower secondary education (22%), 31 had primary education only (11%), and for 6 participants data on education was missing (2%).

Measures

Meaning in Life (Presence and Search)

The Presence of Meaning and Search for Meaning subscales of the Meaning in Life Questionnaire Short Form were used to assess meaning in life (Steger and Samman, 2012). Each subscale consists of three items which were rated on a scale from 1 (totally disagree) to 4 (totally agree). The original 7-point Likert scale was adjusted to diminish cognitive burden on older participants. An example item for the Presence subscale is: *"I have a clear sense of what makes my life meaningful."* An example item for the Search subscale is: *"I am seeking a purpose or mission for my life."* Mean scores were calculated (potential range 1–4) with higher scores indicating higher Presence and Search. In the current sample Cronbach's alpha was 0.80 for Presence of Meaning and 0.85 for Search for meaning.

Depressive Symptoms

An 8-item short version of the Geriatric Depression Scale was used to assess depressive symptoms (Jongenelis et al., 2007). Eight questions (e.g., *"Do you feel that your situation is hopeless?"*) were answered with yes (1) or no (0) by participants. A sum score was calculated (potential range 0–8), with higher scores indicating higher burden of depressive symptoms. Cronbach's alpha in this sample was 0.71.

Meaning Reflectivity

One item with four answer categories was included at the end of the questionnaire to assess meaning reflectivity: *"Before completing this questionnaire, had you ever thought about meaning in your life before?"* The four answer categories were: (1) Yes, I have talked about this with others, (2) Yes, I have thought about it before, (3) No, but I do find it interesting, (4) No, that doesn't concern me.

---

[1] osf.io/sa4d5/

Demographic Variables

Participants reported on age, gender, civil status and level of education (from 1 "primary education" to 4 "higher education"). Civil status was recoded into two broad categories: (1) married or living together, (2) single, divorced or widowed.

Data Analyses

Statistical analyses were performed in SPSS and R. We first explored missing data and calculated descriptive statistics, Pearson correlations between continuous variables, and differences in the main variables across different demographic categories (gender, civil status). The primary analyses existed of different steps. First, ANOVA analyses with *post hoc* Tukey tests were used to examine whether participants in the different meaning reflectivity categories scored differently on presence of meaning, search for meaning, and depressive symptoms.

Second, regression analyses were used to examine the association between meaning reflectivity and presence and search for meaning. In addition, the unique predictive effect of meaning reflectivity, presence of meaning and search for meaning for depressive symptoms was examined. Because the outcome variable of this model (Geriatric Depression Scale) is count data, a negative binomial model was used. This model was preferred over a Poisson regression because there was overdispersion of the outcome variable (i.e., the variance was larger than the mean) (Gardner et al., 1995). The regression and negative binomial models were analyzed in SPSS. Age, gender, education and civil status were included as covariates and multiple imputations were used to handle missing data.

Third, in case the previous models suggested a significant relation between meaning reflectivity, meaning in life, and depressive symptoms, we planned to examine whether meaning in life statistically mediated the relationship between meaning reflectivity and depressive symptoms. Given the cross-sectional data, this analysis was regarded as an exploratory indication for future studies and was interpreted with caution. The mediation model was tested in R using the lavaan package (Rosseel, 2012) for structural equation modeling. Because this package does not provide an option for count outcomes, we used the MLR estimator which is robust against non-normality. Full Information Maximum Likelihood (FIML) was used to handle missing data.

RESULTS

Preliminary Analyses

Descriptive statistics including rates of missing data and Pearson correlations are displayed in **Table 1**. Meaning reflectivity showed the largest percentage of missing data (11.3%). Participants who did not fill in this question were significantly older ($M = 84.74$, $SD = 3.95$) than participants who did ($M = 81.57$, $SD = 4.25$), $t(259) = 3.70$, $p < 0.001$, but did not differ significantly on presence of meaning, search for meaning or depressive symptoms. Crosstabs with Chi-Square tests suggested that rate of missingness on meaning reflectivity did not significantly differ across categories of gender, civil status or education (full missing data analyses output on the OSF project page).[2] Subsequent analyses were performed under the assumption of data missing at random (MAR) (Graham, 2009).

With regard to the relation between demographic variables and the main variables, age showed a small positive correlation with depressive symptoms. Level of education showed a small positive correlation with both presence of meaning and search for meaning and a small to moderate negative correlation with depressive symptoms (**Table 1**). Independent t-tests showed that there were no significant gender differences in presence of meaning, search for meaning, or depressive symptoms. Regarding civil status, participants who were married or living together scored significantly higher on search for meaning ($M = 2.28$, $SD = 0.80$) than participants who were widowed/single/divorced ($M = 2.06$, $SD = 0.79$), $t(249) = 2.20$, $p = 0.029$.

Comparison of the Meaning Reflectivity Categories

In response to the question of whether participants had considered the topic of meaning in life before completing the questionnaire, 106 of 250 participants (42.4%) who provided an answer to this question indicated that they had *thought* about meaning in their life before the study ("Yes, I have thought about it before"). Another 58 participants (23.2%) indicated that they had *talked* about it before ("Yes, I have talked about this with others"). Forty-five participants (18%) indicated "No, but I do find it interesting," while 41 participants (16.4%) indicated that they were not interested in the topic ("No, that doesn't concern me.").

ANOVA analyses revealed that participants in different meaning reflectivity categories had significantly different scores on presence of meaning, search for meaning, and depressive symptoms (see **Table 2**). Participants who indicated that they were unconcerned with meaning in their life (Category 4) reported significantly lower presence of meaning and search for meaning in their lives than participants in the other three categories. They also reported more depressive symptoms than participants who had thought about meaning before (Category 2) or found it interesting (Category 3). Participants who had talked or thought about meaning (Categories 1 and 2) scored significantly higher on search for meaning than participants who hadn't thought about meaning in their lives before the study (Categories 3 and 4).

Meaning Reflectivity as Statistical Predictor of Meaning in Life and Depressive Symptoms

Table 3 shows the results of the regression models and the negative binomial model. The table includes pooled estimates

---

[2] https://osf.io/rnzad

TABLE 1 | Missing data, means, standard deviations, and correlations with confidence intervals.

Variable	*n* (% missing)	Potential range	Observed range	*M*	*SD*	1	2	3	4
1. Age	261 (7.4%)			81.90	4.33				
2. Education	276 (2.1%)			2.82	0.95	–0.14* [–0.26, –0.02]			
3. Presence of Meaning	264 (6.4%)	1–4	1–4	3.02	0.70	–0.02 [–0.14, 0.11]	0.14* [0.02, 0.26]		
4. Search for Meaning	258 (8.5%)	1–4	1–4	2.20	0.80	–0.09 [–0.21, 0.04]	0.19** [0.07, 0.31]	0.36** [0.25, 0.46]	
5. Geriatric Depression Scale	278 (1.4%)	0–8	0–6	0.40	0.97	0.13* [0.01, 0.25]	–0.23** [–0.34, –0.11]	–0.28** [–0.38, –0.16]	–0.14* [–0.26, –0.02]
6. Meaning reflectivity	250 (11.3%)								

*M and SD are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. The mean education reflects an education level between lower and higher secondary education. * indicates p < 0.05. ** indicates p < 0.01.*

TABLE 2 | Mean values of the main outcome variables for the four meaning reflectivity categories with univariate ANOVA tests and post hoc comparisons.

Outcome variable (potential range)	Meaning reflectivity					*n*	η ^{2}
	Category 1 (talked about)	Category 2 (thought about)	Category 3 (interesting)	Category 4 (unconcerned)	*F*-value (*df*)		
Presence of Meaning (1–4)	3.07 (0.65)^{a}	3.16 (0.60)^{a}	3.07 (0.67)^{a}	2.40 (0.81)^{b}	12.93 (3, 239)***	243	0.14
Search for Meaning (1–4)	2.56 (0.77)^{a}	2.38 (0.75)^{a}	2.01 (0.72)^{b}	1.44 (0.45)^{c}	22.99 (3, 230)***	234	0.23
Geriatric Depression Scale (0–8)	0.41 (0.88)	0.18 (0.54)^{a}	0.30 (0.70)^{a}	0.85 (1.44)^{b}	6.19 (3, 243)***	247	0.07

*Standard deviations in parentheses. Post hoc comparisons using Tukey HSD tests. Mean values with different superscripts (a, b, c) are significantly different from each other. Means without any superscript do not differ significantly from any other mean. Category 1 = "Yes, I have talked about this with others," Category 2 = "Yes, I have thought about it before," Category 3 = "No, but I do find it interesting," Category 4 = "No, that doesn't concern me." ***p < 0.001.*

TABLE 3 | Summary of regression models for predicting presence of meaning and search for meaning (left columns) and the negative binomial model predicting the geriatric depression scale (right column).

	Presence of Meaning			Search for Meaning			Geriatric Depression Scale		
	***B* [95% CI]**	***SE***	***p***	***B* [95% CI]**	***SE***	***p***	***B* [95% CI]**	***SE***	***p***
Intercept	1.93* [0.11, 3.75]	0.92	0.04	2.87** [0.79, 4.96]	1.06	0.007	–3.60 [–8.59, 1.40]	2.55	0.16
Age	0.002 [–0.02, 0.02]	0.01	0.85	–0.02 [–0.04, 0.01]	0.01	0.17	**0.07* [0.01, 0.13]**	0.03	0.02
Education	0.09 [–0.01, 0.19]	0.05	0.08	0.10 [–0.02, 0.21]	0.06	0.09	**–0.42** [–0.72, –0.11]**	0.16	0.008
Gender									
Men	0.16 [–0.04, 0.36]	0.10	0.12	–0.02 [–0.25, 0.21]	0.12	0.88	0.15 [–0.46, 0.76]	0.31	0.63
Women^{a}	–	–	–	–	–	–	–	–	–
Civil status									
Married/living together	0.11 [–0.08, 0.30]	0.10	0.27	0.12 [–0.10, 0.34]	0.11	0.28	–0.50 [–1.12, 0.13]	0.32	0.12
Single/divorced/widowed^{a}	–	–	–	–	–	–	–	–	–
Meaning Reflectivity									
Category 1 (talked about)	**0.33* [0.06, 0.61]**	0.14	0.02	**0.60** [0.20, 1.00]**	0.20	0.004	–0.18 [–1.23, 0.87]	0.53	0.74
Category 2 (thought about)	**0.48** [0.20, 0.76]**	0.14	0.001	**0.51* [0.12, 0.89]**	0.19	0.01	–0.65 [–1.67, 0.37]	0.52	0.21
Category 3 (interesting)	**0.43* [0.10, 0.76]**	0.17	0.01	0.16 [–0.29, 0.60]	0.22	0.49	–0.36 [–1.46, 0.73]	0.55	0.51
Category 4^{a} (unconcerned)	–	–	–	–	–	–	–	–	–
Presence of Meaning							**–0.68** [–1.11, –0.24]**	0.22	0.002
Search for Meaning							–0.01 [–0.43, 0.42]	0.22	0.98

N = 249 (complete cases after multiple imputations). Pooled estimates of 20 imputed data sets to handle missing data on presence of meaning, search for meaning, and meaning reflectivity. B, unstandardized coefficients; SE, standard errors; CI, confidence interval. Significant predictor coefficients in bold. Category 1 = "Yes, I have talked about this with others," Category 2 = "Yes, I have thought about it before," Category 3 = "No, but I do find it interesting," Category 4 = "No, that doesn't concern me."
^{a}*Reference category. **p < 0.01; *p < 0.05.*

based on 20 imputed datasets (Graham, 2009). Presence of meaning, search for meaning, depressive symptoms, and meaning reflectivity were imputed at the scale-level using an imputation model which included all the variables from the regression and negative binomial model and additional auxiliary variables with possible predictive value not used in the current study (Sterne et al., 2009; full imputation syntax on OSF (see text footnote 1).

The two left columns show the regression models predicting presence of meaning and search for meaning. Compared to the reference category (unconcerned with meaning in life), belonging to any of the other three categories of meaning reflectivity was significantly associated with higher scores on presence of meaning in life. For search for meaning, belonging to one of the first two categories (talked or thought about meaning in life before the study) was significantly associated with higher scores on search for meaning compared to the reference category.

The right column of **Table 3** shows the results of the negative binomial model predicting depressive symptoms. Higher age, lower level of education, and lower presence of meaning was significantly associated with a higher level of depressive symptoms. Meaning reflectivity was not significantly associated with any additional variance in depressive symptoms.

Meaning in Life as Mediator Between Meaning Reflectivity and Depressive Symptoms

The regression and negative binomial models indicated that meaning reflectivity was a significant statistical predictor of presence of meaning and search for meaning, and that presence of meaning (but not search for meaning) was a significant predictor of depressive symptoms. We therefore tested an exploratory mediation model (using a structural equation model framework) to examine whether presence of meaning was a statistical mediator between meaning reflectivity and depressive symptoms. The mediation model had excellent fit [$\chi^2(1) = 1.39$, $p = 0.24$; CFI = 0.996; TLI = 0.938; RMSEA = 0.033; SRMR = 0.007]. A summary of the model output is shown in **Table 4**. The model suggests a partial mediation for category 2 (thought about meaning in life before) compared to the reference category (unconcerned with meaning in life) in the prediction of depressive symptoms, with both a significant direct and indirect effect. For category 1 and 3 (talked about meaning and interested in meaning), only the indirect was significant, suggesting a full mediation through presence of meaning in predicting depressive symptoms.

DISCUSSION

In the present paper, we examined to what extent community-dwelling older adults in Belgium engage in meaning reflectivity and how this meaning reflectivity is related to their experience of meaning in life (both presence and search) and depressive symptoms. As expected, the majority of older adults had either thought (42.4%) or talked (23.2%) about meaning in their life before participating in the study. However, a substantial proportion of participants had not thought about meaning in their life before. About half of these participants (18% of the total sample) indicated that they did find it an interesting topic, while the other half (16.4% of the total sample) declared that they were unconcerned with the topic. When comparing these four groups, especially the latter group differed from the other groups on the outcomes examined: they experienced less presence of meaning in their life, where searching for it less, and reported more depressive symptoms. Looking back at previous research, the mean levels of presence of meaning and search for meaning for this group were also lower than was observed in a general sample of community dwelling older adults aged 70 or more (Van der Heyden et al., 2015). In contrast, their scores were more similar to the relatively lower levels that have been observed in a nursing home population (Dewitte et al., 2019). While it should be noted that the mean score for depressive symptoms for the overall sample was low, the mean score for the unconcerned group also leaned more toward scores that have been observed in more challenged populations such as older adults recovering from stroke (Buijck et al., 2014) or older adults living in nursing homes (Dezutter et al., 2020).

Meaning reflectivity categories also statistically predicted higher presence of meaning and search for meaning adjusted for covariates, but did not predict depressive symptoms above the predictive effect of presence of meaning. An exploratory mediation model suggested that meaning reflectivity may be indirectly associated with depressive symptoms through presence of meaning.

These results are in line with a limited number of previous findings in the general population which found that reflecting on meaning or other existential topics is related to higher meaning in life and/or better psychological functioning (Allan and Shearer, 2012; Hill et al., 2019). With the current study, we thus extend this finding to a population of older adults specifically. However, previous work suggests that reflecting on topics like meaning in life may not always be equally beneficial. More specifically, adults without a guiding religious framework or adults living in a highly globalized society may experience difficulties in finding satisfying answers to questions of meaning when reflecting on it, which may be accompanied by a decrease rather than increase in psychological well-being (Joshanloo and Weijers, 2014). The context of the current study (Belgium) can be regarded as a globalized and secular country, but older adults often remain more religious. Although we could not investigate the role of religion in the current study, this may be one possible explanation for the positive association found between meaning reflectivity and adaptive outcomes (presence of meaning and less depressive symptoms). For older adults nearing the end of their life, existential topics can become more salient. It may be easier for those who can rely on a firm religious belief system to find a confirmation of life's meaning and a heightened sense of well-being when going through an existential reflection process. However, future studies specifically assessing religious

TABLE 4 | Summary of mediation model with presence of meaning as mediator between meaning reflectivity and depressive symptoms.

Outcome	Predictor		*B* [95% CI]	β	*SE*	*P*
Presence of Meaning	Meaning reflectivity					
	Category 1 (talked about)	a1	0.62 [0.33, 0.91]	0.37***	0.15	< 0.001
	Category 2 (thought about)	a2	0.73 [0.45, 1.00]	0.52***	0.14	< 0.001
	Category 3 (interesting)	a3	0.64 [0.33, 0.96]	0.35***	0.16	< 0.001
	Category 4[a] (unconcerned)			–	–	–
Geriatric Depression Scale	Meaning reflectivity					
	Category 1 (talked about)	c1	–0.22 [–0.76, 0.33]	–0.10	0.28	0.44
	Category 2 (thought about)	c2	–0.49 [–0.96, –0.02]	–0.25*	0.24	0.04
	Category 3 (interesting)	c3	–0.49 [–1.02, 0.03]	–0.20	0.27	0.07
	Category 4[a] (unconcerned)			–	–	–
	Presence of Meaning	b	–0.27 [–0.43, –0.10]	–0.19**	0.09	0.002
	Indirect effects					
	a1b		–0.17 [–0.28, –0.05]	–0.07**	0.06	0.006
	a2b		–0.19 [–0.32, –0.07]	–0.10**	0.06	0.002
	a3b		–0.17 [–0.30, –0.05]	–0.07**	0.06	0.006
	Total effects					
	a1b + c1		–0.38 [–0.92, 0.16]	–0.17	0.28	0.17
	a2b + c2		–0.68 [–1.16, –0.20]	–0.35**	0.25	0.005
	a3b + c3		–0.66 [–1.20, –0.13	–0.26*	0.27	0.02

N = 282. Paths from the covariates (gender, age, education, civil state) not shown for clarity (see OSF for full model output: https://osf.io/rnzad). B, unstandardized coefficients; SE, standard errors; CI, confidence interval. Category 1 = "Yes, I have talked about this with others," Category 2 = "Yes, I have thought about it before," Category 3 = "No, but I do find it interesting," Category 4 = "No, that doesn't concern me."

*[a]Reference category. ***$p < 0.001$; **$p < 0.01$; *$p < 0.05$.*

affiliation and activities in older adults are needed to confirm this hypothesis.

The statistical models of the current studies were based on the theoretical framework that meaning reflectivity proceeds and predicts the experience of meaning in life and, in turn, psychological health (Allan and Shearer, 2012; Hill et al., 2019). However, given the cross-sectional nature of the study, we were unable to test the temporal direction of our hypothesized effects. A concept related to meaning reflectivity has been forwarded by Hooker et al. (2018). They propose the relevance of *meaning salience*—or "the extent to which meaning stands out or is conspicuous to individuals" (p. 16)—for explaining the positive relation between meaning in life and health outcomes. However, in this view, meaning salience follows the experience of meaning rather than being a preceding process. Longitudinal and experimental studies will be needed to disentangle the temporal relationship between meaning in life on the one hand and meaning reflectivity and related concepts such as meaning salience on the other hand, although it seems reasonable to suspect that experiencing meaning in life and reflecting on this experience are likely to be in a reciprocal interaction.

Although the current findings should be interpreted with caution given a number of limitations (see below), they provide an important first indication for the relevance of the concept of meaning reflectivity for the psychological functioning of older adults. In doing so, the current study sheds first empirical light on a potential *process* of daily meaning construction in later life. These findings and future work in this area can provide useful information for the further development of effective meaning interventions. For example, one common strategy to support older adults who are struggling to find meaning in their life is the use of life-review interventions (Westerhof et al., 2010). Such interventions provide a structured setting in which older adults are encouraged to review their life story, integrate negative and positive memories, and relate these experiences to the present circumstances and future aspirations. Including meaning reflectivity as an explicit component in these interventions may hold promise in leveraging its positive effects. In fact, some studies that examined the potential of a meaning-focused life-review approach (called "spiritual reminiscence") have shown promising results in older adults with dementia (MacKinlay and Trevitt, 2010; Wu and Koo, 2016; Ching-Teng et al., 2020). Similarly, meaning reflectivity could be incorporated more explicitly in existing and effective programs such as gratitude diary interventions (Killen and Macaskill, 2015) or interventions focusing on gerotranscendence (Wang et al., 2011).

Of course, many other processes besides meaning reflectivity are likely involved. In line with prominent dual process theories of thinking in fields like learning and decision making (e.g., Evans, 2010; Kahneman, 2011), we may expect that both more effortful processes like meaning reflectivity and more spontaneous processes are involved. This idea has for example also been proposed by Ward and King (2017), who reviewed existing evidence suggesting that both reflective and intuitive information processing styles are involved in making sense of our experiences. The current findings can be used to further build this underdeveloped line of research.

Limitations

This research has some important limitations to take into account. First, the use of a non-validated measure to divide participants into categories of meaning reflectivity is an important shortcoming. Our findings demonstrate the relevance of meaning reflectivity for the future study of meaning in life, but future studies would benefit from a validated scale. After the data for the current study was collected, Hill et al. (2019) proposed a dimensional scale to measure meaning reflectivity. Further work is needed to clarify whether this concept is best operationalized as a categorical or dimensional variable.

Second, the Presence of Meaning subscale assesses participants' overall experience of meaning in life. However, following the growing consensus on the tripartite structure of meaning in life, more recent scales have been developed, which tap into the three components of coherence, purpose, and significance separately. It is an interesting question for future studies whether or not meaning reflectivity relates differently to the three subcomponents of meaning in life. It could, for example, be hypothesized that this reflective process is more important in constructing the cognitive component of coherence.

Third, the cross-sectional nature of the study precludes any conclusions about the temporal or causal relation between the variables. Especially the explorative mediation model should be interpreted with strong caution, as cross-sectional mediation analyses often produce biased estimates of presumed longitudinal effects, both for complete and partial mediation effects (Maxwell and Cole, 2007; Maxwell et al., 2011). Moreover, a statistical mediation model relies on strong assumptions such as the absence of both confounding and reverse causality—assumptions which are not unlikely to be violated in the present study (Rohrer et al., 2021). As mentioned above, we acknowledge the possibility of an opposite or bidirectional effect between meaning reflectivity and meaning in life. Furthermore, we can think of several unmeasured confounding variables that are possibly related to both meaning reflectivity and meaning in life, such as cognitive style, personality traits (e.g., extraversion and openness), and spirituality or religiosity (Schnell and Becker, 2006; Steger et al., 2008a). Because we are eventually interested in causal inferences, we included the mediation model based on our theoretical hypotheses, but we emphasize the need for further longitudinal or experimental work in this area.

Fourth, participants of this study were a convenience sample of older adults. This data collection approach involves an important self-selection bias on the level of the participants; older adults who decide to participate in a study like this may differ from participants who decline to participate in important ways. For example, it is not unlikely that the most vulnerable older adults, like those with more severe physical disability, depressive symptoms, or smaller interpersonal networks are less likely to participate. Looking at the mean score of depressive symptoms in our study, we indeed see a low value of less than one on a scale from zero to eight (although with considerable variance). This limits the generalizability of the current findings to the general population of older adults living at home. The current findings can also not be readily generalized to other specific old age populations, such as those living in nursing homes.

CONCLUSION

The extent to which older adults think or talk about meaning in their lives (i.e., meaning reflectivity) is a relevant concept to consider when studying meaning in later life. We showed that most older adults engage in some form of meaning reflectivity (either thinking or talking about it) or are interested in the topic of meaning. However, a substantial proportion (about one in six) of older adults report to be unconcerned with the topic of meaning life. Importantly, belonging to this category was predictive of experiencing lower meaning in life and a higher rates of depressive symptoms. Meaning reflectivity may thus be an important process involved in the experience of meaning and may therefore be an interesting mechanism to focus on when developing potential interventions for older adults experiencing a lack of meaning in life.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The study involving human participants was reviewed and approved by the Social and Societal Ethics Committee (SMEC) of KU Leuven (G- 2017 03 803). The participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

This study was designed by JD and LD, in discussion with other lab members of JD. JD supervised the data collection and provided critical feedback for manuscript revision. LD analyzed the data and wrote the first draft of the manuscript. Both authors contributed to the article and approved the submitted version.

FUNDING

This research was supported by KU Leuven (PDM/20/064 to LD).

ACKNOWLEDGMENTS

We would like to thank Nadezhda Golovchanova for her help in preparing the TiMe study.

REFERENCES

Allan, B. A., and Shearer, C. B. (2012). The scale for existential thinking. *Int. J. Transpers. Stud.* 31, 21–37. doi: 10.24972/ijts.2012.31.1.21

Bar-Tur, L., Savaya, R., and Prager, E. (2001). Sources of meaning in life for young and old Israeli Jews and Arabs. *J. Aging Stud.* 15, 253–269. doi: 10.1016/S0890-4065(01)00022-6

Bengtson, V. L., Silverstein, M., Putney, N. M., and Harris, S. C. (2015). Does religiousness increase with age? Age changes and generational differences over 35 years. *J. Sci. Study Religion* 54, 363–379. doi: 10.1111/jssr.12183

Boyle, P. A., Buchman, A. S., Barnes, L. L., and Bennett, D. A. (2010). Effect of a purpose in life on risk of incident Alzheimer disease and mild cognitive impairment in community-dwelling older persons. *Arch. Gen. Psychiatry* 67:304. doi: 10.1001/archgenpsychiatry.2009.208

Boyraz, G., and Efstathiou, N. (2011). Self-focused attention, meaning, and posttraumatic growth: the mediating role of positive and negative affect for bereaved women. *J. Loss Trauma* 16, 13–32. doi: 10.1080/15325024.2010.507658

Buijck, B. I., Zuidema, S. U., Spruit-van Eijk, M., Bor, H., Gerritsen, D. L., and Koopmans, R. T. (2014). Determinants of geriatric patients' quality of life after stroke rehabilitation. *Aging Ment. Health* 18, 980–985. doi: 10.1080/13607863.2014.899969

Ching-Teng, Y., Ya-Ping, Y., Chia-Ju, L., and Hsiu-Yueh, L. (2020). Effect of group reminiscence therapy on depression and perceived meaning of life of veterans diagnosed with dementia at veteran homes. *Soc. Work Health Care* 59, 75–90. doi: 10.1080/00981389.2019.1710320

Cohen, G. D. (2005). *The Mature Mind: The Positive Power of the Aging Brain*. New York, NY: Basic Books (AZ).

Davis, C. G., Nolen-Hoeksema, S., and Larson, J. (1998). Making sense of loss and benefiting from the experience: two construals of meaning. *J. Pers. Soc. Psychol.* 75, 561–574. doi: 10.1037/0022-3514.75.2.561

Debats, D. L. (1999). Sources of meaning an investigation of significant commitments in life [Article; Proceedings Paper]. *J. Hum. Psychol.* 39, 30–57. doi: 10.1177/0022167899394003

Delle Fave, A., Brdar, I., Wissing, M. P., and Vella-Brodrick, D. A. (2013). Sources and motives for personal meaning in adulthood. *J. Posit. Psychol.* 8, 517–529. doi: 10.1080/17439760.2013.830761

Dewitte, L., Vandenbulcke, M., Schellekens, T., and Dezutter, J. (2019). Sources of well-being for older adults with and without dementia in residential care: relations to presence of meaning and life satisfaction. *Aging Ment. Health* 25, 1–9. doi: 10.1080/13607863.2019.1691144

Dezutter, J., Toussaint, L., and Dewitte, L. (2020). Finding a balance between integrity and despair: a challenging task for older adults in residential care. *J. Adult Dev.* 27, 147–156. doi: 10.1007/s10804-019-09332-1

Evans, J. S. B. (2010). Intuition and reasoning: a dual-process perspective. *Psychol. Inq.* 21, 313–326. doi: 10.1080/1047840X.2010.521057

Fegg, M. J., Kramer, M., Bausewein, C., and Borasio, G. D. (2007). Meaning in life in the federal Republic of Germany: results of a representative survey with the schedule for meaning in life evaluation (SMiLE) [Article]. *Health Qual. Life Outcomes* 5:97. doi: 10.1186/1477-7525-5-59

Frankl, V. E. (1968). *Man's Search for Meaning: An Introduction to Logotherapy*. London: Hodder and Stoughton.

Gardner, W., Mulvey, E. P., and Shaw, E. C. (1995). Regression analyses of counts and rates: poisson, overdispersed poisson, and negative binomial models. *Psychol. Bull.* 118:392. doi: 10.1037/0033-2909.118.3.392

George, L. S., and Park, C. L. (2016). Meaning in life as comprehension, purpose, and mattering: toward integration and new research questions. *Rev. Gen. Psychol.* 20, 205–220. doi: 10.1037/gpr0000077

Glaesmer, H., Riedel-Heller, S., Braehler, E., Spangenberg, L., and Luppa, M. (2011). Age-and gender-specific prevalence and risk factors for depressive symptoms in the elderly: a population-based study. *Int. Psychogeriatr.* 23:1294. doi: 10.1017/S1041610211000780

Graham, J. W. (2009). Missing data analysis: making it work in the real world. *Annu. Rev. Psychol.* 60, 549–576. doi: 10.1146/annurev.psych.58.110405.085530

Heine, S. J., Proulx, T., and Vohs, K. (2006). The meaning maintenance model: on the coherence of social motivations. *Pers. Soc. Psychol. Rev.* 10, 88–110. doi: 10.1207/s15327957pspr1002_1

Heintzelman, S. J., and King, L. A. (2014). (The feeling of) meaning-as-information. *Pers. Soc. Psychol. Rev.* 18, 153–167. doi: 10.1177/1088868313518487

Hill, C. E., Kline, K. V., Miller, M., Marks, E., Pinto-Coelho, K., and Zetzer, H. (2019). Development of the meaning in life measure. *Couns. Psychol. Q.* 32, 205–226. doi: 10.1080/09515070.2018.1434483

Hill, P. L., and Weston, S. J. (2019). Evaluating eight-year trajectories for sense of purpose in the health and retirement study. *Aging Ment. Health* 23, 233–237. doi: 10.1080/13607863.2017.1399344

Hooker, S. A., Masters, K. S., and Park, C. L. (2018). A meaningful life is a healthy life: a conceptual model linking meaning and meaning salience to health. *Rev. Gen. Psychol.* 22, 11–24. doi: 10.1037/gpr0000115

Hupkens, S., Machielse, A., Goumans, M., and Derkx, P. (2018). Meaning in life of older persons: an integrative literature review. *Nurs. Ethics* 25, 973–991. doi: 10.1177/0969733016680122

Irving, J., Davis, S., and Collier, A. (2017). Aging with purpose: systematic search and review of literature pertaining to older adults and purpose. *Int. J. Aging Human Dev.* 85, 403–437. doi: 10.1177/0091415017702908

Jongenelis, K., Gerritsen, D., Pot, A., Beekman, A., Eisses, A., Kluiter, H., et al. (2007). Construction and validation of a patient-and user-friendly nursing home version of the Geriatric depression scale. *Int. J. Geriatr. Psychiatry* 22, 837–842. doi: 10.1002/gps.1748

Joshanloo, M., and Weijers, D. (2014). Does thinking about the meaning of life make you happy in a religious and globalised world? A 75-nation study. *J. Psychol. Afr.* 24, 73–81. doi: 10.1080/14330237.2014.904093

Kahneman, D. (2011). *Thinking, Fast and Slow*. New York, NY: Farrar, Straus and Giroux.

Killen, A., and Macaskill, A. (2015). Using a gratitude intervention to enhance well-being in older adults. *J. Happiness Stud.* 16, 947–964. doi: 10.1007/s10902-014-9542-3

Krause, N. (2007). Longitudinal study of social support and meaning in life. *Psychol. Aging* 22, 456–469. doi: 10.1037/0882-7974.22.3.456

Kretschmer, M., and Storm, L. (2018). The relationships of the five existential concerns with depression and existential thinking. *Int. J. Existent. Posit. Psychol.* 7:20.

MacKinlay, E., and Trevitt, C. (2010). Living in aged care: using spiritual reminiscence to enhance meaning in life for those with dementia. *Int. J. Ment. Health Nurs.* 19, 394–401. doi: 10.1111/j.1447-0349.2010.00684.x

Martela, F., and Steger, M. F. (2016). The three meanings of meaning in life: distinguishing coherence, purpose, and significance. *J. Posit. Psychol.* 11, 531–545. doi: 10.1080/17439760.2015.1137623

Maxwell, S. E., and Cole, D. A. (2007). Bias in cross-sectional analyses of longitudinal mediation. *Psychol. Methods* 12:23. doi: 10.1037/1082-989X.12.1.23

Maxwell, S. E., Cole, D. A., and Mitchell, M. A. (2011). Bias in cross-sectional analyses of longitudinal mediation: partial and complete mediation under an autoregressive model. *Multivariate Behav. Res.* 46, 816–841. doi: 10.1080/00273171.2011.606716

Minicuci, N., Maggi, S., Pavan, M., Enzi, G., and Crepaldi, G. (2002). Prevalence rate and correlates of depressive symptoms in older individuals: the Veneto Study. *J. Gerontol. Ser. A Biol. Sci. Med. Sci.* 57, M155–M161. doi: 10.1097/JGP.0b013e3181e70d09

Newman, D. B., and Nezlek, J. B. (2019). Private self-consciousness in daily life: relationships between rumination and reflection and well-being, and meaning in daily life. *Pers. Individ. Differ.* 136, 184–189. doi: 10.1016/j.paid.2017.06.039

Park, C. L. (2010). Making sense of the meaning literature: an integrative review of meaning making and its effects on adjustment to stressful life events. *Psychol. Bull.* 136, 257–301. doi: 10.1037/a0018301

Park, C. L., and George, L. S. (2018). Lab-and field-based approaches to meaning threats and restoration: convergences and divergences. *Rev. Gen. Psychol.* 22:73. doi: 10.1037/gpr0000118

Park, N., Park, M., and Peterson, C. (2010). When is the search for meaning related to life satisfaction? *Appl. Psychol. Health Well Being* 2, 1–13. doi: 10.1111/j.1758-0854.2009.01024.x

Pinquart, M. (2002). Creating and maintaining purpose in life in old age: a meta-analysis. *Ageing Int.* 27, 90–114. doi: 10.1007/s12126-002-1004-2

Reker, G. T., and Wong, P. T. P. (2012). "Personal meaning in life and psychosocial adaptation in the later years," in *The Human Quest for Meaning: Theories,* *Research, and Applications*, 2nd Edn, ed. P. T. P. Wong (London: Routledge), 433–456.

Rohrer, J. M., Hünermund, P., Arslan, R. C., and Elson, M. (2021). That'sa lot to PROCESS! Pitfalls of popular path models. *PsyArXiv* [Preprint]. doi: 10.31234/osf.io/paeb7

Rosseel, Y. (2012). Lavaan: an R package for structural equation modeling and more. Version 0.5–12 (BETA). *J. Stat. Softw.* 48, 1–36. doi: 10.18637/jss.v048.i02

Schnell, T. (2009). The sources of meaning and meaning in life questionnaire (SoMe): relations to demographics and well-being [Article]. *J. Posit. Psychol.* 4, 483–499. doi: 10.1080/17439760903271074

Schnell, T., and Becker, P. (2006). Personality and meaning in life. *Pers. Individ. Differ.* 41, 117–129. doi: 10.1016/j.paid.2005.11.030

Steger, M. F., Frazier, P., Oishi, S., and Kaler, M. (2006). The meaning in life questionnaire: assessing the presence of and search for meaning in life. *J. Couns. Psychol.* 53:80. doi: 10.1037/0022-0167.53.1.80

Steger, M. F., Kashdan, T. B., Sullivan, B. A., and Lorentz, D. (2008a). Understanding the search for meaning in life: personality, cognitive style, and the dynamic between seeking and experiencing meaning. *J. Pers.* 76, 199–228. doi: 10.1111/j.1467-6494.2007.00484.x

Steger, M. F., Kawabata, Y., Shimai, S., and Otake, K. (2008b). The meaningful life in Japan and the United States: levels and correlates of meaning in life. *J. Res. Pers.* 42, 660–678. doi: 10.1016/j.jrp.2007.09.003

Steger, M. F., Oishi, S., and Kashdan, T. B. (2009). Meaning in life across the life span: levels and correlates of meaning in life from emerging adulthood to older adulthood. *J. Posit. Psychol.* 4, 43–52. doi: 10.1080/17439760802303127

Steger, M. F., and Samman, E. (2012). Assessing meaning in life on an international scale: psychometric evidence for the meaning in life questionnaire-short form among chilean households. *Int. J. Wellbeing* 2, 182–195. doi: 10.5502/ijw.v2i.i3.2

Steptoe, A., and Fancourt, D. (2019). Leading a meaningful life at older ages and its relationship with social engagement, prosperity, health, biology, and time use. *Proc. Natl. Acad. Sci. U.S.A.* 116, 1207–1212. doi: 10.1073/pnas.1814723116

Sterne, J. A., White, I. R., Carlin, J. B., Spratt, M., Royston, P., Kenward, M. G., et al. (2009). Multiple imputation for missing data in epidemiological and clinical research: potential and pitfalls. *BMJ* 338, b2393. doi: 10.1136/bmj.b2393

Tornstam, L. (1989). Gero-transcendence: a reformulation of the disengagement theory. *Aging Clin. Exp. Res.* 1, 55–63. doi: 10.1007/BF03323876

Tornstam, L. (1997). Gerotranscendence: the contemplative dimension of aging. *J. Aging Stud.* 11, 143–154. doi: 10.1016/S0890-4065(97)90018-9

Van der Heyden, K., Dezutter, J., and Beyers, W. (2015). Meaning in life and depressive symptoms: a person-oriented approach in residential and community-dwelling older adults. *Aging Mental Health* 19, 1063–1070. doi: 10.1080/13607863.2014.995589

van't Veer-Tazelaar, P. J. N., van Marwijk, H. W., Jansen, A. P. D., Rijmen, F., Kostense, P. J., van Oppen, P., et al. (2008). Depression in old age (75+), the PIKO study. *J. Affect. Disord.* 106, 295–299. doi: 10.1016/j.jad.2007.07.004

Volkert, J., Härter, M., Dehoust, M. C., Ausín, B., Canuto, A., Da Ronch, C., et al. (2019). The role of meaning in life in community-dwelling older adults with depression and relationship to other risk factors. *Aging Mental Health* 23, 100–106. doi: 10.1080/13607863.2017.1396576

Wang, J.-J., Lin, Y.-H., and Hsieh, L.-Y. (2011). Effects of gerotranscendence support group on gerotranscendence perspective, depression, and life satisfaction of institutionalized elders. *Aging Mental Health* 15, 580–586. doi: 10.1080/13607863.2010.543663

Ward, S., and King, L. (2017). "Making sense: meaning in life in a cognitive context," in *The Happy Mind: Cognitive Contributions to Well-Being*, eds M. D. Robinson and M. Eid (Cham: Springer International Publishing), 409–425. doi: 10.1007/978-3-319-58763-9_22

Westerhof, G. J., Bohlmeijer, E., and Webster, J. D. (2010). Reminiscence and mental health: a review of recent progress in theory, research and interventions. *Ageing Soc.* 30:697. doi: 10.1017/S0144686X09990328

Windsor, T. D., Curtis, R. G., and Luszcz, M. A. (2015). Sense of purpose as a psychological resource for aging well. *Dev. Psychol.* 51:975. doi: 10.1037/dev0000023

Wong, P. T. P. (2016). "Meaning-seeking, self-transcendence, and well-being," in *Logotherapy and Existential Analysis: Proceedings of the Viktor Frankl Institute Vienna*, Vol. 1, ed. A. Batthyany (New York, NY: Springer International Publishing), 311–321. doi: 10.1007/978-3-319-29424-7_27

Wu, L. F., and Koo, M. (2016). Randomized controlled trial of a six-week spiritual reminiscence intervention on hope, life satisfaction, and spiritual well-being in elderly with mild and moderate dementia. *Int. J. Geriatr. Psychiatry* 31, 120–127. doi: 10.1002/gps.4300

Yount, W. R. (2008). Transcendence and aging: the secular insights of Erikson and Maslow. *J. Relig. Spiritual. Aging* 21, 73–87. doi: 10.1080/15528030802265361

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers in Psychology

ORIGINAL RESEARCH
published: 25 November 2021
doi: 10.3389/fpsyg.2021.666079

Social Innovation Toward a Meaningful Everyday Life for Nursing Home Residents: An Ethnographic Study

Åshild Slettebø, Ragnhild Skaar and Kari Brodtkorb*

Department of Health and Nursing Science, Centre for Caring Research – Southern Norway, Faculty of Health and Sport Sciences, University of Agder, Grimstad, Norway

Background: The literature shows that innovation, which includes culture change, may be important to create a meaningful everyday life for nursing home residents. However, there is a gap in how social innovation practices may contribute to this. The theoretical discourse for the study is person-centered care.

Aim: The main aim was to explore phenomena within social innovation that can contribute to improving nursing home residents' everyday lives.

Design and Method: This study uses an ethnographic design with observations and interviews in two nursing homes in Southern Norway.

Findings: The main theme was that social innovation within working practices in nursing homes includes phenomena that contribute to a meaningful everyday life for the residents. This main theme includes five subthemes: (1) opening the nursing home to the surroundings; (2) expanding and strengthening the community of practice; (3) facilitating customized activities; (4) ensuring sufficient nutrition and facilitating enjoyable mealtimes; and (5) preventing unrest and disturbing behavior.

Conclusion: The study reveals that innovation practices grounded in person-centered care in nursing homes may contribute to opening the nursing home to the community and establishing a common community practice for all members of the nursing home. This enables residents to experience meaningful everyday life through customized activities, sufficient nutrition, and a pleasant milieu during mealtimes. Disturbing behavior is also prevented, making it possible to promote meaningful lives in nursing homes.

Keywords: nursing, community of practice, culture change, nursing homes, qualitative method

Edited by:
Gørill Haugan,
Norwegian University of Science and Technology, Norway

Reviewed by:
Suvi-Maria Katariina Saarelainen,
University of Eastern Finland, Finland
Haywantee Ramkissoon,
University of Derby, United Kingdom

****Correspondence:***
Åshild Slettebø
ashild.slettebo@uia.no

Specialty section:
This article was submitted to Health Psychology, a section of the journal Frontiers in Psychology

Received: *09 February 2021*
Accepted: *29 October 2021*
Published: *25 November 2021*

Citation:
Slettebø Å, Skaar R and Brodtkorb K (2021) Social Innovation Toward a Meaningful Everyday Life for Nursing Home Residents: An Ethnographic Study. Front. Psychol. 12:666079. doi: 10.3389/fpsyg.2021.666079

INTRODUCTION

Statistics Norway (2020) reports that there were 48,889 residents in nursing homes in Norway at the end of 2019. Of these, 32,105 were residents in long-term facilities and 9,784 were residents in short-term facilities (Statistics Norway, 2020). In 2018, there were approximately 70,000 people living in Norway who were diagnosed with dementia, and more than 80% of the residents in nursing homes had been diagnosed with dementia (Ministry of Health and

Care Services, 2018). In Norway and in Western society more generally, there has been a shift in focus in nursing homes. Although physical care used to be the most prominent focus, recently, there has been a shift toward a holistic view of the person and person-centered care, seeing the whole person and their physical, psychological, spiritual, and social dimensions. There has been a change from more passive care to active care, with meaningful activities highlighted as important in long-term care (Ministry of Health and Care Services, 2018). In Norway, "teaching nursing homes" have been established with the intention of enhancing and developing the quality of care provided in nursing homes (Ministry of Health and Care Services, 2006). In the current study, two nursing homes were used as the sites for an observational study design looking at social innovative practices for making everyday life meaningful for the residents.

BACKGROUND

The importance of meaningful everyday life for nursing home residents has been emphasized (Ministry of Health and Care Services, 2009). To have a meaningful life is important for all people, regardless of their age or living situation. When an old person moves into an institution, they become dependent on healthcare personnel for possibilities to create meaning in their everyday life. This is what nursing is about (Travelbee, 1971). However, how to facilitate meaning in life for nursing home residents has not been fully explored, but it is important for residents to experience dignity in everyday life when living in an institution (Kinnear et al., 2015; Slettebø et al., 2017).

There is a need for a cultural change in nursing homes that includes the ethics of care. In the literature, some cultural changes in aged-care facilities have been found to be crucial. These include changes, such as more individualized care, the facilitation of more meaningful relationships, better opportunities for participation in life roles more generally, and the possibilities for the residents to experience a new sense of belonging (Andrew and Ritchie, 2017).

Organizational culture shapes nursing home care. Culture change in nursing homes is a broad-based effort to make nursing homes less institutional and more homelike, patient- and family-centered while creating workplace practices that empower staff (Lima et al., 2020). An integrative review (Duan et al., 2020) of the empirical evidence of the effects of such cultural changes in nursing homes shows a positive trend in terms of residents' quality of life, satisfaction, and autonomy.

In the care for the elderly, there is often an imbalance in power among caregivers and care receivers. However, relational practices are considered a two-sided coin, here with a focus on solidarity and care (Jennings, 2018). To have a good quality of life and a meaningful life, relationships are important for residents in long-term wards in nursing homes. To focus on solidarity and care, caregivers should provide equal respect for the residents' rights and dignity, as well as provide health services. This contributes to "the actualization of potential flourishing for each and all" (Jennings, 2018, p. 553). Sources of meaning in life for older psychologically frail people are financial security, meeting basic needs, and personal relations (Hoeyberghs et al., 2019). This is the first study of the association between meaning in life and psychologically frail older people, showing the sources of meaning in life that should be met by caregivers. Residents in nursing homes may be seen as psychologically frail because most suffer from dementia. Thus, meeting basic needs and establishing solid personal relationships with residents could improve meaning in life for residents.

Meaningfulness and meaning-making are addressed in both psychological (King et al., 2006, 2016; Park, 2010; George and Park, 2016; Wong, 2017; Martela et al., 2018; Crego et al., 2020) and nursing research (Glaw et al., 2017). Meaning-making is considered to have three different meanings: "(a) cognitive processes of attribution and appraisal, (b) creative work of employing one's gifts to make a useful contribution, and (c) narrative process of constructing a personal story to make sense of an event or one's life" (Wong, 2017, p. 86). However, an important question regarding meaning-making is what is really meaning-making for this particular person and under what circumstances. Then, one may discuss particular types of meaning-making and if different meanings of the concept are made helpful and why (Park, 2010). Also, meaningfulness has two different aspects, mainly the cognition which is making sense of life and motivation which is to have a sense of purpose in life (Wong, 2017).

The importance of addressing meaningfulness is emphasized by pointing at the psychopathologies that may arise of meaninglessness, such as depression, anxiety, addiction, aggression, hopelessness, apathy, lower levels of well-being, physical illness, and suicide (Glaw et al., 2017). By focusing on positive affect and relationships, especially with family, healthcare personnel can reduce these psychopathologies and enhance meaningfulness in life with positive well-being, happiness, and better coping with stressful events (King et al., 2006, 2016; Glaw et al., 2017; Crego et al., 2020). Another way to make meaning in life and experience meaningfulness is found to be experiencing autonomy and competence, as well as satisfaction of relatedness and beneficence (Martela et al., 2018).

This is interesting findings also regarding older people in nursing homes as meaningfulness is important for thriving. Phenomena that may contribute to residents' experiences of meaningfulness is found to be personal relationships, especially with family, but also to create moments of personal growths may increase meaning in life for older people also lacking cognitive difficulties (Dewitte et al., 2019). In a recent article, the components of meaning: coherence, purpose, and significance, were studied in a sample of residents lacking Alzheimer's disease (Dewitte et al., 2021). The participants had a felt coherence rather than a cognitive one, and the purpose was not future-oriented any longer. However, the most important phenomenon for them to experience meaning in life were relationships and family. This understanding of meaning in life is consistent with the three components comprehension, purpose, and mattering (George and Park, 2016).

Social innovation is important to facilitate a culture that underpins a meaningful everyday life for nursing home residents. Innovation in the public sector, of which nursing homes may be considered a part, is of interest when the intentions of nursing homes change, as they have lately. Public sector innovation is defined as follows:

> *Public sector innovation is about new ideas that work at creating public value. The ideas have to be at least in part new (rather than improvements); they have to be taken up (rather than just being good ideas); and they have to be useful. By this definition, innovation overlaps with, but is different from, creativity and entrepreneurship* (Mulgan, 2007, p. 6).

This definition includes the notion that innovation implies something "new, useful, and utilized" (Wegener and Tanggaard, 2013). Pue et al. (2016, p. 10) define social innovation as follows:

> *A new definition of social innovation, characterizing it as a process encompassing the emergence and adoption of socially creative strategies, which reconfigure social relations in order to actualize a given social goal.*

Innovation may be considered a way to explore and fulfill the mandate of nursing homes. This mandate implies that because residents spend the later part of their lives in nursing homes, it is important that these homes be experienced as affording a meaningful life for their long-term residents. Innovation in nursing homes can also impact staff perceptions; social support seems to be very important for the social climate among healthcare personnel in nursing homes and, thus, for job satisfaction and job motivation (Adams et al., 2017). This, in turn, impacts healthcare in nursing homes and the service given to residents.

Although perfection is impossible, improvement is not (Tronto, 2001), and care should take place in an environment where all parts engaged can contribute to the ongoing discussion on the best way to meet needs.

Theories of meaningfulness, as discussed by Narens (2002), concentrate on meaningfulness in behavioral sciences but take their starting point in mathematics as cornerstone for these theories. Research in behavioral sciences is discussed mainly with a focus on quantitative research methods, even though qualitative case studies are mentioned (Gravetter and Forzano, 2018). Thus, the main understanding of theories of meaningfulness in behavioral sciences is based on quantitative and experimental research.

The current study is qualitative and focuses on how social innovation through culture change can contribute to residents in nursing homes experiencing a sense of meaning in their daily life. However, meaning-making, as described in narrative therapy, may be relevant for residents in nursing homes, where meaning creation of events in life is seen as a way to cope (Kropf and Tandy, 1998; Fivush et al., 2017). This is relevant in person-centered care, so this framework is chosen as the theoretical discourse in the current study.

Thus, the present study's theoretical discourse of person-centered care is a theory developed by the psychologist Tom Kitwood (Kitwood and Bredin, 1992; Kitwood, 1997). The aim of the theory is to prevent unhealthy sociopsychological patterns in institutions for older people. The theory has been further developed to be implemented in care institutions by McCormack (2004, 2010). It is often found as fundamental for cultural change toward accomplishing a meaningful life for residents in nursing homes (Brodtkorb et al., 2019). Person-centered care emphasizes the meaning of life and the resident's life history as the basis for providing care for the resident both generally and especially for those residents suffering from a form of dementia. The unique persons living in the nursing homes and the knowledge and experiences of the staff are necessary for planning and implementing care and activities that create meaning-making for the residents. Kitwood (1997, p. 8) defines person-centeredness in the following way:

> *…a standing or status that is bestowed upon one human being, by others, in the context of relationship and social being. It implies recognition, respect and trust.*

McCormack (2004, p. 33) argues that it is one's moral personality that gives a person status as someone special. It is the moral attitude that implies humanity as personhood. Because of this moral personality, the "person has an intrinsic, inalienable, unconditional, and objective worth and dignity as person." In a review article by McCormack (2004), person-centered nursing is shown to be based on four understandings of (a) being in relation, (b) being in a social world, (c) being in place, and (d) being with self. These understandings of person-centered nursing imply knowing the resident, and here, it is central to know the resident's values, biography, and "negotiated relationship" with the resident.

The literature shows that innovation, which includes culture change, may be important to create improvements for nursing home residents. However, there is a gap in how social innovation practices may contribute to this improvement.

AIM

The main aim was to explore phenomena within social innovation that can contribute to improving nursing home residents' everyday lives.

DESIGN AND METHOD

The current study has an ethnographic design, with observations and interviews conducted in two nursing homes in Southern Norway.

Context

The nursing homes in the present study had resident departments consisting of single rooms spread over several units with a shared kitchen and living room. There was a separate resource department in one of the nursing homes for people with dementia and challenging behavior. There were day centers, a cafeteria, a hairdresser, and a podiatrist in the centers, as well as a memory room and large living room with stage facilities. On their webpages, the nursing homes expressed a wish to be hospitable and open centers where everyone respects each other and treats each other well.

In Norway, there is an established "Joy of Life Nursing Home" movement.[1] This is a certificate arrangement for nursing homes that fulfill certain standards in terms of respecting residents' existential, cultural, and psychosocial needs. The nursing homes included in the current study were certified as "Joy of Life Nursing Homes" and had been recertified several times, including during the period when the observations took place; this means that they were obliged to be innovative and develop qualitative good care to meet residents' needs.

Data Collection

Two researchers (RS and KB) were participating observers at the two nursing homes. Field observations were performed for a total of 320 h spread over a period of 16 months from fall 2016 to fall 2018. This resulted in 85 pages of single-spaced field notes in font size 12. The field notes were recorded and transcribed in full. The two researchers observed one nursing home each; they were observing in the common area at the nursing homes, but were not participating in care activities that took place in the private rooms of the residents. Sometimes, they were talking with the staff to get a deeper understanding of what was happening in some situations. Some days, they observed more generally what happened at the living rooms or day center, and some days, they followed particular nurses to observe how they performed daily activities in common areas. Two in-depth interviews were conducted with nursing home leaders at the start of the observation period. The interviews were recorded and transcribed verbatim. The interviews lasted between 68 and 70 min. The role of the interview was to deepen the understanding of the philosophy of the nursing home leaders in front of the data collection through the field observations. Thus, the main data came from field notes from the observations. The transcriptions from the interviews were analyzed as text, together with the data from the field notes. In addition, two dialogue meetings were conducted with the staff of the two nursing homes at the beginning and after a period of 2 years (a total of four meetings), and the minutes were added to field notes and analyzed accordingly.

Analysis

A thematic qualitative analysis (Braun and Clarke, 2006) was performed by all three researchers, leading to a main theme and five subthemes. All data from the two interviews, the field notes, and the minutes from the dialogue meetings were merged together as one text and analyzed as a whole. The researchers followed six steps. First, we familiarized ourselves with the data by reading the entire text several times before we met and started the initial analysis. Then, we had an impression of what the themes in the text were about but not having named the themes yet. Second, we generated initial codes, such as "visit from kindergarten and residents were touched and happy," "cleaners actively participating in the staffs' effort of making meaningful days for the residents thus being part of the community of practice," "there is a training trail with varied surface giving opportunity for residents to walk outside," "there are different animals visiting the nursing home where the residents can enjoy meeting animals if they like," "residents' experience of joy when eating newly baked bread," or "resident had challenging behavior and mapping helped finding information." Third, we searched for more abstract themes that were then coded and collated. These codes were "social innovation," "nutritional status," "open nursing home," "meaning in life," and "meaningful activities." The analysis process is described in a table (see **Table 1**). Next, we reviewed the themes before defining and naming five different subthemes: (1) opening the nursing home to the surroundings; (2) expanding and strengthening the community of practice; (3) facilitating customized activities; (4) ensuring sufficient nutrition and facilitating enjoyable mealtimes; and (5) preventing unrest and disturbing behavior; and one main theme "Social innovation within working practices in nursing homes includes phenomenon that contribute to a meaningful everyday life for the residents" that addressed the research question. The final and sixth step was reporting the findings.

Ethics

The nursing homes included in the current study participated in a larger research project named "Social Innovation in Nursing Homes," which was funded by The Norwegian Research Council (no. 256647). Because of the study aims and Norwegian legislation, which requires ethical approval only when health information is collected as part of the research, ethical approval was not required. However, the principles of the Declaration of Helsinki (World Medical Association, 2013) were followed. Observation only took place in communal areas and not in private or intimate situations or in the residents' rooms; thus, privacy was respected. Participation in observation and interviews was voluntary and based on informed consent. The participants received information in advance, were able to withdraw at any time, and could refuse to be observed. The project was approved by the Norwegian Centre for Research Data (no. 49229).

FINDINGS

The main theme was that social innovation within the working practices in nursing homes includes phenomena that contribute to a meaningful everyday life for the residents. This main theme includes five subthemes: (1) opening the nursing home to the surroundings; (2) expanding and strengthening the community of practice; (3) facilitating customized activities; (4) ensuring sufficient nutrition and facilitating enjoyable mealtimes; and (5) preventing unrest and disturbing behavior.

Social innovation means that everything revolves around human resources, where everyone contributes and is included.

---

[1] https://livsgledeforeldre.no/livsglede-for-eldre-engelsk/

TABLE 1 | Examples of the analysis process.

Quotation with meaning unit	Category	Code	Subtheme	Main theme
A group of children from a kindergarten come singing through the corridors, dressed as Lucia, and holding candles. One of the residents is clearly touched and happy about the visit (Field notes).	Visit from kindergarten Residents touched and happy	Open nursing home Meaning in life	Opening the nursing home to the surroundings	Social innovation within working practices in nursing homes includes phenomenon which contribute to a meaningful everyday life for the residents
One of the cleaners had fresh shrimp as her husband fished early in the morning today. She has distributed them to all departments. The pupil and the apprentice clean them at the Table. A male resident looks on, and we get a little conversation about fresh shrimp and shrimp fishing (Field notes).	Cleaners actively participating in the staffs' effort of making meaningful days for the residents thus being part of the community of practice	Social innovation in practice Meaning in life	Expanding and strengthening the community of practice	Social innovation within working practices in nursing homes includes phenomenon which contribute to a meaningful everyday life for the residents
We have made a training trail where one can go on a varied surface, where there are pebbles, where there is bark, where there is gravel, to get a bit of that balance training. (…) We have chickens, cats, dogs, visiting dogs, birds such as budgies. (…) We have what we call a "sound shower" where you can go in, sit down, and listen to birds chirping, or you can choose a boat engine if you like, where you can hear the waves (Manager interview, nursing home 1).	There is a training trail with varied surface giving opportunity for residents to walk outside There are different animals visiting the nursing home where the residents can enjoy meeting animals if they like	Meaningful activities	Facilitating custom activities	Social innovation within working practices in nursing homes includes phenomenon that contribute to a meaningful everyday life for the residents
A patient expressed joy in "hot bread." There is baked bread every morning in the canteen, which is brought to the department (Field notes).	Residents' experience of joy when eating newly baked bread	Nutritional status Meaning in life	Ensuring sufficient nutrition and facilitating enjoyable mealtimes	Social innovation within working practices in nursing homes includes phenomenon that contribute to a meaningful everyday life for the residents
There was a patient who was challenging, and they somehow could not quite figure out how to help him. Then they mapped [by Dementia Care Mapping] him for a day and an evening and found quite a lot of interesting information (Manager interview, nursing home 2).	Resident had challenging behavior and mapping helped finding information (on how to prevent unrest)	Meaningful activities	Preventing unrest and disturbing behavior	Social innovation within working practices in nursing homes includes phenomenon that can contribute to a meaningful everyday life for the residents

While conversing with two nurse aides who had extensive experience both at the current nursing home and at other nursing homes, the researcher noted the following:

> *The nurse aides had both worked at another nursing home before. These places have been more marked by practical work and the assignment of tasks. They thrive better here, where they feel that the focus every day is to make the days as good and pleasant for everyone as possible* (Field notes, p. 53).

Here, the nurse aides experienced the care culture and working environment as positive, solution focused, and innovative. The employees had positive attitudes toward change, as observed during the fieldwork and after changes had been implemented. The staff showed a value base that was realized in daily work focusing on person-centered dementia care.

> *She says that she has previously had practice at another institution, and that what stands out about this nursing home is the focus on joy of life. The fact that each patient's life history is recorded and available to her has helped her become more and more familiar with each resident. She notes that the daily life pleasure activities for the residents she follows up on every day encourage her to be active* (Field notes, p. 55).

The value base appears to have been founded on every employee knowing the residents, caring about them, and finding value in them.

Opening the Nursing Home to the Surroundings

The first subtheme was "opening the nursing home to the surroundings." The nursing homes were open institutions, meaning that they extended into the community and invited the community into the nursing homes to participate in activities. An open nursing home contributed to meaningful everyday life for the residents, employees, students, relatives, volunteers, and other visitors.

> *A group of children from a kindergarten come singing through the corridors, dressed as Lucia, and holding candles. One of the residents is clearly touched and happy about the visit* (Field notes, p. 55).

The kindergarten near the nursing home came to visit the residents and included them in their activities. The residents also visited kindergartens and organizations; for example, bands had their meetings and rehearsals in the dining room of one of the nursing homes. On Constitution Day, the children marched through the garden of one of the nursing homes and visited the residents. Hence, there were fluid transitions between the nursing homes and the community at large.

There were clearly good intentions regarding taking care of the residents' needs, but some conflicting considerations for the nurses and other healthcare personnel were observed. For example, sometimes, there were too few personnel at the unit to take care of all the residents' needs. In addition, a lack of resources meant that it was not possible to attend to needs that should be met individually. One nursing home had its own resource ward with a special competence in dementia care. The employees from this ward were experts who conveyed their expertise broadly to other departments and employees, as well as to the other nursing home, the municipality, and relatives.

Each nursing home had a cafeteria open to all who wanted to visit for a cup of coffee or some food. It was used by the residents, relatives, visitors, and others from the community. Here, the residents could chat with new people or meet relatives or visitors. There were also meetings between different generations; kindergarten children and middle school children visited the nursing homes. Groups with accordion players came and had singing sessions or other types of concerts with the residents and others who wanted to participate. However, the children performed for the residents (entertainment), but it amounted to minimal interactions between generations rather than mutual activities:

> *The student and I (the observer) are attending singing time with kindergarten kids at the day center. It is organized as a small concert where the children sing for the old and get applause and waffles. There is no further interaction between the kids and the residents* (Field notes, p. 27).

It was also noticed that there could be enhanced interaction between visitors and residents to further assist in meaning-making for the residents when visitors came to the nursing home. This led to the second subtheme about creating a community of practice at the nursing home.

Expanding and Strengthening the Community of Practice

The second subtheme was "expanding and strengthening the community of practice" in the nursing home. One finding was that all the employees were important participants in making the day meaningful for the residents. Here, the manager included all the employees of the nursing home, from the chef, custodian, and cleaning personnel to the physician, physiotherapist, and nursing personnel. Everyone cooperated, all were needed, and a common culture was central to innovation. The manager emphasized that everyone had equal importance, and the staff were included in activities with the residents. This was important because the staff did activities together with the residents rather than for the residents. Absenteeism among the staff was low because everybody felt included and important for the well-being of both the residents and other employees. However, there were challenges in terms of the different workloads on the different wards, as one ward leader explained:

> *She also says that over the years, this ward has received residents with more challenging behavior than the other ward at the nursing home, which has the same number of residents and equal staffing. (…) If individuals continue to criticize things that have already been decided, she sees it as the leader's responsibility to point out to them how it impacts the community and the motivation of others to maintain a positive attitude toward change* (Field notes, p. 34).

This note shows the importance of the leader at each ward and their role in maintaining a positive attitude toward change and the work at the ward. The nursing homes cooperated with labor outreach and had persons with mild intellectual disabilities in service. These people did their jobs well and positively supplemented the staff. This was an element of the open and community-oriented nature of the nursing homes that served as a mutual advantage for both the employees and the rest of the staff. For example, a member of the cleaning staff brought newly fished shrimp to one meal for all residents and staff, including all the members of the staff in meals and nutrition:

> *One of the cleaners had fresh shrimp as her husband fished early in the morning today. She has distributed them to all departments. The pupil and the apprentice clean them at the table. A male resident looks on, and we get a little conversation about fresh shrimp and shrimp fishing* (Field notes, p. 55).

As the note describes, each staff member, regardless of profession, experienced being included in meaning-making for the residents. Each member's contribution was seen as important. Reflection meetings were organized on each ward, and competence development was systematically given attention, both in work schedules and through participation in external courses. Cooperation between all levels in the healthcare sector and transdisciplinary collaboration was important parts of seeing and using all resources to the best effect for the residents. The staff had regular meetings with the hospital staff, as well as with staff from home healthcare in the community. The physiotherapist and occupational therapist had their offices outside the nursing home and visited special residents when needed. This was experienced as challenging by several of the care personnel. Each nursing home had its own full-time physician who attended meetings with both the healthcare personnel at the nursing home and collaborating partners.

Facilitating Custom Activities

The third subtheme was "facilitating custom activities." The nursing homes in the current study were certified as "Joy of Life Nursing Homes." Because of this, several activities were offered that were more structured and systematized. The staff at the nursing homes arranged parties for residents, relatives, and others from the community based on the seasons. For example, they had a summer party at the beginning of the summer to mark the new season. This was outside in the garden, with a barbecue in the sun. In addition, they arranged a new party when autumn came to mark the transition to the new season.

The nursing homes had also bought rickshaw bicycles and had hired young adults to bicycle the residents on tours around the nursing home area. They went to the city nearby and to the woods or the seaside. This was seen as place bonding and part of place attachment for the residents enhancing their well-being and quality of life. These bicycles were also made available to relatives to take residents for a ride if they wanted.

In our observations, we noted that the most well-functioning nursing home residents received activity tasks at the day center, while the rest received care in the wards, where quiet activities were the focus. As one leader described in an interview, there were many possibilities for activities:

> *We have made a training trail where one can go on a varied surface, where there are pebbles, where there is bark, where there is gravel, to get a bit of that balance training. (…) We have chickens, cats, dogs, visiting dogs, birds such as budgies. (…) We have what we call a "sound shower" where you can go in, sit down, and listen to birds chirping, or you can choose a boat engine if you like, where you can hear the waves* (Manager interview, nursing home 1, p. 12–13).

Even though there were several possibilities for activities, there were also limitations on physical frameworks, but the staff found it important to stay focused on what they could achieve, not on the limitations. They focused on solutions. When talking to one of the experienced nurse aides, the researcher noted the following:

> *She thinks that it is busier than before and that there is too little time to concentrate on meeting with the residents at their pace and on their premises. We are talking about the new garden which will officially open in two days. She thinks that it is fine, but at the same time not completely safe for the residents of the ward. The garden is on a steep slope, and there is a hill that is too steep for many residents* (Field notes, p. 33).

As the quotation shows, examples of limitations were that staffing was not ideal, the sensory garden was very steep and difficult to use for some of the residents, and there were resident rooms on the outskirts of the department. However, the staff did the best they could for the residents given the circumstances.

Ensuring Sufficient Nutrition and Facilitating Enjoyable Mealtimes

The fourth subtheme was "ensuring sufficient nutrition and facilitating enjoyable mealtimes." Systematic monitoring of nutritional status is important for the residents' quality of care. On both the individual and system levels, the aim was to prevent and treat malnutrition, thereby ensuring a surplus of energy for the activities of daily living. As part of the focus on nutrition, the National Patient Safety Program was used (one of the themes is nutrition).

In the residents' electronic health records, there used to be several points to mark regarding nutritional status. Through an innovation process, this was simplified to two categories: nutrition mapping and nutrition plan. This provided the staff with an overview of each resident's weight and body mass index (BMI) on a certain date so that they could assess which residents were at risk because they had lost weight. The staff paid more attention to weight and BMI than they had before and made sure that the nutrition mapping was systematically done and that it resulted in a nutrition plan. They focused on meals, and both the nursing homes had changed the mealtime for dinner from about 1 p.m. to 4 p.m. and added a lunch meal between breakfast and dinner. The lunch was prepared on the wards by the healthcare personnel and nursing staff. It was discussed at meetings that this took some time to prepare, which some of the nursing staff would have preferred to spend with the residents.

However, the changes to the mealtimes largely functioned well. The staff noticed that the residents ate more and better and slept better after dinner time was moved. This change in mealtime improved the nutritional status for the residents in general, thus improving the resident's energy to participate in meaningful and enjoyable activities. The nutrition plan was adjusted to prevent weight change – especially weight loss – in the residents:

> *The electronic health record was simplified, and there are now only two categories regarding nutrition for each*

> *patient: (1) Nutrition Survey and (2) Nutrition Plan. Previously, patients were also weighed (mapped) and weight was registered, but measures were lacking when patients lost weight* (Field notes, p. 10).

After this change, the staff monitored weight loss specifically and adjusted nutritional status accordingly. This was important for the residents, so that they had the energy to participate in activities. Another important aspect of mealtimes was to make this time social and enjoyable. The staff participated and helped during mealtimes to create social encounters between the residents and staff.

> *A patient expressed joy in "hot bread." There is baked bread every morning in the canteen, which is brought to the department* (Field notes, p. 4).

By offering newly baked bread, the nursing home staff helped residents enjoy eating breakfast more. However, it was observed that the staff prepared breakfast and did not let the residents prepare their own bread. This was done because it was easier for the staff and it did not take as long to serve the meal; however, this could be seen as a drawback in terms of the experience of a social meal for the residents. The dementia coordinator held regular meetings with the staff focusing on nutrition and other relevant topics:

> *The dementia coordinator shows interest in nutrition. She asks how they plan and organize the meals, based on breakfast. The residents get ready-made food. She asks why. It turns out that the main reason for the ready-made food is the experience that if everyone sits together and helps themselves, there can easily be a lot of mess and chaos. Not everyone can do it properly and other residents can get annoyed. The dementia coordinator emphasizes that the staff play an important role in sitting at the table with the residents and coordinating the activities in the calmest way possible* (Field notes, p. 57).

Quality nutrition meant not only that meals consisted of food with the correct composition but also that meals should be meaningful and pleasant. Sufficient nutrition was about giving the residents surplus energy for other activities, both mentally and physically.

Preventing Unrest and Disturbing Behavior

The fifth and last subtheme was "preventing unrest and disturbing behavior." Restlessness and disturbing behavior can create challenges on the ward for employees and other residents. This was a special challenge in the wards where most of the residents suffered from dementia. However, the employees controlled violence and threat challenges with risk assessments and training in handling such behavior. The field notes reveal that the staff had separate meetings on how to handle violence and threat challenges. As part of handling violence and threats, the National Patient Safety Program was used. The staff discussed how to map threat challenges, who posed these threats, and what sort of threats they were. They experienced direct violence, both verbally and physically. They then discussed how to meet such threats in different ways and what measures to apply in different situations. A nurse manager explained the following in an interview:

> *There was a patient who was challenging, and they somehow could not quite figure out how to help him. Then, they mapped [by Dementia Care Mapping] him for a day and an evening and found quite a lot of interesting information* (Manager interview, nursing home 2, p. 15).

Some of the methods consisted of training in theory and legislation, as well as how to relate in practically challenging situations and prevent such situations from occurring. The focus was on establishing trust between the residents and staff; they tried to provide for restless residents by allowing them to go outside and be followed only *via* GPS. They were not locked in the ward but could walk freely when they wanted. This was done to reduce feelings of being place-confined and thus reduce stress and anxiety and enhance place attachment to safeguard well-being and quality of life for the residents. These GPS arrangements were cleared with the residents, relatives, and physicians. Using GPS allowed the residents who was eager to walk and were suffering from restlessness to walk freely, thus enjoying activities that were meaningful to them. This led to a sense of freedom where they could walk alone, independent of staff, and to a feeling of freedom from visible surveillance, even though they knew they were tracked by the GPS.

Dealing with challenging behavior or restlessness was sometimes difficult when communication was impeded:

> *The nurse leader's experience was that residents accept employees with different looks or skin color. But it is a challenge that some employees do not master the Norwegian language well enough to communicate adequately with the residents. In a sheltered department with a lot of behavioral challenges, it is of great importance to be able to communicate clearly* (Field notes, p. 20).

This was considered when hiring new staff members, here with competence in Norwegian language being emphasized. There had been some staff absenteeism because of violence but not a lot. However, the employees reported that it was exhausting to work in an environment where threats or abuse were possible. This was also a problem for the other residents. Thus, it was important to prevent such behavior to promote a meaningful everyday life for all residents. The nurses met with the dementia coordinator and discussed how to handle situations of violence:

> *There are many conditions that carers could not change (for example, diagnosis, older people), and other conditions that carers could change (provide good*

> *environmental measures, do something about the mental healthcare environment, document patient history, try to see the situation from the resident's point of view). Furthermore, one can usually try to assess what triggers a person. Nurses can also allow for extra time in the situation and be aware of the way in which they communicate in order to calm the situation* (Field notes, p. 17).

The dementia coordinator in the municipality met and talked with the nursing staff regularly to give advice on how to manage disturbing behavior from the residents suffering from dementia. Through different means, they managed to reduce and prevent this, thus promoting a meaningful everyday life for both the restless residents and their coresidents.

DISCUSSION

Our main aim was to explore phenomena within social innovation that can contribute to improving nursing home residents' everyday lives. As a subtheme, we found that an open nursing home was an institution that made it possible for residents to experience meaningful everyday lives. This contrasts the "total institution" described by Erving Goffman in the 1960s (Goffman, 1961). Goffman (1961) describes the "total institution" as an institution that regulates and maintains the behavior of the patients and healthcare workers in a predictable and controlled way, such that they are "institutionalized" by knowing their social role within the institutional frames. In addition, a "total institution" is characterized by being separated from the surrounding environment; it is self-contained, with its own routines and frames. The risk of institutionalization and confinement for elderly is discussed by Ramkissoon (2020a). Ramkissoon (2020a) defines place confinement as perceived threat to mobility and affecting physical immobility where residents are restricted to their place of residence. Where residents' physical activity is limited or restricted, it may result in feelings of dependency and impact feelings of well-being and quality of life (Ramkissoon, 2020a,b, 2021). However, place attachment may be fostered as a positive relationship to the environment. Ramkissoon et al. (2013, p. 554) defines place attachment as the bonding people share with places and consists of place dependence, place identity, place affect, and place social bonding. There has been a change in the ideologies of nursing homes from being closed and self-sufficient to being open and inviting the community into the institution. Thus, if healthcare personnel could help residents with enhancing feelings of place attachments to the environment surrounding the nursing home, it may impact their health, well-being and quality of life. Ramkissoon (2021) recommends promoting place affect interventions. Collaboration between residents, relatives, neighbors, and healthcare personnel opened up the institutions and the possibilities for residents to participate in the community as they had before they moved into nursing homes. This collaboration between residents and the community was also shown to be positive in Andrew and Ritchie's research (Andrew and Ritchie, 2017).

We found that the residents needed different activities, and the staff at the participating nursing homes respected this. The healthcare personnel customized activities for each resident. Some of the residents were taken on tours with a rickshaw bike, while others were taken for small walks in the sensory garden; this depended on the resident's capacity and motivation for activities. Some residents spent their time at the day center, where there were more activities, while others sat in the daily room or balcony on the ward, where it was quieter and there were fewer activities. This could be experienced as "slow nursing" (Lillekroken, 2020), where there is time to rest and have quiet time. This also gives healthcare personnel time for the residents to do the activities at a slower pace. This customization helped provide activities that could give the residents meaningful lives. The nursing homes were also customized for the residents to participate in different activities. However, there were some hindrances, as mentioned in the findings regarding the steep sensory garden. Even though the staff commented that this was not ideal, they did their best with the situation. The necessity of adjusting the surroundings of nursing homes has been pointed out in other research. Nordin et al. (2017) found that adjusting the environment at the nursing home was important so that the residents could do activities on their own. However, we found that the activities were not something that the residents were forced to participate in but instead something that they enjoyed participating in and that gave their lives meaning. This was in line with the "Joy of Life Nursing Home" movement, as well as with the research on dignity for residents in nursing homes (Shotton and Seedhouse, 1998; Brodtkorb et al., 2017; Slettebø et al., 2017; De Vriendt et al., 2019).

Introducing meaningful activities may contribute to establishing relationships and enhancing residents' social lives (Cialdini and Goldstein, 2004; Cohen and Janicki-Deverts, 2009; De Vriendt et al., 2019). De Vriendt et al. (2019) provide a "because activities should be meaningful" approach with four dimensions: getting to know each other; self-prioritized goals; plan and actions; and evaluation and outcome. In a pilot study, the authors find that meaningful activities of daily living were enabled by a participatory client-centered approach, improving satisfaction and social life, and decreasing medication use in long-term care facilities (De Vriendt et al., 2019). Meaningful lives in nursing home residents may be fostered by focusing on positive affect and relationships, especially with family and to do activities together. By fostering resident's positive affect the healthcare personnel can promote affective ties to a place for the resident such as the environment surrounding the nursing home, and thus support health, well-being and enhance quality of life for the residents (Ramkissoon, 2020a,b, 2021). Healthcare personnel can enhance meaningfulness in life with helping to create positive well-being, happiness, and better coping in residents (King et al., 2006, 2016; Glaw et al., 2017; Crego et al., 2020). This may be important for actually offer person-centered care to nursing home residents which is emphasized in the current study. Hauge and Heggen (2008) describe nursing homes as homes, explaining how common rooms, such as the dining room, can be used to enhance socialization and, thus, meaningfulness in everyday life.

This is in line with the theoretical concept of person-centered care in nursing homes. The focus on the resident's life history is fundamental both in the person-centered care theory and in the "Joy of Life Nursing Home" movement, in which both the represented nursing homes participated in. The findings in the current study expand the understanding of the theory of person-centered care that a nursing home that is open toward society and expanding the community of practice where customized activities are facilitated were an important part of improving culture change and implementing person-centered care. In addition, it aligns with the understanding of person, which is outlined by McCormack (2004) and the four understandings of person-centeredness of Kitwood (1997) and McCormack (2004) of being in relation, being in a social world, being in place and being with self. Another aspect of person-centered care that is new knowledge from the current study expanding the understanding of person-centered care, is mealtime and meals that were enjoyable and customized for each individual resident, which also helped prevent unrest and disturbing behavior together with special care for each resident and their behavioral challenges.

During our observations, it was promising to see some interactions across generations, such as when kindergarten children or school students visited the nursing homes. This was the focus of the study of Gundersen and Slettebø (2016). However, we observed some activities in which the residents did not always participate fully; the residents watched the children and did not relate to them. There were other interactions that the residents enjoyed, such as when choirs or musicians performed concerts and the residents sang along. However, it may be a challenge to conduct these types of interactions in a way that engages all participants equally (Jennings, 2018). A secondary analysis of nursing home data showed that introducing a café in aged-care facilities contributed to transforming both the physical and social environment (Andrew and Ritchie, 2017). Social support seems to be very important for the social climate among healthcare personnel in nursing homes and, thus, for job satisfaction and job motivation. This, in turn, has an impact on healthcare services in nursing homes and the services given to residents (Adams et al., 2017). The need for meet basic needs and personal relations (Hoeyberghs et al., 2019) is shown for psychologically frail older people and should be considered when giving person-centered care to residents in nursing homes.

In the current study, we found that mealtime at the nursing homes had been changed so that dinner would be served later in the afternoon rather than at noon. This may be described as social innovation, as defined by Pue et al. (2016), where change is a process of socially creative strategies that reconfigure social relations. The innovation improved the dietary status of the residents because they ate better and more. It also afforded time for meaningful activities in the morning before lunch and dinner. There is also evidence in the literature of the positive effects of changing dining and mealtimes (Robinson and Gallagher, 2008). Changing the mealtimes allowed for more time in the morning to participate in meaningful activities. It could be relevant for the residents to experience meaning in life understood as comprehension, purpose, and mattering as discussed by George and Park (2016). In addition, it offered more time between breakfast and dinner, so the nutritional status of the residents improved, allowing them more energy to participate in activities that made the days more meaningful. This could be seen in the participation that occurred when children from kindergarten came to visit or allowing the residents themselves to go out on tours with bicycles. Changing dining services may be important in cultural changes in nursing homes (Robinson and Gallagher, 2008). Mealtime is considered important for nutritional status and socialization because residents should be allowed to make some choices regarding when, what, and where to eat and with whom. This is in line with the findings of Chwang (2012), who discusses issues of malnutrition in older people. One suggestion is to improve the quality of food services in healthcare facilities to improve mealtime experiences. In addition, it is important to understand the physiological changes in older persons and the need for nutritional knowledge to provide adequate nutrition care for the aged. By establishing a café in the nursing home, it is possible to enhance mealtimes in terms of individualizing care and socializing, providing the possibilities for new relationships and "to meet with staff, old friends, families, and members of the community" (Andrew and Ritchie, 2017, p. 42). In Norway, the government has invited nursing homes to establish kitchens in nursing homes instead of larger units outside the nursing homes (Ministry of Health and Care Services, 2018). This is a new policy in which a homelike atmosphere should be prioritized by building a kitchen in each nursing home. This is also in line with the experiences of other countries (Andrew and Ritchie, 2017).

The included nursing homes used GPS to prevent restlessness in residents who were uneasy and were calmed by walking. They did not have many fences and restrictions but let the persons wander as they wanted with GPS tracking. As our findings show, the use of GPS tracking allowed the residents to walk more freely without needed the staff to follow. For many of the residents, the walk outside gave meaning to their life and were enjoyable activities that made it easier to manage restlessness. To increase meaning in life for persons with cognitive difficulties family relationships and moments of personal growth is found to be important (Dewitte et al., 2019). To have the opportunity to walk freely may be such moments enhancing experiences of meaningfulness. This again may be seen as a new dimension of person-centered care. This is supported by the research of Ramkissoon (2020a) who finds that residents with pro-social behavior have reduced mental distress. Instead, such behavior fosters attachment, belongingness, trust, and life satisfaction and that activities in the nature help reduce anxiety and distress. However, there are ethical issues involved in tracking residents, and these were discussed with the residents, their relatives, and physicians before implementation. It was found to be a less-intrusive intervention than physically restricting wandering persons who wanted to go for long walks. This is in line with ethical recommendations in the literature (Landau and Werner, 2012; Hofmann, 2013). Because of the increasing number of older people in society, a welfare technology solution has been suggested. The ethical aspects of welfare technology are discussed in the literature (Landau and Werner, 2012; Hofmann, 2013). There are some challenges, such as alienation from human-to-human relationships. There could be different goals among different stakeholders. Residents might want to walk freely without being tracked, and if there are not enough staff to follow them, GPS would be the preferred intervention. This challenges confidentiality and privacy for the residents and poses problems when it comes to respecting dignity and vulnerability. Therefore, the literature recommends open discussions between residents and relatives, together with healthcare personnel, before implementing GPS and other welfare technologies in the care of residents diagnosed with dementia (Landau and Werner, 2012; Hofmann, 2013).

Methodological Considerations

We believe that the current study meets the criteria for trustworthiness, confirmability, credibility, dependability, and transferability (Lincoln and Guba, 1985; Graneheim and Lundman, 2004). The study took place at two typical medium-size Norwegian nursing homes, which were considered innovative and accepted the researchers' request to study their practices. This is in line with the criteria of confirmability and credibility. The researchers were familiar with nursing home practices and were open to what had happened in the setting. They knew the context because they were nurses and nurse lecturers who had been at nursing homes before but were not well known at the nursing homes in the study. However, there is a limitation: Observation took place only in communal areas, not in the residents' rooms. The analysis was performed by the two observers and a researcher who did not participate in the observations, so we had both an inner and outer view of the data during the analysis. The research team discussed the analysis until agreement on the themes was reached. We have described the context and research process to the best of our ability so that transferability is possible; thus, the demand for trustworthiness is met. However, it must be considered that transferability to other contexts and countries may vary because of the different healthcare systems.

CONCLUSION AND IMPLICATIONS FOR PRACTICE AND FURTHER RESEARCH

The current study has revealed that innovation practices toward holistic and person-centered care in nursing homes may promote quality improvement in nursing homes. Such practices contribute to opening the nursing home to the community, involving the whole facility and the surroundings, thereby establishing a community of practice for all members of the nursing home. This enables residents to experience a meaningful everyday life through customized activities, sufficient nutrition, and a pleasant milieu during mealtimes. By preventing behavior disturbances, it is also possible to promote meaningful lives in nursing homes. The current study adds to the theory of person-centered care that family relationships and moments of personal growth by fostering place attachment with the opportunity to walk freely, mealtime and meals that were enjoyable and customized for each individual resident, and helping to create positive well-being, happiness, and better coping in residents enhance experiences of well-being and quality of life by place bonding and meaningfulness. This again may be seen as new dimensions of person-centered care. In line with Ratwani (2017) suggesting that psychologists may support healthcare personnel with implementing Electronic Health Records, we suggest that the current study may imply that psychologist may support healthcare personnel with culture change in nursing homes when implementing these findings for enhancing meaningfulness and meaning-making for nursing home residents. Future research should look at how innovative practices and a more systematic opening of the nursing home to the community would foster homelike and meaningful stays in nursing homes.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

ÅS contributed to the study design and drafted the manuscript. RS and KB performed the data collection, and contributed to critical revisions and intellectual content during the review process and manuscript development. ÅS, RS, and KB performed the analysis. All authors contributed to the article and approved the submitted version.

FUNDING

This research was funded by the Norwegian Research Council (no. 256647).

ACKNOWLEDGMENTS

We thank all the participants who agreed to be observed and the nursing managers for participating in the interviews.

REFERENCES

Adams, J., Verbeek, H., and Zwakhalen, S. M. G. (2017). New models of care in residential long-term care: the impact of organizational innovations in nursing homes on staff perceptions: a secondary data analysis. *J. Nurs. Scholarsh.* 49, 54–62. doi: 10.1111/jnu.12271

Andrew, A., and Ritchie, L. (2017). Culture change in aged-care facilities: a Café's contribution to transforming the physical and social environment. *J. Hous. Elder.* 31, 34–46. doi: 10.1080/02763893.2016.1268557

Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qual. Res. Psychol.* 3, 77–101. doi: 10.1191/1478088706qp063oa

Brodtkorb, K., Skaar, R., and Slettebø, Å. (2019). The importance of leadership in innovation processes in nursing homes: an integrative review. *Nord. J. Nurs. Res.* 39, 127–136. doi: 10.1177/2057158519828140

Brodtkorb, K., Skisland, A. V. S., Slettebø, Å., and Skaar, R. (2017). Preserving dignity in end-of-life nursing home care: some ethical challenges. *Nord. J. Nurs. Res.* 37, 78–84. doi: 10.1177/2057158516674836

Chwang, L.-C. (2012). Nutrition and dietetics in aged care. *Nutr. Diet.* 69, 203–207. doi: 10.1111/j.1747-0080.2012.01617.x

Cialdini, R. B., and Goldstein, N. J. (2004). Social influence: compliance and conformity. *Annu. Rev. Psychol.* 55, 591–621. doi: 10.1146/annurev.psych.55.090902.142015

Cohen, S., and Janicki-Deverts, D. (2009). Can we improve our physical health by altering our social networks? *Perspect. Psychol. Sci.* 4, 375–378. doi: 10.1111/j.1745-6924.2009.01141.x

Crego, A., Yela, J. R., Gomez-Martinez, M. A., and Karim, A. A. (2020). The contribution of meaningfulness and mindfulness to psychological well-being and mental health: a structural equation model. *J. Happiness Stud.* 21, 2827–2850. doi: 10.1007/s10902-019-00201-y

De Vriendt, P., Cornelis, E., Vanbosseghem, R., Desmet, V., and Van de Velde, D. (2019). Enabling meaningful activities and quality of life in long-term care facilities: the stepwise development of a participatory client-centred approach in Flanders. *Br. J. Occup. Ther.* 82, 15–26. doi: 10.1177/0308022618775880

Dewitte, L., Schellekens, T., Steger, M. F., Martela, F., Vanhooren, S., Vandenbulcke, M., et al. (2021). What can we learn about the concept of meaning in life from older adults with Alzheimer's disease? A directed content analysis study. *J. Happiness Stud.* 22, 2845–2871. doi: 10.1007/s10902-020-00351-4

Dewitte, L., Vandenbulcke, M., Schellekens, T., and Dezutter, J. (2019). Sources of well-being for older adults with and without dementia in residential care: relations to presence of meaning and life satisfaction. *Aging Ment. Health* 25, 170–178. doi: 10.1080/13607 863.2019.1691144

Duan, Y., Mueller, C. A., Fang, Y., and Tally, K. M. (2020). The effects of nursing home culture change on resident quality of life in U.S. nursing homes: an integrative review. *Res. Gerontol. Nurs.* 13, 210–224. doi: 10.3928/19404921-20200115-02

Fivush, R., Booker, J. A., and Graci, M. E. (2017). Ongoing narrative meaning-making within events and across the life span. *Imagin. Cogn. Pers.* 37, 127–152. doi: 10.1177/0276236617733824

George, L. S., and Park, C. L. (2016). Meaning in life as comprehension, purpose, and mattering: toward integration and new research questions. *Rev. Gen. Psychol.* 20, 205–220. doi: 10.1037/gpr0000077

Glaw, X., Kable, A., Hazelton, M., and Inder, K. (2017). Meaning in life and meaning of life in mental health care: an integrative literature review. *Issues Ment. Health Nurs.* 38, 243–252. doi: 10.1080/01612 840.2016.12538 04

Goffman, E. (1961). *Asylums: Essays on the Condition of the Social Situation of Mental Patients and Other Inmates*. USA: Vintage Books.

Graneheim, U. H., and Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ. Today* 24, 105–112. doi: 10.1016/j.nedt.2003.10.001

Gravetter, F. J., and Forzano, L-A. B. (2018). *Research Methods for the Behavioral Sciences*. *6th Edn*. Boston: Cengage Learning, Inc.

Gundersen, E. D., and Slettebø, Å. (2016). Evaluering av et generasjonsoverskridende program med helsefremmende forankring: hvilke faktorer har bidratt til programmets vedvarende eksistens? [Evaluation of a cross-generational program based on promotion of health: which factors have contributed to the continued existence of the program?]. *Nordisk Sygeplejeforskning* 6, 6–19. doi: 10.18261/issn.1892-2686-2016-01-02

Hauge, S., and Heggen, K. (2008). The nursing home as a home: a field study of residents' daily life in the common living rooms. *J. Clin. Nurs.* 17, 460–467. doi: 10.1111/j.1365-2702.2007.02031.x

Hoeyberghs, L. J., Verté, E., Verté, D., Schols, J. M. G. A., and De Witte, N. (2019). The importance of sources of meaning in life of community dwelling psychologically frail older people. *Work. Older People* 23, 65–76. doi: 10.1108/WWOP-01-2019-0001

Hofmann, B. (2013). Ethical challenges with welfare technology: a review of the literature. *Sci. Eng. Ethics* 19, 389–406. doi: 10.1007/s11948-011-9348-1

Jennings, B. (2018). Solidarity and care as relational practices. *Bioethics* 32, 553–561. doi: 10.1111/bioe.12510

King, L. A., Heintzelman, S. J., and Ward, S. J. (2016). Beyond the search for meaning: a contemporary science of the experience of meaning in life. *Curr. Dir. Psychol. Sci.* 25, 211–216. doi: 10.1177/0963721416656354

King, L. A., Hicks, J. A., Krull, J. L., and Del Gaiso, A. K. (2006). Positive affect and the experience of meaning in life. *J. Pers. Soc. Psychol.* 90, 179–196. doi: 10.1037/0022-3514.90.1.179

Kinnear, C., Victor, C., and Williams, V. (2015). What facilitates the delivery of dignified care to older people? A survey of health care professionals. *BMC Res. Notes* 8:826. doi: 10.1186/s13104-015-1801-9

Kitwood, T. (ed.) (1997). "On being a person," in *Dementia Reconsidered: The Person Comes First* (Milton Keynes: Open University Press), 7–19.

Kitwood, T., and Bredin, K. (1992). Towards a theory of dementia care: personhood and well-being. *Ageing Soc.* 12, 269–287. doi: 10.1017/S0144686X0000502X

Kropf, N. P., and Tandy, C. (1998). Narrative therapy with older clients: the use of a "meaning-making" approach. *Clin. Gerontol.* 18, 3–16. doi: 10.1300/J018v18n04_02

Landau, R., and Werner, S. (2012). Ethical aspects of using GPS for tracking people with dementia: recommendations for practice. *Int. Psychogeriatr.* 24, 358–366. doi: 10.1017/S1041610211001888

Lillekroken, D. (2020). Slow nursing and its holistic place in dementia care: a secondary analysis of qualitative data from nurses working in nursing homes. *Holist. Nurs. Pract.* 34, 40–48. doi: 10.1097/HNP.0000000000000361

Lima, J. C., Schwarz, M. L., Clark, M. A., Miller, S. C., and Degenholtz, H. B. (2020). The changing adoption of culture change practices in US nursing homes. *Innov. Aging* 4:igaa012. doi: 10.1093/geroni/igaa012

Lincoln, Y. S., and Guba, E. G. (1985). *Naturalistic Inquiry*. New Delhi, India, and Newbury Park, London: Sage Publications.

Martela, F., Ryan, R. M., and Steger, M. F. (2018). Meaningfulness as satisfaction of autonomy, competence, relatedness, and beneficence: comparing the four satisfactions and positive affect as predictors of meaning in life. *J. Happiness Stud.* 19, 1261–1282. doi: 10.1007/s10902-017-9869-7

McCormack, B. (2004). Person-centredness in Gerontological nursing: an overview of the literature. *J. Clin. Nurs.* 13, 31–38. doi: 10.1111/j.1365-2702.2004.00924.x

McCormack, B. (2010). Person-centeredness in gerontological nursing: an overview of the patients with Alzheimer's disease as perceived by nursing students and supervising nurses. *J. Clin. Nurs.* 19, 2639–2648. doi: 10/111/j.1365-2702.2010.03190.x

Ministry of Health and Care Services (2006). White Paper 25 (2005–2006). Mestring, muligheter og mening [Coping, Possibilities and Meaning]. Oslo.

Ministry of Health and Care Services (2009). White Paper 47 (2008–2009). Samhandlingsreformen. Rett behandling – på rett sted – til rett tid [The Coordination Reform. Proper Treatment – At the Right Place – And the Right Time]. Oslo.

Ministry of Health and Care Services (2018). White Paper 15 (2017–2018). Leve hele livet – en kvalitetsreform for eldre [Live Throughout Life – A Quality Reform for Older People]. Oslo.

Mulgan, G. (2007). Ready or Not? Taking Innovation in the Public Sector Seriously. NESTA Provocation 03.

Narens, L. (2002). *Theories of Meaningfulness. Scientific Psychology Series*. Irvine: University of California.

Nordin, S., McKee, K., Wallinder, M., von Koch, L., Wijk, H., and Elf, M. (2017). The physical environment, activity, and interaction in residential care facilities for older people: a comparative case study. *Scand. J. Caring Sci.* 31, 727–738. doi: 10.1111/scs.12391

Park, C. L. (2010). Making sense of the meaning literature: an integrative review of meaning making and its effects on adjustment to stressful life events. *Psychol. Bull.* 136, 257–301. doi: 10.1037/a0018301

Pue, K., Vandergeest, C., and Breznitz, D. (2016). Toward a Theory of Social Innovation. Innovation Policy White Paper Series 2016–01. Munk School of Global Affairs. University of Toronto, Canada.

Ramkissoon, H. (2020a). COVID-19 place confinement, pro-social, pro-environmental behaviors, and residents' wellbeing: a new conceptual framework. *Front. Psychol.* 11:2248. doi: 10.3389/fpsyg.2020.02248

Ramkissoon, H. (2020b). Perceived social impacts of tourism and quality-of-life: a new conceptual model. *J. Sustain. Tour.* 1–18. doi: 10.1080/09669582.2020.1858091

Ramkissoon, H. (2021). Place affect interventions during and after the COVID-19 pandemic. *Front. Psychol.* 12:726685. doi: 10.3389/fpsyg.2021.726685

Ramkissoon, H., Smith, L. D. G., and Weiler, B. (2013). Testing the dimensionality of place attachment and its relationships with place satisfaction and pro-environmental behaviours: a structural equation modelling approach. *Tour. Manag.* 36, 552–566. doi: 10.1016/j.tourman.2012.09.003

Ratwani, R. M. (2017). Electronic health records and improved patient care: opportunities for applied psychology. *Curr. Dir. Psychol. Sci.* 26, 359–365. doi: 10.1177/0963721417700691

Robinson, G., and Gallagher, A. (2008). Culture change impacts quality of life for nursing home residents. *Top. Clin. Nutr.* 23, 120–130. doi: 10.1097/01.TIN.0000318908.08617.49

Shotton, L., and Seedhouse, D. (1998). Practical dignity in caring. *Nurs. Ethics* 5, 246–255. doi: 10.1177/096973309800500308

Slettebø, Å., Sæteren, B., Caspari, S., Lohne, V., Rehnsfeldt, A., Heggestad, A. K. T., et al. (2017). The significance of meaningful and enjoyable activities for nursing home resident's experiences of dignity. *Scand. J. Caring Sci.* 31, 718–726. doi: 10/1111/scs.12386

Statistics Norway (2020). Care Services. Available at: https://www.ssb.no/en/helse/statistikker/pleie (Accessed January 11, 2021).

Travelbee, J. (1971). *Interpersonal Aspects of Nursing. 2nd Edn*. Philadelphia, PA: F.A. Davis Company.

Tronto, J. C. (2001). "An ethic of care," in *Ethics in Community-Based Elder Care*. eds. M. Holstein and P. Mitzen (New York: Springer Publishing Company), 60–68.

Wegener, C., and Tanggaard, L. (2013). The concept of innovation as perceived by public sector frontline staff: outline of a tripartite empirical model of innovation. *Stud. Contin. Educ.* 35, 82–101. doi: 10.1080/0158037X.2012.707123

Wong, P. T. P. (2017). A decade of meaning: past, present, and future. *J. Constr. Psychol.* 30, 82–89. doi: 10.1080/10720 537.2015.11190 85

World Medical Association (2013). World medical association declaration of Helsinki. Ethical principles for medical research involving human subjects. *JAMA* 310, 2191–2194. doi: 10.1001/jama.2013.281053

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as potential conflicts of interest.

frontiers in Psychology

ORIGINAL RESEARCH
published: 02 December 2021
doi: 10.3389/fpsyg.2021.685125

Relationships of Sources of Meaning and Resilience With Meaningfulness and Satisfaction With Life: A Population-Based Study of Norwegians in Late Adulthood

Torgeir Sørensen[1]†, Knut Hestad[2,3] and Ellen Karine Grov[3,4†]*

[1] Faculty of Health Studies, VID Specialized University, Sandnes, Norway, [2] Center for Psychology of Religion, Innlandet Hospital Trust, Hamar, Norway, [3] Inland Norway University of Applied Sciences, Elverum, Norway, [4] Faculty of Health Sciences, Oslo Metropolitan University, Oslo, Norway

OPEN ACCESS

Edited by:
Jessie Dezutter,
KU Leuven, Belgium

Reviewed by:
Laura Dewitte,
KU Leuven, Belgium
Liesbeth De Donder,
Vrije Universiteit Brussel, Belgium

***Correspondence:**
Torgeir Sørensen
torgeir.sorensen@vid.no

†ORCID:
Torgeir Sørensen
orcid.org/0000-0002-1154-8464
Ellen Karine Grov
orcid.org/0000-0002-5347-8812

Specialty section:
This article was submitted to
Health Psychology,
a section of the journal
Frontiers in Psychology

Received: *24 March 2021*
Accepted: *05 November 2021*
Published: *02 December 2021*

Citation:
Sørensen T, Hestad K and Grov EK (2021) Relationships of Sources of Meaning and Resilience With Meaningfulness and Satisfaction With Life: A Population-Based Study of Norwegians in Late Adulthood. Front. Psychol. 12:685125. doi: 10.3389/fpsyg.2021.685125

Health-promoting initiatives incorporating meaning-making to enhance the well-being of people in late adulthood are important, particularly as the number of older people is increasing. Resilience and sources of meaning may be related to individuals' experience of meaningfulness and satisfaction with life. However, few studies have investigated these relations among people in late adulthood. In the present exploratory study, we asked the following questions: What are the differences regarding scores on sources of meaning, resilience, meaningfulness, and satisfaction between people in late adulthood ($\geq$65) and other adults (18–64)? What is the association between sources of meaning and meaningfulness, and between resilience and meaningfulness? What is the association between sources of meaning and satisfaction with life, and between resilience and satisfaction with life? A cross-sectional design was used. A population-based sample of 925 participants (aged 18–91 years) was recruited from the National Population Register in Norway. Of these, 219 participants were 65 years old and older (mean age 73 years). Additionally, sub-analyses for the age-group $\geq$ 75 (N = 71) were performed. Independent-samples t-tests, chi-square tests, one-way ANOVA, and linear regressions adjusted for demographics, anxiety, and depression were performed utilizing standardized questionnaires. It was found that people in late adulthood ($\geq$65 years) scored significantly higher on meaningfulness compared to younger adults (18–64). Of the sources of meaning, vertical self-transcendence, including explicit religiosity and spirituality, had the strongest relation to meaningfulness for people in late adulthood, after adjusting for demographics, anxiety, and depression. For the same group, accomplishment, including generativity and unselfish engagement with the surroundings and future generations, also stood out as a prominent source of meaning when related to meaningfulness. No sources of meaning were associated with satisfaction with life in the older group. No associations between resilience and meaningfulness, nor between resilience and satisfaction with life, were found among people in late adulthood. However, positive associations were found between resilience and meaningfulness, as well as between resilience and satisfaction with life, in the 18–64 age group. Longitudinal research and interventional studies are needed to confirm whether the designated sources contribute to meaningfulness in a Norwegian context. The implications of the findings are discussed.

Keywords: meaning, meaningfulness, sources of meaning, satisfaction with life, resilience, old adults

INTRODUCTION

Longevity is increasing in most countries. Among people in late adulthood, many face multiple health conditions and mobility problems, and relatively high rates of chronic diseases and disability are observed among older people (≥65 years) (Eurostat, 2020, p. 50). At the same time, challenges related to changes in their life situations, such as loss of spouse and retirement, are emphasized (Norwegian Government, 2017). A goal of Norwegian authorities is to facilitate older people staying at home as long as possible due to the positive impact of dwelling in known surroundings (Norwegian Government, 2017). It is recognized that several approaches are needed to support older people when living at home. Among these, health-promoting initiatives that enhance meaningfulness and well-being have been suggested (Knitzek et al., 2021). Meaning-making and maintenance of meaning have long been considered a key aspect of successful adaption to aging (Reker and Wong, 2012), since discovery and creation of meaning through inner and spiritual resources may be a way of transcending for instance personal losses and despair in old age (Wong, 1989). Still, health promotion through meaning-making and other inherent resources like resilience may be underestimated assets for people's well-being, at least in Norway and the Scandinavian countries (Knitzek et al., 2021). A contextual investigation of older adults' experience of meaningfulness and satisfaction with life is needed to inform policy development and the service implementation of health promotion initiatives and to better understand the relationship of these factors to sources of meaning and resilience. As a first step, the present study involves an exploratory investigation of this issue in Norway.

According to Schnell (2021), *meaningfulness* is the basic trust that life is worth living, based on an appraisal of life as coherent, significant, oriented, and belonging. Coherence is linked to life making sense, orientation is about having goals and aims in life, while significance emphasizes life's inherent values (Martela and Steger, 2016). Previous research has found meaningfulness to be associated with more hopefulness and optimism (Damásio et al., 2013) and higher levels of self-determination and social integration (Kashdan and Breen, 2007). Meanwhile, meaningfulness is negatively correlated with anxiety, depression, and post-traumatic stress (Sørensen et al., 2019; Schnell, 2021). Meaningfulness is found to be higher among those at later life stages (Steger et al., 2006). Meaningfulness is also found to positively impact health-related outcomes of people in late adulthood, helping them to sustain a healthy life and contributing to a reduced risk of premature mortality (Steptoe and Fancourt, 2019).

Meaningfulness is linked to individuals' engagement in a variety of orientations represented by *sources of meaning*, depending on which purpose they perceive as significant (Schnell, 2021). Sources of meaning have been identified by several research programs (Wong, 1998; Reker, 2000; Bar-Tur et al., 2001; Schnell, 2009, 2011) and form the grounds of the meaning experience. The 26 sources identified by Schnell (2009, 2011) appear in the six dimensions of the Norwegian validation of the Sources of Meaning and Meaning in Life Questionnaire (SoMe) (Sørensen et al., 2019). These six dimensions are as follows: (1) Well-being and relatedness pertain to commitment to enjoyment and sensitivity in private and with company; (2) Order and tradition pertain to commitment to principles, common sense, and the tried and tested; (3) Vertical self-transcendence pertains to a search for an immaterial supernatural reality through explicit religiosity and spirituality, while (4) Horizontal self-transcendence pertains to a commitment to worldly affairs beyond immediate concerns; (5) Accomplishment pertains to achievement, development, power, challenge, knowledge, and generativity; and (6) Liberality pertains to freedom, individualism, comfort, and creativity (Schnell, 2009, 2011; Sørensen et al., 2019).

It has been found that a deeper sense of meaning and higher levels of satisfaction with life are achieved through self-transcendence and collectivism compared to occupation with sources related to self-preoccupation and realization of personal potential, as the latter may be more related to situational meaning where meaning-making appears in everyday life experiences (Reker and Wong, 2012). For older adults, such a pattern could be explained by Törnstam's (1989) gerotranscendence theory, emphasizing a shift of meta-perspective from a materialistic and rational view toward a more value-based, communal and transcendent focus in older age. This claim finds support in previous research on older adults, where communal and transcendental sources seem to be more prominent than the individualistic ones (Bar-Tur et al., 2001; Schnell, 2009).

Satisfaction with life is a distinct construct representing a cognitive and global evaluation of the quality of one's life as a whole in view of beliefs and expectations (Keyes et al., 2002; Pavot and Diener, 2008). It may be a paradox that satisfaction with life has been found to be higher among older adults while health challenges and other limitations are increasing in this life phase (Gana et al., 2013). This might be explained by the fact that older people optimize their performance in selected and well-known domains and values, compensating for their inevitable limitations (Riediger et al., 2005).

Differentiation can be seen regarding various sources related to meaningfulness and satisfaction with life, respectively.

In the literature, these differences have been explained by meaningfulness representing eudaimonic well-being, focusing on personal growth and striving for meaning (Huta, 2018), whereas satisfaction with life is characterized as hedonic, focusing on basic needs and desires in the here and now (Baumeister et al., 2013). Such a differentiation is shown in a study of older adults (≥65 years) in residential care, where the sources personal growth, spirituality/religion, and interpersonal relationships were positively related to personal meaning, while family and leisure were positively related to satisfaction with life (Dewitte et al., 2021). A study of active seniors found no relationship between eudaimonic sources of meaning and life satisfaction (Penick and Fallshore, 2005). Thus, it was suggested that personal meaning may not serve as a major source of life satisfaction.

Resilience may be defined as the personal qualities that enable individuals to thrive, and it is also viewed as an expression of successful stress-coping ability (Connor and Davidson, 2003). When facing stressors, threats, or demanding life situations, resilience represents the dynamic process of positive adaption and the ability to maintain or regain mental health, whereby individuals reintegrate in life despite experiencing adversity (Herman et al., 2011). Resilience may vary with age and is proposed to be lower in older than in younger people (Rothermund and Brandtstädter, 2003).

A qualitative interpretive meta-synthesis (Bolton et al., 2016) pointed at several partially coincident constructs between resilience and meaningfulness. The most prominent factors were external connections emphasizing relations and social support; meaningfulness highlighting existential aloneness, meaning-making, and spiritual/religious practices; in addition to a positive perspective on life. In a population sample, resilience was positively correlated with meaningfulness (Sørensen et al., 2019). It should be mentioned, though, that the direction between the factors in the two latter mentioned studies could not be determined.

When investigating the relationship between resilience and satisfaction with life, it has been shown that resilience may increase satisfaction with life among patients with spinal cord injuries and their family members (Jones et al., 2019). In another selected sample, there was a positive association between resilience and satisfaction with life, at the same time as a negative association between resilience and depression was found among police officers working during a natural disaster (McCanlies et al., 2018). As an emotional strength or resource, resilience may serve as a protective health factor in aging. For instance, in a sample of adults (30–80 years), a significant inverse association between resilience and depression was observed for persons over 70 years (Leppert and Strauss, 2011). On the other hand, population-based investigations on this issue are scarce, especially regarding people in late adulthood.

From an overall perspective, it has been suggested that personal meaning and its sources can be viewed as potentially significant components of psychological resilience (Reker and Wong, 2012), contributing to greater hardiness when facing demanding life situations. On the other hand, greater hardiness could also contribute to a more meaningful life. However, research has largely failed to include the meaning constructs in conceptualizations and measures of resilience and vice versa. A supplement of the picture may be seen through the lens of gerotranscendence theory (Törnstam, 1989), according to which people in old age emphasize communal and transcendental views and sources, which may positively impact meaningfulness and satisfaction with life to a larger extent than rational and materialistic concerns (Törnstam, 1997). Several factors may be of significance when facing age-related challenges. The targeted factors in the present study, sources of meaning, resilience, meaningfulness, and satisfaction with life, may function as resistance against stressful events, adverse outcomes of the adaption process, negative health outcomes, and the development of disorders (Davydow et al., 2010). Since the study is the first of its kind in the Norwegian context, the approach was exploratory. The study is cross-sectional and aims with its exploratory design to present an openness toward directions between the dependent and independent variables, respectively.

In the present study, we aimed to investigate the presented concepts and how they emerge among people in late adulthood (≥65) as well as the associations between the concepts in a Norwegian context. A comparison with the rest of the population (18–64) is done to determine what is important for those in old age. New insights on these matters may generate knowledge crucial for policy and service development on health promotion, supporting people in late adulthood to stay at home as long as possible.

Against this background, and with an emphasis on people in late adulthood, we present the following research questions in this exploratory study: (1) What are the differences regarding scores on sources of meaning, resilience, meaningfulness, and satisfaction with life between people in late adulthood (≥65) and other adults (18–64)? (2) What is the association between sources of meaning and meaningfulness, and between resilience and meaningfulness? (3) What is the association between sources of meaning and satisfaction with life, and between resilience and satisfaction with life?

MATERIALS AND METHODS

Design and Sample

The present study used a cross-sectional research design. A population-based sample was recruited through a randomized draw from the Norwegian National Registry. A total of 7,500 people 18 years old and older were invited via an invitation letter that was sent by postal mail. Of those invited, 790 participants responded to the questionnaire, which was returned in a prepaid envelope, while 175 respondents completed the questionnaire online via Checkbox. Of the 965 respondents, 22 were omitted due to missing values of 5% or more. In addition, 18 cases were excluded due to identified multivariate outliers. Consequently, the final total sample consisted of 925 respondents, of which 54.5% were women and 45.5% were men (49.4 and 50.6% among those invited, respectively). The age range was 18–91, and the mean age was 51.7 years (SD = 16.6; the mean age was 47.7 among those invited). Most of the participants were in pair-bonded relationships (70.3%), and 59.6% had more than

12 years of education. Of the total sample, 219 persons were aged 65 years or older.

Measures

Demographic Variables

Socio-demographics were measured by gender, age, education level as an expression of socio-economic status ($\leq$12 years, >12 years), and civil status (single, pair-bonded).

Meaningfulness and Sources of Meaning

We used the Sources of Meaning and Meaning in Life Questionnaire (SoMe) (Schnell, 2009, 2011) to measure "Meaningfulness" (5 items, e.g., "I lead a fulfilled life") (α = 0.71) as well as to measure sources of meaning through 26 subscales with a total of 141 items. All items in the SoMe are rated on a six-point Likert scale (0 = totally disagree; 5 = totally agree). In a validation of the SoMe in the Norwegian context, the 26 subscales were grouped into six dimensions (Sørensen et al., 2019). Mean sum scores were calculated for the subscales and the six dimensions, ranging from 0 to 5. Cronbach's alpha's for the six dimensions were "Well-being and relatedness" (27 items, e.g., "I often think about how I can please others," α = 0.82), "Order and tradition" (24 items, e.g., "I like to stick to habits," α = 0.81), "Vertical self-transcendence" (8 items, e.g., "I draw strength from my faith," α = 0.77), "Horizontal self-transcendence" (28 items, e.g., "I place great emphasis on living in harmony with myself and others," α = 0.73), "Accomplishment" (31 items, e.g., "I strive to do something for the generations after me," α = 0.84), and "Liberality" (23 items, e.g., "It is important for me to find my own path," α = 0.70).

Satisfaction With Life

The Satisfaction with Life Scale (SWLS) was validated in Norway (Clench-Aas et al., 2011) and consists of five items (e.g., "In most ways, my life is close to my ideal," 1 = totally disagree; 7 = totally agree). The mean sum scores ranged from 1 to 7. Reliability in the present study was α = 0.88.

Anxiety and Depression

Symptoms of anxiety (7 items, e.g., "I can suddenly get a feeling of panic") and depression (7 items, e.g., "I feel like everything's going slower") were included as control variables in the regression models and were measured with the Hospital Anxiety and Depression Rating Scale (HADS) and validated in Norway (Bjelland et al., 2002). The ratings ranged from 0 (no problem) to 3 (maximum problem). Subscale scores (range: 0–21) were created by summing up the item scores. Reliability scores in the present study were α = 0.83 for anxiety and α = 0.71 for depression, respectively.

Resilience

Resilience was measured using the short version of the Connor–Davidson Resilience Scale (CD-RISC). The short version (CD-RISC2) (Vashnavi et al., 2007) consists of two items: "I am able to adapt when changes occur" and "I tend to bounce back after illness, injury, or other hardships" (0 = not true at all; 4 = true nearly all the time). The sum score ranged from 0 to 8 (Connor and Davidson, 2003). Reliability in the present study was α = 0.70.

Analyses

In this explorative study, we investigated differences between people in late adulthood ($\geq$65) and other adults (18–64) with independent sample *t*-tests for the continuous variables and chi-square tests for the categorical variables. In sub-analyses for the age group $\geq$ 75 years, one-way ANOVA were used for the continuous variables to compare means with the other age groups (18–64 and 65–74). Linear regression analyses were used to investigate how resilience and sources of meaning correlate with meaningfulness and satisfaction with life (Altman, 2018). We adjusted for demographic variables, anxiety, and depression. The standardized Beta (β) was reported. None of the variables included in the multivariate analysis showed collinearity over 0.70 (see **Supplementary Tables 1, 2**; Field, 2018). Linear regressions were also performed in sub-analyses for the age group $\geq$ 75 years. The significance level was set at $p \leq 0.05$. The analyses were performed using SPSS version 27.

Ethics

The Norwegian Regional Committees for Medical Research Ethics found that the present study was not covered by the Norwegian Health Research Act. It was therefore approved by the privacy representative at the Norwegian Centre for Research Data (NSD) (Project #42438) according to the Norwegian Personal Data Act. In advance of the study, the informants received information, including a notice that they would be providing their consent by submitting the questionnaire. The participants were given the opportunity to ask questions and could withdraw from the study at any time until publication of the study.

RESULTS

Differences Between Old and Young Adults

Older adults reported significantly higher levels of meaningfulness compared to younger adults (3.5 vs. 3.3) (see **Table 1**). Correspondingly, significantly higher levels of the sources of meaning order and traditions (3.6 vs. 3.3), vertical self-transcendence (2.3 vs. 1.8), and horizontal self-transcendence (3.3 vs. 3.1) were measured. However, levels of accomplishment were significantly lower among older adults than among the younger ones (3.0 vs. 3.2). No differences in resilience, satisfaction with life, or the sources of meaning well-being and relatedness and liberality were observed between the groups. In the sub-analysis, when comparing the age group $\geq$ 75 with the other age groups, the score on meaningfulness was highest among the oldest (3.6 – not shown) and lower among the groups 65–74 and 18–64 (3.4 and 3.3, respectively – not shown). In the sub-analysis no significant differences between the age groups were found for resilience and satisfaction with life.

Sources of Meaning and Resilience – Relations to Meaningfulness

Several of the sources of meaning were significantly and positively related to meaningfulness (see **Table 2**) in the multivariate

TABLE 1 | Demographics and clinical characteristics of the sample divided into age groups.

	Total Sample (*N* = 925)	Young adults < 65 years (*N* = 706)	Old adults ≥ 65 years (*N* = 219)	*p*
Age (SD)	51.66 (16.57)	45.05 (12.76)	73.00 (6.25)	**<0.001**
Sex, *N* (%)				**0.020**
Female	504 (54)	400 (57)	104 (48)	
Male	421 (46)	306 (43)	115 (52)	
Civil status, *N* (%)				0.61
Pair-bonded	643 (70)	494 (71)	149 (69)	
Single	272 (30)	204 (29)	68 (31)	
Education, *N* (%)				**0.001**
>12 years	549 (60)	441 (63)	108 (50)	
≤12 years	372 (40	263 (37)	109 (50)	
Meaningfulness (*Range 0–5*), *mean* (*SD*)	3.3 (0.9)	3.3 (0.9)	3.5 (0.9)	**0.030**
Sources of meaning (*Range 0–5*), *mean* (*SD*)				
Well-being and relatedness	3.4 (0.6)	3.4 (0.6)	3.4 (0.7)	0.89
Order and traditions	3.3 (0.6)	3.3 (0.6)	3.6 (0.6)	**<0.001**
Vertical self-transcendence	1.9 (1.2)	1.8 (1.2)	2.3 (1.3)	**<0.001**
Horizontal self-transcendence	3.1 (0.7)	3.1 (0.6)	3.3 (0.7)	**0.002**
Accomplishment	3.1 (0.6)	3.2 (0.6)	3.0 (0.7)	**<0.001**
Liberality	3.0 (0.7)	3.0 (0.7)	2.9 (0.7)	0.46
Satisfaction with life (*Range 1–7*), *mean* (*SD*)	5.2 (1.2)	5.2 (1.2)	5.3 (1.2)	0.25
Resilience (*Range 0–8*), *mean* (*SD*)	6.7 (1.2)	6.8 (1.2)	6.6 (1.2)	0.15

p ≤ 0.05, significant in bold.

regression analysis. The differences between those aged ≥ 65 and those aged 18–64 were small: well-being and relatedness (β0.21 vs.17), horizontal self-transcendence (β0.18 vs.16), accomplishment (β0.23 vs.19), and vertical self-transcendence (β0.47 vs. 46), with the latter having the strongest association. Liberality was negatively associated with meaningfulness in both age groups (β −0.12 vs. −0.13). No significant associations were found for order and traditions. Among the older group, men had lower levels of meaningfulness. In a sub-analysis of the oldest of the old (≥75, $N = 71$), it was found that vertical self-transcendence (β0.47, $p < 0.001$ – not shown) and accomplishment (β0.29, $p = 0.02$ – not shown) were the only sources of meaning positively associated with meaningfulness. Resilience was not associated with meaningfulness among the older adults (see **Table 2**). However, a significant positive association was found in the 18–64 age group (β 0.07).

Resilience and Sources of Meaning – Relations to Satisfaction With Life

Among those ≥65 years old, no associations were found between sources of meaning and satisfaction with life (see **Table 3**). However, in a sub-analysis of the oldest of the old (≥75, $N = 71$), it was found that accomplishment was positively associated with satisfaction with life (β0.32, $p = 0.03$ – not shown). For the 18–64 age group, a significant positive association with satisfaction with life was found for well-being and relatedness (β0.17) and a negative association for vertical self-transcendence (β-0.06). There was no significant association between resilience and satisfaction with life in the ≥65 age group. However, a positive, significant relationship was found in the 18–64 age group (β0.15; see **Table 3**).

DISCUSSION

In the present study, the aim was to investigate sources of meaning and resilience, and the relations of these factors to meaningfulness and satisfaction with life. We sought to identify the special results among people in late adulthood (≥65 years) by comparing them with the rest of the population (18–64 years). This exploratory study aimed to generate knowledge in the Norwegian context as a preliminary knowledge base for possible policy and service development, considering health promotion for home-residing older people (≥65).

Regarding the first research question of whether there were differences between the age groups in terms of sources of meaning, resilience, meaningfulness, and satisfaction with life, the old age group (≥65) scored significantly higher on meaningfulness (see **Table 1**), though the effect size on this difference could be considered small (Cohen's $d = -0.17$). In the sub-analysis of the age group ≥ 75 the score for meaningfulness was even higher, as opposed to studies reporting meaningfulness to decline in the older-old (Aftab et al., 2019; Steptoe and Fancourt, 2019). However, our finding is consistent with other research (Steger et al., 2006). Higher levels of meaningfulness among old people might be because this age group experience more fulfillment and existential stability in late life (Schnell, 2021). Similarly, the highly significant differences in the self-transcendence sources of meaning (see **Table 1**) could indicate that people in late adulthood more frequently search for objects

TABLE 2 | Bivariate and multivariate linear regression of the associations between demographics, anxiety, depression, sources of meaning, resilience, and meaningfulness (dependent variable).

	Young and middle-aged adults < 65 years ($N = 706$)				**Old adults ≥ 65 years ($N = 219$)**			
	Bivariate		**Multivariate**		**Bivariate**		**Multivariate**	
	β	***p***	**β**	***p***	**β**	***p***	**β**	***p***
Age	0.15	**<0.001**	0.07	**0.008**	0.03	**<0.001**	−0.08	**0.046**
Sex (women, men)	−0.20	**<0.001**	−0.05	0.075	−0.20	**0.004**	−0.10	**0.032**
Civil status (single, pair-bonded)	0.11	**0.003**	0.05	**0.047**	0.02	0.786	0.07	0.105
Education	0.07	0.068	0.02	0.421	0.09	0.207	0.03	0.519
Sources of meaning								
Well-being and relatedness	0.51	**<0.001**	0.17	**<0.001**	0.64	**<0.001**	0.21	**0.001**
Order and traditions	0.27	**<0.001**	0.05	0.110	0.47	**<0.001**	0.07	0.201
Vertical self-transcendence	0.55	**<0.001**	0.46	**<0.001**	0.66	**<0.001**	0.47	**<0.001**
Horizontal self-transcendence	0.49	**<0.001**	0.16	**<0.001**	0.64	**<0.001**	0.18	**0.002**
Accomplishment	0.37	**<0.001**	0.19	**<0.001**	0.55	**<0.001**	0.23	**0.001**
Liberality	0.11	**0.004**	−0.13	**<0.001**	0.38	**<0.001**	−0.12	**0.044**
Resilience	0.21	**<0.001**	0.07	**0.015**	0.19	**0.005**	0.04	0.424
Symptoms of anxiety	−0.09	**0.025**	0.02	0.421	−0.07	**<0.001**	−0.05	0.283
Symptoms of depression	−0.28	**<0.001**	−0.24	**<0.001**	−0.14	**0.040**	−0.01	0.812

β = Standardized Beta. $p \leq 0.05$, significant in bold. R^2 young and middle-aged 0.59, R^2 old adults 0.69.

TABLE 3 | Bivariate and multivariate linear regression of the associations between demographics, anxiety, depression, sources of meaning, resilience, and satisfaction with life (dependent variable).

	Young and middle-aged adults < 65 years ($N = 706$)				**Old adults ≥ 65 years ($N = 219$)**			
	Bivariate		**Multivariate**		**Bivariate**		**Multivariate**	
	β	***p***	**β**	***p***	**β**	***p***	**β**	***p***
Demographic variables								
Age	0.12	**0.002**	0.01	0.789	−0.05	0.470	0.05	0.405
Sex (women, men)	−0.11	**0.004**	−0.04	0.165	0.00	0.961	−0.15	**0.018**
Civil status (single, pair-bonded)	0.31	**<0.001**	0.21	**<0.001**	0.20	**0.003**	0.18	**0.002**
Education	0.13	**0.001**	0.04	0.208	0.19	**0.006**	0.05	0.453
Sources of meaning								
Well-being and relatedness	0.27	**<0.001**	0.17	**<0.001**	0.29	**<0.001**	0.07	0.457
Order and traditions	0.02	0.686	−0.01	0.836	0.12	0.074	−0.03	0.732
Vertical self-transcendence	−0.11	**0.003**	−0.06	**0.043**	−0.07	0.307	−0.09	0.146
Horizontal self-transcendence	0.10	**0.008**	0.01	0.812	0.19	**0.006**	0.07	0.366
Accomplishment	0.07	0.053	−0.01	0.791	0.25	**<0.001**	0.13	0.189
Liberality	−0.03	0.444	−0.03	0.373	0.17	**0.012**	−0.06	0.462
Resilience	0.42	**<0.001**	0.15	**<0.001**	0.39	**<0.001**	0.07	0.316
Symptoms of anxiety	−0.50	**<0.001**	−0.20	**<0.001**	−0.55	**<0.001**	−0.37	**<0.001**
Symptoms of depression	−0.60	**<0.001**	−0.33	**<0.001**	−0.49	**<0.001**	−0.21	**0.002**

β = Standardized Beta. $p \leq 0.05$, significant in bold. R^2 Young and middle-aged 0.48, R^2 Old adults 0.40.

beyond their immediate needs, with a vertical self-transcendence mean 1.8 vs. 2.3 (see **Table 1**), even though the effect size may not be considered large (Cohen's $d = -0.38$).

In the present study, there were no differences between the age groups regarding satisfaction with life, despite that previous research has found satisfaction with life to increase in old age (Gana et al., 2013). It should be noted, however, that others found no correlation between satisfaction with life and age (Penick and Fallshore, 2005). In the present study there were no significant differences between the age groups in terms of resilience, even though lower scores on resilience for people in late adulthood have been found in previous research (Rothermund and Brandtstädter, 2003). This could be due to the mean age of 73 years, which could indicate a relatively young composition of participants in the age group ≥ 65 years in the present sample. However, nor the sub-analysis of the oldest of the old (≥75 – not shown) revealed differences neither in satisfaction with life nor resilience when comparing them with the other age groups.

The second research question asked about the association between sources of meaning and meaningfulness. Except for order and traditions, all sources of meaning were related to meaningfulness, and vertical self-transcendence and accomplishment had the strongest positive association (see **Table 2**). Conversely, liberality was negatively related. In a sub-analysis of the oldest of the old (≥75 – not shown), it was found that only vertical self-transcendence and accomplishment were associated with meaningfulness. Although there is some uncertainty regarding whether this sub-analysis was under powered because of the low number of cases ($N = 71$), it could indicate that these two sources are the most important when determining sources of meaning relevant for meaningfulness among people in late adulthood.

Vertical self-transcendence, which includes spirituality and religiousness, had the lowest score among the sources of meaning, although it was higher among the older participants than among the younger ones (see **Table 1**). This may reflect the expansion of secularity in the Norwegian context (Sørensen et al., 2012), which has been observed in other Scandinavian countries as well (Pedersen et al., 2018). At the same time, the older age group represents a life phase where a reversal of self-centering emerges, and a search for objects beyond one's immediate needs seems to become more prominent (Schnell, 2021). Vertical self-transcendence was the strongest source of meaning related to meaningfulness in the multivariate analysis (see **Table 2**) where this variable alone represented 15.5% of the unique explained variance in meaningfulness after squaring the semi partial correlation (not shown). Thus, for individuals affiliated with religion and spirituality and the search for a supernatural reality, vertical self-transcendence may be highly important to their experience of meaning. Several resources, such as secular goals and beliefs, are available to everybody (Dezutter and Corveleyn, 2013). As such, people affiliated with a supernatural entity through beliefs and practices often have more resources available to them, as transcendent meaning systems appears to have a special ability to provide meaning, especially when no rational explanations of events are available (Pargament et al., 2005).

An important sub-scale of the accomplishment dimension is generativity, emphasizing an unselfish engagement for the community and future generations (Schnell, 2021). In previous studies, it has been shown that generativity has a strong association with meaningfulness (Schnell, 2011; Sørensen et al., 2019). Thus, it may be argued that selfless commitment to the good of the community and the next generations, as well as spiritual and religious approaches, may be the strongest sources of meaning for the old age group when related to meaningfulness. For those in the oldest age group, individual and self-centered awareness seemed to be less important in the material when seen together with meaningfulness, than it was for those in the lower age groups. According to Reker and Wong (2012), people find deeper meaning through commitment to a larger social cause and through values encompassing cosmic meaning and ultimate purpose, whereas the realization of personal potential and personal comfort may be less important for the meaning experience. This seems to be more obvious in old age if we follow gerotranscendence theory (Törnstam, 1989; 1997). Gerotranscendence theory describes a shift of meta-perspective, with more focus on internal values as well as the transcendent and the communal and less on materialistic and rational views. It is claimed that older adults optimize their performance related to selected and well-known values (Riediger et al., 2005). In the old age group vertical self-transcendence with religiousness and spirituality and accomplishment including generativity may represent such well-known and selected values. The finding that liberality was negatively associated with meaningfulness may also contribute to the understanding of gerotranscendence (Törnstam, 1989, 1997). Values such as freedom and individualism are highly valued in our modern Western society (Aakvaag, 2018). However, when seen in relation to meaningfulness, these values may appear less important for meaningfulness in old age, which also may be the case for other materialistic and individual views.

Previous research has found that hedonic sources like family and leisure were associate with satisfaction with life (Baumeister et al., 2013; Dewitte et al., 2021). However, the answer to our third research question is that none of the sources of meaning were related to satisfaction with life (see **Table 3**). Satisfaction with life is a construct representing a cognitive and global evaluation of life as a whole (Pavot and Diener, 2008), and is often understood as hedonic well-being (Keyes et al., 2002). It could be argued that the sources of meaning in SoMe are constructs especially related to meaningfulness, and thus they are characterized as eudaimonic and not related to satisfaction with life (Penick and Fallshore, 2005). At the same time, it is quite clear that sources in SoMe like well-being and relatedness (with sub-scales measuring enjoyment and sensitivity in private and with company) as well as liberality (with its sub-scales of freedom and comfort) would fall under what could be called hedonic sources (Baumeister et al., 2013). The positive association of the SoMe dimension well-being and relatedness with satisfaction with life in the 18–64 age group could substantiate this point (see **Table 3**). Still, there was no significant association between either eudaimonic or hedonic sources and satisfaction with life among people in late adulthood in the present sample. However, in the sub-sample of the oldest old (≥75), there was a positive association between the eudaimonic source accomplishment and satisfaction with life. Interestingly, this finding did not correspond with satisfaction with life, above described as hedonic well-being. Other measures of well-being, with a stronger focus on present or immediate satisfaction with life, could have a stronger relationship with the hedonic sources (Penick and Fallshore, 2005).

In the second and the third research questions, we asked if there was an association between resilience and meaningfulness, and between resilience and satisfaction with life, respectively. Based on partially coincident constructs between resilience and meaningfulness (Schnell, 2009, 2011; Bolton et al., 2016), and claims of an association between resilience and meaning (Reker and Wong, 2012), a positive association between resilience and meaningfulness could have been expected, even though direction between them would not be determined according to the research design. Also, positive associations between resilience and satisfaction with life was found in previous research (McCanlies et al., 2018; Jones et al., 2019). Interestingly, associations were not found in the present study neither between resilience and meaningfulness, nor between resilience and satisfaction with life.

Whereas resilience is often investigated in selected samples including participants who are struggling with demanding life events (McCanlies et al., 2018; Jones et al., 2019), the present sample was population based. Resilience was measured with the CD-RISC2, which included only two items (Vashnavi et al., 2007) and thus may have provided limited information about resilience, failing to capture the variety of domains pertaining to this concept (Infurna and Luthar, 2017). However, given that positive associations were found between resilience and meaningfulness as well as between resilience and satisfaction with life in the younger age group (see **Tables 2**, **3**), there could be other explanations for the lack of significant associations between these domains among old adults (see **Tables 2**, **3**).

It has been argued that younger people may struggle with demands in society and rely on resources like resilience and emotional strength, such as the ability to adapt and reintegrate despite experiencing adversity (Herman et al., 2011). Even if people in old age are retired and do not struggle with the demands of career and work requirements, they increasingly face demanding life situations, such as various losses, disabilities, and health challenges (Eurostat, 2020). While no association was seen between resilience and satisfaction with life, nor between resilience and meaningfulness among the older participants in the present study (see **Tables 2**, **3**), the shift of meta-perspective in late adulthood from striving for a career and other individualistic and materialistic approaches to communal and transcendent entities (Törnstam, 1989, 1997) could contribute to an interpretation of this finding. The older participants in the present study may lean on the satisfaction with life that their life phase entails—a phase where fulfilment and existential stability can be expected to a great extent (Schnell, 2021). Since the sample in this explorative study contained only individuals with a permanent address connected to a flat or house, we argue that the material is context bound to home-dwelling people and reflects their view. It could be that resilience in terms of elasticity is not triggered in this group since they represent people in stable, safe conditions and with a good socio-economic background (Colerick, 1985). It should also be noted that Norway has the highest rank in the world in terms of material living conditions and satisfaction with life (The Organisation for Economic Co-operation and Development, 2020).

Strengths and Limitations

The strengths of the present study are the big sample size and random selection from the Norwegian National Registry. An obvious limitation of the study was its cross-sectional design, with no possibility of showing causal relationships. Another limitation was the response rate. Even though the 7,500 invited were randomly selected, it can be questioned whether the final sample can be designated as population based due to the 12.2% response rate. More effort could have been made to reach non-responders, for instance, using the Total Design Method (Dillman, 1978), but the recruitment procedure described above was approved according to Norwegian ethical standards.

The sample was skewed in terms of education level (60% in the sample vs. 30% in the population had >12 years of education) (Statistics Norway, 2021), which could have an impact on the results. At the same time, the frequency of church attendance measured in the sample (not shown) was similar to that in other population-based studies in Norway (Sørensen et al., 2012), which may indicate that the present investigation is not biased by overrepresentation of participants interested in religion, spirituality, and other transcendent approaches. Demographic variables may have relevance to the concepts in the research questions. The distributions of age (mean 51.7 years vs. 47.7 among the invited) and gender (54.5% women vs. 49.4% among the invited) in the final sample could be considered acceptable compared to the general population. Moreover, the share of people living alone (30.0%) was close to that in the general population (25.6%) (Norwegian Institute of Public Health, 2020). Against this background, it could be argued that the sample is representative of the Norwegian population.

The sub-analysis of the age group ≥ 75 years was performed knowing that the sample size ($N = 71$) was potentially too small for the number of variables included in the regression model. Accordingly, there are clear reservations when illustrating and elaborating the findings for the total sample of the old age group (≥65 years).

It is possible that constructs overlapped in the analyses. However, all Pearson correlation coefficients were lower than 0.70 (Field, 2018) when testing for collinearity between the employed continuous variables (see **Supplementary Tables 1, 2**). Resilience was measured with a two-item instrument (CD-RISK2), which may not have grasped all the domains relevant for this concept.

CONCLUSION

In the present Norwegian population-based study, it was found that people in late adulthood (≥65 years) scored significantly higher on meaningfulness compared to younger adults (age 18–64). Of the sources of meaning, vertical self-transcendence, including explicit religiosity and spirituality, had the strongest relation to meaningfulness for people in late adulthood, after adjusting for demographics, anxiety, and depression. For the same group, accomplishment, including generativity and unselfish engagement with the surroundings and future generations, also stood out as a prominent source of meaning when related to meaningfulness. No sources of meaning were associated with satisfaction with life in the older group. No associations between resilience and meaningfulness, nor between resilience and satisfaction with life, were found among people in late adulthood. However, positive associations were found between resilience and meaningfulness, as well as between resilience and satisfaction with life, in the 18–64 age group.

IMPLICATIONS

The present study was cross-sectional and exploratory. Further investigations are needed employing longitudinal research designs to examine whether eudaimonic domains like vertical self-transcendence and accomplishment impact meaningfulness among older adults. Intervention studies with selected samples may also be relevant. Such studies could investigate the significance of approaches connected to the most relevant sources of meaning, like those shown in the present study. If it is true that vertical self-transcendence and accomplishment are the most prominent sources of meaningfulness, this would strengthen the theory of gerotranscendence and the understanding of older people's emphasis on communal and transcendent views in the Norwegian context.

We sought to search for sources associated with meaningfulness in old age. Such knowledge may facilitate health-promoting approaches for this age group (Knitzek et al., 2021). Meaning in life is a personal, subjective, and private issue (Reker and Wong, 2012). Health-promoting approaches emphasizing meaningfulness and its sources should therefore consider individuals needs and preferences (Slettebø et al., 2017). It has been suggested to support older people in continuing their discovery and creation of meaning by focusing on the different sources mentioned in the present article, for example, using life review (life history) as a clinical technique in settings with counselors (Penick and Fallshore, 2005). Another suggested intervention might be writing courses for older adults living at home (Lehmann and Brinkmann, 2019). As it is crucial in the communal view of older people (Törnstam, 1989) to perceive reciprocity in relationships and a sense of still having the ability to influence their communities (Bahl, 2018), creative writing and storytelling in groups have been proposed as aesthetic and existential practices in community with others (Synnes, 2015). Enabling customized religious and spiritual practices for older people who are not able to come to religious services on their own could be a more practically oriented approach. Regarding self-transcendence and the search for objects beyond immediate needs, the activities mentioned above may contribute to a deeper sense of meaningfulness. As meaningfulness may contribute to successful aging, resulting in better health and longevity (Steptoe and Fancourt, 2019), these approaches, among others, could help older people to stay at home longer (Norwegian Government, 2017).

DATA AVAILABILITY STATEMENT

The datasets presented in this article are not readily available because participants did not give their approval for sharing data. Requests to access the datasets should be directed to TS, torgeir.sorensen@vid.no.

ETHICS STATEMENT

The study involved human participants and was reviewed and approved by the Norwegian Centre for Research Data (NSD) (Project #42438). The participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

TS collected the data and wrote the first draft of the manuscript. TS, KH, and EG contributed to the conception and design of the study, analyzed the data, contributed to critical reading, manuscript revision, final manuscript preparation, and approved the submitted version.

FUNDING

This present study received funding of data collection from Innlandet Hospital Trust, Brummunddal, Norway (Grant #150267).

ACKNOWLEDGMENTS

We thank Alv A. Dahl for statistical support.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyg.2021.685125/full#supplementary-material

REFERENCES

Aakvaag, G. C. (2018). "A Democratic Way of Life: institutionalizing Individual Freedom in Norway," in *Democratic State and Democratic Society*, eds F. Engelstad, C. Holst, and G. C. Aakvaag (Warsaw: De Gruyter Poland). doi: 10.1515/9783110634082-004

Aftab, A., Lee, E. E., Klaus, F., Daly, R., Wu, T. C., Huefe, S., et al. (2019). Meaning in Life and its Relationship with Physical, Mental, and Cognitive Functioning: a Study of 1,042 Community-Dwelling Adults across the Lifespan. *J. Clin. Psychiatry* 81:19m13064. doi: 10.4088/JCP.19m13064

Altman, D. G. (2018). *Practical Statistics for Medical Research*. London: Chapman & Hall/CRC.

Bahl, N. K. (2018). *Psychological Sense of Community: an Exploration of Norwegian and Indian Urban Older Adults' Conceptualisations within Cultural Meaning Systems*. Ph.D. thesis. Trondheim: NTNU Norwegian University of Science and Technology.

Bar-Tur, L., Savaya, R., and Prager, E. (2001). Sources of Meaning in Life for Young and Old Israeli Jews and Arabs. *J. Aging Stud.* 15, 253–269. doi: 10.1016/s0890-4065(01)00022-6

Baumeister, R. F., Vohs, K. D., Aaker, J. L., and Garbinsky, E. N. (2013). Some key differences between a happy life and a meaningful life. *J. Posit. Psychol.* 8, 505–516. doi: 10.1080/17439760.2013.830764

Bjelland, I., Dahl, A. A., Haug, T. T., and Neckelmann, D. (2002). The Validity of the Hospital Anxiety and Depression Scale: an Updated Literature Review. *J. Psychosom. Res.* 52, 69–77.

Bolton, K. W., Praetorius, R. T., and Smith-Osborne, A. (2016). Resilience Protective Factors in an Older Adult Population: a Qualitative Interpretive Meta-Synthesis. *Soc. Work Res.* 40, 171–182. doi: 10.1093/swr/svw008

Clench-Aas, J., Nes, R. B., Dalgard, O. S., and Aarø, L. E. (2011). Dimensionality and Measurement Invariance in the Satisfaction with Life Scale in Norway. *Qual. Life Res.* 20, 1307–1317.

Colerick, E. J. (1985). Stamina in Later Life. *Soc. Sci. Med.* 21, 997–1006. doi: 10.1016/0277-9536(85)90421-6

Connor, K. M., and Davidson, J. R. (2003). Development of a New Resilience Scale: the Connor Davidson Resilience Scale (CD-RISC). *Depress. Anxiety* 18, 76–82. doi: 10.1002/da.10113

Damásio, B. F., Koller, S. H., and Schnell, T. (2013). Sources of Meaning and Meaning in Life Questionnaire (SoMe): psychometric Properties and Sociodemographic Findings in a Large Brazilian Sample. *Acta Investig. Psicol.* 3, 1205–1227. doi: 10.1016/s2007-4719(13)70961-x

Davydow, D. M., Stewart, R., Ritchie, K., and Claudieu, I. (2010). Resilience and mental health. *Clin. Psychol. Rev.* 30, 479–495.

Dewitte, L., Vandenbulcke, M., Schellekens, T., and Dezutter, J. (2021). Sources of Well-being for Older Adults with and without Demenitia in Residential Care: relations to Presence of Meaning and Life Satisfaction. *Aging Ment. Health* 25, 170–178. doi: 10.1080/13607863.2019.1691144

Dezutter, J., and Corveleyn, J. (2013). "Meaning Making: a Crucial Psychological Process in Confrontation with a Life Stressor," in *Constructs of Meaning and Religious Transformation*, ed. H. Westerinck (Vienna: Vienna University Press).

Dillman, D. A. (1978). *Mail and Telephone Surveys: The Total Design Method.* New York, NY: John Wiley & Sons.

Eurostat (2020). *Aging i Europe. Looking at the lives of older people in the EU*. Available online at: https://ec.europa.eu/eurostat/documents/3217494/11478057/KS-02-20-655-EN-N.pdf/9b09606c-d4e8-4c33-63d2-3b20d5c19c91 (accessed September 22, 2021).

Field, A. (2018). *Discovering Statistics using IBM SPSS Statistics*, 5th Edn. London: SAGE Publications.

Gana, K., Bailly, N., Saada, Y., Joulain, M., and Alaphilippe, D. (2013). Does Life Satisfaction Change in Old Age: results From an 8-Year Longitudinal Study. *J. Gerontol. B Psychol. Sci. Soc. Sci.* 68, 540–552. doi: 10.1093/geronb/gbs093

Herman, H., Stewar, D. E., Diaz-Granados, N., Berger, E. L., Jackson, B., and Yuen, T. (2011). What is Resilience? *Can. J. Psychiatry* 56, 258–265. doi: 10.1177/070674371105600504

Huta, V. (2018). Eudaimonia versus Hedonia: what is the Difference? And is it Real? *Int. J. Existent. Psychol. Psychother.* 7:8.

Infurna, F. J., and Luthar, S. S. (2017). The Multidimensional Nature of Resilience to Spousal Loss. *J. Pers. Soc. Psychol.* 112, 926–947. doi: 10.1037/pspp0000095

Jones, K. F., Simpson, G., Briggs, L., Dorsett, P., and Anderson, M. (2019). A Study of Whether Individual and Dyadic Relations between Spirituality and Resilience Contribute to Psychological Adjustment among Individuals with Spinal Injuries and Their Family Members. *Clin. Rehabil.* 33, 1503–1514. doi: 10.1177/0269215519845034

Kashdan, T. B., and Breen, W. E. (2007). Materialism and Diminished Well-Being. Experiential Avoidance as a Mediating Mechanism. *J. Soc. Clin. Psychol.* 26, 521–539. doi: 10.1521/jscp.2007.26.5.521

Keyes, C. L. M., Shmotkin, D., and Ryff, C. D. (2002). Optimizing Well-Being: the Empirical Encounter of Two Traditions. *J. Pers. Soc. Psychol.* 82, 1007–1022. doi: 10.1037/0022-3514.82.6.1007

Knitzek, B., Alsaker, S., Hagen, J., Haugan, G., Lehmann, O., Nilsen, M., et al. (2021). Meaning-making: a Underestimated Resource for Health? A Discussion of the Value of Meaning-making in the Conservation and Restoration of Health and Well-being. *Encyclopaideia* 25, 5–18.

Lehmann, O. V., and Brinkmann, S. (2019). "I'm the one who has written this": reciprocity in Writing Courses for Older Adults in Norway. *Int. J. Qual. Stud. Health Well Being* 14, 1–10. doi: 10.1080/17482631.2019.1650586

Leppert, K., and Strauss, B. (2011). Die Rolle von Resilienz für die Bewältigung von Belastungen im Kontext von Altersübergängen [The role of resilience for coping in different age groups]. *Z. Gerontol. Geriatr.* 44, 313–317. doi: 10.1007/s00391-011-0193-2

Martela, F., and Steger, M. F. (2016). The Three Meanings of Meaning in Life: distinguishing Coherence, Purpose, and Significance. *J. Posit. Psychol.* 11, 531–545. doi: 10.1080/17439760.2015.1137623

McCanlies, E. C., Gu, J. K., Andrew, M. E., and Violanti, J. M. (2018). The Effect of Social Support, Gratitude, Resilience and Satisfaction with Life on Depressive Symptoms among Police Officers Following Hurricane Katrina. *Int. J. Soc. Psychiatry* 64, 63–72. doi: 10.1177/0020764017746197

Norwegian Government (2017). *Leve hele livet [Living the whole life] Meld. St. 15 [2017-2018]. White Paper*. Available online at: https://www.regjeringen.no/no/dokumenter/meld.-st.-15-20172018/id2599850/?q=Leve+hele+livet%22+%E2%80%93+en+reform (accessed August 28, 2021).

Norwegian Institute of Public Health (2020). *People Living Alone in Norway*. Available online at: https://www.norgeshelsa.no/norgeshelsa/ (accessed August 25, 2021)

Pargament, K. I., Magyar-Russell, G. M., and Murray-Swank, N. A. (2005). The Sacred and the Search for Significance: religion as a Unique Process. *J. Soc. Issues* 61, 665–687. doi: 10.1111/j.1540-4560.2005.00426.x

Pavot, W., and Diener, E. (2008). The Satisfaction With Life Scale and the Emerging Construct of Life Satisfaction. *J. Posit. Psychol.* 3, 137–152. doi: 10.1080/17439760701756946

Pedersen, H. F., Birkeland, M. H., Jensen, J. S., Schnell, T., Hvidt, N. C., and Sørensen, T. (2018). What Brings Meaning to Life in a Highly Secular Society? A Study on Sources of Meaning among Danes. *Scand. J. Psychol.* 59, 678–690. doi: 10.1111/sjop.12495

Penick, J. M., and Fallshore, M. (2005). Purpose and Meaning in Highly Active Seniors. *Adultspan J.* 4, 19–35. doi: 10.1002/j.2161-0029.2005.tb00115.x

Reker, G. T. (2000). "Theoretical perspective, dimensions, and measurement of existential meaning," in *Exploring Existential Meaning: optimizing Human Development Across The Life Span*, eds G. T. Reker and K. Chamberlain (Thousand Oaks, CA: Sage Publications), 39–58.

Reker, G. T., and Wong, P. T. P. (2012). "Personal Meaning in Life and Psychosocial Adaptation in the Later Years," in *The Human Quest for Meaning: theories, Research, and Applications*, ed. P. T. P. Wong (Milton Park: Routledge), 433–456.

Riediger, M., Freund, A. M., and Baltes, P. B. (2005). Managing Life through Personal Goals: intergoal Facilitation and Intensity of Goal Pursuit in Younger and Older Adulthood. *J. Gerontol. B Psychol. Sci. Soc. Sci.* 60, 84–91. doi: 10.1093/geronb/60.2.p84

Rothermund, K., and Brandtstädter, J. (2003). Depression in Later Life: cross-Sequential Patterns and Possible Determinants. *Psychol. Aging* 18, 80–90. doi: 10.1037/0882-7974.18.1.80

Schnell, T. (2009). The Sources of Meaning and Meaning in Life Questionnaire (SoMe): relations to Demographics and Well-Being. *J. Posit. Psychol.* 4, 483–499. doi: 10.1080/17439760903271074

Schnell, T. (2011). Individual Differences in Meaning-Making: considering the Variety of Sources of Meaning, their Density and Diversity. *Pers. Individ. Dif.* 51, 667–673. doi: 10.1016/j.paid.2011.06.006

Schnell, T. (2021). *The Psychology of Meaning in Life*. Oxon: Routledge.

Slettebø, Å, Sætren, B., Caspari, S., Lohne, V., Rehnsfeldt, A. W., Heggestad, A. K. T., et al. (2017). The Significance of Meaningful and Enjoyable Activities for Nursing Home Residents' Experiences of Dignity. *Scand. J. Caring Sci.* 31, 718–726. doi: 10.1111/scs.12386

Sørensen, T., la Cour, P., Danbolt, L. J., Stifoss-Hanssen, H., Lien, L., DeMarinis, V., et al. (2019). The Sources of Meaning and Meaning in Life Questionnaire in the Norwegian Context: relations to Mental Health, Quality of Life, and Self-Efficacy. *Int. J. Psychol. Relig.* 29, 32–45. doi: 10.1080/10508619.2018.1547614

Sørensen, T., Lien, L., Holmen, J., and Danbolt, L. J. (2012). Distribution and Understanding of Items of Religiousness in the Nord-Trøndelag Health Study, Norway. *Ment. Health Relig. Cult.* 15, 571–585. doi: 10.1080/13674676.2011.604868

Statistics Norway (2021). *Education Level in Norway*. Available online at: https://www.ssb.no/utdanning/utdanningsniva/statistikk/befolkningens-utdanningsniva (accessed August 24, 2021)

Steger, M. F., Frazier, P., Oishi, S., and Kaler, M. (2006). The Meaning in Life Questionnaire: assessing the Presence of and Search for Meaning in Life. *J. Couns. Psychol.* 53, 80–93. doi: 10.1037/0022-0167.53.1.80

Steptoe, A., and Fancourt, D. (2019). Leading a Meaningful life at Older Ages and its Relationships with Social Engagement, Prosperity, Health, Biology, and Time Use. *Proc. Natl. Acad. Sci. U. S. A.* 116, 1207–1212. doi: 10.1073/pnas.1814723116

Synnes, O. (2015). Narratives of nostalgia in the face of death: the importance of lighter stories of the past in palliative care. *J. Aging Stud.* 34, 169–176. doi: 10.1016/j.jaging.2015.02.007

The Organisation for Economic Co-operation and Development [OECD] (2020). *How's Life? 2020. Measuring Well-being*. Paris: OECD, doi: 10.1787/23089679

Törnstam, L. (1989). Gero-transcendence: a Reformulation of the Disengagement Theory. *Aging Clin. Exp. Res.* 1, 55–63. doi: 10.1007/BF03323876

Törnstam, L. (1997). Gerotranscendence: the contemplative dimension of aging. *J. Aging Stud.* 11, 143–154. doi: 10.1177/0091415016668354

Vashnavi, S., Connor, K., and Davidson, J. R. T. (2007). An Abbreviated Version of the Connor-Davidson Resilience Scale (CD-RISSC), the CD-RISC2: psychometric Properties and Applications in Psychopharmacological Trial. *Psychiatr. Res.* 152, 293–297. doi: 10.1016/j.psychres.2007.01.006

Wong, P. T. P. (1989). Personal Meaning and Successful Aging. *Can. Psychol.* 30, 516–525. doi: 10.1037/h0079829

Wong, P. T. P. (1998). "Implicit theories of meaningful life and the development of the Personal Meaning Profile," in *The Human Request for Meaning: a Handbook of Psychological Research and Clinical Applications*, eds T. P. P. Wong and P. S. Fry (Mahawah, NJ: Erlbaum)

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.