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A new science of suffering, the wisdom of the soul, and the new behavioral economics of happiness: Towards a general theory of well-being

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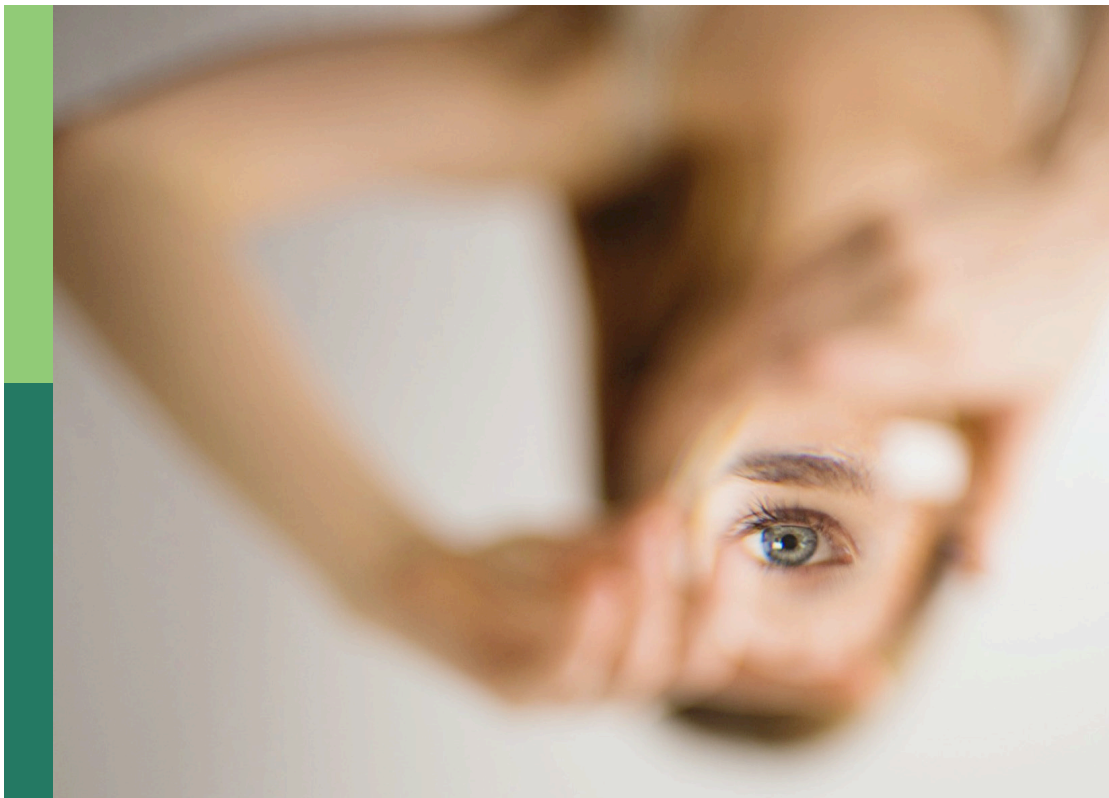

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A new science of suffering, the wisdom of the soul, and the new behavioral economics of happiness: Towards a general theory of well-being

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Editorial: A new science of suffering, the wisdom of the soul, and the new behavioral economics of happiness: towards a general theory of well-being

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Editorial on the Research Topic
A new science of suffering, the wisdom of the soul, and the new behavioral economics of happiness: towards a general theory of well-being

This Research Topic is designed to extend the theme of existential positive psychology (EPP) to new research areas. Theoretically, it is oriented toward a general theory of global well-being, which incorporates three pillars of EPP (Wong et al., 2022):

(1) the existential universals of suffering, ultimate concerns, and the deep-seated human yearning for meaning, social connection, and spirituality;

(2) unique expressions and experiences of existential universals in different seasons of life and different cultures; and

(3) personal transformation through suffering.

A general theory of well-being needs to cover the complete spectrum of existential well-being, which includes not only different facets of personhood but also wide-ranging dynamics of nature and culture that affect human existence, such as globalization, climate change, ecology, and the mysterious invisible forces capable of impacting well-being. It must be capable of integrating the bright and dark sides of life, as well as the unknown forces that may benefit or threaten humanity.

Shifting to a new science of suffering

A new science of suffering (also known as positive psychology of suffering) is needed to better understand (1) different kinds of suffering (e.g., necessary vs. unnecessary suffering) and (2) the bidirectionality of suffering (i.e., the conditions under which suffering can either degrade or strengthen us). This new science of suffering is essential for creating a more complete picture of human flourishing, just as the science of pain and disease control is essential for physical health and medical science.

Melios et al. provide one of the latest multinational empirical studies on low subjective well-being by leveraging cross-sectional data from the Gallup World Poll. Although individual-level factors had the greatest explanatory power, evidence of interactions between individual and country-level factors on subjective well-being support the idea that human flourishing is shaped by a complex system involving people and the places in which they live (Counted et al., 2021; VanderWeele et al., 2022).

Fayard and Mayer's qualitative study indicated that young male university graduates understand the challenges of transitioning to the workplace and are able to transform their stressful experiences into a salutogenic process. Their work represents a paradigm shift from a pathogenic approach toward a positive health paradigm in which an individual's position on the continuum from health to disease is determined by the interaction of environmental threats, their degree of resistance, and the strength of their sense of coherence.

Kaftanski and Hanson's conceptual article forms part of the emerging trend of flipping the common narrative that suffering is wholly an impediment to human well-being. Consistent with recent theoretical (e.g., Wong et al., 2022) and empirical literature (e.g., Wilkinson et al., 2023), the authors recognize that conceptions of well-being typically overlook suffering or assume an unrealistic version of human life in which suffering is nonexistent.

Sease et al.'s perspective article focuses on existential isolation, which is a special case of existential suffering (Wong, 2015). Based on their review of relevant literature, they theorize that existential isolation could thwart therapeutic interventions in justice settings because people involved in the justice system may feel more disjointed from their counselors and peers.

Güven and Arslan explore EPP by studying themes of suffering and happiness in Turkish folk poetry. Their research shows that suffering is an inescapable part of human life, but it can also be source for building resilience. These findings support the notion of transforming suffering for an adaptive purpose (Ho et al., 2022; VanderWeele et al., 2023), and suggest that suffering has the potential to promote growth and contribute to mature happiness.

Wong and Laird's perspective article explores the universality and complexity of human suffering. They present some possible ways of classifying suffering in everyday life as well as in the clinical setting, while acknowledging the difficulty of developing a complete taxonomy of suffering.

Advancing a framework of existential intelligence

Since a general theory of well-being deals with big questions about human nature and human existence, existential intelligence (also known as existential thinking or life intelligence) plays a major role in the prevention and transformation of suffering. Existential intelligence involves having the necessary existential wisdom to navigate adverse situations in ways that lead to a meaningful and honorable life, and it may be one of the most important capacities for dealing with the complex questions related to good and evil, happiness and suffering, as well as life and death. For example, in situations where there is a need to balance conflicting values and demands, a person must consult their conscience and wisdom of the soul to decide on the best course of action.

In Ge and Yang's perspective article, they explore some possible mechanisms by which self-transcendence enables people to endure and transcend suffering. From an examination of the empirical literature, they propose that self-transcendence may support endurance of suffering at three psychological levels: (1) self-transcendent experiences (affect), (2) self-transcendent thinking (cognition), and (3) need for self-transcendence (motivation).

Lau et al.'s brief report investigates the relationship between mindfulness, stress, savoring beliefs, and life satisfaction in a cross-sectional sample of Hong Kong adolescents during the COVID-19 pandemic. They found that mindfulness is related to lower stress and greater life satisfaction and savoring beliefs.

In Kam and Bellehumeur's perspective article, they argue that deeper levels of unconsciousness are needed to adaptively cope with the uncomfortable experience of the ambiguous coexistence of opposites. Their work is comparable to ideas concerning wisdom of the soul or life intelligence, which explicate the importance of navigating and resolving the paradoxes of human existence through transcending opposites (Wong et al., 2021).

Horikoshi's perspective article focuses on the positive psychology of challenge. He argues that studying activities and processes involving challenges can provide insights into dialectical integration of opposites because the concept of challenge encompasses both positive and negative elements.

Lau and Tov used experimental data from a sample of Singaporean university students to explore whether meaning-making strategies facilitate adaptive processing of daily negative experiences. They found that positive reappraisal and self-distancing affected situational meaning, but that the circumstances under which these strategies supported meaning-making varied. This work emphasizes the importance of wisely selecting and applying different coping strategies to effectively make meaning out of negative life events.

Rajkumar's brief research report uses data from the 2021 World Happiness Report to explore the relationship between culture and self-reported happiness in 78 countries before (2017–2019) and during (2020–2021) the COVID-19 pandemic. The findings provide some support for the importance of studying cultural differences in existential universals, such as happiness and suffering.

Han et al. used repeated cross-sectional data from Chinese adolescents to examine group orientation and mental health before (2019) and during the COVID-19 pandemic (2021). Their findings demonstrated the protective value of group orientation in transcending egotistic concerns during the COVID-19 pandemic, and that contextual factors may influence the protective benefits of group orientation on mental health.

In their original research article, Liu et al. use two waves of longitudinal data from a sample of Chinese adolescents to investigate whether the relationship between self-transcendence values and emotional adjustment is mediated by emotion regulation. Their findings shed light on potential avenues to support adolescents' emotional adjustment, as well as provide further evidence on the benefits of self-transcendence.

Developing a new behavioral economics of happiness

The new behavioral economics of happiness does not presume that human beings are well-informed rational decision-makers capable of choosing what is in their best interest. Instead, it recognizes that rational choices are affected by three human limitations: (1) humans often have flawed perceptions of reality, including what they really want in order to be happy; (2) universal human challenges, such as difficulties exercising self-control and a lack of self-understanding; and (3) the tendency for humans to choose immediate self-gratification rather than the long-term gain of something meaningful and of enduring value. It recognizes that true flourishing is only possible when people are awakened to the existential truth of overcoming their dark side and "inner demons" to become who they are meant to be.

In their opinion article, Mead et al. suggest that personal development progress must be reinforced by a commitment to making systemic changes that allow for new "ecological economics" to emerge in post-growth societies. The authors suggest that the new era of Symbiocene has much potential for developing evidenced-based approaches that could shape government policies and transform societies.

Tweed et al.'s conceptual article draws on ideas from Martin Buber to touch on the core issue of developing a new model of behavioral economics. Rather than viewing people as instruments to be used for advancing self-interests, this model advocates treating people as human beings (i.e., as ends in and of themselves rather than as means to an end). By simply changing our views and attitudes toward others, we can become more just, authentic, and compassionate in our interactions with others.

Conclusion

This Research Topic draws attention to some key blind spots in research on well-being, including notions that (1) flourishing necessarily involves the dialectic integration of positives and negatives; (2) ideal happiness is more about inner peace, balance, and harmony in the midst of adversity and hardship than attaining maximum happiness; (3) triumphing over suffering requires having a courageous stance toward one's fate and making conscionable choices despite the constraints imposed by one's circumstances; and (4) the science of human flourishing requires a delicate balance between studying existential universals, the particularities of each culture, and the unique experiences of each person (Arslan and Wong, 2021; Wong et al., 2021; Wong and Cowden, 2022; Cowden et al., 2023). These points are at the heart of EPP's research agenda and align with a dialectic general theory of well-being, which is constituted by the integration of human agency and divine support, noble idealism and brutal realism, and ancient wisdom in the humanities and the scientific research of contemporary psychology.

Author contributions

PW: Conceptualization, Writing—original draft, Writing—review and editing. LH: Writing—review and editing. C-HM: Writing—review and editing. FY: Writing—review and editing. RC: Conceptualization, Writing—review and editing.

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Grasping the paradoxical nature of wisdom through unconscious integrative complexity

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There has been much progress in the scientific study of wisdom on both conceptual and empirical fronts in the past few decades. Despite all the progress being made, there are still gaps that can be filled to provide even more explanatory power and coherence. Although academic discourse on wisdom has included the ability to integrate issues in a complex manner, there is still room for improved theorizing on wisdom's integrative complexity. Since integrative complexity has both conscious and unconscious dimensions, including the latter in discussions on wisdom will add a valuable aspect to its conceptualization. This article will argue how unconscious integrative complexity is the variable in wisdom's conceptual equation that involves paradox, which is a well-known sign of wisdom. Explanations contrasting conscious integrative complexity and unconscious integrative complexity in reference to wisdom will be discussed. Then, the Archetypal Test of the Nine Elements will be proposed as a testing instrument to operationalize unconscious integrative complexity. After the conceptualization and operationalization are worked through, we will conclude with a couple examples to illustrate our reflections.

KEYWORDS

unconscious, integrative complexity, wisdom, paradox, psychoanalysis

Introduction

Since the beginning of the twenty-first century, scientific discourse on wisdom has gained momentum (Glück et al., 2013). Research has shown that wisdom is not only linked to wellbeing, but also overall health, life satisfaction, and resilience (Jeste and Lee, 2019). In addition, reasoning wisely has been associated with less negative affect, less depressive rumination, better social relationships, more positive compared to negative words in speaking, and longevity (Grossmann et al., 2013).

As much progress has been made in the study of wisdom and its effects on wellbeing, there is still progress to be made in its conceptualization, as there remains "controversy among wisdom researchers about the definition of wisdom" (Staudinger and Glück, 2011, p. 236). Part of the difficulty of defining wisdom is that it is a multidimensional concept (McKee and Barber, 1999) that is somewhat elusive. For instance, it is distinct from

intelligence (Grossmann et al., 2013). Sternberg (1985) notes how wise individuals seem to be equal with intelligent people in problem solving and reasoning capabilities but also know when to listen to others, have flexibility in dealing with them, and consider both short and long term consequences. "Wise people probe inside "knowledge" to find its "deeper" meaning. They understand what they do and do not know, and the limits of what can be known" (McKee and Barber, 1999, p. 158). Wisdom seems to orient people toward a balance between positive and negative experiences that results in superior emotional regulation abilities rather than the sole pursuit of happiness (Grossmann, 2017; Grossmann et al., 2017). This is because wisdom seems to enable individuals to transcend a one-dimensional view of an issue with multidimensionality (McKee and Barber, 1999).

Despite the ongoing discussions of various perspectives on wisdom, one common agreement seems to be its multidimensionality. Jeste and Lee (2019) see wisdom as "a complex human trait with several specific components: social decision making, emotion regulation, prosocial behaviors, self-reflection, acceptance of uncertainty, decisiveness, and spirituality" (p. 127). Glück and Bluck (2013) define wisdom as a body of experience-based knowledge about fundamental life issues that is both broad and deep as well as explicit and implicit. Grossman et al. (2020) posit how wisdom considers different perspectives on issues as well as how to integrate them. Clayton and Birren (1980) see wisdom as integrating cognitive, reflective, and affective dimensions. Weststrate and Glück (2017) note that "wisdom is, and results from, the dynamic interaction of cognitive and non-cognitive resources" (p. 800). As these various scholars have conceptualized conscious and unconscious elements of wisdom, this same philosophy can be applied to conscious and unconscious dimensions of integrative complexity, which is a component of wisdom. There seems to be at least partial convergence and overlap between Weststrate and Glück's (2017) dichotomy between cognitive and non-cognitive resources as well as Kam and Bellehumeur's (2021) dichotomy between conscious and unconscious (also known as rational and non-rational) integrative complexity.

In this article we will make a case for the following view: in addition to conceptualizing wisdom with conscious integrative complexity, there is a need to account for unconscious integrative complexity, which the research on wisdom has a lack of. We will define these constructs from the overall developmental framework they come from, namely Adult Ego Development (AED), which has a history of conceptual interaction with wisdom. We will then argue why unconscious integrative complexity has a unique contribution to the ongoing conceptualization of wisdom, namely by providing a framework for the paradoxical dimension of it. We will then give a couple examples and end with some directions for future research.

Integrative complexity's relation to wisdom and adult ego development

Integrative complexity, also known as cognitive complexity (Fearon and Boyd-MacMillan, 2016), is the ability to differentiate among different dimensions of an issue and integrate the various aspects together (Conway et al., 2018). Since one characteristic of wisdom is the ability to integrate different elements of an issue together (Basseches, 1984; Sternberg, 1998; Yang, 2014; Grossmann, 2017; Grossman et al., 2020) while another involves effectively processing complexity (Glück and Bluck, 2013; Weststrate and Glück, 2017), the concept of integrative complexity seems appropriate to include in the scholarly discourse on wisdom. In addition to conceptual relevance, empirical research shows similarity in the benefits of integrative complexity and the benefits of wisdom. For example, integrative complexity helps resolve conflicts (Woodard et al., 2021) and helps people experience a more positive response to stress in situations that induce it, such as relational conflict (Fearon and Boyd-MacMillan, 2016). As adolescents grow in integrative complexity, they are better able to plan ahead, understand the long-term consequences of their behavior, show less negative behavior, resist peer pressure better, and appreciate the connections formed between emotion and behavior (Orr and Ingersoll, 1995). Integrative complexity also helps individuals understand issues better (Welfare and Borders, 2010) and have greater empathy (Heck and Davis, 1973).

Integrative Complexity is a component of Adult Ego Development (AED), which is the study of the development of the ego, also known as "the self," in its process of maturation largely pioneered by Jane Loevinger (Loevinger, 1976, 1987; Singleton et al., 2021). Some key assumptions of AED are that psychological growth is characterized by paradigm shifts in seeing the world from simple to complex, static to dynamic, and inflexible to flexible (Cook-Greuter, 2004). Loevinger's framework of AED explicitly aims to combine ideas on cognitive development and adult maturation (Staudinger and Glück, 2011; Hy and Loevinger, 2014). From this perspective, AED has relevance to wisdom since the maturity process of adulthood is frequently associated with wisdom (Bluck and Glück, 2005). Also, Loevinger (1976) received conceptual influence from Erikson (1968, 1984), who conceptualized wisdom as a personal maturation process later in life that dealt with the uncertainties of life by balancing seemingly opposite desires in a manner that transcends the limitations of the egoistic self (Brienza et al., 2018). It is worth noting that aging in and of itself does not necessarily grow AED, since factors such as a person's level of openness and accommodative processing (the extent to which one reflects on difficult events and processes their transformative impact), have shown to play a significant role

in AED (Lilgendahl et al., 2013). This trait of reflecting and processing significant life events has been associated with wisdom (Weststrate and Glück, 2017).

When AED happens, Loevinger argued that the ego/self consisted of undergoing a series of qualitatively adaptive shifts within a path of hierarchically organized stages of meaning making. Here, each stage is more maturely evolved than the previous, as there are adaptive transformations on a fundamental level of four interconnected dimensions of the personality: integrative complexity, interpersonal relationships, impulse control, and conscious preoccupations. The first two dimensions, integrative complexity and interpersonal relationships, are especially relevant to wisdom since wisdom is associated with integrating ideas in one's context (Sternberg, 1985), integrating deeper insight into generally known facts (Ardelt, 1997, 2003), integrating different opinions and perspectives (Yang, 2014), confronting the complexities of life (Glück and Bluck, 2013), better social relationships and interpersonal wellbeing (Grossmann et al., 2013), empathic and benevolent perspective taking (Ardelt, 1997, 2003), and prosocial behavior (Jeste and Lee, 2019). Although integrative complexity's relevance to wisdom involves predominantly the first two dimensions listed here, a premise of Loevinger's framework is that these 4 dimensions of the maturing self in AED are inseparably interconnected. Integrative complexity and interpersonal relationships are important here, as AED sees wisdom as advanced psychological maturity in adulthood that includes prosocial motives and dialectical reasoning (Hy and Loevinger, 2014). There is some empirical support for these arguments, as more exploratory forms of reflective processing tend to be connected with higher ego development (Lilgendahl and McAdams, 2011) and are also positively associated with wisdom (Weststrate and Glück, 2017).

Conscious and unconscious integrative complexity

The complexity of the human mind has been documented in recent years with respect to both conscious and unconscious capacities for sophistication. By "unconscious" process, we refer to Boag's (2017) definition, where he notes that "a mental process is descriptively unconscious if we are presently unaware of it. For example, a belief would be described as descriptively unconscious if it was believed, without the person currently being aware of having the belief" (Boag, 2017, p. 2). For example, master chess players unconsciously recognize many meaningful patterns in chess, which novice players can miss, and can often make their next move with a quick glance on the chessboard (Myers and Twenge, 2019). Kruglanski and Gigerenzer (2011) note that "Heuristics that are less effortful and in which parts of the information are ignored can be more accurate than cognitive strategies that have more information and computation" (p. 97).

With respect to formal theories that have some empirical support for such assertions, Unconscious Thought Theory (UTT) has shown some evidence for the superiority of unconscious decision making (Bargh et al., 2012). UTT argues that after a period of conscious thought on information relevant to an issue, a period of unconscious deliberation (where conscious thought is directed elsewhere) produces better quality judgments, provided that in the beginning there was a conscious intention to make the best decision. For example, unconscious thought (activated in experiments where participants are distracted for a few minutes from a complex decision only to return to make a judgment afterward) was shown to lead to superior judgments in legal justice cases compared to participants who made immediate conscious judgments (Ham et al., 2009).

Furthermore, conscious thought is smaller in attentional capacity but seems superior at rules based processing with precision whereas unconscious thought seems superior in breadth of processing capacity, is more intuitive without being led by rules-based processing [although it can passively conform to it (Lewicki et al., 1992)], can better weigh the relative importance of the aggregate aspects of issues, and gravitates toward divergence and creativity (Dijksterhuis and Nordgren, 2006; Nordgren, 2011; Vieira et al., 2017). Nordgren (2011) argued that a combination of conscious and unconscious processes solves complex problems better than either itself. Lastly, Baumeister and Masicampo (2010) concluded from a social psychology perspective that the main triggers for social behavior are unconscious, but conscious processes also play an important role as well since they are capable of redirecting unconscious behavior or judgmental impulse.

With respect to Loevinger, she acknowledged the reality of the dynamic unconscious and how AED has both cognitive and non-cognitive elements to it (Loevinger, 1976, 1993). Furthermore, Loevinger's AED framework is also consistent with some psychoanalytic premises, which Loevinger (1993) herself said were compatible with her theorizing. It has also been suggested that Loevinger's AED theory is consistent with Jung's (1921) theorizing of individuation, specifically in five areas: individuality, self-awareness, wholeness, autonomy, and complexity (Broughton and Zahaykevich, 1988). Jung's psychoanalytic theory, by its very nature, deals with the unconscious and how it seeks to integrate seemingly opposite unconscious desires in the process of development in individuation.

Taking into account cognitive and non-cognitive dimensions of wisdom (Glück and Bluck, 2013; Weststrate and Glück, 2017) that have partial overlapping with Loevinger's (1993) theorizing of cognitive and non-cognitive elements of AED as well as the compatibility of her framework with psychoanalysis, there is a need to define unconscious integrative complexity, operationalize it, and conceptually integrate it within the overall scholarly discourse on wisdom. When

defining the construct of unconscious integrative complexity, we take into account the unconscious dimension of Medvene et al.'s (2006) notion of interpersonal cognitive complexity, which is "the ability to perceive others in relatively complex and personalized terms" (p. 220) as well as "the number of psychological constructs that people use to describe others" (p. 220–221). Integrating these ideas together, unconscious integrative complexity (which can also be termed unconscious interpersonal complexity in matters pertaining to social aspects of wisdom) can be defined as the degree of complexity in the number of unconscious psychological constructs involved in experiencing life, particularly with regard to matters of wisdom such as relationships (Kam and Bellehumeur, 2021). As we have argued for the conceptual soundness of the unconscious dimension of integrative complexity in wisdom, there is a need to offer an empirical method to measure this construct.

Based on the seminal work of Durand (1999)'s Anthropological Structures of the Imaginary (ASI) (original book, 1960), there is a projective test, called the AT.9 (Archetypal Test with 9 elements), that was developed by Durand (2005). This test empirically supports and operationalizes, Durand's (1999) main categories of the unconscious source of a person's imagination: heroic and mystical (which are more one-dimensional), and synthetic categories (which are more qualitatively multidimensional with the co-existence of opposite themes dynamically coexisting). Within the synthetic category of the imaginary, Durand (1999) directly refers to the acknowledgments of the Yin-Yang dialectics, which is part of mature happiness proposed by Wong and Bowers (2018).

As the AT.9 takes into account paradox, it is well suited to assess the degree of a person's unconscious symbolic capacity to embrace the co-existence of opposites. Many conceptual writings and empirical studies have demonstrated how the AT.9 not only embraces paradox, but can assess the unconscious (non-rational) dimension of one's imagination, worldview and symbolical capacity. For instance, the relevance of the ASI and/or AT.9 have been conceptually and empirically demonstrated in the context of resilience and spirituality (Bellehumeur, 2011; Nguyen et al., 2018; Bellehumeur and Carignan, 2021; Yeung and Bellehumeur, 2021), wellbeing, virtues, as well as personal strengths (Bellehumeur et al., 2017). The conceptual and empirical adequacy of the ASI and the AT.9 have also been shown in the context of the paradoxical dimension of boundaries in psychotherapy, theology, and anthropology (Bellehumeur and Chambers, 2017; Bellehumeur, 2020; Kam and Bellehumeur, 2020a,b); along with various concepts associated with interpersonal styles as well as and marital, family, and psychotherapeutic relationships (Bellehumeur et al., 2013; Bellehumeur, 2014a,b; Bellehumeur and Carignan, 2018). The relational dimension of the AT.9 has also been demonstrated through its use in studies measuring how collaborative someone is with others (Bellehumeur et al., 2013), and operationalizing how bicultural individuals navigate relationships while living in two cultures (Yeung, 2018).

In short, we propose that the AT.9 can be utilized to measure the level of sophistication of integrative and interpersonal experience in the unconscious dimensions of a person's mind since "[the AT.9] attempts to measure the non-rational dimensions of a person's interpersonal complexity" (Kam and Bellehumeur, 2021, p. 176). As a projective test, it assesses unconscious content (Cervone and Pervin, 2019) by taking into account symbolic and archetypal material, both of which involve aspects of one's unconscious (Cook-Greuter, 1999; Schlamm, 2014). From these qualities, the AT.9 can help researchers operationalize a person's non-rational capacity toward complexity since the narrative patterns, mythopoetic elements, and degree of multi-layered paradoxical organization in a person's unconscious imagination is assessed. Since the AT.9 measures intuitive, non-rational, and symbolic dimensions of the psyche, it is particularly fitting for operationalizing unconscious integrative complexity since these are key elements of it (Cook-Greuter, 1999; Kam and Bellehumeur, 2021).

The conceptual overlap of unconscious integrative complexity and underlying dimensions of wisdom

The conceptualization and operationalization of unconscious integrative complexity involving the intuitive, non-rational, and symbolic dimensions of the human psyche is consistent with a historical take on the study of the unconscious, which recognizes a mythopoetic function of it (Ellenberger, 1970). It is also consistent with empirical work with Short-Term Dynamic Psychotherapy where lifting defense mechanisms can result in unconscious imagery emerging that symbolizes deeper emotions behind the conscious defenses (Davanloo, 1987; Abbass et al., 2012; Town et al., 2013; Johansson et al., 2014). This is similar to how wisdom, in its very nature, requires a person to explore their negative emotions openly in a way that bypasses their defense mechanisms (Glück and Bluck, 2013; Weststrate and Glück, 2017; Glück et al., 2019). As unconscious integrative complexity is intuitive, non-cognitive, and symbolic while wisdom itself has aspects that are intuitive (Clayton and Birren, 1980), non-cognitive (Glück and Bluck, 2013; Weststrate and Glück, 2017), and metaphorical/poetic (Zwikstra, 2008), there is overlap in the type of psychic texture that both share. This type of psychological fabric is different from its cognitively logical counterpart and instead has a qualitatively different texture that is open to paradox, which is an aspect of wisdom (Clayton, 1975, 1983).

Advanced levels of unconscious integrative complexity have a mature depth on life matters with a paradoxical nature that

is comfortable with the ambiguity of opposites coexisting in healthy tension (Kam and Bellehumeur, 2021). This is consistent with Sternberg's (1990) take on wisdom not seeking to eliminate ambiguity, but being tolerant of it. Wisdom has been known to be characterized by the paradoxes of human existence that comes from the journey of transcending opposites (van Deurzen, 2014; Wong and Bowers, 2018). Here, the intuitive and non-rational parts of the complexity become integrated and can be captured through symbolic expression (Cook-Greuter, 1999). As wisdom involves prudence in dealing with ill-defined problems (Grossman et al., 2020) with some engagement in non-cognitive resources (Glück and Bluck, 2013; Weststrate and Glück, 2017), the type of paradox required here is one that provides non-structural coherence in seemingly opposite principles simultaneously coexisting. With this in mind, wisdom finds mysterious coherence in paradoxes (Tickerhoof, 2002), where the conscious mind does not fully understand how a paradox lacks contradiction while the paradox itself has an experiential, non-linear consistency to it. For example, while the cognitive mind can be open to the complexity of how the passage of time can occur both slowly (e.g., the days) and quickly (e.g., the years/decades) in the same life, it has trouble expressing how this is the case through pure rational logic. Here, unconscious integrative complexity can integrate the non-linear, intuitive and non-rational parts of the complexity in a paradoxical way that is somehow experientially consistent and express it with poetic symbolism (e.g., "When I'm bored, the minute hand of the clock seems to conspire with the universe in ticking slower. But when I'm animated in the flow of my favorite activity, time moves both fast and slow like, the Flash, in slow-mo").

Examples

This article will close with a couple of examples. Some individuals may recognize that they are so called "control freaks" who obsess about controlling events to acquire perfect security and a sense of "peace" for matters they care about. This can turn into an obsession where the preoccupation of controlling events for perfect security and "peace" can make it hard to surrender what is out of one's control. Here, surrendering control would lead to an actual sense of peace. Through reflection on the level of conscious integrative complexity, one can realize the contradiction of the obsession of control as a means towards "peace" with the actual peace that comes with surrender and recognize that they cannot coexist. However, through extended holistic reflection involving unconscious integrative complexity, this contradiction can qualitatively transform into a higher order paradox. Here, one realizes: "Wanting perfect security in events creates pressure for perfect peace. Accepting imperfect security in events releases pressure for perfect peace." Ironically, the former sabotages authentic peace while the latter facilitates it.

For other individuals there is a longing for perfect love with other humans with a perfect connection. This can turn into an obsession where the preoccupation for perfect love and connection with others can make it hard to be content with the imperfections of human relationships. Through reflection on the level of conscious integrative complexity, one can realize the conflict of the obsession with perfect love/connection with the peace of contentment with imperfect human relationships and recognize that they cannot coexist. However, through extended holistic reflection involving unconscious integrative complexity, this contradiction can qualitatively transform into a higher order paradox. Here, one realizes: "Wanting perfect love in humans creates pressure for perfect connection. Accepting imperfect love in humans releases pressure for perfect connection." Ironically, the former sabotages authentic love in relationships while the latter facilitates it.

The latter realizations involve knowing one's human limitations (Taranto, 1989), which is an aspect of wisdom. They also open up deeper and more profound understandings of knowledge (Kekes, 1983; Chandler and Holliday, 1990; Sternberg, 1990; Ardelt, 1997, 2003). Furthermore, these higher ordered realizations allow for paradoxes that bring a sense of peace in dealing with uncertainty, which is also a characteristic of wisdom (Meacham, 1990; Brugman, 2006; Grossmann et al., 2010, 2013). These qualities of awakening that occur in the universe of paradox transcend the psychic laws in the universe of conscious cognition with its logical calculations of structural coherence and linearly calculated contradictions. Qualitative shifts in unconscious integrative complexity create breakthroughs in the egoistic encounter with life, unlocking the mental handcuffs of one-dimensionality into the freedom of soulful multidimensional paradox.

Future directions for research

There has been much advancement in conceptualizing wisdom from a scientific vantage point within the past few decades. However, since wisdom in its nature seems to continually have aspects of it that are elusive, there will always be room for new but relevant factors to be incorporated. Unconscious integrative complexity seems to fill a meaningful gap in the research since past assumptions in the literature seem to extend a welcoming spot for it. Aside from more conceptual fine-tuning, there is also a need for empirical research on unconscious integrative complexity in relation to wisdom. Since this is unexplored territory for both conceptual and empirical research, there is room for the use of various methodologies. For example, In addition to qualitative interviewing, there is room for the combined use of various quantitative instruments such as the Washington University Sentence Completion Test (Hy and Loevinger, 2014) and the AT.9 which can set the direction for future research. The former test can assess integrative complexity's more conscious dimensions

while the latter can assess integrative complexity's more unconscious ones. Such research will better help humanity understand more about the multifaceted nature of wisdom, particularly its dimensions hidden beneath consciousness, and how to best acquire it.

Author contributions

CK was the primary author of the initial version of this manuscript. CB helped make revisions to the manuscript to make it stronger and provided about 25 additional references to better support the relevance of using an empirical test to assess the unconscious. Both authors contributed to the article and approved the submitted version.

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.

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Suffering, authenticity, and meaning in life: Toward an integrated conceptualization of well-being

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Most conceptions of well-being either ignore suffering or assume an ideal version of human life in which suffering would be eliminated. This trend is especially emblematic of positive psychology. Recent research on well-being indicates a mediating function of meaning in life between suffering and well-being demonstrating that making sense of past experiences is significantly correlated with high presence of meaning in life. Hence, meaning-making serves the role of an active coping mechanism that alleviates suffering. This and related strategies of defining, measuring, and augmenting well-being however overlook a form of suffering that is ineliminable and in fact essential to personal growth. In this paper the insights of the existentialist philosopher Søren Kierkegaard are developed to formulate an integrated conceptualization of well-being that regards "negative" affects as crucial for a rich and complete life. The complexity of the relationship between meaning in life, suffering, and authenticity concerning well-being are discussed. A synthetic perspective on the subjective dimension of the experience of suffering and on the objective nature of human limitations that often cause suffering is discussed in relation to the notions of meaning in life and authenticity. Finally, an integrated conceptualization of well-being is posited. It entails suffering as constitutive of meaning in life and authenticity, which are key components of a well-lived life.

KEYWORDS

suffering, authentic (authenticity), meaning in life and well-being, well-being, integrated conceptualization of well-being, Søren A. Kierkegaard, subjective well-being, objective well-being

Introduction

Dominant scientific conceptions of well-being either ignore suffering or treat it as an impediment to a well-lived life (Quick and Henderson, 2016; CDC, 2018; Simons and Baldwin, 2021; Hofmann, 2022; WHO, 2022). They represent what Fowers et al. (2017) call "The modern project to reduce suffering," emblematic of the goals of positive psychology. Cassell (2004) defines the nature of suffering in relation to injury that causes different levels of the destruction of a person. It can be experienced before, during, and after an illness. Seligman (2012a) presents the prescriptive rule to "minimize our misery" as key to

well-being. This preventive imperative of well-being has its counterpart in the famous *PERMA* model, which comprises positive emotion, engagement, (positive) relationships, meaning, and accomplishment (Seligman, 2018). These components that comprise *PERMA* can and should be pursued for their own sake; they are defined and measured independently from each other (Seligman, 2012a). Except for positive emotions, the development of the remaining four components of well-being can be measured by the growth of positive emotions around them. For instance, a good feeling about one's relationships is a sign of good-standing or improvement in that area of well-being. Seligman (2012b) famously states delivering The Tanner Lectures on Human Values, "We should be just as concerned with making the lives of people *fulfilling* as we are with *healing pathology*" (Seligman, 2012b, p. 233). "None of the five elements show how to constructively approach suffering, dependency, frailty, or weakness," bemoan Fowers et al. (2017) in their *Frailty, Suffering, and Vice: Flourishing in the Face of Human Limitations.*

Not all suffering is a sign of pathology (Wong, 2017; Wong and Bowers, 2018). Wong's (2011) prominent manifest, "Positive Psychology 2.0," calls for a reformulation of positive psychology to constructively integrate suffering in well-being by balancing well-being's focus on positive and negative emotions: "psychology of well-being needs to study both the perils of happiness and the benefits of suffering" (p. 75). This intuition agrees with Haybron (2017) claim "A crucial task for any theory of well-being is to give a credible accounting of the value of pleasant and unpleasant experiences, especially suffering" (p. 12). In the spirit of humanistic-existential positive psychology that draws on figures such Victor Frankl and Rollo May (Wong et al., 2021), this article draws on the psychological-existential thought of the Danish nineteenth-century religious thinker Søren Kierkegaard. Provided analysis of Kierkegaard's view of meaning in life, authenticity, and suffering is used to present an integrated conceptualization of well-being treats suffering as ineliminable part of human life essential to a well-lived life.

Kierkegaard is largely on a suspicious track regarding conceptualization of well-being as oriented toward minimizing suffering and maximizing positive emotions across numerous domains of well-being. Not all suffering and negative emotions around it signal diminished well-being in individual or communal lives. Hence, maximizing positive emotions or minimizing those that are negative should not be understood as a blanket theory for having a well-lived life. For Kierkegaard there are forms of necessary suffering that are not pathological in nature (Hanson, 2021a). Existential suffering is a hallmark of the complexity of human spiritual-psychological composition (Hanson, 2021b). Humans experience anxiety and despair because spiritual beings have spiritual needs, for Kierkegaard. "Even the struggling, suffering religious believer is on the right path; his or her sufferings in fact indicate that he or she is on the right path," comments Watkin (2001, p. 8) on Kierkegaard's existential psychology of suffering. Anxiety and despair are important for developing a holistic life project that largely includes indicators of well-being identified by Seligman, such as relations, meaning, or achievement. Instead of normatively qualifying individual relations or achievements as "positive," Kierkegaard would suggest striving for "meaningful" relations or achievements in a well-lived life. And it is suffering that in many cases allows individuals to see their relations or achievements as "meaningful." The other point of contention is how well-being is defined and how it can be measured. While Seligman is no stranger to objective definitions and measures of well-being across various domains, together with a vast majority of positive psychologists, he prioritizes subjective well-being in his research. This is precisely what Kierkegaard finds problematic in conceptualizing and measuring well-being. Kierkegaard stresses that we may be mistaken about the state of our well-being because we may simply lack relevant knowledge about the goods important to our happiness but also the role of negative affects and negative occurrences in the formation of our existential projects (Kierkegaard, 1980). Humans also can be victims of self-deception and willful blindness. It is unsurprising that people shy away from learning about the true state of their existences. Bypassing or coping with negative emotions may be in fact an impediment to one's well-being as it diverts one from the lack of the eternal in their lives (Bernier, 2015).

Meaning in life and suffering

Meaning is an important quality that humans attribute to such different elements in the world as natural disasters, art, relationships, financial assets, but also to sentences, judgments, values, and nature. Meaning is considered to be a great motivator in such different fields as public health, work, education, politics, and leadership (Morrison et al., 2007). Experiencing meaning is an important contributor to well-being and health (Steger, 2009). In relation to life, philosophers and psychologists developed theories of meaning in life (which often have an individual dimension) and the meaning of life (that look at life in a more general sense; Battista and Almond, 1973; Cottingham, 2003; Glaw et al., 2016). A widely accepted tripartite definition of meaning in life comprises "purpose (having goals to work toward or finding benefits from a specific event), significance (a sense of feeling value or mattering), and coherence (the feeling that the world and one's experiences make sense)" (Edwards and van Tongeren, 2020, p. 722; *Cf.* Heintzelman and King, 2013; Martela and Steger, 2016).

Psychological literature treats suffering as an impediment to human well-being. Cassel's definition of suffering is emblematic of that trend:

> Suffering occurs when persons perceive their impending destruction or loss of integrity as persons, and continues until the threat of disintegration is passed or until the integrity of the person can be restored in some other manner. Most generally, then, suffering can be defined as the state of severe

> distress associated with events that threaten the intactness of persons (Cassell, 2002, p. 514).

This definition is paradigmatic of the treatment of suffering in public health; it stipulates that suffering be minimized or eliminated to secure or increase individual well-being. Indeed, mainstream positive psychology tends to take as its therapeutic goal maximization of positive affect and minimization of suffering often through coping mechanisms (Fredrickson, 2009; Bolier et al., 2013). This approach is especially entrenched in views that belong to preventive methods in mental-health and well-being in education (Conley et al., 2015; Bettis et al., 2017), the work-place (Elkin and Rosch, 1990; LaMontagne et al., 2007), and general public health (Stjernswärd et al., 2007). Important work has been published on the positive role of meaning in coping with suffering (Davis et al., 1998; Park, 2008; Park et al., 2008).

Study by Edwards and van Tongeren (2020) indicates a mediating function of meaning in life between suffering and well-being. Their research suggests that especially past suffering—rather than present suffering—is highly correlated with high presence of meaning in life. Suffering, if the meaning of which can be established, contributes to one's sense of well-being; meaning in life mediates between suffering and well-being. While an important step toward reimagining the role of suffering for well-being, Edwards & van Tongeren's study conceptualizes well-being as "satisfaction with life;" hence it prioritizes the role of self-reporting in defining and benchmarking well-being. It also implies meaning-making to serve in the role of an active coping mechanism that effectively deals with suffering. This and related strategies of defining, measuring, and augmenting well-being however overlook a form of suffering that is inevitable and in fact critical to personal development insofar as it propels individuals toward their envisioned ideal of a well-lived life that is both individual and socially constructed.

Recent research on meaning in life and authenticity that draws on Kierkegaard suggests the importance of "negative" affects for a rich and complete life (Hanson, 2021a,b). For Kierkegaard, meaning in life requires a form of necessary suffering, because the meaning of life derives from the individual's lifelong effort to attain their own ideal version (Hanson, 2021a). Suffering so understood is aligned with a view that suffering can be "transformative"(Sacks, 2007; Fowers et al., 2017); on the one hand, it can be transformed into something good (not necessarily positive); on the other, suffering allows one to be opened to a formative transformation. Especially the latter position on suffering is strongly aligned with Kierkegaard's project of individual perfection developed throughout much of his authorship (Kaftanski, 2021a, 2022), yet formulated most strongly in relation to meaning in life in *Practice in Christianity*. In that book, Kierkegaard introduces a model that represents life development that requires construction of an individual's "image of perfection" that then must be translated into actual life (Kierkegaard, 1991). The grandeur of the ideal image of oneself depends on the force of one's imaginative powers; yet the faculty of the imagination cannot itself translate that image into reality (Kaftanski, 2021b, 2022). If one could experience their life in imagination just as they can and should experience it in actuality, Kierkegaard indicates, "then there would be no meaning in life" (Kierkegaard, 1991, p. 188). Meaning in life requires this creative tension between possibility and actuality. Yet the attainment of meaning is marked by a necessary suffering that stems from the fact that one's imagined ideal self and the actual self are not the same. "We do not merely suffer because of what happens to us. We also suffer from the imaginative construction that we have brought about ourselves," as Rosfort (2015, p. 463) summarizes the suffering-generating tension between the imagined and actual selves.

Striving to realize the ideal of one's project of existence is marked by suffering. While this paper builds a positive vision of suffering in relation to despair and a project of individual becoming, it is important to indicate that Kierkegaard acknowledges forms of despair that are pathological (Theunissen, 2005; Rosfort, 2015). Indeed, suffering caused by despair is meant to be ultimately eliminated by love and faith. Despair is the condition whereby an individual does not want to be herself or desires to be someone else. These can be caused and maintained by trauma, social comparison, resistance to seeking help, defiance in relation to the transcendent, or clinging to the twisted meaning-conferring role of despair that forms one's identity around their suffering (Kierkegaard, 1980; Bernier, 2015; Kaftanski, 2021a; Hanson, 2024).

Authenticity and well-being

Authenticity has attracted interest from scholars representing such diverse disciplines as philosophy, psychology, politics, and business to architecture, art, and tourism (Cohen, 1988; Taylor, 1991; Wang, 1999; Newman, 2019; Crawford et al., 2020). Authenticity has been defined and categorized in various ways in these disciplines. In their "Kinds of Authenticity" Newman and Smith (2016) present a multifaceted and wide-ranging review of types of authenticity in different fields of scholarship; they contribute their own "framework that organizes authenticity judgments along two core dimensions: the type of entity that is evaluated and the source of information that is consulted" (p. 609). The dominant approach to authenticity in psychology is along the lines of reading it in relation to such concepts as integrity and honesty (Peterson and Seligman, 2004),which are considered as features of "a character trait" of people whose internal lives are coherent with their private and public lives. Yet, for Peterson and Seligman, these words have slightly different meanings. "Honesty refers to factual truthfulness and interpersonal sincerity. Authenticity refers to emotional genuineness and psychological depth. Integrity refers to moral probity and self-unity"(Peterson and Seligman, 2004, p. 250).

Authenticity is overwhelmingly perceived as a fundamental aspect of well-being in counseling psychology (Yalom, 1980;

Horney, 2013), despite its legitimate criticisms (Lasch, 1978). Pugh et al. (2017) define essentialist and existentialist approaches to authenticity in relation to a conception of selfhood. The essentialist approach to authenticity sees authentic life in one's "self-discovery," where an individual is authentic when they "live in accordance with [their] deep essence" (p. 641). The existentialist approach to authenticity emphasizes the efforts of an individual to self-create oneself unconstrained by social pressure, customs, and norms. Taking a quantitative approach to authenticity, Sutton (2020) defines it in relation to the "activity" of the self as "the activity of expressing one's true self, making deliberate choices and taking responsibility for them" (p. 1).

The existentialist approaches to authenticity, which largely build on Kierkegaard's work and legacy, indicate its role in enhancing well-being. In that tradition, Yalom (1980) points out the need to "to make things difficult again" in the effort to be authentic and hence increase one's well-being. "Kierkegaard knew that man limited and diminished himself in order to avoid perception of the 'terror, perdition and annihilation that dwell next door to any man,'" (Yalom, 1980, p. 111). Indeed, for Kierkegaard, authenticity requires one to face one's shortcomings and reconcile one's limitations, which although they cause suffering, are instrumental to a complete life. To be authentic means to be oneself—or to be more truthful to Kierkegaard's vocabulary and ideas—to become oneself (Golomb, 1995). Becoming oneself is a process oriented toward an ideal of authenticity, which Kierkegaard understands as continuously choosing oneself, but also a conscious conditioning oneself through reflective meditation and deliberate habituation to pursuing realization of the ideals of oneself. This existential project of becoming oneself is an individual, hence deeply subjective, task; yet the validity of the principle of pursuing one's true self is objective; hence it applies to everyone.

Negotiation of one's ideal self and the actual self is built on Kierkegaard's demand of reconciliation of human possibilities and limitations, which are famously stated in his view of existential-anthropological antinomies. Who we are for Kierkegaard is not just what we are made of (possibilities and limitations) but also about how we relate to our particular and universal contingencies (Rosfort, 2015). Kierkegaard's vison of well-being shifts its focus from the area of morality and ethics understood in the Aristotelian sense of a good life to the rendering of well-being as based on one's ability to relate to aspects of existence that are at times beyond our control (Kaftanski, 2021a). The three existential-anthropological antinomies central to the human life are: the infinite and the finite, the temporal and the eternal, freedom and necessity (Kierkegaard, 1980). Just like humans must not merely focus on the imaginative vision of their ideal self or on the lived life in the here and now, authentic existence holds both parts of the antinomies in check (Theunissen, 2005; Hanson, 2021a; Rudd, 2022). Neglecting freedom leads to a life overly regulated by our limitations. Such a life is the antithesis of well-being, namely despair (Hanson, 2022). Lacking the quality of possibility results in degenerating passivity of the individual's self (Kierkegaard, 1980). On the other hand, the absence of the factor of necessity in one's life leads them to what Kierkegaard understands as an abstract and alienated self that does not have a place in the world (Kierkegaard, 1980).

Many authors have sufficiently argued that the authentic self in Kierkegaard is essentially related to a curated project of its development (Westphal, 1996; Evans, 2006). Its blueprints are present in Kierkegaard's famous stages of existence: esthetic, ethical, and religious (Hanson, 2016). They are essentially distinguished by an increase in the growth of awareness of a human being, by which Kierkegaard understands the capacity to reflectively think about oneself and others in the world. The ideal of the movement from the esthetic to the ethical to the religious constitutes a type of a formation of the self, which as such is historically based on the ideal of *Bildung* (Reindal, 2013). This formation is more than a training of moral dispositions of the good citizen, but also spiritual dispositions. Without the spiritual component, one is deprived of the full breadth of existence, because one is only limited to the temporal. The spiritual offers an extra motivation to commit to the project of one's selfhood that avoids the perils of hyper-individualism.

An integrated conceptualization of well-being

Because suffering is endemic to the process of personal growth and development for Kierkegaard, a subjective dimension to well-being must be posited. As objective goods are widely valued as a key component of meaningful living and as acknowledging the objective nature of human limitations is key to an authentic existence, so the proposed integrated conception incorporates an objective dimension as well. Essential to integrating the subjective and objective elements of human life, rather than positing them in opposition, is giving an account of how the subjective and objective dimensions constructively correlate in a proposed integrated conception of well-being. The correlation of the subjective and objective elements occurs through "identification" with the objective goods and pursuits one undertakes aligned with the actuality of one's situation and circumstances in one's envisioned ideal form.

Because individual selves develop in view of an imagined ideal, they do not in the first instance make decisions on the basis of principles or the fulfillment of social roles (Watts, 2017); rather, humans generate principles and adhere to the roles they adopt and the expectations those roles impose upon them in response to their aptitude for helping them bring their present actuality into line with their imagined ideal selves. Consequently, the process of personal development is one that proceeds by way of identification with or endorsement of the values, principles, and roles that individuals take to be conducive to the actualization of their envisioned ideals. On this integrated view of well-being, to value some end as worthwhile (even when it involves suffering) is not merely to subscribe to the reasons for valuing that end but to identify oneself with those reasons and thereby bind oneself to

what one genuinely values and submits to judgment as to whether or not one is upholding their affirmed values.

As Anthony Rudd has argued, a person is not leading a meaningful life just by being able to tell an autobiographical story about that life; that person must identify with the protagonist of that autobiographical story (Rudd, 2008). An individual needs to identify with oneself. An example that is helpful to picture this process of self-identification is one presented in the work of Williams (1993). Williams presents a case of a bank clerk who hates his job, hence in an important sense he does not identify as a bank clerk. As Rudd argues, such a person "needs the money that he earns… so he wants to avoid getting sacked, and may even try to win promotion, but he does not care beyond that whether or not he does his job well" (Rudd, 1997, p. 73). Being bad as his jobs is not aligned with his "judgment on him *qua* person, only *qua* bank clerk, and he has no interest in being good at that" (Rudd, 1997, p. 73). Yet being a bank clerk can be instrumental to him for other reasons that are constitutive for him in a meaningful way. Being in fact a talented and passionate drummer in an aspiring rock band the man might even try to do the minimum required to keep that job and advance in it because the benefits of maintaining and progressing his situation allow him to pursue the musical activities he values and sees as constitutive of his ideal self. In that sense, what he identifies with is his being a drummer, not a bank clerk, and when he meets people at the club he tells them that what he is a drummer, not a bank clerk.

Crucial to this point is that the bank clerk identifies as a drummer in the sense that it is this capacity to which he is willing to be held to account and in this role that success or failure are of consequence to him and the extent to which he regards his life as an expression of his values. If he is a bad bank clerk that does not affect him as a person; if he is a bad drummer this is a grievous blow to his self-conception that he cannot accept with equanimity. What this paper claims arguing for an integrated conceptualization of well-being in relation to meaning in life is that it is not enough to notionally endorse a value or principle. One must stake themselves on it and thereby submit to its binding force, subjecting oneself to evaluation of either success or failure to live by what one has chosen. It is in this way that one must identify with their values and the reasons for them in their normative outlook, not just tell a story about these values or give them one's provisional assent.

This view combines both objective and subjective aspects of well-being. To have a meaningful life on this view is not merely for that life to feature objectively valuable goods. It is to subjectively identify with those features or those features that one counts as genuinely valuable to themselves and according to which one is prepared to be judged for success or failure. As John Davenport (1998) explains, this task of identification is not simply a matter of adjudicating between one preference or perceived objective good over another:

> To *identify* with desire A rather than B must involve more than merely having *another desire* to act on A. The higher-order volition is not merely a further desire or brute preference, but rather an attitude that essentially includes a non-arbitrary evaluation which itself involves "deciding what to think." Identification is a process of *personally engaging* the whole self through a kind of reasoning, namely an "interested" or non-detached practical reasoning (Davenport, 1998, p. 365).

On this view of identification, which parallels the general argument that is made in this paper, a person must participate in conflicts within their own self, not merely be a spectator of them (Davenport, 1998). Similarly, Lynne McFall argues that "A person of integrity is willing to bear the consequences of her convictions, even when this is difficult…. A person whose only principle is 'Seek my own pleasure' is not a candidate for integrity because there is no possibility of conflict—between pleasure and principle—in which integrity could be lost" (McFall, 1987, p. 9).

What McFall is calling here "a person of integrity" is someone who embraces the suffering that may well be unavoidable in the process of working out the self one strives to become (McFall, 1987). This person is understood as a person of authenticity. Such an authentic individual is not tossed from one priority to another by a pseudo-commitment to their own fleeting preferences but is actively working out who they genuinely want to be, developing themselves toward their imagined ideal despite the difficulties entailed in becoming just such an authentic individual. Authenticity is this process of genuinely deciding what to think, what to value, and who to be. Authenticity depends crucially on identification, which demands more from the individual than notional support for a principle or halfhearted occupation of a social role, or a story about how one came to adopt such a principle or found oneself in a given role. Rather authenticity is a more wholehearted endorsement that entails readiness to participate in internal conflict and be judged for failure to uphold one's own purported values.

This twofold conception of well-being developed in dialog with Kierkegaard is intentionally linked with Susan Wolf's view of meaning in life that comprises both objective and subjective aspects.

> A meaningful life must satisfy two criteria, suitably linked. First, there must be active engagement, and second, it must be engagement in (or with) projects of worth. A life is meaningless if it lacks active engagement with anything. A person who is bored or alienated from most of what she spends her life doing is one whose life can be said to lack meaning. Note that she may in fact be performing functions of worth… At the same time, someone who is actively engaged may also live a meaningless life, if the objects of her involvement are utterly worthless (Wolf, 1997, pp. 111–112).

Wolf's account of meaning in life is isomorphic with the proposed account of well-being; in both cases this paper is postulating a subjective active engagement with projects of objective worth. The authentic person will subjectively

be identified with the objective values and goods of their own existence. Similarly, on Wolf's analysis, meaningful living depends not only on the pursuit of objective goods but also on the subject's ability to actively engage with those goods.

Criticizing Wolf's theory, Metz (2013) argues that meaning in life does not need a subjective aspect. Writing that he has "reason to doubt that any propositional attitude, positive or negative, is *necessarily* constitutive of one's life being *somewhat* more meaningful," Metz means that if something is meaningful, it is so without one's subjective attitude toward it (p. 184). If what was argued above about the principle of identification is correct though, the precise character of the subjective dimension should be clearer as well as its importance to a comprehensive view of well-being. This paper argues that to identify with one's life is to authentically appropriate it *as one's own*. A life cannot be completely meaningful without such identification. This integrated conception of well-being, authenticity, and meaning in life can specify that the subjective dimension will not be either straightforwardly "positive or negative." Rather, such an identification will require one to appropriate the actualities of one's life, including those of suffering and "negativity," as the cost of "positively" endorsing one's existence as meaningfully one's own.

Conclusion

The integrated conceptualization of well-being argued in this paper positively identifies the role of suffering for human well-being by drawing on the notions of meaning in life and authenticity. This position on a conception of well-being challenges the dominant view of suffering in positive psychology as fundamentally negatively affecting human well-being, which essentially prescribes preventive or mitigating strategies to tackle suffering. The proposed integrated conceptualization of well-being suggests that alleviation of suffering should not be viewed as a blanket remedy for increasing well-being because, as has been argued, it often prevents individuals from considering opportunities for developing such well-being factors as meaning of life and authenticity. Drawing on the insights of the existentialist philosopher Søren Kierkegaard it has been demonstrated that suffering and negative affects are ineliminable from a meaningful life and indeed contribute to its meaningfulness. The integrated conceptualization of well-being successively addresses the subjective and objective dimensions of well-being emphasizing the role of the subjective in identification of objective good for a well-lived life. The hope of the authors of this article is that the argued integrated conceptualization of well-being will motivate scholars to develop new measures of well-being that consider suffering, meaning in life, authenticity, but also the subjective and objective elements of well-being.

Author contributions

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

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.

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Existential isolation and well-being in justice-involved populations

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Much work in psychology has focused on feelings of social isolation and/or loneliness. Only recently have psychologists begun to explore the concept of existential isolation (EI). EI is the subjective sense that persons are alone in their experience and that others are unable to understand their perspective. EI thus occurs when people feel that they have a unique worldview unshared by others. Measured as either a state or trait, empirical studies have shown EI undermines life meaning and decreases well-being; people scoring high on EI report lower levels of need satisfaction, purpose in life, and meaningfulness and increased death-related concerns. There is also a positive correlation between EI and anxiety, depression, and suicidal ideation. The purpose of this perspective paper is to review literature on EI and discuss its relevance to people who have been involved with the justice system. Given their higher rates of substance use, mental health difficulties, and trauma, this traditionally underserved population is particularly susceptible to compromised well-being. We theorize that EI may impede the impact of therapeutic interventions in justice settings as more isolated individuals may feel disjointed from their counselors and peers, thereby decreasing levels of treatment engagement, participation, satisfaction, and perceived social support. Professionals may be able to mitigate issues related to EI by an enhanced focus on establishing authenticity within the therapist-client relationship (e.g., empathy, perspective taking, compassion), connecting with clients *via* I-sharing [i.e., matching on a shared experience(s)], and/or encouraging active participation in client's behavioral healthcare needs (e.g., self-reflection).

KEYWORDS

existential isolation, justice populations, health, well-being, counseling

Introduction

In the United States, 6.9 million people are on probation, in prison, in jail, or on parole; 9 million persons cycle through local jails; and more than 600,000 people are released from state and federal prisons annually (Assistant Secretary for Planning and Evaluation [ASPE], 2022). With the high number of individuals being released back into the community, pinpointing ways to improve their psychosocial

functioning is important toward achieving community reintegration. For instance, more than two-thirds of people are re-arrested within 3 years of their release while half are reincarcerated (Assistant Secretary for Planning and Evaluation [ASPE], 2022). Persons in the justice system are also at greater risk of poverty, death, emotional and physical distress, and have higher suicide rates as compared to the general population (Binswanger et al., 2007; Rosen et al., 2008; Pratt et al., 2010). The current perspective paper will discuss the concept of existential isolation (EI; i.e., feeling alone in one's experience; Pinel et al., 2017) and how it may function for people belonging to this justice-involved population. This article begins with an overview of EI, a review of current research findings, and how to distinguish it from other forms of isolation (e.g., Yalom, 1980; Helm et al., 2019a). The manuscript then explores the therapeutic importance of EI in individuals in the justice system—a population especially susceptible to existential concerns.

Existential isolation: Theory and research

Existential isolation occurs when a person feels nobody understands or shares their worldview (Pinel et al., 2017). According to Yalom (1980, p. 355), EI is the "unbridgeable gulf between oneself and any other being." Although EI is generally approached as a trait-like emotion (e.g., Pinel et al., 2017), one can also have an existentially isolating state (e.g., Helm et al., 2019a). This has led researchers to propose a state-trait model of EI to further understand the antecedents and consequences of each (Helm et al., 2019a). For instance, an acute isolating experience, such as laughing at a movie that no one else finds funny or feeling misunderstood by someone during a conversation, can result in state levels of EI. Negativity from situationally activated EI can motivate persons to reduce the aversive experience(s). For example, experimentally priming EI (vs. loneliness or boredom) leads to a higher accessibility of death-related thoughts (Helm et al., 2019b) and feeling more interpersonally disconnected from others (Pinel et al., 2017). Additionally, although yet to be empirically established, state EI is theorized to be associated with lower self-esteem and perceived meaning in life (Helm et al., 2019a), higher feelings of loneliness and sadness (Helm et al., 2019a), and/or a loss in self-identity as individuals avoid isolation by matching their beliefs with those of others around them (e.g., Swann et al., 2012). Given that the situational experiences of EI should be short-term, the effects of such should also be brief.

If someone is unsuccessful at reducing state levels of EI, or has a repeat number of acute experiences, this may lead to a sustained, trait-like disposition. The personality characteristic of EI is defined by someone feeling that other people, in general, do not understand their subjective experience(s). This may be a consequence of repeat EI inducing events, socialization factors (e.g., avoidant attachment; Helm et al., 2020a), and/or acculturation (Park and Pinel, 2020). Whereas people in a state of EI try to reduce the experience, high scoring existentially isolated persons are more likely to withdraw socially and report greater feelings of hopelessness. Indeed, trait-based EI is negatively related to self-worth, support of communal values (e.g., altruism, trust; Helm et al., 2018), life purpose (Helm et al., 2019a), and "Big 5" personality traits (i.e., conscientiousness, agreeableness, emotional stability, openness to experience, and extroversion; Pinel et al., 2017). Additional findings show that individual differences in EI are positively correlated with anxiety (i.e., generalized, social), self-concealment, stress, and depression (Costello and Long, 2014; Constantino et al., 2019; Helm et al., 2020b). Not only does EI predict higher levels of depression and suicide ideation among college students and Amazon Mechanical Turk (MTurk) samples (Constantino et al., 2019; Helm et al., 2020b), these effects are moderated by dispositional feelings of loneliness; people most susceptible to lower well-being are both lonely and existentially isolated.

Recent evidence also suggests that EI varies demographically. Multiple experiments demonstrate that males report being more existentially isolated than females (**Pinel et al., 2017**; Helm et al., 2018). This may be a byproduct of socialization and prevailing cultural norms whereby males are discouraged from expressing their emotions and/or indicating a strong need for close others (Helm et al., 2019a). Females, in turn, report lower levels of EI, are more group-focused in their orientation (i.e., equality, loyalty), and are more prosocially motivated (i.e., altruistic, forgiving; Helm et al., 2018). Experimental studies have additionally shown that people belonging to underrepresented communities report higher levels of EI than do persons belonging to majority groups. For example, Pinel et al. (2022) investigated the relationship between non-normative group membership, including race, ethnicity, sexuality, and experiences of EI across three studies. Participants with a non-normative group membership (e.g., gay men and lesbians, Latinas/Latinos) reported higher levels of EI than those with normative group membership (e.g., heterosexuals, non-Latinos/non-Latinas). At a cultural level of analysis, EI is negatively associated with collectivism and identity importance in South Korean participants (Park and Pinel, 2020), while Americans' higher individualism scores are related to greater feelings of EI (Helm et al., 2019a).

Another goal of EI research is to distinguish the construct from other types of isolation. Yalom (1980), an existential psychotherapist, proposed three forms of separation: (a) intrapersonal, (b) interpersonal, and (c) existential. Intrapersonal isolation refers to aspects of one's psyche whereby persons are disconnected from themselves in some way (e.g., dissociative disorder, repression). Interpersonal

isolation is when someone experiences a lack of social contact or connection with others. This may include, for example, complete separation (e.g., staying at home by oneself for days on end), lacking direct contact (e.g., sitting by oneself in a crowded room), and/or missing meaningful connections with other people (e.g., not establishing deep or long-standing relationships). Regardless of whether interpersonal isolation is self- or other-initiated, people in this state feel emotionally and physically disconnected from others. Finally, no matter how much people may try to bond with friends and family through common interests, shared thoughts and feelings, or similar backgrounds (e.g., upbringing), humans are uniquely alone in their sensory experiences, their interpretation of them, and the extent to which meaning is derived (Pinel et al., 2017). It is this disconnect, according to Yalom (1980) and contemporary researchers (e.g., Pinel et al., 2017; Helm et al., 2019a), that makes EI stand apart from interpersonal isolation in that persons feel chronically and experientially distant from others—a separation beyond meaningful and enduring social relationships.

Research has demonstrated that, although somewhat related, EI and interpersonal isolation are distinct concepts. For instance, with the creation and validation of the Existential Isolation Scale, Pinel et al. (2017) found that trait EI had small but positive correlations with measures of loneliness, alienation, and extraversion. The relationship between variables provided evidence for divergent validity too as EI was unrelated to social desirability and a need to belong; and the magnitude of correlations between variables were much higher for alienation and loneliness compared to feelings of EI. Importantly, other work has demonstrated a direct relationship between EI and impaired physical health (e.g., Costello and Long, 2014), reduced psychological well-being (e.g., anxiety, stress; Constantino et al., 2019; Helm et al., 2020b, 2022a), and greater interpersonal dysfunction (e.g., aggression; Pinel et al., 2022), even when controlling for interpersonal isolation.

One limitation of work on EI is that a large proportion of findings have been based on college student samples or participants on cloud-based research platforms, such as MTurk. Although informative, these data do not lend themselves to applied domains because of generalizability concerns. In other words, it could be argued that EI is experienced differently by clinical populations, or that EI affects clinical samples differently. Indeed, theorists have long proposed EI to be a salient psychological concern for clients in psychotherapy (Yalom, 1980; May and Yalom, 1989; Helm et al., 2022a), and empirical studies have shown that people belonging to underrepresented backgrounds are especially vulnerable to feelings of EI (Helm et al., 2022b; Pinel et al., 2022). Despite this, there remains little discussion around the application of EI to clinical samples with more diverse backgrounds.

Justice-involved populations and existential isolation

Justice-involved populations is a term used to describe people who have previously, or are currently, involved in the justice system. This may include, for example, individuals who are on probation, parole, or serving a sentence in jail or prison. Collectively, justice populations represent an underserved population for behavioral healthcare needs—notably, people involved with the justice system report elevated rates of substance use, mental health difficulties, and trauma histories (Fazel and Seewald, 2012; Fazel et al., 2017; Baranyi et al., 2018). Unfortunately, many persons do not receive services when passing through the justice system because of organizational barriers precluding their delivery (see, e.g., Farabee et al., 1999). Furthermore, the difficulty associated with accessing justice populations in research (e.g., Ferszt and Chambers, 2011; Apa et al., 2012; Charles et al., 2016), in combination with negative attitudes held by the public about justice populations (e.g., Freeman, 2001; Kjelsberg et al., 2007), has likely deterred researchers from investigating the correlates of EI in this at-risk group.

To date, limited work has investigated existential concerns in justice populations. Researchers have explored topics such as concerns about death or the process of finding meaning in life while incarcerated (e.g., Aday, 2006; Aday and Wahidin, 2016; Vanhooren et al., 2016, 2017); however, no work (to our knowledge) has examined the role of EI among people involved with the justice system. It is probable, however, that this population is especially at-risk for experiences of EI. People who are justice involved often experience stigma about having a history of crime, and perceived stigma is associated with diminished psychological well-being (Baffour et al., 2021), willingness to seek treatment for mental health (Clement et al., 2015), and more self-reported interpersonal isolation (Fekete et al., 2018). Conceptually, individuals experiencing stigma related to justice involvement may feel disconnected from their peers and be less likely to engage in behaviors to ameliorate feelings of EI because of concerns about stereotyping, negative judgments, or lack of empathy.

Exacerbating the isolation stemming from stigmatization are the number of people in the justice system with a history of trauma, peer victimization, and/or abuse in childhood. In a study including more than 5,000 persons, 48% of them in prison met the diagnostic criteria for Post-Traumatic Stress Disorder (PTSD) as compared to 4% of individuals in the general population (Briere et al., 2016). Likewise, a meta-analysis reported that 65.7% of people incarcerated in Canada had a history of childhood maltreatment, including physical, emotional, or sexual abuse (Bodkin et al., 2019). Individuals with trauma histories experience difficulties with emotion regulation (Seligowski et al., 2015), are more likely to have anxious or avoidant attachment styles (Woodhouse et al., 2015), and may

develop a generalized distrust of others (Hepp et al., 2021). As such, the psychological and emotional difficulties accompanied with a history of trauma may predispose persons to feel more isolated from others without similar experiences, and over time, develop higher levels of trait-based EI that is pervasive across social situations.

Finally, people belonging to racial and ethnic minority groups have been historically overrepresented in justice populations. Although a discussion on the reasons behind this is beyond the scope of this article (see, e.g., **Bowman, 2014** for a comprehensive review), a report from the **Federal Bureau of Prisons (2022)** estimated that 37.5% of individuals in the United States serving time in federal prison were Black, despite only making up 13.4% of the US population. As mentioned, persons who belong to minority, underrepresented, and stigmatized groups report elevated levels of EI as compared to their mainstream societal counterparts (e.g., **Pinel et al., 2022**). Given that elevated EI is associated with more physical health impairments (e.g., **Long et al., 2021**) and mental health concerns (e.g., Helm et al., 2020b), it could be that minority people in the justice system are at even greater medical risk as compared to their non-minority counterparts. Although yet to be explored, a study using a MTurk sample found that people scoring high on EI expressed fewer intentions to seek therapy, were less satisfied with mental health treatment, and had lower faith in the expertise of therapists (**Constantino et al., 2019**).

Problems and solutions of existential isolation in clinical settings

With the high rates of behavioral health problems in justice populations, residential and outpatient rehabilitation programs aim to provide persons with clinical services to increase psychosocial functioning and reduce individuals' likelihood of returning to criminal activity. EI, however, may serve as a barrier to providing effective treatment to justice populations as EI is associated with fewer intentions to seek help (Constantino et al., 2019). Namely, trait-based EI may create an inherent disconnect between the therapist and client thereby decreasing attendance, participation, and overall satisfaction with treatment. In group and individual therapy sessions, state-based EI may be precipitated by situational cues of closeness, vulnerability, or perceptions of judgment or misunderstanding from other group members, particularly when individuals view themselves differently from other justice-involved individuals. Persons in treatment settings where state-based EI is evoked may disengage from treatment as an avoidance strategy to protect oneself against the negative feelings associated with being misunderstood. Therapists should therefore consider the use of techniques at treatment onset, such as the use of Motivational Interviewing, to overcome phenomenological isolation and increase clients' engagement, attendance, and success with treatment. Although our discussion focuses on overcoming EI in clinical settings, we also believe the strategies outlined herein could be used in community settings by people working as social workers, case managers, or medical providers working with this population to provide physical healthcare or social services (e.g., employment, housing).

One strategy that may be useful in overcoming EI in counseling contexts is establishing an authentic therapeutic alliance. The therapeutic alliance (or counselor rapport in some literature) refers to the ongoing working relationship between the client and therapist. Counselor rapport has been associated with more engagement and retention in substance use treatment (Meier et al., 2005), and lower ratings of counselor rapport is associated with less positive treatment outcomes in substance use treatment (i.e., more self-reported substance use) and criminality at a 6-month follow up (Joe et al., 2001). In this way, counselor rapport may serve as an important milestone in therapy that can provide clients with reassurance that the therapeutic setting is a trusting, compassionate, and empathic environment where the client can work on challenges experienced outside the room without a fear of judgment.

Clinicians may rely on processes, such as I-sharing or language matching, to establish an authentic relationship with clients. I-sharing is the sharing of one's phenomenological experience about said event or situation to achieve a shared reality with another person (Pinel et al., 2010) and may help practitioners relate with clients on a more personal level. I-sharing has been related to positive interpersonal outcomes in experimental studies (e.g., selflessness, agreement with a romantic partner; Huneke and Pinel, 2016; Gehman et al., 2022), and has been theorized to be a mechanism to overcome feelings of EI in clinical settings (Pinel, 2018). Relatedly, language matching may serve as a subtle cue to clients that the therapist is able to understand their experiences. In fact, patient and peer navigators - people with shared experiences that work with people in the justice system overcome challenges with employment, housing, and healthcare needs following a period of justice involvement—have been shown to be an effective strategy at improving client outcomes (Binswanger et al., 2015; Westergaard et al., 2019). The utility of navigators could be in part due to their shared experience and capacity to language match with the client demonstrating a unique understanding of the experience of having been justice-involved.

Another strategy clinicians may use to overcome EI is directly engaging clients in the process of their own therapeutic change. The perception of autonomy, for example, has been theorized to have an important role in intrinsically motivating people for behavioral change (see Ryan and Deci, 2017). Thus, therapists may attempt to provide individuals with a sense of autonomy to overcome feelings of EI and subsequently motivate clients to participate in treatment sessions or activities. Affording autonomy to a client in justice settings may be

particularly useful considering many persons may feel a lack of autonomy over other aspects of their life (e.g., sentencing, parole terms). As an example, therapists taking a client-centered approach may ask the client what their personal goals are for treatment, include clients in the planning of therapy sessions, and check in with the client to see how they perceive their progress in treatment (e.g., Johnson and Smalley, 2019). Other subtle ways that therapists may impart clients a sense of autonomy would be to ask for a client's consent before discussing a difficult topic or warning a client that today's session will challenging. Through these interactions, therapists may be able to increase clients' trust in the counselor, the therapeutic process, and their capacity to change behaviors the client deems inconsistent with their goals or values.

Conclusion

In closing, justice-involved populations represent an at-risk group for EI, which may affect their responsiveness to treatment services designed to improve their overall psychosocial functioning. Existential isolation may impede the therapeutic process as more isolated individuals feel disjointed from their counselors and peers, perceiving decreased levels of social support, and be less likely to engage or participate in treatment services. Professionals may be able to circumvent issues related to EI by establishing authenticity within the counseling relationship (e.g., empathy, perspective taking), connect to clients *via* I-sharing (i.e., matching on shared experiences), and/or encouraging active participation in people's behavioral healthcare (e.g., self-reflection, granting autonomy). Overall, through a discussion of EI, this paper presents a novel application of EI to justice populations with direct implications for clinical providers to develop remedies for EI in treatment settings.

Data availability statement

The original contributions presented in this study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

TS and CC conceived the original manuscript idea. All authors contributed to the article and approved the submitted version.

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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.

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The positive psychology of challenge: Towards interdisciplinary studies of activities and processes involving challenges

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Activities and processes involving challenges are a natural part of life for most people and are highlighted in times of rapid change and global issues. This article argues that more studies around activities and processes involving challenges should be conducted with a focus on the concept of challenge in the context of well-being and optimal functioning. The concept of challenge is important because it is explicitly embedded in many major themes of positive psychology and can be a key concept in creating perspectives and frameworks to connect and integrate multiple elements in positive psychology to promote advancements in the field. Studying activities and processes involving challenges is also important from the perspective of dialectically integrating the positive and negative elements encompassed in the concept of challenge. The article also proposes to label activities and processes involving challenges as "challengership" and that an interdisciplinary area to study "challengership" (named "challengership studies") should be created, which can collaborate with positive psychology for mutual development. The positive psychology of challenge/challengership is likely to provide opportunities for further advancement of positive psychology by creating more integrated knowledge of how to flourish when faced with challenges individually and collectively. The knowledge created in these areas can also be applied to education, coaching, and training at schools and organizations to meet the needs of the times, where skills of challengership should be considered trainable.

KEYWORDS

challenge, well-being, positive psychology, interdisciplinary, integration, challengership, challengership studies

1. Introduction

For most people, activities and processes involving challenges, including seeking, identifying, taking, embracing, avoiding, persevering, and overcoming them, are naturally part of life, as they have been throughout the history of humanity. In dictionaries, a challenge is described as "a new or difficult task or situation that tests somebody's ability

and skill" (Oxford Learner's Dictionaries, n.d.) and as something that can be interpreted as an opportunity (APA Dictionary of Psychology, n.d.). Scholars have studied activities and processes involving the concept of challenge in various disciplines, including psychology. Societal needs in our time of rapid change and global challenges have also highlighted the importance of activities and processes involving challenges concerning well-being.

2. Importance of studying activities and processes involving challenges

Although scholars of positive psychology (PP) have suggested the importance of including and integrating challenges in the framework of well-being research (Boniwell, 2012; Lomas and Ivtzan, 2016; Wong, 2016b; Wong et al., 2022), PP studies have tended not to construct integrated perspectives that focus on the concept of challenge. I argue that more studies on activities and processes involving challenges should be conducted with the aim of building integrated, interdisciplinary knowledge that is useful for humanity to flourish in spite of challenges.

2.1. The concept of challenge is important in that it is explicitly and extensively embedded in the major themes of PP

From the perspective of PP, with an emphasis on the major themes, the concept of challenge is a critically important element for well-being and optimal functioning because it is explicitly and extensively embedded in the theories, models, and definitions of well-being, flow, intrinsic motivation, curiosity, mindset, learning, stress coping, mental toughness, and posttraumatic growth, among others.

To illustrate this point, examples of 10 important themes encompassed in PP are briefly reviewed in the context of the concept of challenge. (1) Regarding flow and well-being, one of the main conditions for achieving flow is that challenges and skills balance at high levels (Csikszentmihalyi, 2003), and flow is regarded as a primary form of engagement, which is one of the five pillars of well-being in the PERMA model (Seligman, 2011). Dodge et al. (2012, p. 230) related challenges to well-being by defining the latter as "the balance point between an individual's resource pool and the challenges faced." In connection with these studies, peak experiences (Maslow, 1959) were also associated with challenges in some studies (e.g., McDonald et al., 2009; Harung, 2012). (2) Regarding intrinsic motivation, Ryan and Deci (2000, p. 56) explained that an intrinsically motivated person is "moved to act for the fun or challenge entailed rather than because of external prods, pressures, or rewards." Amabile et al. (1994) conceptualized intrinsic motivation in the Work Preference Inventory consisting of two factors: challenge and enjoyment. (3) Regarding curiosity, Kashdan and Silvia (2009, p. 368) defined curiosity as "the recognition, pursuit, and intense desire to explore novel, challenging, and uncertain events." It should be noted that curiosity is incorporated into the concept of mindfulness (Bishop et al., 2004; Lau et al., 2006; Jazaieri and Shapiro, 2017), which can be then linked to the concept of challenge. (4) Regarding mindset and learning, Dweck and Yeager (2019, p. 482) called the mindset theory "a theory of challenge-seeking and resilience." Bjork and Bjork (2020) claimed that the existence of challenges and difficulties at an appropriate level is effective for long-term learning. In a study of motor learning, Guadagnoli and Lee (2004) claimed that there is an optimal challenge point for learning. (5) Stress coping models incorporate the concept of challenge. For example, studies have suggested that challenge is more effective than threat for stress appraisal in a transactional model (Lazarus and Folkman, 1984) and as a motivational state in a biopsychosocial model (Blascovich and Mendes, 2000) of stress coping. (6) Mental toughness was conceptualized as a combination of four elements: challenge, confidence, commitment, and control (Clough and Strycharczyk, 2012). Similarly, hardiness has been conceptualized as a combination of three elements: commitment, control, and challenge (Maddi, 2006). (7) Tedeschi and Calhoun (2004) incorporated a high level of challenge into the model of posttraumatic growth. (8) Regarding goal setting, studies indicated that goal setting that incorporates appropriate challenges is effective in realizing higher performance (Locke et al., 1981; Latham and Locke, 1991). (9) Other than these studies, certain character strengths, such as hope, bravery, and persistence, as well as the concepts of resilience and grit, assume some kind of challenges, difficulties, and adversities in which these concepts and qualities play a positive role toward flourishing (Reivich and Shatté, 2002; Snyder, 2002; Peterson and Seligman, 2004; Duckworth et al., 2007). For instance, "I have overcome setbacks to conquer an important challenge." is one of the 12 items on the Grit Scale (Duckworth et al., 2007, p. 1090). (10) Furthermore, in positive organizational psychology (Donaldson and Ko, 2010), many of the abovementioned themes incorporating the concept of challenge in PP have been applied to studies at the organizational level and in coaching. Examples include applications of flow, growth mindset, mental toughness, character strengths (including curiosity), resilience, and goal setting to organizations and coaching (e.g., Csikszentmihalyi, 2003; Donaldson and Ko, 2010; Murphy and Dweck, 2010; Green and Palmer, 2018; Canning et al., 2020).

In most of the above examples, the concept of challenge does not appear in the primary themes but is explicitly linked to them within respective theories, models, and definitions. Because these important themes are linked to well-being and optimal functioning, the concept of challenge is extensively linked to these conditions as well.

The above examples also indicate that many themes and theories of PP cannot exist without the concept of challenge and that the existence of challenge is one of the pillars of realizing well-being and optimal functioning in some themes. While they

indicate the importance of the concept of challenge in PP, it is frequently used without definition to define and theorize other concepts in the above examples. Despite its importance, conceptual analyses as well as systematic perspectives and frameworks to integrate these major themes with a focus on the concept of challenge are missing and therefore need to be developed.

To clarify the arguments further, it is worth describing what a challenge is from a broad integrative perspective, which is based on how the construct of challenge is described in the above examples. Because the examples cover broad themes, they describe multiple aspects encompassed in the construct of challenge. In particular, three interconnected aspects are repeatedly emphasized: (1) challenges are described as difficult, new, or complex (e.g., Csikszentmihalyi, 1990; Latham and Locke, 1991; Amabile et al., 1994; Tedeschi and Calhoun, 2004; Kashdan and Silvia, 2009; Dweck and Yeager, 2019; Bjork and Bjork, 2020); (2) challenges are compared to skills or resources (e.g., Lazarus and Folkman, 1984; Csikszentmihalyi, 2003; Tedeschi and Calhoun, 2004; Dodge et al., 2012) that may be put to the test or eventually developed by pushing own limits; (3) challenges may be interpreted as and eventually transformed into opportunities, including for action, learning, growth, or developing skills and resources (e.g., Lazarus and Folkman, 1984; Amabile et al., 1994; Clough and Strycharczyk, 2012; Nakamura and Csikszentmihalyi, 2014) that are associated with adaptation in some studies (e.g., Lazarus and Folkman, 1984; Tedeschi and Calhoun, 2004). These aspects are mostly concordant with the definition of challenge in some of the major dictionaries (APA Dictionary of Psychology, n.d.; Oxford Learner's Dictionaries, n.d.). Integrating these aspects can preliminarily define a challenge as a situation, task, or problem that is difficult, new, or complex and presents the possibility of testing skills or resources and being interpreted as or transformed into an opportunity. Although this preliminary working definition is based only on a limited number of examples and should be further examined in more comprehensive studies, its strength lies in it being able to accommodate the essences of the interconnected aspects of the challenges that are studied separately in the above examples.

2.2. The concept of challenge is important from the perspectives of second wave and third wave PP

Studies of activities and processes involving challenges are important from the perspective of the so-called second wave PP (SWPP), which emphasizes the dialectical aspect of well-being and the integration of positive and negative elements of life (Wong, 2011; Lomas and Ivtzan, 2016). Activities and processes involving challenges tend to mix positive and negative elements for most people, therefore making their examination an important pursuit from the perspective of SWPP.

The concept of challenge is closely related to that of suffering, another important concept in the context of SWPP (e.g., Bueno-Gómez, 2017; Wong et al., 2021). For example, in some studies, the concept of challenge is used to represent situations involving suffering (e.g., Lomas and Ivtzan, 2016; Wong et al., 2022). Studies of mature happiness and the CasMac model aim to promote flourishing amidst suffering, challenges, and adversity (Wong and Bowers, 2018). Challenges that are too high compared to skills are associated with anxiety in the flow model (Csikszentmihalyi, 1990), and anxiety can cause suffering (Bueno-Gómez, 2017). Studies of flow also indicate that some people in solitary ordeals (e.g., survival crises and captivity) transformed their extreme experiences into flow by seeking appropriate challenges despite their suffering (Logan, 1985; Csikszentmihalyi, 1990). Other examples of the relationship between suffering and challenge include the models of stress coping and posttraumatic growth, incorporating the concept of challenge (Lazarus and Folkman, 1984; Blascovich and Mendes, 2000; Tedeschi and Calhoun, 2004) because suffering (as an umbrella term) can encompass the concepts of stress and trauma (Wong et al., 2021). These examples suggest that there is an essential intersection between studies on suffering and those on activities and processes involving challenges in PP. Therefore, studies on suffering in PP should incorporate and integrate studies of activities and processes involving challenges for further development.

Studies of activities and processes involving challenges are also important from the perspective of the so-called third wave PP (TWPP), which emphasizes the broadening of scope and methods (Lomas et al., 2021), including the adoption of an interdisciplinary approach. In this context, real-world challenges and problems tend to neglect the boundaries of disciplines as well as those among individuals (e.g., Repko and Szostak, 2020; The University of British Columbia, n.d.). Therefore, studies on activities and processes involving challenges require an interdisciplinary approach.

Studies in multiple disciplines other than psychology have also incorporated the concept of challenge in the contexts of well-being and optimal functioning. The following are some examples of this: (1) Many studies on leadership and management have incorporated the concept of challenge in their theories and models, where leadership shapes activities and processes involving challenges, and vice versa. For example, the concept of challenge is incorporated in the conceptualization of challenge-driven leadership (Ancona and Gregersen, 2018) and adaptive challenge (Heifetz et al., 2009). The Big Hairy Audacious Goal as part of leadership (Collins and Lazier, 2020) and secure base leadership (Kohlrieser et al., 2012) are conceptualized to promote the pursuit of challenges. (2) In an example of a study in philosophy, Irvine (2019) integrated the knowledge of Stoic philosophy and psychology and argued that practicing Stoicism is beneficial in dealing with difficulties, adversities, and challenges. (3) Other examples include drama. For instance, improvisation training can be effective in enabling people to take on new challenges because it allows people to train the performance (without preparation) of

new actions with confidence in front of unfamiliar audiences, to deal with failure, and to tame the fear related to failure (Madson, 2005). These examples indicate the importance of studying activities and processes involving challenges using an interdisciplinary approach concerning the TWPP.

2.3. The concept of challenge is relevant in our time

In the context of the current needs of the society, the concept of challenge is relevant in our time of rapid changes and global challenges, including the COVID-19 pandemic. For example, during the pandemic, the question of how to embrace challenges and flourish is conceptually considered more relevant for many people than the simpler question of how to flourish. This reframing of the question to explicitly include and integrate challenges in the framework of well-being research has been recommended by many PP scholars (Boniwell, 2012; Lomas and Ivtzan, 2016; Wong, 2016b; Wong et al., 2022). Because the framing of questions shapes the quality of answers (Gregersen, 2018), this reframing is critical to living optimally with challenges for people. Based on these considerations, conducting more studies on activities and processes involving challenges in relation to well-being is necessary to meet the demands of the times and to contribute to broad societal needs.

2.4. Challenge as a key concept to integrate multiple elements in PP

One line of persistent criticism of PP is that its concepts and theories are fragmented without sufficient integration (e.g., Cowen and Kilmer, 2002; Boniwell, 2012; Wissing, 2022). On this issue, studies on activities and processes involving challenges are likely to offer an important new perspective to connect and integrate some (if not all) of the major themes of PP structured around the concept of challenge. For example, as mentioned earlier, many important themes in PP are directly related to the concept of challenge. While the world is traditionally viewed through the separate conceptual windows that these respective themes construct, studies of activities and processes involving challenges can aim to create new integrative perspectives and frameworks by positioning the concept of challenge at the center, which changes the viewpoints of existing studies.

In the pursuit of such integrative perspectives, one potential focal point may be the concept of an optimal challenge or a challenge at an optimal level that realizes well-being and optimal functioning. One rationale for this perspective is that some studies conceptualize challenge (or difficulty) with its degree or level, assuming that there is an optimal degree or level of challenge (Csikszentmihalyi, 2003; Guadagnoli and Lee, 2004; Dodge et al., 2012; Bjork and Bjork, 2020) rather than as a binary conceptualization. Based on these considerations, one possible direction may be to clarify the optimal levels of challenge in the respective concepts and theories of PP and seek a framework to connect, integrate, and organize them.

Another advantage of studying activities and processes involving challenges is the possible coexistence and integration of the well-being of self and contributions to others. Taking on challenges at optimal levels can be beneficial not only to the well-being of the self but also to others, because such challenges are often difficult tasks or problems that others may want to avoid. For example, creating flow by embracing high-level challenges at work can be beneficial to the well-being of the self and contribution to others (Csikszentmihalyi, 2003). At the awareness level, studies of flow have also indicated a loss of ego in the flow state (Logan, 1985; Csikszentmihalyi, 1990). In another instance, leadership driven by large, inspiring challenges (Ancona and Gregersen, 2018) can be beneficial to well-being and contributions to others. Regardless of whether an individual's focus is more on the interests of self or others, the consequences of the coexistence of the well-being of self and contributions to others in these examples may be linked to or compared with those driven by self-transcendence (Wong, 2016a). In line with this perspective, flow, peak experiences, and mindfulness, which are categorized as self-transcendent experiences (Yaden et al., 2017), are, respectively, linked with challenges, as reviewed earlier.

3. Discussion

As reviewed, the concept of challenge is already embedded in many of the major themes and theories of PP without sufficient integration and is also suited for the dialectical aspect of well-being to integrate the positive and negative elements of life emphasized in SWPP. Given these unique characteristics, the concept of challenge is well-situated and should be studied further to create perspectives and frameworks in which these themes and theories linked with challenges are connected and integrated.

One of the future research directions is to conduct conceptual analyses of challenges in psychology, as well as in related disciplines such as management and philosophy. Specifically, conceptual analyses of challenges may include the relationship between challenges and well-being, optimal functioning, learning, creativity, adaptation, suffering, leadership, entrepreneurship, and coaching, among others. For example, the definition of entrepreneurship as "the pursuit of opportunity beyond the resources you currently control" (Stevenson, 2004, p. 3) may be compared with that of challenge, as the latter also involves the elements of opportunity and resources.

3.1. Creating interdisciplinary studies of activities and processes involving challenges in collaboration with PP: "Challengership studies"

For further conceptualization and analyses, I propose to label the activities and processes involving challenges as "challengership." From a cross-cultural perspective (Berry et al., 2011; Lomas, 2015, 2021), concepts in non-English languages that (at least partially)

denote activities and processes involving challenges, such as *chōsen* (挑戦) in Japanese, should also be included under the concept of challengership as an umbrella term.

The preceding section focused on the importance of studies on challengership in relation to PP. In this section, I propose to conceptualize an interdisciplinary area of study of challengership as "challengership studies" (CS) from a wider perspective, including individual and collective levels, independent of the contexts of PP and psychology. The rationale of this formulation is that challengership should be studied using an interdisciplinary approach, as mentioned earlier, and is not necessarily limited to studies of well-being and psychology. Considering the complexity of the world, most people cannot deny the interdisciplinary nature of challenges/challengership. CS and PP intersect to a considerable extent, which can be called the PP of challenge/challengership. Examples of high-level research questions posited at this intersection may include: (1) What is an optimal challenge/challengership? (2) What are the factors that enhance or hinder optimal challengership, individually or collectively? (3) How can we assess and measure challengership? (4) How can we enhance the individual/collective skills of challengership? In pursuit of these important questions, the PP of challenge/challengership can be a base on which CS and PP can collaborate for mutual development to advance well-being and optimal functioning of humanity. Furthermore, knowledge created in these areas can also be applied to education, coaching with a focus on challengership (challengership coaching), and training at schools and organizations in collaboration with positive education and leadership education to meet the needs of the times, where challengership skills should be considered trainable.

In summary, this paper argues that further studies on challengership should be conducted from an integrative perspective. I also propose that an interdisciplinary area to study challengership should be created, which can collaborate with PP for mutual development. The PP of challenge/challengership is likely to provide opportunities for future advancement of PP.

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

The author confirms being the sole contributor of this work and has approved it for publication.

Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Suffering and happiness in Turkish folk poetry in the context of positive psychology: The examples of Asik Mahzuni Serif and Neset Ertas

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The widespread adoption of positive psychology at the beginning of the century has fortified the scholarly foundations of "happiness." Thus, researchers have focused on "happiness" rather than "suffering" in boosting the joy of life within positive psychology, aiming for individuals to achieve peace with themselves and society. With the developments in positive psychology, over recent years, the idea of integrating both positive and negative aspects of human nature to build a better life for oneself and others has contributed to the rise of second-wave positive psychology (PP 2.0). The present study aimed to explore suffering and happiness in Turkish folk culture through a sample of poems by *Asik Mahzuni Serif* and *Neset Ertas*. The study results indicated that suffering-themed concepts were mentioned more than happiness-themed concepts. Within the theme of suffering, the world was the most frequently mentioned concept in Mahzuni's works. He emphasizes in his works that the world is the source of many sufferings. In Ertas's poems, moreover, love was found to be the most frequently mentioned suffering-themed concept. Ertas considers love to be the most significant source of suffering. It was also determined that while separation is the least used concept in the theme of suffering in Mahzuni's verses, it is never mentioned in Ertas's poems. Other concepts pointing to the theme of suffering are poverty, ignorance, longing, death, and slavery. We found that the theme of happiness is mentioned much less frequently than the theme of suffering. While the most used happiness-themed concept is misery/remedy, in Mahzuni's words, love is cited in Ertas's poems. Expressing the view that suffering can be an opportunity for people, Mahzuni emphasizes in his poems that people can grow by learning lessons from their suffering. Ertas, moreover, sees love as the most important source of happiness. The other concepts referencing happiness in the poems were friend, mother, soft answer, and spring. Overall, the results suggest that suffering is an important source of building resilience, which, in turn, can produce happiness. People can grow with the help of the experience of suffering so that this experience can contribute to their flourishing.

KEYWORDS

positive psychology, Turkish folk poetry, suffering, happiness, cultural communication

1. Introduction

The concept of positive psychology, which centers on positive character traits, strengths, and virtues and aims to contribute to the individual's attainment of happiness, is not new. The notion that people may improve their flourishing has persisted through the centuries and across cultures. Thus, the background to the concept dates much further back. Throughout the ages, philosophers have always attempted to reveal the significance of a decent, virtuous, and moral life. For example, Aristotle, the famous Greek philosopher, also drew attention to the importance of noble life and emphasized happiness as the highest good for humanity (Taylor, 2001). Maslow (1954) argued that psychology was a branch of science that had been successful in focusing on the adverse aspects of personality traits; however, it seemed to ignore the individual's strengths and potential. Approximately 40 years after Maslow emphasized the importance of an individual's strengths and potential, Seligman asserted that psychology should be more involved in the positive aspects of human nature (Lopez and Gallagher, 2011). Seligman argued that psychology had ignored its ultimate missions, such as curing mental disorders, identifying individuals' abilities, and contributing to their enjoyment of a more productive and meaningful life (Linley, 2009). Seligman then called on psychologists to create a science of character and virtue that would nurture the best in people. Shortly after this call, he announced the development of positive psychology to offer people a robust vision of life. According to Seligman and Csikszentmihalyi (2000), the fundamental task of psychology is not only to fix an individual's undesirable states but also to work on their strengths and virtues (Sheldon and King, 2001).

Positive psychology is also the scientific study of optimal human functioning with the goal of understanding the factors and states that enable people and communities to thrive (Seligman and Csikszentmihalyi, 2000). From this perspective, many variables (e.g., optimism, hope, gratitude, social support, humor, creativity, forgiveness, and self-confidence) fall within the scope of positive psychology (Lopez and Gallagher, 2011). In particular, the widespread adoption of positive psychology at the beginning of the century has fortified the scholarly foundations of "happiness." Thus, researchers have widely focused on "happiness" rather than "suffering" in boosting the joy of life within positive psychology, aiming for individuals to achieve peace with themselves and society. With the recent developments in positive psychology, the idea of integrating both positive and negative aspects of human nature to build a better life for oneself and others has contributed to the rise of second-wave positive psychology (PP 2.0; Wong, 2010, 2019). It not only focuses on life's positive aspects but also welcomes its adverse aspects as a whole. In addition, focusing on both positive and negative psychological qualities and states will contribute more to the wellbeing of the individual and society, and such a focus should be a seminal research area of psychology (Lomas, 2016; Arslan, 2019; Yıldırım, 2019; Burke and Arslan, 2021; Arslan and Wong, 2022). As such, second-wave positive psychology (PP 2.0) emphasizes that we may need to accept that life have negative aspects, as well as positive ones (Wong, 2010; Lomas, 2016).

1.1. Suffering and happiness in Turkish folk poetry in a cultural context

The literature features a plethora of studies on positive psychology that point out the importance of happiness (Diener, 1984; Lyubomirsky, 2007). Diener (1984) defines happiness as experiencing frequent and intense emotions and life satisfaction. According to Michalos (2008), a happy person is one who demonstrates less fear, hatred, tension, guilt, and anger but more energy and vitality; who is self-confident and emotionally stable, healthy, and fulfilling; who has a high social orientation, love, social relationships, an active lifestyle, and a meaningful job; and who is relatively optimistic, carefree, and present-oriented. While positive psychology is widely about happiness and emotions, Wong's PP 2.0 (Wong, 2019) has focused on suffering as the gateway to happiness and argued that happiness is impossible without overcoming the dark side of human life (Wong, 2020). Therefore, second-wave positive psychology stresses the assumptions that suffering is necessary for happiness, and enduring happiness or flourishing can only be achieved through the dialectical integration of opposites (Wong et al., 2021).

The meanings attributed to "suffering" and "happiness" may vary by culture, and PP 2.0 emphasizes the importance of understanding the unique experience and expression of happiness in different cultures (Wong, 2011). For example, some cultures enjoy high levels of happiness despite being fraught with crime and economic difficulties (Veenhoven, 2022), which may be because individuals adopt values, beliefs, feelings, thoughts, standards, schemas, and judgments for suffering or happiness through their cultures. In this sense, the analysis of culture may bring noteworthy contributions to explaining "happiness" and evaluating individuals' behaviors and personal characteristics. The impact of culture on individuals is often visible through values. Folk culture, an important indicator of culture, has an important function in maintaining social life through creating, nurturing, and transferring social values, judgments, beliefs, and thoughts to other generations. More specifically, folk poetry and songs in folk culture are more evident reflections of culture; thus, Turkish folk poetry embodies significant traces of Turkish culture. Folk poets often address society's cultural characteristics in their verses; their poems sometimes express suffering and sometimes convey happiness. In these poems, one may encounter deteriorations in the social structure due to neglect of science or elevated injustice. Folk poetry functions as a mirror of both culture and society, allowing us to understand the social and cultural structures of a specific period. This is also the case in Turkish folk poetry; Turkish folk poets sometimes talk about happiness with love and sometimes suffering due to longing for loved ones.

1.2. Purpose of the study

The present study attempted to trace suffering and happiness in Turkish folk poetry. Accordingly, poems in Turkish folk poetry were investigated and interpreted based on the emerging schemas of "suffering" and "happiness" in the context of second-wave positive psychology. This study aimed to provide a further understanding of suffering and happiness in the Turkish folk culture through a sample of poems by Asik Mahzuni Serif and Neset Ertas. A total of 240 poems by Neset Ertas were extracted from *Garip Bulbul Neset Ertas* (Neset Ertas, A Lonely Nightingale; Parlak, 2013), while 144 poems by Asik Mahzuni Serif were taken from the book *Iste Bizim Mahzuni* (Here is Our Mahzuni; Yağız, 1999). However, it should be noted that these poems may not correspond to the total number of works produced throughout the poets' lives since they must have produced poems that have never been released. Almost all the verses of both poets are composed as folk songs. While the logic of traditional folk songs relies on anonymity, these poems were so popular and well known that nobody thought about their anonymity. In this study, the selected poems were coded and interpreted around suffering and happiness in Turkish culture. Considering that the literature hosts no such comparative study seeking the traces of positive psychology in Turkish folk poetry, it can confidently be asserted that the findings will bring significant contributions to the field.

2. Method

The research employed cultural analysis, a qualitative research method. The aim of cultural analysis is to define and interpret the culture of a particular group of people within the concepts, processes, and perceptions pertaining to that culture. Thus, every detail about the target subject needs to be investigated in-depth. The data were collected using the document analysis technique, a data collection technique in qualitative research. In this regard, the researcher first went through the selected poems two times. The researcher then grouped the poems by their themes of suffering and happiness and determined the codes for each theme. This was used to generate the frequency of keywords related to suffering and happiness in the poems. Finally, the researcher interpreted the findings in light of the biographies of both poets and examined the extent to which the poems reflected the general attitudes and opinions of society through the previous findings. An effort was then made to infer cultural-specific implications about suffering and happiness from the themes and codes. Accordingly, the researcher collected 144 poems by Mahzuni and 240 poems by Ertas, determined the codes of the themes mentioned, and attempted to uncover how the poets addressed suffering and happiness in their poems.

2.1. Validity and reliability of the study

To contribute to the reliability of the research, the researcher analyzed the data two times at a specific time interval (about 3 months) and considered the compatibility ratio between the themes and codes emerging in both analyses. Accordingly, the specified ratio was calculated to be 0.94 using the formula suggested by Miles and Huberman (2016). Therefore, it can be argued that the analysis performed in this research was highly reliable.

With regard to validity, the researcher considered credibility, transferability, dependability, and confirmability, as proposed by Lincoln and Guba (1986). In terms of credibility, the researcher reviewed the relevant literature and included the relevant findings in section 1. In addition, the problem situation was clearly presented to promote credibility. The research design and methods are explained in detail in section 2 to promote the transferability of the study. In addition, a detailed explanation of the data analysis process is believed to contribute to the transferability. The present study clearly describes the data analysis process and the data obtained through the themes and codes to improve the dependability of the research. Finally, to ensure the confirmability of the research, the researchers collected the published poems by both poets and did not rely on the poets' life stories and thoughts in their poems to determine the codes and themes.

3. Results

In this study, suffering and happiness were sought in Turkish folk poetry in the context of positive psychology, with the researcher analyzing 144 poems by Mahzuni and 240 poems by Ertas. The findings revealed that the poems by both poets mainly addressed concepts that would evoke suffering (f: 400) and that the frequency of expressions evoking happiness was almost one-third of those prompting suffering (f: 139; Table 1).

3.1. Suffering in the poems of Mahzuni and Ertas

The results revealed that nine suffering-related concepts were used 400 times in total, 106 times by Mahzuni and 294 times by Ertas, on the theme of suffering. The identified concepts are presented later.

3.1.1. The world

In the poems analyzed, the world is considered a temporary place where people cannot be happy and are always worried. Accordingly, the world order is characterized by suffering. In fact, the world is such a place that only liars and bad people would be happy. Mahzuni and Ertas emphasize that the world is not a place of happiness but suffering.

TABLE 1 Suffering and happiness in the Turkish folk poetry.

	Suffering					Happiness			
Themes	Mahzuni Serif	(%)	Neset Ertas	(%)	Themes	Mahzuni Serif	(%)	Neset Ertas	(%)
World	35	33	75	25.5	Love	2	28.5	89	67.5
Poverty	24	22.5	13	4.4	Friend	-	-	17	12.9
Love	20	18.7	91	31	Mother	-	-	14	10.6
Ignorance	8	7.4	10	3.5	Soft answer	-	-	8	6
Longing	7	6.6	65	22.1	Spring	-	-	4	3
Death	3	2.7	10	3.4	Misery/remedy	5	71.5	-	-
Slavery	5	4.6	9	3					
Injustice	4	3.6	-	-					
Separation	-	-	21	7.1					
Sub-total	106		294			7		132	
Total	400					139			

Mahzuni uses "world" the most as a concept to evoke suffering (f: 35). According to him, it is a world of liars that hurts people. It is almost a cemetery and does not make him excited. He has never been happy in the world:

> *What they call the world is a cemetery*
> *I do not know when it makes me happy*
> *I'm a flower blooming in the vineyard of friendship*
> *The wind of the ignorant makes me wither*
> (Dünya dedikleri mezarlık imiş
> Bilmem ki ne zaman güldürür beni
> Bir çiçeğim verdim dostluk bağında
> Eser cahilin rüzgarı soldurur beni; Yağız, 1999, p. 99).
>
> *Do not disturb transitory life (world).*
> *It cozily hangs out.*
> *My tears are hidden to me*
> *It goes watering the troubled and the carefree*
> (Dokunma keyfine yalan dünyanın
> İpini eline dolamış gider
> Gözlerim yaşı bana gizlidir
> Dertliyi dertsizi sulamış gider; Yağız, 1999, p. 129).
>
> *My heart's mourning never ends*
> *What would I do with the world of the cruel?*
> *Not as good as an ant*
> *Those who lavish advice on me, oh dear!*
> (Bir zaman bitmiyor gönlümün yası
> Neyleyim ki dünya kahpe dünyası
> Bir karınca kadar yoktur faydası
> Bol keseden öğüt verenler vah vah; Yağız, 1999, p. 95).

Ertas also uses "world" 75 times in his poems to imply suffering. Like Mahzuni, he states that the world is a lie, a place where people cannot be happy and cannot find love:

> *Oh! In this fake world.*
> *I wanted to be happy but could not …*
> *The love of my strange heart*
> *I wanted to find it but could not …*
> (Ah şu yalancı dünyada
> Gülem dedim, gülemedim
> Garip gönlümün yarini
> Bulam dedim, bulamadım; Parlak, 2013, p. 313).

This world is a realm in which humans are always aggrieved:

> *A lonely man, troubled in the world …*
> *Set off upon drinking the poison of the suffering.*
> *Unfortunately, he failed to find the way,*
> *Confused on the way, leaving …*
> (Bir garip, dünyada derdin elinden
> Derdin zehrini içmiş, gidiyor.
> Ne çare ki, gidememiş yolundan
> Kaybetmiş yolunu; şaşmış, gidiyor; Parlak, 2013, p. 350).

For Ertas, the world is temporary and a big lie. We suffer all the time and cannot be happy and laugh in this world.

> *Are you the only one bewailing your fate? (x2)*
> *I could not be happy either in the fake world*
> *Do you think me happy?*
> *In the world stealing my life in vain*
> *Oh! In the fake world (x2)*
> *In the world pretending to smile at my face*
> (Hep sen mi yandın, hep sen mi yandın?
> Ben de gülemedim yalan dünyada
> Sen beni gönlünce mutlu mu sandın?
> Ömrümü boş yere çalan dünyada.
> Ah yalan dünyada, yalan dünyada.
> Yalandan yüzüme gülen dünyada; Parlak, 2013, p. 431).

3.1.2. Poverty

For both poets, poverty is an apparent reason for human suffering since those without sufficient financial means would be in a constant state of deprivation, suffering, and unhappiness.

"Poverty" is mentioned 24 times in Mahzuni's poems. In one of his poems, he states that some people are unfair to others, and that is why people become poorer:

> *Those cheating the poor of their rights never end*
> *More than flesh and blood can bear*
> *The brave is in need even of onions.*
> *I do not know, should I burst it out or not?*
> (Yoksulun sırtından doyan doyana.
> Bunu gören yürek nasıl dayana.
> Yiğit muhtaç olmuş kuru soğana.
> ilmem söylesem mi, söylemesem mi?; Yağız, 1999, p. 73).

Uttering that such injustices hurt people, the poet claims that the suffering would lead people to age:

> *Mahzuni Serif, kill your pain!*
> *Sometimes, find your remedy in misery*
> *Like Pir Sultans, the gallows*
> *I do not know, should I get hanged on or not?*
> (Mahzunî Serif'im dindir acını
> Bazan acılardan al ilacını
> Pir Sultanlar gibi darağacını
> Bilmem boylasam mı, boylamasam mı?; Yağız, 1999, p. 73).

Ertas also includes "poverty" 13 times in his poems. He states that the rich are much more valued in society and that the poor are not cared for and are despised:

> *Oh, my lonely, suffering friend!*
> *Why is not your spring or winter shadowless?*
> *Do you have—they do not ask—bread to eat?*
> *If you are rich, they say either Bey or Pasha*
> *If you are poor, they say either Abdal or Cingan* (Gypsy)*!*
> (Ey garip gönüllüm, dertli yoldaşım
> Niye belli değil baharın, kışın?
> Var mıdır, sormazlar; ekmeğin, aşın
> Zengin isen; ya Bey derler, ya Paşa
> Fakir isen; ya Abdal derler, ya Cingan hâşâ!; Parlak, 2013, p. 389).

> *They do not say, "Who asks about his condition?"*
> *They do not say, "He is low in the eyes of the ignorant."*
> *They do not say, "Who gives jobs to the lonely?"*
> *If you are rich, they say either Bey or Pasha*
> *If you are poor, they say either Abdal or Cingan* (Gypsy)*!*
> (Kim onun halını sormuş, demezler
> Cahilin gözünde hormuş, demezler
> Gariplere kim iş vermiş, demezler
> Zengin isen; ya Bey derler, ya Paşa
> Fakir isen; ya Abdal derler, ya Cingan hâşâ!; Parlak, 2013, p. 389).

3.1.3. Love

To love and be loved may be among the highest feelings one can experience in the world. However, when love is one-sided, the lover can suffer. Thereby, people falling in love are likely to confront all kinds of difficulties.

Mahzuni includes "love" 20 times in his poems. According to him, all kinds of troubles come to those falling in love:

> *I can no longer trust the tombstone*
> *The act of God is mysterious*
> *Do you know what happens to lovers?*
> *If you are afraid, do not be Mahzunî again!*
> (Artık güvenemem mezar taşına
> Akıl ermez şu Hüda'nın işine
> Neler gelir Asikların başına
> Korkarsan Mahzunî olma bir daha; Yağız, 1999, p. 67).

In another poem, he expresses suffering because of his love for a beautiful woman:

> *It is incomprehensible why God did this!*
> *Do you know what happens to the braves?*
> *I am burned of her moon face, crescent brow*
> *Ah! My life is running out.*
> (Akıl ermez oldu neden işine,
> Neler gelir yiğitlerin başına
> Yandım mah (ay) yüzüne hilâl kaşına
> Ah çektikçe ömrüm sökülmektedir; Yağız, 1999, p. 123).

In Ertas's poems, the most frequently used concept that evokes suffering is "love." He uses it 91 times in his poems and states that when love falls into one's heart, it burns and ruins it.

> *Flames of love captured my lonely heart*
> *This heart of mine is on fire, dear for you!*
> *The arrow of suffering sank into my lonely heart*
> *This heart of mine is bleeding, dear for you!*
> (Aşk ataşı düştü garip gönlüme
> Yanıyor bu. gönlüm, yar senin için
> Derdin oku battı garip gönlüme
> Kanıyor bu. gönlüm yar senin için; Parlak, 2013, p. 323).

Ertas says that love blows the lover's mind and that they will almost burn to ashes when falling in love:

> *Your love drove me crazy*
> *Burned and turned me into ashes*
> *Made me a slave to others*

> *Oh dear, me!*
> (Aşkın beni del'eyledi
> Yaktı, yaktı, kül eyledi
> El âleme kul eyledi
> Yar beni, beni beni; Parlak, 2013, p. 325).

3.1.4. Ignorance

Ignorance draws attention as a suffering-themed concept in both poets' works. While Mahzuni says eight times in his poems that ignorance hurts people, Ertas uses it 10 times in his poems.

Mahzuni describes the impact of ignorance thus:

> *Ignorance blew my mind*
> *And made me feel cheap*
> *We have no place in the world*
> *Hear us, father!*
> (Cehalet aklım uçurdu
> Beni yerlere geçirdi
> Yerimiz yoktur dünyada
> Duy baba duy duy; Yağız, 1999, p. 64).

In one of his poems, Ertas emphasizes that ignorance is the source of all kinds of troubles and almost dehumanizes people:

> *Because of illiteracy*
> *Ignorance comes out and spreads!*
> *Because of lovelessness and disrespect*
> *One gets tired of humanity!*
> (İlimsizlik, bilgisizlik yüzünden
> Cehalet hortlayıp çıkar mı çıkar!
> Sevgisizlik, saygısızlık yüzünden
> İnsan, insanlıktan bıkar mı bıkar!; Parlak, 2013, p. 435).

3.1.5. Longing

Referring to the desire to see something, a person, or a place, longing is intertwined with suffering in folk poetry. A longing person suffers because of a state of absence. While Mahzuni mentions "longing" seven times in his poems, it appears 65 times in Ertas's poems.

Mahzuni expresses his longing for his village as follows:

> *Oh! I've pined for seeing you, Bercenek* (Mahzuni's village)
> *Oh! Foggy, foggy our lands*
> *My tears have become full of ash*
> *Oh! Foggy, foggy our lands*
> *If I cry for them, they think I'm crazy*
> (Vay göresim geldi Berçenek seni
> Dumanlı dumanlı oy bizim eller
> Aktı gözüm yaşı oldu bir çanak
> Dumanlı dumanlı oy bizim eller
> Oturup ağlarsam delidir derler; Yağız, 1999, p. 64).

Ertas also states in one of his poems that longing for his loved one hurts him:

> *Heart's suffering, suffering for love*
> *Longing is tough*
> *One not suffering cannot know it*
> *Ask the meaning of suffering to sufferers*
> (Gönül derdi, yar derdi
> Hasret; yaman, zor deddi
> Onu çekmeyen bilmez
> Çekenlere sor, derdi; Parlak, 2013, p. 427).

3.1.6. Death

Acknowledged to be as natural in human life as birth, death does not bring happiness to people as much as birth. Since death is conceived of as a kind of separation, poets consider it to be among those concepts that bring suffering. While "death" is mentioned three times in the poems by Mahzuni, it appears 10 times in Ertas's poems.

Mahzuni states that many people die and are sent to cemeteries every year, which makes one suffer in this world:

> *Oh, the cemetery full of flesh*
> *Those coming to you never end*
> *Damn, big world!*
> *Those smashing each other never end*
> (Yürü bre bol mezarlık
> Her yılda varan varana
> Kahrolasın koca dünya
> Birbirin kıran kırana; Yağız, 1999, p. 96).

Ertas also conveys his longing for his father in his poem dedicated to his father:

> *I've come a long way, for my longing*
> *Where is my father, Muharrem?*
> *Why does my wounded nightingale not make a sound?*
> *Oh, my afflicted father; where is that Kerem* (kindness)*?*
> (Uzak yoldan geldim, hasretim için
> Hani, nerde babam, Muharrem nerde
> Yaralı bülbülüm ses vermez, niçin?
> Yüreği yanığım, o Kerem nerde?; Parlak, 2013, p. 489).

3.1.7. Slavery

Slavery also makes one suffer. While Mahzuni uses "slavery" five times in his poems, Ertas refers to this concept nine times in his works.

Stating that people have been suffering from slavery since the start of human existence, Mahzuni emphasizes his rebellion against this situation as follows:

> *Are you descended from Adam or Noah?*
> *My arm, where did you get this chain?*

> *I was a man too in this world of the cruel*
> *My arm, where did you get this chain?*
> (Adem'den mi geldin Nuh'tan mı kaldın?
> Kolum nerden aldın sen bu. zinciri
> Ben de bir adamdım kahpe dünyada
> Kolum nerden aldın sen bu. zinciri?; Yağız, 1999, p. 93).

Ertas also states that he lost his job, friends, and freedom when imprisoned:

> *I outstayed my welcome in prisons*
> *I lost my love, my friend*
> *Are all my buddies mad at me?*
> *Oh, prison! You burned me*
> *I wish I got rid of the guard's words*
> (Hapishanelere attım postumu
> Kayıp ettim yârenimi, dostumu
> Bütün ahbaplarım bana küstü mü?
> Yandım mahpushane, senin elinden
> Kurtulaydım gardiyanın dilinden; Parlak, 2013, p. 489).

3.1.8. Injustice

Injustice is among the conditions that hurt people. While one can identify it in four places in Mahzuni's verses, Ertas does not use it in his works.

Mahzuni emphasizes that people are likely to suffer in the absence of a conscientious distinction between right and wrong:

> *Unless justice from the conscience*
> *Unless the unjust is seen in the way of the Lord*
> *Unless a deputy gets tired like a peasant*
> *Neither bandit nor shepherd withers*
> (Vicdan adaleti kurulmadıkça
> Haksız hak yolunda görülmedikçe
> Mebus köylü gibi yorulmadıkça
> Ne eşkıya biter, ne çoban biter; Yağız, 1999, p. 65).

3.1.9. Separation

Finally, this study addressed separation as a feeling that causes people to suffer. Despite its necessity from time to time, separation often brings sorrow to people. While it is not included in Mahzuni's works, it appears 21 times in Ertas's poems.

Ertas states that separation is sorrowful and that he experienced it many times:

> *The pain of separation*
> *Have I suffered less (x2)?*
> *Its smoldering fire*
> *Have I suffered less (x2)?*
> (Ayrılığın acısını
> Az mi çektim, az mı çektim
> İçten içe sızışını
> Az mı çektim, az mı çektim; Parlak, 2013, p. 328).

3.2. Happiness in the poems of Mahzuni and Ertas

The findings revealed that in both poets' works, expressions implying happiness are used less often than those evoking suffering. In the poems analyzed, the researcher identified six themes implying happiness: love, friend, mother, soft answer, spring, and misery/remedy. While these concepts are repeated seven times in Asik Mahzuni Serif's poems, they are found 132 times in Ertas's works.

3.2.1. Love

Love may be considered the most prominent source of happiness for people. While it is mentioned only two times in Mahzuni's poems, it is included 89 times in Ertas's works, the most frequently cited happiness-themed concept.

In one of his poems, Mahzuni says that life will be much more appealing when people love each other:

> *When two hearts become one*
> *It will be a feast, a relief*
> *When two hearts engage in one joy*
> *It will be a feast, a relief*
> *One sacrifices himself for his friend*
> (İki gönül bir olunca
> Bayram olur seyran olur
> İki gönül bir sevince
> Bayram olur seyran olur
> Bir dost dosta kurban olur; Yağız, 1999, p. 161).

Ertas describes how love makes him happy and how it causes changes to his body and soul:

> *I've crossed the garden wall*
> *And knotted into ivy roses*
> *I've kissed, loved, and said goodbye to my lover*
> *Oh! I'm burning (x3)*
> *I'm fallen into the rosebud*
> *Persian shawl to her wasp waist*
> (Bahçe duvarından aştım
> Sarmasik güllere dolaştım
> Öptüm, sevdim, helalleştim
> Yanıyorum, yanıyorum, yanıyorum hele
> Mayil oldum gonca güle
> Acem şalı, ince bele; Parlak, 2013, p. 334).

3.2.2. Friend

Friendship occupies a substantial place in life since humans are social beings. Having a reliable friend brings happiness and confidence. While mentioned 17 times in Ertas's poems, this theme is not encountered in Mahzuni's works.

Ertas states that having a friend brings happiness and removes worries and sorrows:

> *When sending regards to friends*
> *When friends receive my greetings*
> *When the lover smiles at me*
> *Will there be suffering on Job's skin, for God's sake, hey!*
> (Dostlara selamı saldıktan keri
> Dostlar selamımız aldıktan keri
> Canan yüzümüze güldükten keri
> Dert kalır mı Eyüp teninde, ya hu, dost, ya hü!; Parlak, 2013, p. 384).

3.2.3. Mother

The fact that maternal affection is often cited in the works of Turkish literature may indicate its significance. Maternal affection is known to be a source of happiness. While "mother" is mentioned 14 times in Ertas's poems, it is not mentioned in Mahzuni's works.

Ertas emphasizes that one's mother is a great source of happiness and that she shines like the Sun:

> *You're a match for hearts*
> *You're a love burning in hearts*
> *You're the Sun to hearts*
> *You're divine light, Mother (x2)*
> (Her gönüle bir eşsin sen
> Kalpte yanan bir aşksın sen
> Gönlümüze güneşsin sen
> Nursun ana, nursun ana; Parlak, 2013, p. 361).

3.2.4. Soft answer

Fruitful human relations are attributed to kindness, delicacy, and grace. Many cultures even have a proverb saying, "A soft answer turns away wrath." People responding politely and elegantly may have an influence over others, which becomes a source of happiness for everyone engaged in such conversations. While "soft answer" is mentioned eight times in Ertas's poems, Mahzuni does not refer to it in the poems analyzed.

Ertas states that a soft answer will sweeten the mouth like honey; that is, the kind and elegant speech will have a positive and pleasing effect on people:

> *A thousand and one tastes for tongues*
> *All for humans*
> *They say sweet, for honey*
> *Nothing is sweeter than the lover*
> (Bin bir tat var. diller için
> Hepsi de kullar için
> Tatlı derler, ballar için
> Yardan tatlısı bulunmaz; Parlak, 2013, p. 488).

3.2.5. Spring

Spring is the season of revival referring to happiness. The blooming of flowers, the greening of trees, the warming of the weather, and the waking of animals from their hibernation in spring often evoke the joys of life. While "spring" is included four times in Ertas's poems, it is not mentioned in Mahzuni's works.

Ertas notes that flowers bloom and rose scents spread when spring comes. He regards it as a season that makes people happy:

> *Spring has arrived; all kinds of flowers have bloomed*
> *The rose in spring; how beautiful the rose is in spring*
> *Buds have bloomed, roses are sprinkled*
> *The rose in spring; how beautiful the rose is in spring*
> (Bahar gelmiş, türlü çiçek açılmış
> Baharda gül, gül, baharda ne güzel
> Açılmış goncalar, güller saçılmış
> Baharda gül, gül, baharda ne güzel; Parlak, 2013, p. 332).

3.2.6. Misery/remedy

If an individual learns lessons from adverse conditions and grows as a person, they will be able to cope with subsequent adverse events. Thus, people with robust traits try to turn something negative in their favor by learning from past experiences. While "misery/remedy" is mentioned five times in Mahzuni's works, it could not be found in Ertas's poems.

Mahzuni emphasizes that people can sometimes learn from their miseries and use them to "cure" themselves:

> *Mahzuni Serif, kill your pain!*
> *Sometimes, find your remedy in misery*
> *Like Pir Sultans, the gallows*
> *I do not know, should I get hanged on or not?*
> (Mahzuni Serif'im dindir acını
> Bazen acılardan al ilacını
> Pir Sultanlar gibi darağacını
> Bilmem boylasam mı, boylamasam mı?; Yağız, 1999, p. 73).

4. Discussion

Recent developments in positive psychology have evolved into the second and third waves, going beyond the individual and positive focus toward multi-cultures, complex systems, and the psychology of transcending suffering (Wong et al., 2022). Second-wave positive psychology (PP 2.0) has, especially, emphasized the importance of suffering for growth and wellbeing (Wong et al., 2021) and of understanding the expression of happiness in the cultural context (Wong, 2011). In addition, PP 2.0 focuses on suffering as the gateway to happiness (Wong, 2019) and underlines that happiness is impossible without overcoming the dark side of human life (Wong, 2020). Therefore, it is important to examine suffering and happiness in the cultural context to provide a better understanding of the association between these constructs. To this end, the present study aims to provide a further understanding of suffering and happiness in Turkish folk culture through a sample of poems by Asik Mahzuni Serif and Neset Ertas.

Poetry is a form of art that helps people to express feelings, thoughts, and suffering, which may also be an effective intervention for improving mental health and wellbeing (McArdle and Byrt, 2001; Tegnér et al., 2009). Although the mechanism by which happiness works remains elusive, cultures are known to exert a substantial influence on the attributions of happiness. Given that culture is an individual's lifestyle in the simplest sense (Taylor, 1871), folk poetry may be among its integral features. Findings from this study have supported this notion, indicating that suffering is *the gateway to happiness* (Wong, 2019). Suffering is mentioned more than happiness in the poems. Consistent with the second-wave positive psychology approach (Wong, 2011, 2019), the results have suggested that suffering is essential to establish flourishing, and people can make a better life by accepting and overcoming suffering.

While suffering was mentioned 400 times in the poems, happiness appeared 139 times. The concepts clustered under the theme of suffering were identified as the world, poverty, love, ignorance, longing, slavery, injustice, and separation. Of these, the world was cited most often in the works of Mahzuni (f: 35), although Ertas also used it extensively (f: 75). Both poets used the concept of the world in a social sense and state that the world is a painful place for people. Poverty was used more extensively in Mahzuni's poems (f: 24) than in Ertas's (f: 13). The same applied to injustice (f: 4 and 0, respectively). Although it might be thought that Mahzuni tends toward more social issues, similar frequencies of the use of ignorance (f: 8 and 10, respectively) and slavery (f: 5 and 9, respectively) in both poets' works imply that Ertas is not insensitive to social issues either. The poems also included the concepts of longing and death in relation to suffering. Finally, the concept of separation, which was not mentioned in Mahzuni's works but used 21 times in Ertas's poems, can also be considered an element leading to individual suffering. These results suggest that, in Turkish folk poetry, poets often reflect social troubles, sorrows, and happiness. While sometimes expressing misery in regard to disasters and adverse social events where people are harmed, folk poets also sometimes convey love through the arrival of spring and happiness in their poems.

Previous research on Ertas's works (Akgün, 2006; Parlak, 2013; Aktaş and Şimşek, 2014) has consistently reported that he is a poet of suffering and misery; it has always mentioned the cries of suffering in his poems called "Bozlak." Mahzuni also mainly addresses societal problems, troubles, and suffering. For this reason, it can be concluded that the concepts of ignorance, slavery, injustice, and poverty are more evident in both poets' works in relation to the theme of suffering, a finding that overlaps with the views of Yağız (1999) and Parlak (2013). However, it is interesting that Mahzuni rarely adopted happiness-oriented concepts in his works. While he used such images only seven times in his poems, they appear 132 in Ertas's works. The most frequently used happiness-oriented concept in Ertas's works was determined to be love (f: 89), but only two poems of Mahzuni included this concept. Moreover, the concepts of the friend (f: 17), mother (f: 14), soft answer (f: 8), and spring (f: 4), which appeared in Ertas's works, could not be found at all in Mahzuni's poems. It can be concluded that Ertas adopted these concepts in relation to the poet himself. In addition, the concept of misery/remedy was identified in the poems of Mahzuni but not in those of Ertas. From the perspective of positive psychology, Mahzuni emphasizes that suffering is a cause of upsets but also an important source of building resilience, which, in turn, can produce happiness. In other words, an individual can grow with the help of the experience of suffering so that that misery can become a remedy.

In summary, both poets extensively used the suffering theme in their poems and paid less attention to the happiness theme. This may be due to both poets' adverse experiences during their lifetime. Considering the Turkish cultural context, suffering is also a key source of growth, resilience, and flourishing for human beings. According to both poets, life is short and temporary. In the world, we constantly witness all kinds of injustice, and we suffer because of what we go through. From this point of view, although the world seems not to be a place of happiness for either poet, we should persist in life with an attitude of love, consider negatives as an opportunity to grow, and try to realize ourselves since the negatives in this short life are all temporary.

5. Conclusion and limitations

The present study aimed to explore suffering and happiness in the poems of two prominent representatives of Turkish folk poetry in the 21st century, Asik Mahzuni Serif and Neset Ertas, in the context of second-wave positive psychology. The study results have first revealed that suffering is an inescapable part of human life and is widely utilized in Turkish folk poetry. Then, suffering is a cause of upsets but also an important source of building resilience, which, in turn, can produce happiness. These findings suggest that suffering makes people stronger and better, and the best way to achieve durable happiness is to overcome suffering. However, further research needs to provide a deep understanding of the relationship between suffering and happiness in the cultural context. For instance, folk poetry as a therapeutic intervention may improve resilience and happiness, which, in turn, reduces suffering; however, randomized control studies are needed.

The results of this study should also be considered in light of some limitations. First, the study is limited to the data obtained from the poems of Mahzuni and Ertas. Therefore, future studies could be examined the poems by different poets in the Turkish culture to provide a deep understanding of the link between poems and positive psychology. Furthermore, research might be provided comparisons with poets from other countries, other classes, and genders. Next, both poets are considered contemporary folk poets; therefore, further research can be recommended to explore the poems by classical folk poets and to compare the results with those obtained in this research. In this

way, it may be convenient to identify the themes that dominate particular centuries and to discuss the period-specific conditions.

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

AG and GA contributed to the design of the study. AG wrote the introduction, results, and discussion sections. GA edited and improved the manuscript. All authors contributed to the article and approved the submitted version.

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.

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Cultural values and changes in happiness in 78 countries during the COVID-19 pandemic: An analysis of data from the World Happiness Reports

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The concept of happiness is consistent across cultures to a significant extent, and encompasses both internal (subjective) and external (situational) aspects. Cultural values and norms shape emotions and behavior from an early age, and hence play a key role in influencing cross-national variations in happiness. Cross-national variations in culture can thus play a key role in influencing the relationship between adverse circumstances, such as the COVID-19 pandemic, and happiness. The current study examines the relationship between the six dimensions of culture, defined by Hofstede and his colleagues, and subjective ratings of happiness in 78 countries, obtained before (2017–19) and during (2020–21) the COVID-19 pandemic, based on data from the most recent World Happiness reports. The key results were: (a) countries were as likely to experience an increase as a decrease in self-reported happiness during this period; (b) distinct domains of culture were significantly correlated with happiness at each time point, though there was a certain degree of overlap; (c) pre-pandemic levels of happiness were negatively associated with changes in happiness during the pandemic; and (d) among cultural dimensions, long-term orientation was positively associated with changes in subjective happiness, while indulgence was negatively associated with this variable. Certain cultural values may play an important part in fostering a path to well-being in the face of stressful or traumatic circumstances. This path may be similar to the concept of mature happiness, derived from existential philosophy, which is characterized by achieving a balance between the positive and negative aspects of one's life.

KEYWORDS

happiness, culture, individualism–collectivism, power distance, long-term orientation, uncertainty avoidance, indulgence versus restraint, masculinity-femininity

Introduction

Definitions of happiness vary across nations and cultures, but share certain core features. While happiness is commonly understood as satisfaction with one's life, cross-national research has shown that happiness is a heterogeneous construct, incorporating both subjective, psychological dimension and broader social, relational, or contextual dimension (Uchida and Ogihara, 2012; Delle Fave et al., 2016; Cabanas and Gonzalez-Lamas, 2022). Other aspects of happiness, such as those relating to economic or social success, have been identified in empirical research (Doh and Chung, 2020); however, these two dimensions, which can be considered to reflect "inner harmony" and "social harmony," appear to have primacy over the others. At the most fundamental, biological level, both

aspects of happiness can be understood in terms of the molecular and neural mechanisms that regulate positive emotions and social behavior, and their evolutionary origins (Burgdorf and Panksepp, 2006; Niculescu et al., 2010). However, these lower-order factors are themselves shaped by cultural factors, which influence the degree of importance assigned to the subjective and contextual dimensions of happiness (Matsunaga et al., 2018). Some aspects of happiness appear to be similar in diverse cultural settings, even in childhood (Song et al., 2020), while others have been found to vary across cultures from the earliest stages of the life cycle (Rajhans et al., 2016; Liu et al., 2021). These variations are due to differences in parenting practices, and in the beliefs and rules governing both personal and social conduct and the evaluation of life events (Jordan and Graham, 2012; Simsek and Demir, 2014; Rudan et al., 2016; Reyes-Garcia et al., 2021; von Suchodoletz and Hepach, 2021; Wang, 2022). All of these are fundamentally "rooted in culture and tradition" (Daniels, 2019). Therefore, while the dimensions of happiness appear to be uniform across diverse cultures, culture can shape both the manner in which happiness is pursued (Ho et al., 2014) and the relationship between efforts to seek happiness and subjective well-being (Ford et al., 2015). A corollary of these observations is that as cultures change, these relationships are also modified (Timimi, 2010; Fuchsman, 2016).

The global COVID-19 pandemic has led to a deeper understanding of these concepts of happiness. As a global health crisis of unprecedented proportions, accompanied by widespread disruptions of social and economic life, this pandemic has been associated with elevated levels of subjective psychological distress (Cenat et al., 2021). In such a situation, one would logically expect a significant and widespread decrease in both subjective and situational happiness. However, this has not been the case. Surveys conducted among the general population in several countries, including Ecuador, Japan, Spain, and South Africa, found that a significant proportion of respondents reported average or even increased levels of happiness (Greyling et al., 2021; Gutierrez-Cobo et al., 2021; Kimura et al., 2022; Paz et al., 2022). Moreover, even in studies reporting a decrease in self-reported happiness, this change was modest; a study of over 8,000 Chinese adults found that mean happiness decreased by an average of 0.6% from the pre-pandemic period to the first year of the pandemic (Lin et al., 2021), while a study of respondents from 43 countries found that despite a slight decrease in average happiness, there were expectations of increased happiness in the near future (Muresan et al., 2022). This seemingly paradoxical finding can be explained if one considers that happiness is not a static but a dynamic phenomenon, and that mature happiness can be experienced even in the midst of adversity through a process of adaptation (Cloninger et al., 2012). The processes involved in this dynamic adaptation have been referred to by various terms, such as resilience, flourishing, salutogenesis, and post-traumatic growth; however, there is a significant degree of overlap between these constructs (Beckstein et al., 2022). More recently, existential positive psychology (PP2.0) has provided a framework within which these phenomena can be understood and applied at the psychological, social, and spiritual levels (Wong et al., 2021).

When studying the relationship between culture and happiness, it is important to distinguish between fine-grained, "micro"-level analyses, such as examinations of the relationship between parenting practices and subjective happiness in childhood, and broader, "macro"-level analyses (Ye et al., 2015). In the latter approach, cross-cultural variations in happiness are studied in terms of differences across one or more orthogonal dimensions identified through the analysis of large, multi-country data sets. One such approach that has been used in happiness studies is Hofstede's six-factor model, in which a nation's culture is described in terms of six dimensions: power distance, individualism–collectivism, masculinity-femininity, uncertainty avoidance, long-term orientation and indulgence vs. restraint (Hofstede et al., 2010). A detailed description of these cultural dimensions, and their potential relationships with happiness, is provided in Table 1 below.

The psychological processes involved in adaptation to crises, and to the maintenance of happiness in the face of adversity, mechanisms are strongly influenced by cultural values and attitudes (Lawley et al., 2019; Mayer and Oosthuizen, 2020). For example, cultural collectivism has been associated with increased resilience following bereavement (Ariapooran et al., 2018). However, certain aspects of adaptation to adversity appear to be independent of culture (Mana et al., 2021), and it is not known which specific cultural dimensions contribute to happiness in the face of a global crisis.

Changes in happiness during a crisis such as the COVID-19 pandemic are also influenced by other demographic and psychological variables. These include economic development, social support, and a prior history of psychiatric illnesses such as depression and anxiety disorders (Osawa et al., 2022; Shams and Kadow, 2022). Economic factors may also indirectly affect happiness through their influence on the severity of the COVID-19 pandemic in a given country or region (Chang et al., 2022). An increase in the number of deaths due to COVID-19 is also associated with a consistent decrease in population levels of happiness over time (Greyling et al., 2021). Therefore, analyses of the relationship between culture and happiness over the course of the pandemic should be corrected for these potential confounding factors.

The aim of the current study was to examine whether national scores on each of Hofstede's cultural dimensions were associated with changes in national levels of happiness during the COVID-19 pandemic, while correcting for the aforementioned confounders.

Methods

The current study was a cross-national, ecological analysis of the relationship between Hofstede's six dimensions of culture and levels of happiness at the national level, before and after the onset of the COVID-19 pandemic. Both cross-sectional and longitudinal analyses were performed.

Data sources

Happiness

Data on estimated national levels of happiness were obtained from the World Happiness Report for the year 2021. The World Happiness Reports, which have been published annually from the year 2012 onward, are compiled by a panel of independent experts. These reports provide rankings of happiness for over 90 countries around the world based on a wide range of data, particularly the Gallup World Polls which collect data on subjective happiness and life satisfaction from each country (Helliwell et al., 2021). The 2021 report was selected because it provided composite indices of average national ratings of happiness for both the pre-COVID period (2017–2019) and the period following the onset of the COVID-19 pandemic (2020–2021) for a total of 95 countries. The happiness scores for each country range from 0 to 10, with higher scores indicating greater levels of self-reported happiness.

TABLE 1 Hofstede's six-factor model of culture and its relationship to happiness.

Factor	Definition	Scoring	Relationship with happiness
Power distance	The degree to which less powerful members of a society accept and expect inequality in power distribution.	Higher scores indicate a more "hierarchical" organization of society (e.g., Malaysia, with a score of 100) and lower scores indicate a more "egalitarian" society (e.g., Austria, with a score of 11)	High power distance has been negatively associated with subjective happiness in pre-pandemic research (Ye et al., 2015)
Individualism–collectivism	The degree to which society accords relative privilege to the individual or the wider social group / community	Higher scores indicate greater individualism (e.g., the United States, with a score of 91) and lower scores indicate collectivist values (e.g., Guatemala, with a score of 6).	Individualism may be associated with reductions in the interpersonal dimension of happiness (Ogihara and Uchida, 2014)
Masculinity-femininity	A social preference for either achievement, assertiveness, and competitiveness (masculinity) or care, nurturing and cooperation (femininity)	Higher scores indicate more masculine values (e.g., Slovakia, with a score of 100), and lower scores indicate more feminine values (e.g., Sweden, with a score of 5).	No significant associations between this dimension and happiness have been reported to date (Ye et al., 2015)
Uncertainty avoidance	The degree to which members of a society are comfortable with uncertainty and ambiguous situations	High scores indicate less comfort with ambiguity and a greater need for certainty and clarity (e.g., Greece, with a score of 100), and lower scores indicate a better ability to improvise in ambiguous situations (e.g., Singapore, with a score of 8)	High Uncertainty Avoidance may be associated with increased levels of unhappiness in relation to social change (Hofstede et al., 2010); however, an analysis of cross-national data found a positive association between this dimension and happiness (Ye et al., 2015)
Long-term orientation	Indicates a preference for pragmatism, modernity, perseverance and delayed gratification (future orientation), as opposed to traditionalism and resistance to change	Higher scores indicate a greater "future" orientation and pragmatism (e.g., the Republic of Korea, with a score of 100), while lower scores indicate a "past" orientation (e.g., Ghana, with a score of 4).	Higher Long-Term Orientation may moderate the association between economic status and happiness (Graafland, 2020)
Indulgence-restraint	The extent to which a society allows gratification of human drives related to pleasure or enjoyment	Higher scores indicate greater freedom to gratify desires for pleasure (e.g., Venezuela, with a score of 100), while lower scores indicate strict social norms and social disapproval of such desires (e.g., Pakistan, with a score of 0).	Indulgence has been positively associated with subjective happiness (Li et al., 2022) and prosocial behavior (Guo et al., 2018)

Cultural dimensions

Data on Hofstede's dimensions of culture was obtained from the Hofstede Insights database, which provides scores on each of Hofstede's six cultural dimensions for a total of 115 countries (Hofstede Insights, 2022). Each cultural dimension is assigned a score from 0 to 100, with lower or higher scores indicating a cultural orientation toward a particular "pole." A description of these scores is provided in Table 1. For example, for the dimension "masculinity-femininity," higher scores indicate a more masculine cultural orientation (characterized by an emphasis on achievement), and lower scores indicate a more feminine orientation (characterized by an emphasis on care and nurturing). Of the 115 countries covered by this database, 78 were also included in the World Happiness Report for 2021. These 78 countries were included in the current study.

Confounding factors

*I*n order to ensure that any observed associations between cultural values and happiness were not incidental, all analyses were corrected for certain confounding factors. The first of these the number of deaths related to the COVID-19 pandemic in each country, as measured by the estimated crude mortality rate and case-fatality ratio. Information on these variables was obtained as of March 20, 2021 (the date of the publication of the World Happiness Report) from the Johns Hopkins Coronavirus Resource Center (Johns Hopkins University of Medicine, 2022). The second was the general level of socioeconomic development achieved by each country as of 2019, prior to the onset of the COVID-19 pandemic. This was estimated using the Human Development Index, a composite measure of education, income, and life expectancy, obtained from the United Nations' Human Development Report for the year 2019 (United Nations Development Programme, 2019). The third was the estimated prevalence of common mental disorders (depression and anxiety disorders) in each country for the year 2019. This variable was selected in view of the negative correlation between these disorders and self-reported happiness observed by earlier researchers (Keyes, 2005), as well as the finding that those with pre-existing mental disorders are more likely to experience psychological distress during the pandemic (Millroth and Frey, 2021). Data on this variable was obtained from the Global Burden of Disease Study 2019 (Institute for Health Metrics and Evaluation, 2022).

Data analyses

Study variables were tested for normality using the Shapiro–Wilk test. As the COVID-19 mortality indices (crude mortality rate and case fatality rate) did not follow a normal distribution ($p < 0.01$, Shapiro–Wilk test), these variables underwent a natural logarithmic transformation prior to further analyses.

TABLE 2 Correlation matrix of associations between national happiness scores, Hofstede's cultural dimensions, and potential confounding before and during the COVID-19 pandemic.

Variable	1 H17	2 H20	3 PD	4 IC	5 MF	6 UA	7 LTO	8 IVR	9 HDI	10 ANX	11 DEP	12 CMR	13 CFR
1	–	0.94†	−0.60†	0.60†	−0.12	−0.09	0.13	0.45†	0.82†	0.47†	−0.11	0.24*	−0.31†
2		–	−0.63†	0.66†	−0.16	−0.13	0.27*	0.31†	0.84†	0.39†	−0.08	0.20	−0.33†
3			–	−0.74†	0.20	0.40†	0.06	−0.38†	−0.57†	−0.46†	−0.23*	−0.01	0.32†
4				–	−0.02	−0.38†	0.13	0.21	0.65†	0.40†	0.21	0.16	−0.21
5					–	0.02	0.01	0.04	−0.12	−0.11	−0.18	−0.05	0.24*
6						–	0.18	−0.25*	0.04	−0.08	−0.27*	0.40†	0.18
7							–	−0.49†	0.36†	−0.24*	−0.32†	0.19	0.06
8								–	0.15	0.34†	0.12	−0.12	−0.15
9									–	0.43†	−0.14	0.37†	−0.26*
10										–	0.35†	0.15	−0.09
11											–	−0.15	−0.10
12												–	0.26*

H17, World Happiness Report score (2017–18); H20, World Happiness Report score (2020–2021); PD, Power Distance; IC, Individualism–Collectivism; MF, Masculinity-Femininity; UA, Uncertainty Avoidance; LTO, Long-Term Orientation; IVR, Indulgence Versus Restraints; HDI, Human Development Index (2017); ANX, prevalence of anxiety disorders (Global Burden of Disease Study, 2017); DEP, prevalence of depression (Global Burden of Disease Study, 2017); CMR, COVID-19 crude mortality rate; CFR, COVID-19 case fatality ratio. *Significant at $p < 0.05$; †Significant at $p < 0.01$.

Cross-sectional analyses

Associations between each of the six cultural dimensions of Hofstede's model and average happiness scores for each country were computed using Pearson's correlation coefficient (r) for the pre-pandemic (2017–19) and pandemic (2020–21) periods. Correlation coefficients between happiness scores and potential confounding factors (COVID-19 mortality indices, Human Development Index, and prevalence of common mental disorders) were also computed. Based on these results, partial correlation analyses were then carried out to examine if any of the relationships between culture and happiness remained significant after correcting for confounders significantly associated with either variable. The strength of each correlation was quantified using standard guidelines for psychological research as follows: absolute value of r ($|r|$) = 0.1–0.39, weak correlation, $|r| = 0.4$–0.69, moderate correlation, and $|r| = 0.7$–0.99, strong correlation (Akoglu, 2018).

Longitudinal analyses

The paired samples t-test was used to examine whether there was a significant change in happiness scores across countries between the periods 2017–19 and 2020–21. Countries were then categorized according to whether their happiness score had increased or decreased during the COVID-19 pandemic, and the percentage change in happiness score was computed for each country. Mean differences in baseline cultural dimensions and in confounding variables between these two groups of countries were examined using the independent samples t-test. A cross-lagged regression analysis was carried out to examine whether the relationship between culture and happiness was suggestive of a causal relationship. This possibility was further explored using an analysis of covariance (ANCOVA) using any confounding factors that differed significantly between groups as covariates. Finally, the correlations between changes in happiness scores and cultural dimensions were examined using Pearson's r (unadjusted and adjusted for confounders).

All tests were two-tailed, and a significance level of $p < 0.05$ was used for all analyses.

Results

A total of 78 countries were included in the current analysis, including 38 countries from Europe, 16 from the Asia-Pacific region, 13 from the American continent, and 11 from Africa. Mean happiness scores, given as mean (standard deviation), were 5.91 (1.05) in 2017–19, with a maximum of 7.81 (Finland) and a minimum of 3.48 (Tanzania). In 2020–21, the corresponding value was 5.94 (0.96), with a maximum of 7.89 and a minimum of 3.79 in the same countries, respectively. Happiness scores at both time points were very strongly correlated with each other ($r = 0.94$, $p < 0.001$).

Cross-sectional associations between cultural dimensions and happiness scores

Results of the correlations between happiness scores and Hofstede's cultural dimensions, as well as between these scores and potential confounding variables, are presented in Table 2. It can be seen that at both time points, happiness scores were positively correlated with scores on the cultural dimensions of Individualism–Collectivism and Indulgence-Restraint. In other words, higher individualism and higher indulgence were associated with higher happiness scores. On the other hand, scores on the cultural dimension of Power Distance were negatively correlated with happiness scores at both periods, suggesting that high Power Distance was negatively associated with happiness. For the period 2020–21 alone, corresponding to the COVID-19 pandemic, the cultural dimension of Long-Term Orientation was positively correlated with happiness scores, though the strength of this correlation was weak ($r = 0.27$).

When examining confounding variables, the Human Development Index and the prevalence of anxiety disorders were positively correlated with happiness scores; the former correlation ($r = 0.82$ to 0.84) was strong, while the latter was moderate ($r = 0.39$ to.47). During the

TABLE 3 Cross-lagged regression analysis of the relationship between Hofstede's cultural dimensions and national happiness scores before and during the COVID-19 pandemic.

Cultural dimension	Correlation with 2017–18 happiness score	Correlation with 2021–21 happiness score	Inference
Power distance	−0.60 (<0.001)	−0.63 (<0.001)	No causal relationship
Individualism–collectivism	0.60 (<0.001)	0.66 (<0.001)	No causal relationship
Masculinity-femininity	−0.12 (0.280)	−0.16 (0.160)	No causal relationship
Uncertainty avoidance	−0.09 (0.417)	−0.13 (0.273)	No causal relationship
Long-term orientation	**0.13 (0.291)**	**0.27 (0.023)**	**Possible causal relationship**
Indulgence vs. restraint	0.45 (<0.001)	0.31 (0.008)	No causal relationship

All correlation coefficients are given in the form: Pearson's *r* (*p* value). Values in **bold** indicate a possible causal relationship (i.e., a significant correlation between pre-pandemic cultural scores and pandemic happiness scores, but not the converse).

TABLE 4 Bivariate correlations between Hofstede's cultural dimensions and the percentage of change in national happiness scores from 2017–18 to 2020–21.

Cultural dimension	Power distance	Individualism–collectivism	Masculinity-femininity	Uncertainty avoidance	Long-term orientation	Indulgence vs. restraint
Correlation with change in happiness scores	0.10 (0.398)	−0.04 (0.739)	−0.06 (0.597)	−0.10 (0.410)	0.27 (0.020)*	−0.44 (<0.001)†
Correlation with change in happiness scores, adjusted for baseline prevalence of anxiety disorders	−0.06 (0.608)	0.10 (0.379)	−0.10 (0.369)	−0.13 (0.271)	0.21 (0.072)	−0.36 (0.002)†

All correlation coefficients are presented as Pearson's r or partial r (value of p). *Significant at $p < 0.05$; †Significant at $p < 0.01$.

pandemic, COVID-19 case fatality rate was negatively correlated with happiness scores. There was no observed correlation between COVID-19 crude mortality rates and happiness.

Partial correlation analyses

Given the positive associations of happiness scores with the Human Development Index and the prevalence of anxiety disorders, partial correlation analyses of the relationships between happiness scores and cultural dimensions were carried out holding these two factors constant. In these analyses, the happiness score in 2017–18 was negatively correlated with Power Distance (partial $r = -0.24$, $p = 0.039$) and Long-Term Orientation (partial $r = -0.25$, $p = 0.035$) and positively correlated with Indulgence versus Restraint (partial $r = 0.55$, $p < 0.001$). The happiness score in 2021 was negatively correlated with Power Distance (partial $r = -0.34$, $p = 0.003$) and Uncertainty Avoidance (partial $r = -0.29$, $p = 0.011$) and positively correlated with Individualism–Collectivism ($r = 0.27$, $p = 0.017$) and Indulgence versus Restraint ($r = 0.33$, $p = 0.005$). In other words, the associations between two specific cultural dimensions (Power Distance and Indulgence versus Restraint) and national happiness were consistent over time and retained significance even after adjustment for confounders.

Changes in happiness during the pandemic

When comparing mean happiness scores from 2017–19 to 2020–21, it was found that there was no significant difference in this variable across time points (paired-samples $t = -0.87$, $p = 0.388$, $df = 77$). Though there was a slight increase in the mean happiness score, this was modest in magnitude (Cohen's $d = 0.1$) and not statistically significant.

When comparing happiness before and during the pandemic, it was found that an equal number of countries ($n = 39$ in each case) showed an increase or a decrease in happiness scores. The mean percentage change in happiness scores was 1.22 ± 7.36%, with a maximum decrease of-15.42% seen in the Philippines and a maximum increase of 28.7% observed in Zambia.

When these countries were compared in terms of baseline (pre-pandemic) characteristics, it was found that countries with an increase in happiness had significantly higher scores on Long-Term Orientation ($t = 2.28$, $p = 0.025$) and lower scores on Indulgence versus Restraint ($t = -4.3$, $p < 0.001$). Among confounding factors, only the pre-pandemic prevalence of anxiety was significantly lower in countries reporting an increase in happiness ($t = -2.51$, $p = 0.014$). It was also observed that countries with a decrease in happiness scores over this period had significantly higher pre-pandemic happiness scores ($t = 3.24$, $p = 0.002$).

Longitudinal associations between cultural dimensions and changes in happiness during the pandemic

Three methods were adopted to test the hypothesis of a relationship between Hofstede's cultural dimensions and changes in happiness during the COVID-19 pandemic. The first method adopted was a cross-lagged regression analysis, the results of which are presented in Table 3. From this analysis, it can be seen that only the cultural dimension of Long-Term Orientation showed a possible causal relationship with happiness scores, as indicated by a positive prospective correlation but no significant correlation in the opposite direction.

The second method was a bivariate correlation analysis of the relationship between cultural dimension scores and the percentage of change in happiness scores during the pandemic. The results of these correlations are presented in Table 4. In these analyses, Long-Term

TABLE 5 Analyses of covariance of the association between Hofstede's cultural dimensions and changes in happiness scores during the COVID-19 pandemic.

Independent variable	Covariates	Result for independent variable	Result for covariates
Indulgence vs. restraint	LTO, Anxiety	$F = 9.44$, $p = 0.003$**	LTO: $F = 13.40$, $p < 0.001$** Anxiety: $F = 2.15$, $p = 0.147$
Long-term orientation	IVR, Anxiety	$F = 0.03$, $p = 0.869$	IVR: $F = 13.40$, $p < 0.001$** Anxiety: $F = 0.53$, $p = 0.468$

Countries were compared based on whether happiness scores increased or decreased during the pandemic. Abbreviations: Anxiety, estimated prevalence of anxiety disorders (%) as per the Global Burden of Disease Study, 2019; IVR, Indulgence vs Restraint; LTO, Long-Term Orientation. * Significant at $p < 0.05$; ** Significant at $p < 0.01$.

Orientation was positively correlated with changes in happiness ($r = 0.27$, $p = 0.02$), while Indulgence vs. Restraint was negatively correlated with changes in happiness ($r = -0.44$, $p < 0.001$). The association between Indulgence vs. Restraint and changes in happiness remained significant when controlling for Long-Term Orientation (partial $r = -0.37$, $p = 0.002$), but the converse was not true (partial $r = 0.07$, $p = 0.566$). When adjusting for the possible confounding effects of the prevalence of anxiety disorders before the pandemic, the association with Indulgence versus Restraint remained significant ($r = -0.36$, $p = 0.002$), but the association with Long-Term Orientation was reduced to a trend ($r = 0.21$, $p = 0.072$).

The third and final method was an analysis of covariance (ANCOVA) using Indulgence vs. Restraint and Long-Term Orientation as the dependent variables and the percentage of change in national happiness scores as the independent variable. The results of these analyses are presented in Table 5. When Indulgence vs. Restraint was taken as the dependent variable, it remained significantly different across groups, and the association with Long-Term Orientation was also found to be significant. When Long-Term Orientation was taken as the dependent variable, it was not significantly different across groups, though a meaningful effect of Indulgence vs. Restraint was identified. The prevalence of anxiety disorders was not significantly associated with between-group differences in either model.

Discussion

In the early stages of the COVID-19 pandemic, concerns were raised that this unprecedented crisis would lead to a rapid increase in mental ill-health and a decrease in subjective happiness (Rose et al., 2020). These concerns appeared to be corroborated by reports during this time period. For example, a survey of Chinese adults found that the onset of the pandemic was associated with a decrease in subjective happiness of over 70% (Yang and Ma, 2020), while a similar survey of adults in Spain found that 44% of respondents reported a decrease in feelings of optimism and positivity (Hidalgo et al., 2020). However, even at this stage, some researchers felt that such concerns were overstated, and that even if an increase in distress or unhappiness was observed, it was likely to vary markedly across populations, and to reflect the combined influence of baseline social and economic factors alongside pandemic-related factors (Rose et al., 2020). The subsequent course of events has tended to support the latter view: deteriorations in mental health status have been far from uniform (Shevlin et al., 2021), and increases in life satisfaction and happiness have been reported from diverse geographical regions, particularly in the later stages of the pandemic (Greyling et al., 2021; Gutierrez-Cobo et al., 2021; Henseke et al., 2022; Kimura et al., 2022; Paz et al., 2022). Moreover, it was observed that in certain settings, individuals came to value the interpersonal or relational dimension of happiness to a greater extent than they did pre-pandemic (Bimonte et al., 2022).

Both the experience of happiness, and its relationship to adversity, are crucially shaped by cultural values. Though various definitions of culture have been proposed, Hofstede has conceptualized cultural values as "software of the mind" which are not biologically determined, but have evolved in response to environmental and human challenges in a historically contingent manner (Hofstede et al., 2010). In fact, there is evidence that past outbreaks of infectious disease may have influenced the development of specific cultural values: regions with a higher burden of such diseases may have "evolved" a more collectivist orientation in order to cope more effectively with them (Fincher et al., 2008; Shapouri, 2022). However, most research in this field has focused on Individualism–Collectivism and not on other dimensions of culture that may be equally or even more important in influencing the behavioral and psychological responses to a large-scale crisis.

In the current study, certain cultural dimensions (Power Distance, Individualism–Collectivism, and Indulgence-Restraint) were significantly associated with happiness scores for each country both pre-and post-pandemic. However, when examining changes in happiness in the course of the pandemic, the cultural dimensions most strongly associated with this variable were Indulgence-Restraint, and to a lesser extent, Long-Term Orientation. This suggests that the cultural factors associated with a baseline or "stable" level of happiness are not necessarily the same factors that influence the relationship between adversity and happiness. This supposition is corroborated by the findings that countries with a higher pre-pandemic happiness score were more likely to experience a decrease in happiness during the pandemic. In the case of Indulgence-Restraint, a paradoxical phenomenon was observed: this cultural dimension was positively correlated with total happiness scores, but negatively correlated with changes in happiness during the pandemic. In the case of Long-Term Orientation, a correlation with happiness scores was observed only during the pandemic, and this dimension was positively correlated with changes in happiness.

Prior research on these dimensions suggests that Indulgence-Restraint is positively correlated, and Long-Term Orientation negatively correlated, with prosocial behavior (Guo et al., 2018). Therefore, it is possible that these aspects of culture may have influenced happiness in the opposite direction during a period of widespread social distancing and isolation (Su et al., 2022). Long-Term Orientation has also been found to moderate the relationship between economic freedom and subjective well-being (Graafland, 2020). Thus, it is possible that the personal values associated with this dimension, such as patience, perseverance, and delaying gratification, may have enabled individuals in such cultures to cope better with the economic hardships caused by the pandemic (Richards et al., 2022). On the other hand, Indulgence represents a tendency toward gratification of human desires, "enjoying" life, and having "fun" (Hofstede et al., 2010; Smith, 2011). This would explain why this dimension is associated with happiness during times of relative normalcy. However, the thwarting of these tendencies by an event such as the COVID-19 pandemic could conceivably lead to a decrease in subjective happiness

(Simon et al., 2022). However, this finding may not extend to the relational dimension of happiness: a global survey of over 9,900 parents found that Indulgence was negatively associated with parental burnout and unhappiness during the initial stages of the pandemic, with higher Indulgence predicting lower unhappiness (van Bakel et al., 2022).

In contrast to the findings relating cultural dimensions and happiness over the course of the pandemic, relatively few associations were found when examining possible confounding factors: the Human Development Index was associated with total happiness scores but not with changes in happiness, while the COVID-19 case-fatality ratio was negatively associated with total happiness scores. Among mental disorders, anxiety disorders, but not depression, were negatively associated with changes in happiness during the pandemic. The latter finding is unexpected, and a detailed exploration of its implications is beyond the scope of this paper. However, it has been observed that in cultures placing a high emphasis on the "pursuit of happiness" (i.e., high Indulgence), this "pursuit" may itself generate significant anxiety (Cloutier et al., 2020; Humphrey et al., 2021). Given that the prevalence of anxiety disorders was positively correlated with Indulgence, such findings may offer a possible explanation for this result.

Certain key limitations of this study should be borne in mind when interpreting its results. First, the findings are based on a particular model of culture and on estimates of specific parameters obtained from survey data, which necessarily involve a certain margin of error. Second, the World Happiness Report data provided information on the subjective dimension of happiness; therefore, it was not possible to examine the relationship between culture and other aspects of happiness. Third, due to the correlational nature of these results, firm conclusions regarding causality cannot be drawn. Fourth, it is possible that other confounding factors, such as economic inequality, religion, social support, spirituality, and even innate biological differences between populations, could account for some of the variation observed. Fifth, there was a relative under-representation of Asian and African countries in the study sample, which limits the extent to which these results can be generalized to non-Western cultures. Sixth, the period covered by the available data included only the first year of the pandemic: it is not known if these findings will remain significant over a longer period of time. Finally, these findings should not be taken as promoting the superiority of one culture over another. As mentioned earlier, cultural values represent historically contingent adaptations and compromises, and it is possible that the values identified as positively associated with happiness during the pandemic may have quite different consequences in other situations.

Nevertheless, the current study's results are in line with the proposal for a "new behavioral economics of happiness." Such a behavioral economics would extend beyond the pursuit of pleasure or subjective satisfaction, embrace the "hard questions" of dealing with suffering, and address not just the relational but the transcendental aspects of happiness (Wong et al., 2021). The COVID-19 pandemic has exposed certain hard truths about the limitations of pre-pandemic attitudes and beliefs. The cultural values that are consistent with the former, pre-pandemic model of happiness are not necessarily consistent with the latter. This has been demonstrated by a recent study of individuals from 30 different countries. In these individuals, a conventional model of happiness based on subjective and objective well-being did not protect against psychological distress during the pandemic, but a model based on mature happiness and adaptation to adversity was protective (Carreno et al., 2021). It is possible that a reduced emphasis on gratification of desires and subjective enjoyment, and a cultivation of the virtues associated with the cultural dimension of Long-Term Orientation, such as perseverance and the ability to delay gratification and look toward the future, could help in building and sustaining a more mature form of happiness among individuals and communities. It is also possible that, regardless of the cultural orientation of a given country, reliance on processes that transcend cultural variations could aid this process. These include a connection with Nature (Svoray et al., 2022) and the construction of a sense of meaning and purpose in the face of suffering (Mana et al., 2021).

Conclusion

The results of the current study suggest that certain dimensions of a nation's culture may influence their reported levels of happiness in the context of a global crisis. Though the findings of this study should be interpreted cautiously, they suggest that certain culturally determined values and patterns of behavior may influence a populations' capacity to adapt to such a crisis. The identification of these patterns of thought and conduct may be of use in building resilience and fostering adaptation in such situations, and such approaches could be profitably combined with more general, culturally invariant strategies aimed at fostering mature happiness in communities.

Data availability statement

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

Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

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Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyg.2023.1090340/full#supplementary-material

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Effects of positive reappraisal and self-distancing on the meaningfulness of everyday negative events

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Current work on meaning-making has primarily focused on major negative life events such as trauma and loss, leaving common daily adversities unexplored. This study aimed to examine how utilizing meaning-making strategies such as positive reappraisal and self-distancing (in isolation or in combination) can facilitate an adaptive processing of these daily negative experiences. Overall meaning and facets of meaning (coherence, purpose, and significance/mattering) were assessed at both global and situational levels. Results suggested that positive reappraisal was generally effective for enhancing situational meaning but not under all conditions. Specifically, when negative experiences were high on emotional intensity, reflecting on the experience from a distanced (third-person) perspective enhanced coherence and existential mattering more than engaging in positive reappraisal. However, when negative experiences were low on intensity, distanced reflection led to less coherence and mattering than positive reappraisal. The findings of this study elucidated the importance of examining the multidimensional construct of meaning at the facet level and highlighted the importance of applying different coping strategies to effectively make meaning out of daily negative experiences.

KEYWORDS

meaning in life, situational meaning, positive reappraisal, self-distancing, daily negative experiences

1. Introduction

Meaning—a sense of understanding, significance, and purpose—is central to human experience (Baumeister, 1991; Park and Folkman, 1997; Park, 2010). Under the extreme conditions of life in a concentration camp, Frankl (1984, 2011) observed that meaning in life (MIL) was critical for well-being and survival in the face of adversity. Numerous studies have found that meaning is associated with psychological health. For example, MIL is positively associated with happiness (Debats et al., 1993) and life satisfaction (Steger et al., 2008), and negatively related to depressive and anxiety symptoms (Ishida and Okada, 2006). Those who believe their lives are meaningful tend to exhibit a lower incidence of psychological disorders and lesser suicidal ideation than those who believe their lives are meaningless (Owens et al., 2009; Steger and Kashdan, 2009).

As distressing experiences may disrupt one's sense of meaning (such as whether life continues to be worthwhile), it is important to identify how efforts to restore meaning can help to sustain positive functioning (e.g., Carnelley and Janoff-Bulman, 1992; Davis and Camille, 2000). In the present study, we explored the potential for positive reappraisal and self-distancing (e.g., recalling an experience from a third-person perspective) to extract meaning from daily negative experiences. Further, we examined whether each approach is more or less effective when practiced in combination versus in isolation.

1.1. Global meaning and situational meaning

According to the meaning-making model (Park, 2010), there are two levels at which people can experience a sense of meaning: global meaning and situational meaning. Global meaning—or meaning in life—refers to the belief and the sense that the world and one's place within it are coherent and comprehensible, and that one is progressing toward value-consistent goals. It is derived through individuals' global beliefs (i.e., assumptions about how the world functions, self and identity, human nature, and relationships; Park, 2017a), and global goals (i.e., life aspirations, values, and strivings; Park, 2010). These beliefs and goals form the frameworks through which people interpret and evaluate their life as whole and their experiences in general (Silberman, 2005). One's sense of global meaning develops within a broader cultural context (Austin and Vancouver, 1996). As such, it is not surprising to see that culture can exert effects on global meaning (Tweed and Conway, 2006) and meaning-making processes (Neimeyer et al., 2002). Drawing on terror management theory, an individual's cultural worldview offers a framework for understanding the world and our place in it. As such, heightening the endorsement of one's cultural worldview helps to provide a sense of meaning that offers symbolic protection against the existential terror of one's own mortality.

Situational meaning refers to an individual's interpretation of the importance or significance of a particular experience (i.e., how one construes an event), and its impact on one's values and beliefs (Park and Folkman, 1997; Lazarus, 2006). As with global meaning, situational meaning may also be associated well-being (Park and Gutierrez, 2012). For example, appraising events as controllable and benign is related to less distress following negative events (Aldwin et al., 2007; Frazier et al., 2011). Although much research has concentrated on the appraisal of negative events and its impact on stress (e.g., Lazarus and Folkman, 1984), few studies have explicitly examined whether such processes enhance or reduce both situational and global meaning. However, examining both in tandem is necessary for a complete understanding of how meaning is experienced holistically (Park, 2017b).

Moreover, several researchers have criticized the use of generic measures of "meaning" or "purpose" in studies of MIL (Leontiev, 2013; Heintzelman and King, 2014; King and Hicks, 2021). There is an emerging consensus that meaning is a multidimensional construct composed of at least three facets (George and Park, 2016, 2017; Martela and Steger, 2016). Firstly, a sense of *coherence*—which entails making sense of and comprehending one's experiences (Reker and Wong, 2012). Secondly, a sense of *purpose*—which involves the motivation to pursue *valued* life goals (Kasser and Ryan, 1993; McGregor and Little, 1998; Rijavec et al., 2011). Lastly, a sense of *significance* or *mattering* refers to the feeling that one's life is worth living and that one's existence is important and of value in the world (George and Park, 2014; King et al., 2016).

Furthermore, while previous studies of the tripartite model (coherence, purpose, and mattering) have focused on global meaning (e.g., Costin and Vignoles, 2020), few have examined facet-level meaning at the situational level (e.g., Tov et al., 2021). However, such work is necessary for a better understanding of how processes that occur at the situational level may contribute to the formation of meaning at the global level. As such, this study sought to examine how meaning can be extracted from negative experiences—at both the global and situational levels. In addition, we also assessed overall meaning and specific facets of meaning.

1.2. Effects of negative experiences on meaning

Broadly, negative experiences—from the mundane (e.g., arguments) to the severe (e.g., death of a loved one)—are often associated with a diminished sense of meaning (Krause, 2005; Vohs et al., 2019). When individuals experience a distressing event, the situational meaning of the event (e.g., its impact on current goals, or one's understanding of what happened and why) can violate their global beliefs. This violation—which usually stems from the individual's perception of their loss of control, comprehensibility, or predictability of the world (Park and Folkman, 1997; Davis and Camille, 2000; Heine et al., 2006)—may compromise the integrity of their global meaning system (Janoff-Bulman, 1989; Park et al., 2016) and challenge their understanding of themselves and the world. For example, religious individuals may generally believe that God is good and kind. However, following the loss of a significant other, bereaved individuals may interpret death as willed by God's intention. This could lead them to question God's character, possess negative feelings toward God, and choose to abandon their faith (Burke et al., 2014). This change in global meaning (e.g., faith) due to the situational meaning (e.g., appraisal of the death of a significant other) highlights that a negative experience can lead to a discrepancy between meaning at both levels.

It is not always the case that changes in situational meaning provoke changes in global meaning. According to the meaning-making model, when there are discrepancies between situational and global meaning, individuals are often motivated to reduce them through the meaning-making process (Janoff-Bulman and McPherson Frantz, 1997; Park, 2010). This can involve an attempt to cognitively process and understand the negative situation in a different way, or review and rework their beliefs so that the interpretation of the situation aligns with their global meaning (Klinger, 1998; Lepore et al., 2000). Of particular relevance to the present study is the process of assimilation. Through assimilation, individuals may change how they appraise the situation (i.e., situational meaning) so that it is aligned to their global assumptions (Park, 2010). They can also reframe it to arrive at a more integrated understanding of the experience by identifying some redeeming features (Tedeschi and Calhoun, 2004). Indeed, following adversity, some individuals have reported positive change as a result of the experience (Park et al., 1996; Tedeschi and Calhoun, 1996). These include changes in sense of self (e.g., increased self-reliance and a sense that the experience "that did not kill you made you stronger"; Berger and Weiss, 2003, p. 28).

However, current literature on coping and meaning has often focused on major life events, while scant research has examined common daily adversities. Notwithstanding the significant role these major life events can play, they are relatively uncommon in a person's lifespan (Serido et al., 2004; Frans et al., 2005). In contrast, common daily adversities, which can also disrupt core beliefs (O'Neill et al., 2004; Cann et al., 2011), and initiate meaning-making and growth are largely unexplored (Aldwin and Levenson, 2004; LoSavio et al., 2011). Though smaller in magnitude, negative daily events may disrupt people's meaning systems particularly when they occur in valued life domains. For instance, negative daily social and achievement events are associated with less MIL on the day they occur (Machell et al., 2015). As such, we aimed to examine meaning-making processes in the context of negative daily experiences.

1.3. Positive reappraisal as a form of coping

Positive reappraisal is a form of meaning-focused coping which involves reinterpreting events or situations in a positive manner (Folkman and Moskowitz, 2000; Helgeson et al., 2006). It includes elements such as attempting to find benefits in the experience (Garnefski et al., 2001)—by searching for positive meaning among the negativity (Nowlan et al., 2015). This is in line with the concept of existential positive psychology, where meaning-focused coping strategies can promote a dialectical approach toward negative experiences (Wong et al., 2021)—by imbuing adversities with redeeming, positive features. The individual may come to believe something valuable or beneficial has been gained from the situation, such as enhanced wisdom or personal growth (Folkman and Moskowitz, 2000). Through reappraisal, people may come to believe that adversity has helped them to acquire wisdom and patience (e.g., Stainton and Besser, 1998); learn important life skills (e.g., Kimura and Yamazaki, 2013); appreciate the value of life (e.g., Chou et al., 2013); create a new sense of purpose by re-evaluating and identifying important values, relationships, and commitments (e.g., Park and Folkman, 1997); or test and thereby strengthen one's faith and spirituality, and improve social relations (Cywińska, 2018).

As a coping strategy, positive reappraisal can be distinguished from primary stress appraisals such as the extent to which an event is important for one's well-being and the potential for harm or growth (Lazarus and Folkman, 1984). Primary stress appraisals are particularly relevant in anticipation of demanding events (Peacock and Wong, 1990); in contrast, coping strategies are typically engaged in the aftermath of the event. How people cope with negative events depends in part on their perception of what can be done about it or its controllability (secondary appraisal; Lazarus and Folkman, 1984; Peacock and Wong, 1990). If the source of distress can be removed, one might engage in problem-focused coping and attempt to resolve the situation. If the situation cannot be resolved, one might engage in emotion-focused coping, which aims at reducing the negative affect associated with the stressful event. For example, a person might exercise or watch television to reduce their stress. Although positive reappraisal might be seen as a form of emotion-focused coping, Folkman (1997) (Folkman and Moskowitz, 2000) observed that by finding positive meaning in the experience, individuals more typically experienced higher levels of positive affect (PA) whether or not negative affect was mitigated. PA, in turn, has beneficial effects on coping resources and subsequent appraisals and coping efforts (Tugade and Fredrickson, 2004).

By facilitating PA, positive reappraisal may initiate a set of processes that further enhance meaning both by (i) broadening attention and improving meaning-readiness (e.g., King et al., 2006) and (ii) reducing the effects of NA and enabling more adaptive behaviors. Whereas dysfunctional and avoidant coping strategies can result in greater stress and worry (Ongaro et al., 2021), several studies show that inducing PA can facilitate greater engagement with negative experiences. For instance, recalling past acts of kindness led to less avoidance of negative information in an unrelated domain (Reed and Aspinwall, 1998). Success on an initial task also made participants more willing to examine weaknesses or failures on subsequent tasks (Trope and Pomerantz, 1998). More recently, a large-scale study ($N = 12{,}243$) found that meaning-centered coping was negatively associated with negative emotional states such as depression (including meaningless in life, low positive affectivity, and hopelessness), anxiety and stress during the COVID-19 pandemic (Eisenbeck et al., 2021). These findings suggest a feedback process in which PA and positive reappraisal reinforce each other while undoing the effect of NA on meaning-making.

Although positive reappraisal can be an effective coping strategy, recent studies suggest that the successful use of reappraisal requires several potentially taxing cognitive processes, including the ability to override a prepotent response (Ortner et al., 2016; Troy et al., 2018; Vieillard et al., 2020). For example, in emotionally intense situations, reappraisal may be difficult as it is challenging to override the original negative appraisal of the situation with the new, less emotionally evocative reappraisal (Ortner et al., 2016). Moreover, when given the choice to implement either reappraisal or distraction, participants were less likely to use reappraisal for high intensity emotional images (Sheppes et al., 2011, 2014; Shafir et al., 2015). The use of reappraisal is associated with decreased self-control resources when used in high-intensity situations (Sheppes and Meiran, 2008; Ortner et al., 2016); perhaps this explains why people are less likely to use reappraisal in such situations (Sheppes et al., 2014). An implication of these findings is that positive reappraisal may not be as functional in high-intensity situations where it could be most needed. Hence, it is important to find ways to facilitate the usage of positive reappraisal in these negative situations. One possibility is to attenuate the emotional intensity of the experience by altering one's perspective on the event.

1.4. Effects of self-distancing on negative affect and meaning

Self-distancing is the process of stepping back from one's own thoughts, beliefs, and feelings (Teasdale et al., 2002). Reflecting on adversity from a self-distanced perspective can facilitate constructive reasoning and effective regulation of negative emotions. It entails visualizing the event from a "fly on the wall" observer perspective—for example, by reflecting on it using third-person language (Grossmann and Kross, 2014; Kross and Ayduk, 2017; Nook et al., 2017). In contrast to the self-distanced perspective, people often adopt an egocentric view when focusing on past emotional experiences (Nigro and Neisser, 1983). This self-immersed (first-person) perspective draws attention to the concrete features of one's experience (i.e., the specific course of events and emotions), thereby "reliving" the experience all over again (Robinson and Swanson, 1993; McIsaac and Eich, 2004). Indeed, when adopting a first-person perspective, individuals can experience high levels of emotional arousal, which may then hinder their ability to engage in cognitive analysis (Nigro and Neisser, 1983; Robinson and Swanson, 1993). However, a third-person perspective may draw attention to additional features of the situation—leading to appraisals that attenuate negative affect (Robinson and Swanson, 1993; McIsaac and Eich, 2004). This would allow individuals to focus on the broader context of the event and reconstrue their experience (Mischel et al., 1989; Trope and Liberman, 2003).

Individuals' attempts to make meaning of a negative event often fail because they adopt a self-immersed perspective (Wang et al., 2019). However, when encouraged to think about the negative experiences from a psychologically distant perspective, individuals could reflect on them more constructively (Bruehlman-Senecal et al., 2016). This could be explained by the construal level theory which proposes that global and abstract construals are more inclusive than concrete construals, thus facilitating the inclusion of multiple stimuli into broader categories (Trope and Liberman, 2003, 2010; Schwarz and Bless, 2007; Förster et al., 2008). Because adopting a self-distanced perspective leads people

to think about events in more abstract terms (Libby and Eibach, 2011)—and because abstraction accentuates the broader meaning of any given similarity—it is suggested that abstract levels of construals may facilitate meaning-making by making it easier to assimilate experiences into the global meaning system. Indeed, individuals who were able to envelop negative experiences (e.g., divorce, trauma)—into a broad understanding of their life's narrative or into a broader explanatory framework—gained a sense that their lives have meaning (Pals, 2006; Bauer et al., 2008). Similarly, when people pictured an event from the third-person perspective, construed it abstractly, and integrated it with its broader context, they maintained a sense of meaning in the face of beliefs violations (Libby and Eibach, 2011). Thus, self-distancing could facilitate the assimilation of experiences into one's global meaning system. By positioning the event within the grander scheme of one's life, individuals may then arrive at a fuller understanding of the meaning of the event.

In addition to a main effect on situational meaning, self-distancing could potentially improve the effectiveness of positive reappraisal for enhancing meaning. This might be especially so when the negative experience is emotionally intense—requiring individuals to override an initially strong negative reaction with one that is more positive (Ortner et al., 2016). We hypothesized that positive reappraisal could be more effective in combination with a self-distanced perspective. By inviting a broader perspective on the event and reducing its emotional intensity, individuals may better identify positive implications from the experience—thereby enhancing the situational meaningfulness of the event.

1.5. The present study

As the meaning-making model suggests, global and situational meanings can both shape the present and future goals of a person as well as their overarching worldviews (Park, 2010)—analysis of one kind of meaning without the other would be incomplete. Indeed, scant research has investigated whether processes can jointly influence both global and situational meaning. In addition, despite the vital implications of daily experiences (O'Neill et al., 2004; Cann et al., 2011), little research has examined their effects on one's sense of meaning (situational and global). Furthermore, given the multidimensional nature of meaning, the use of many generic and unidimensional measures may present oversimplified views of the underlying relationships between meaning and negative experiences (Martela and Steger, 2022). As such, a more nuanced approach is required to examine how each facet of meaning changes accordingly to meaning-making attempts.

To this end, the research goals are three-fold. First, we aimed to examine whether positive reappraisal and self-distancing—either in combination or alone—were effective approaches to enhancing meaning. Second, we explored whether the effectiveness of the meaning-making coping strategies on meaning would change according to the intensity of the negative experience. Third, we sought to investigate the extent to which meaning-making attempts influence individuals' sense of situational meaning, global meaning, or both—across the three facets (i.e., coherence, purpose, and significance).

We designed a writing task following previous studies that have successfully manipulated either positive reappraisal and self-distancing. For example, participants who engaged in positive reappraisal reported more benefits from the experience such as finding a redeeming value in a loss of their loved ones (Folkman, 1997). In other studies, participants who were instructed to write using third-person (vs. first-person) pronouns reported more psychological distance and experienced fewer negative emotions (e.g., rejected, angry, and sad; Ayduk and Kross, 2010; Kross et al., 2011). Fewer studies have attempted to manipulate both positive reappraisal and self-distancing together. However, a recent study examining lower intensity cognitive interventions that target both affective (*via* self-distancing) and cognitive processes (*via* perspective broadening) found that, as compared to the control group, participants in the training condition reported lesser distress during the processing of negative experiences and reductions in residual symptoms of depression (Travers-Hill et al., 2017).

2. Methods

2.1. Participants

A total of 462 participants were recruited through the local university subject pool system (M_{age} = 21.28, SD_{age} = 1.91). The majority of the sample identified as female (78.7%; N = 364); 82.3% reported to be born in Singapore (N = 380); 79.9% identified Chinese as their ethnicity (N = 369). Table 1 summarizes the descriptive statistics of our sample. All participants received research participation credit upon completion of the study.

2.2. Procedure

The experiment conducted was a 2 (self-distanced vs. self-immersed) × 2 (positive reappraisal vs. reflection only) between-subjects design.

After providing informed consent, participants completed measures of dispositional optimism and dispositional gratitude—which served as covariates. They were then asked to identify a distressing/upsetting experience and write a sentence about it—before indicating their perceived initial intensity of experience. They were then assigned randomly to one of the four writing task conditions. After the writing task, participants completed a series of questions about their affective experience, psychological distance, perceived sense of benefits, situational meaning, and global meaning. Finally, they completed a set of demographic questions before debriefing (Table 2).

2.3. Materials and measures

2.3.1. Writing tasks

Participants were instructed to think about a current or recent distressing or upsetting negative experience they are facing or have faced within the past 4 weeks. Then they wrote down a short anchor prompt to remind them of what the experience was about and rated the initial intensity of the experience (see below).[1] Next, participants were

1 The events that the participants wrote about fell into several broad categories: 143 (31%) involved important problems at school, 94 (20%) involved important problems with relatives and family, 85 (18%) involved fights among or with friends, 52 (11%) involved relationship problems, 40 (9%) involved important problems at work, and the remaining 48 (8%) were unclassified events (e.g., health conditions such as surgery, knee injury). Chi-square analysis suggested no group differences between the four experimental conditions, $\chi^2(15) = 11.108$, $p = 0.74$.

TABLE 1 Descriptive statistics of the key variables.

	Mean (SD)	Range	Kurtosis	Skewness
Demographics				
Age (in years)	21.29 (1.91)	18–32	3.45	1.27
Sex (% of females)	78%			
Born in Singapore (%)	82%			
Ethnicity (% of Chinese)	79%			
Religion (% of Christians)	32%			
Religion (% of Buddhists)	18%			
No religion (%)	33%			
Individual differences				
Dispositional gratitude	5.58 (0.88)	2.17–7	0.25	−0.68
Dispositional optimism	3.15 (0.69)	1–4.67	−0.49	−0.31
Global meaning	4.67 (0.93)	1.2–7	0.88	−0.40
Level of arousal	25.83 (6.27)	8–40	−0.54	−0.14
Experience specific				
Initial intensity	6.43 (1.26)	1–9	0.46	−0.14
Recency of the experience[1]	4.61 (2.00)	1–7	−0.92	−0.44
Resolution status[2]	4.06 (1.82)	1–7	−0.99	−0.20
Time to adopt the perspective (min)	0.31 (0.21)	0.04–1.04	0.76	1.10
Time to reflect (min)	4.47 (0.90)	3.02–5.70	−1.58	−0.21
Words written during reflection	128.71 (54.23)	16–325	0.48	0.76
Meaning in experience	4.19 (1.25)	1–7	−0.32	−0.15
Actual benefits accrued	41.02 (13)	9–63	−0.42	−0.47
Opportunity for benefits	36.22 (10.78)	8–56	−0.26	−0.39

[1]Recency of the experience (i.e., memory age) is reported on a scale of 1 (Still ongoing) to 7 (Within the past 4 weeks).
[2]Resolution status is report on a scale of 1 (not at all unresolved; not an active source of distress), 7 (very much unresolved; an active source of distress).

randomly assigned to write about the experience from either a first-person (immersed) perspective or third-person (distanced) perspective. In addition, roughly half were instructed to simply recall the experience (reflection only) or to reconstrue it in a more positive manner (reappraisal). These two manipulations were crossed to create four experimental groups: immersed reflection ($n = 113$), distanced reflection ($n = 110$), immersed reappraisal ($n = 119$), and distanced reappraisal ($n = 120$). Each condition consisted of two parts that were 5 min each. Thus, all participants spent a total of 10 min on these tasks prior to evaluating situational and global meaning.

Participants in the reflection-only condition first worked on a *neutral task* where they answered a series of non-emotional questions related to the experience (e.g., "When did the experience occur? If possible, please include details such as date, day of the week, whether it was a weekday or weekend, the time of the day.")[2] for 5 min. They continued to work on the task until they finished all the questions or until the time was up. The purpose of this task was to extend the duration of the reflection-only condition so that it was roughly equal to the duration of the positive reappraisal condition. They then proceeded to a five-minute *reflection task* (Kross et al., 2012) where they recalled and analyzed their experience from either a self-distanced perspective (e.g., "Replay the experience as it unfolds in your imagination as you observe your distant self") or self-immersed perspective (e.g., "Replay the experience as it unfolds in your imagination through your own eyes"). Participants in the distanced reflection (immersed reflection) condition were also instructed to write using third-person (first-person) pronouns to further draw the distinction between third-and first-person perspective (Giovanetti et al., 2019).

Participants in the positive reappraisal condition began by recalling their experience either through a self-distanced or self-immersed perspective for 5 min. Afterwards, they were prompted to think about the experience in a more positive light (Rood et al., 2012) for another 5-min. Specifically, they were instructed to give advice from either a self-distanced perspective (e.g., "Help the 'distant you' to see how they can benefit from … [the] experience …") or a self-immersed perspective (e.g., "Help yourself to see how you can benefit from … [the] experience …"). Accordingly, they were instructed to write in either third-or first-person pronouns.[3]

2.3.2. Initial intensity of experience

Following Rood et al. (2012) and Shiota and Levenson (2012), participants rated how they felt when they first went through the experience with the following three items: (1) severity of the event—"At that point of time, how bad did this experience feel like to you?"; (0 = *not bad/not terrible*, 8 = *the worst I have ever experienced*), (2) intensity—"At that point of time, how strong/intense were those emotions?"; (0 = *no emotion at all*, 8 = *the strongest emotions I have ever felt*), (3) valence—"At that point of time, how negative or positive did

2 These questions were designed on an *ad-hoc* basis for this study.

3 We conducted additional analyses to examine the effects of gender. The analyses revealed moderating effects of gender on positive reappraisal and self-distancing on the manipulation checks. The positive reappraisal manipulation induced more cognitive effects (e.g., perceived benefits of the experience) for females than males. However, the manipulation induced more positive affect in males than in females. The self-distancing manipulation was generally effective but for males, greater psychological distance was only achieved when self-distancing was performed without positive reappraisal (see Supplementary materials for more details). No other moderating effects were observed. Further, including gender as a covariate in all analyses did not alter the results substantially.

TABLE 2 Intercorrelations of the key variables.

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.
1. Age (in years)	—																	
2. Dispositional gratitude	−0.04*	—																
3. Dispositional optimism	0.12*	0.38**	—															
4. Religiosity	−0.01	0.27**	0.29**	—														
5. Global meaning	0.16**	0.54**	0.51**	0.37**	—													
6. Level of arousal	0.12*	0.27**	0.27**	0.11*	0.3**	—												
7. Initial intensity	−0.01	0.00	−0.07*	−0.02	−0.08*	−0.01	—											
8. Recency of the experience	0.14*	0.09*	0.00	−0.08*	0.01	0.11*	0.09*	—										
9. Resolution status	0.01	−0.12*	−0.1*	−0.03	−0.08*	−0.06*	0.19**	−0.25**	—									
10. Time to adopt the perspective	0.02	−0.05*	−0.03	0.05*	−0.08*	0.03	−0.01	−0.01	−0.05*	—								
11. Time to reflect	−0.19**	−0.01	−0.05*	0.07*	0.01	0.04*	0.00	−0.09*	−0.06*	0.22**	—							
12. Words written during reflection	−0.14*	0.04*	−0.07*	−0.11*	0.00	0.03	0.09*	0.00	0.01	−0.02	0.38**	—						
13. Emotional reactivity	0.04*	0.01	0.02	0.02	0.1*	0.00	0.27**	−0.13*	0.39**	−0.01	0.1*	0.17**	—					
14. Post-reflection negative affect	0.06*	−0.13*	−0.1*	0.04*	−0.13*	−0.1*	0.00	0.00	0.33**	−0.06*	0.01	0.03	0.29**	—				
15. Post-reflection positive affect	0.1*	0.21**	0.17**	0.05*	0.28**	0.23**	−0.03	0.02	0.00	0.03	−0.03	0.01	0.11*	0.06*	—			
16. Meaning in experience	0.08*	0.19**	0.14*	0.14*	0.29**	0.1*	−0.02	0.00	0.04*	0.00	0.01	−0.04*	0.00	−0.02	0.4**	—		
17. Actual benefits accrued	0.14*	0.28**	0.23**	0.15**	0.34**	0.11*	−0.02	0.05*	0.00	0.01	0.08*	−0.04*	0.07*	0.00	0.45**	0.55**	—	
18. Opportunity for benefits	0.09*	0.25**	0.22**	0.24**	0.33**	0.15**	−0.02	0.04*	−0.01	0.03	0.13*	−0.04*	0.11*	0.02	0.45**	0.5**	0.83**	—

**$p < 0.01$; *$p < 0.05$.

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you feel?"; (0 = *very negative*, 8 = *very positive*). The first two items were averaged to form a single score for one's initial intensity of the experience, where higher scores indicated a more intense event—the last item was dropped to improve reliability. The Spearman-Brown formula was used for reliability analysis for all two-items scales (Eisinga et al., 2013). Spearman-Brown coefficient for intensity of experience was 0.76.

2.3.3. Task-induced mood

Using the 20-item Positive And Negative Affect Schedule (PANAS; Watson et al., 1988), participants indicated the extent to which they experienced Positive Affect (PA; e.g., "Interested," "Enthusiastic") and Negative Affect (NA; e.g., "Upset," "Guilty") while writing about the experience (1 = *very slightly or not at all*, 7 = *very much*). Items were summed to form a single score for PA ($\alpha = 0.92$) and a single score for NA ($\alpha = 0.91$).

2.3.4. Psychological distance manipulation check

Adapted from Ayduk and Kross (2010) and White et al. (2015), participants indicated the extent to which they "were seeing [the event] through your own eyes versus watching it happen from a distance" (1 = *completely through my own eyes*, 7 = *completely from a distance*), and "how far away from [the event] did you feel" (1 = *very close*, 7 = *very far*). They were averaged to form a single score for psychological distance. The Spearman-Brown coefficient was 0.62.

According to McIsaac and Eich (2004), a self-immersed perspective is likely to direct individuals to narrowly focus on recounting the concrete, emotionally arousing details of their negative experiences—including the specific chain of events and the emotions felt. These details resemble the type of thought content that individuals who cognitively relive their negative experience tend to think about (Kross et al., 2005). In contrast, self-distancing allows individuals to analyze their thoughts and feelings from a broader perspective (Ochsner et al., 2004). As such, self-distancing should reduce the extent to which people focus on recounting the specific details of their negative experiences. In addition, reflecting in a self-distanced manner allows individuals to take the big picture into account and reconstrue their experience in a broader context (Kross et al., 2005). As such, adopting a self-distanced perspective is believed to encourage participants to engage in less recounting and more reconstruing. To evaluate these predictions, participants rated whether they *recounted* the specific chain of events that took place. They also rated three items asking whether they *reconstrued* the experience in ways that made them think and feel differently about their experience. Self-immersion is expected to increase recounting, whereas self-distancing increases reconstruing. Ratings were made on a 7-point scale (1 = *completely agree*, 7 = *completely disagree*). Three items on reconstruing were averaged to form a single score ($\alpha = 0.74$). As the recounting scores and reconstruing scores were not negatively correlated, $p = 0.98$, they were not combined to form a single thought content score (Kross et al., 2005; Ayduk and Kross, 2008).

In addition, participants indicated the extent to which they were 'reliving' their recalled experience (Ayduk and Kross, 2010) with the following two items—"I re-experienced the emotions I originally felt during the experience when I think about it," and "As I thought about the experience, my emotions and physical reactions to the experience were still pretty intense" (1 = *strongly disagree*, 7 = *strongly agree*). They were averaged to form a single score for emotion reactivity. Spearman-Brown coefficient for emotion reactivity was 0.78.

2.3.5. Positive reappraisal manipulation check

Adapted from the Aspiration Index (AI; Kasser and Ryan, 1996) as well as the types of common benefits mentioned across the literature (e.g., Park and Folkman, 1997; Cywińska, 2018), participants rated (1 = *not at all*, 7 = *a great deal*) the extent to which reflecting and writing about the experience helped them realized nine accrued benefits (e.g., "Helped to clarify which goals or priorities are personally important and which are not") and eight opportunities for benefits (e.g., "An opportunity for learning important life skills"). Items were added to form a single index for accrued benefits and a single index for opportunities for benefits.

2.3.6. Situational meaning

Participants rated the meaningfulness of the experience using six items as adapted from Heintzelman and King (2014) and Waytz et al. (2015)—that assess situational meaning using the tripartite approach (1 = *not at all*, 7 = *very much*). Items include: *purpose* ("To what extent did the experience involve achieving a purposeful goal"; "To what extent was the experience full of purpose?"); *significance* ("To what extent did the experience make you feel significant"; "To what extent did the experience feel important rather than trivial?"); and *coherence* ("To what extent did the experience give you a sense of coherence"; "To what extent did the experience make sense?"). An additional item to indicate the overall judgment of meaningfulness of the experience was also included, "To what extent do you find the experience that you wrote about meaningless or meaningful" (−3 = *very meaningless*, 0 = *neither meaningful nor meaningless*, 3 = *very meaningful*). Spearman-Brown coefficients were calculated: purpose (0.76), significance (0.51), and coherence (0.65).

2.3.7. Global meaning

Global meaning (i.e., MIL) was assessed with the 15-item Multidimensional Existential Meaning Scale (MEMS; George and Park, 2017). Participants rated (1 = *very strongly disagree*, 7 = *very strongly agree*) the extent to which they agreed with several statements assessing the facets of global meaning. They include, "I have aims in my life that are worth striving for" (purpose); "My life makes sense" (comprehension); and "I am certain that my life is of importance (mattering; 1 = *very strongly disagree*, 7 = *very strongly agree*). As adapted from Heintzelman and King (2014), an additional item to indicate the overall judgment of global meaning was also included, "To what extent do you feel that your life has meaning?" (1 = *not at all*, 7 = *extremely*). Three scores for purpose ($\alpha = 0.92$), comprehension ($\alpha = 0.87$), and mattering ($\alpha = 0.87$) were calculated by averaging the five items within each subscale.

2.3.8. Co-variates

As older memories are found to be more distant from the present than recent memories (Ayduk and Kross, 2010), participants also rated the recency of the experience (1 = *still ongoing*, 7 = *within the past four weeks*). Additionally, as the resolution of the recalled experience might have affected emotional reactivity (Ayduk and Kross, 2008), participants also rated the current status of the experience (1 = *not at all resolved*, 7 = *very much resolved*).

Individuals who hold generalized expectancies for positive outcomes (i.e., optimism; Scheier and Carver, 1985) may seek opportunities to transform threatening situations into favorable circumstances through positive reappraisal coping. Dispositional optimism was assessed with the six-item Life Orientation Test-Revised

(Scheier et al., 1994; $\alpha = 0.81$). Participants indicated the extent to which they agreed with the items (e.g., "Overall, I expect more good things to happen to me than bad"; 1 = *strongly disagree*, 5 = *strongly agree*).

Gratitude has been associated with making positive attributions, and a coping style called positive reinterpretation (Wood et al., 2008; Lambert et al., 2009). Dispositional gratitude was assessed with the six-item Gratitude Questionnaire-6 (McCullough et al., 2002; $\alpha = 0.80$). Participants indicated the extent to which they agreed with the items (e.g., "I have so much in life to be thankful for"; 1 = *strongly disagree*, 7 = *strongly agree*).

3. Analytical strategy

One participant was manually screened out as due to noncompliance with the instructions (i.e., reflecting on an experience within the last 4 weeks). Prior to preliminary analyses, a robust outlier-detection approach was employed (i.e., minimum covariance determinant [MCD]; Leys et al., 2019)—which is based on median absolute deviation instead of the mean and standard deviation, as the latter can be considerably influenced by the outliers they were meant to identify. Outliers were detected based on three variables available in all conditions: (i) duration participants took to adopt either the self-immersed or self-distanced perspective, (ii) duration participants took to reflect on the experience, (iii) duration participants took to complete the study—these were chosen because a short duration may imply that participants did not reflect on the experience sufficiently, while a long duration may suggest that participants may not be focusing on the study. Using the MCD method with a breakdown point of 0.25 (i.e., computing the mean and covariance terms using 75% of the data; see Leys et al., 2019 for a discussion of this approach), 81 multivariate outliers were identified and removed; a final sample of 380 participants remained. Logistic regression was used to analyze the relationship between the conditions (self-distanced vs. self-immersed × reflection-only vs. reappraisal) on the probability of being an outlier: being randomly assigned to any of the four conditions did not significantly predict the probability of being an outlier, $ps > 0.49$. A series of independent samples *t*-tests further revealed that the outlier group tended to be less optimistic than the retained sample ($M_{retained} = 3.15$, $M_{outlier} = 2.91$, $t(110.05) = 2.64$, $p = 0.01$). In general, however, the outliers were not systematically different from the retained sample on the key variables. Subsequent analyses were conducted with and without these multivariate outliers. Assumptions of normality for all variables were then assessed. Values for skewness and kurtosis were within the acceptable standards for a normal distribution, that is, between −2 and +2 (George and Mallery, 2010). Table 2 displays the intercorrelations of the key variables involved in this study.

4. Results

4.1. Manipulation check

4.1.1. Positive reappraisal

Two-way analyses of variance (ANOVAs) were performed to examine (i) perception of accrued benefits and (ii) opportunities for benefits between those in the positive reappraisal and reflection-only conditions. There was a main effect of positive reappraisal, $F(1, 376) = 20.08$, $p < 0.01$, no main effect of self-distancing, $F(1, 376) = 0.16$, $p = 0.69$, and no interaction between the positive reappraisal and self-distancing on accrued benefits, $F(1, 376) = 0.07$, $p = 0.80$. Similar results were obtained for opportunities for benefits: there was a main effect of positive reappraisal, $F(1, 376) = 21.05$, $p < 0.01$, no main effect of self-distancing, $F(1, 376) = 1.21$, $p = 0.27$, and no interaction between the positive reappraisal and self-distancing, $F(1, 376) = 0.15$, $p = 0.70$. Compared with those who only reflected on the event, those who reappraised reported more benefits ($Ms = 37.90$ vs. 43.75), $t(376) = 4.38$, $p < 0.01$, $d = 0.45$, 95% CI [0.25, 0.66], and realized more opportunities for benefits ($Ms = 33.55$ vs. 38.54), $t(376) = 4.44$, $p < 0.01$, $d = 0.46$, 95% CI [0.26, 0.67]. Thus, the positive reappraisal manipulation was successful.

4.1.2. Self-distancing

Two-way ANOVAs were performed to examine the effectiveness of the self-distancing manipulation. Several measures were used to evaluate this.

4.1.2.1. Psychological distance

There was a main effect of self-distancing, $F(1, 376) = 24.19$, $p < 0.01$, no main effect of positive reappraisal, $F(1, 376) = 0.12$, $p = 0.73$, and no interaction between positive reappraisal and self-distancing, $F(1, 376) = 0.14$, $p = 0.71$. Compared with immersed participants ($M = 3.01$), distanced participants felt more psychologically distant from the experience ($M = 3.68$), $t(376) = 4.93$, $p < 0.01$, $d = 0.50$, 95% CI [0.30, 0.71]. As expected, the self-distancing manipulation effectively created differences in psychological distance between the conditions.

4.1.2.2. Thought content

There was a main effect of self-distancing on recounting, $F(1, 376) = 5.42$, $p = 0.02$, no main effect of positive reappraisal, $F(1, 376) = 2.38$, $p = 0.12$, and no interaction between positive reappraisal and self-distancing, $F(1, 376) = 0.13$, $p = 0.72$. Unexpectedly, immersed participants ($M = 4.90$) reported significantly less recounting than distanced participants ($M = 5.25$), $t(376) = -2.33$, $p = 0.02$, $d = 0.24$, 95% CI [−0.64, −0.05]. In addition, there was no main effect of self-distancing on reconstruing, $F(1, 376) = 0.23$, $p = 0.63$, and no interaction between positive reappraisal and self-distancing, $F(1, 376) = 1.04$, $p = 0.31$. A main effect of positive reappraisal was observed with those who reappraised the experience ($M = 4.40$) reconstruing it more than those who only reflected on the experience ($M = 3.46$), $F(1, 376) = 51.64$, $p < 0.01$, $d = 0.74$, 95% CI [0.53, 0.95]. Contrary to expectations, self-distancing did not lead to less recounting and more reconstruing.

4.1.2.3. Emotional reactivity

There was no main effect of self-distancing, $F(1, 376) = 0.46$, $p = 0.50$, no main effect of positive reappraisal, $F(1, 376) = 0.05$, $p = 0.83$, and no interaction between positive reappraisal and self-distancing, $F(1, 376) = 1.16$, $p = 0.28$. Contrary to expectations, self-distancing did not lead to less emotional reactivity.

4.1.3. Task-induced mood

For PA, there was a main effect of positive reappraisal, $F(1, 376) = 29.09$, $p < 0.01$, no main effect of self-distancing, $F(1, 376) = 3.23$, $p = 0.07$, and no interaction between positive reappraisal and self-distancing, $F(1, 376) = 0.01$, $p = 0.92$. Compared with participants who only reflected ($M = 27.88$), those who reappraised reported more PA ($M = 34.69$), $t(376) = 5.36$, $p < 0.01$, $d = 0.55$, 95% CI [0.34, 0.76].

For NA, there was a main effect of positive reappraisal, $F(1, 376) = 21.19$, $p < 0.01$, no main effect of self-distancing, $F(1, 376) = 3.69$, $p = 0.06$, and no interaction between positive reappraisal and

self-distancing, $F(1, 376) = 0.01$, $p = 0.92$. Compared with participants who only reflected ($M = 30.91$), those who reappraised reported less NA ($M = 24.92$), $t(351) = 4.58$, $p < 0.01$, $d = 0.47$, 95% CI [0.27, 0.68].

The results of the manipulation checks suggested that the positive reappraisal manipulation was effective in eliciting perceptions of benefits, enhancing PA, and reducing NA. However, the effects of self-distancing manipulation were inconsistent. While it successfully created more psychological distance, the unexpected shift in thought content (e.g., more recounting) ran contrary to prior studies. The self-distancing manipulation did not reduce emotional reactivity and its effects on mood were not significant at the 0.05 level—although we note that mood tended to be less intense in the self-distancing condition ($PA_{Immersed} = 32.56$; $PA_{Distanced} = 30.29$; $NA_{Immersed} = 28.99$; $NA_{Distanced} = 26.51$). On the whole, these results suggest that the manipulation increased psychological distance from the experience but may not have activated other cognitive and affective processes reported in the self-distancing literature.

4.2. Hypothesis testing

4.2.1. Effects on situational meaning

We conducted a moderated regression analysis with situational meaning scores regressed on positive reappraisal condition, self-distancing condition, initial intensity of the experience, and all two-way and three-way interaction terms among the three main predictors. Contrast coding was used to indicate which conditions participants were assigned to: the positive reappraisal (reflection only) condition were coded +1 (−1), and the self-distancing (self-immersion) condition were coded +1 (−1). Dispositional gratitude, dispositional optimism, recency of the experience, and resolution status were included in the regression model as control variables (Scheier and Carver, 1985; Lambert et al., 2009; Ayduk and Kross, 2010).

Results revealed a main effect of positive reappraisal on situational meaning, $b = 0.44$, $p = 0.01$, 95% CI [0.09, 0.78]—suggesting that engaging in positive reappraisal enhanced situational meaning (see Table 3). Although the main effect of self-distancing was not significant, a two-way interaction between self-distancing and initial intensity was observed, $b = 0.46$, $p = 0.02$, 95% CI [0.07, 0.84] (see Figure 1). To further probe the interaction, the Johnson-Neyman interval was obtained to determine the levels of intensity at which the simple slopes of self-distancing were significant. There was a significant negative relationship between self-distancing and situational meaning at lower levels of intensity (from 1.11 *SD* below the mean), and a significant positive relationship at higher levels of intensity (from 1.33 *SD* above the mean).

TABLE 3 Regression coefficients of the three-way interaction between positive reappraisal, self-distancing, and intensity on situational meaning.

Predictor	*b*	*t*	*p*
SD	0.08	0.48	0.63
PR	0.44	2.52	0.01
Intensity	−0.04	−0.19	0.84
SD × Intensity	0.46	2.34	0.02
PR × Intensity	−0.00	−0.02	0.98
SD × PR	−0.27	−1.58	0.11
SD × PR × Intensity	−0.33	−1.70	0.09

SD, self-distanced; SI, self-immersed; PR, positive reappraisal; RO, reflection-only.

In other words, self-distancing from low-intensity experiences reduced situational meaning compared with self-immersion. In contrast, self-distancing from high-intensity negative experiences enhanced situational meaning.

4.2.2. Facets of situational meaning

Given that meaning may be composed of distinct facets (George and Park, 2016, 2017; Martela and Steger, 2016), we further examined the effects of intensity, positive reappraisal, and self-distancing on each of these facets.

4.2.2.1. Situational coherence

Results revealed a main effect of positive reappraisal, $b = 0.42$, $p < 0.01$, 95% CI [0.19, 0.65] (Table 4). In addition, a non-significant main effect of self-distancing was qualified by a significant two-way interaction between self-distancing and intensity, $b = 0.42$, $p = 0.04$, 95% CI [0.02, 0.83]. Probing the interaction effect revealed only a significant positive relationship between self-distancing and coherence at higher levels of intensity (from 0.6 SD above the mean). These effects were further qualified by a three-way interaction between initial intensity, positive reappraisal, and self-distancing on situational coherence, $b = -0.43$, $p = 0.038$, 95% CI [−0.84, −0.02]. To interpret this three-way interaction, we first examined how the positive reappraisal × self-distancing interaction was moderated by the intensity of the negative experience (Figure 2). We observed that positive reappraisal × self-distancing interaction was significant at high-intensity experiences, $b = -0.77$, $p = 0.03$, 95% CI [−1.47, −0.06], but not at mean-level, $b = 0.32$, $p = 0.25$, 95% CI [−0.22, −0.85] or low-intensity experiences, $b = -0.22$, $p = 0.22$, 95% CI [−0.59, 0.14]. Among high-intensity experiences, the effects of positive reappraisal were similar whether it was performed with a third-person perspective (*distanced reappraisal*) or a first-person perspective (*immersed reappraisal*), $b = 0.01$, $t = 0.02$, $p = 0.98$ (the solid line in right panel of Figure 2). In contrast, when reflecting on the experience without positive reappraisal, taking a third-person perspective (*distanced reflection*) enhanced coherence more than taking a first-person perspective (*immersed reflection*), $b = 1.54$, $t = 2.88$, $p < 0.01$. In other words, the effects of self-distancing on coherence were only observed when reflecting without positive reappraisal—and only when reflecting upon high-intensity experiences. No effects of self-distanced reflection were observed at lower levels of intensity (mean-level: $b = 0.47$, $t = 1.72$, $p = 0.09$, low-intensity: $b = -0.60$, $t = -1.45$, $p = 0.15$).

4.2.2.2. Situational significance

Given the poor reliability of the two-item situational significance subscale, separate analyses were conducted for each item. The first item assessed the perceived importance of the experience ("To what extent did the experience feel important rather than trivial?"). The second item assessed existential mattering ("To what extent did the experience make you feel like your existence matters?"). When perceived importance was examined, only a main effect of positive reappraisal was observed, $b = 0.27$, $p = 0.047$, 95% CI [0.00, 0.54] (Table 5).

When existential mattering was examined, a main effect of positive reappraisal was also observed, $b = 0.55$, $p < 0.01$, 95% CI [0.21, 0.89] (Table 6). Qualifying this main effect was a significant a three-way interaction between initial intensity, positive reappraisal, and self-distancing, $b = -0.62$, $p = 0.04$, 95% CI [−1.20, −0.03]. We then examined how the positive reappraisal × self-distancing interaction was moderated by the intensity of the negative experience. The positive

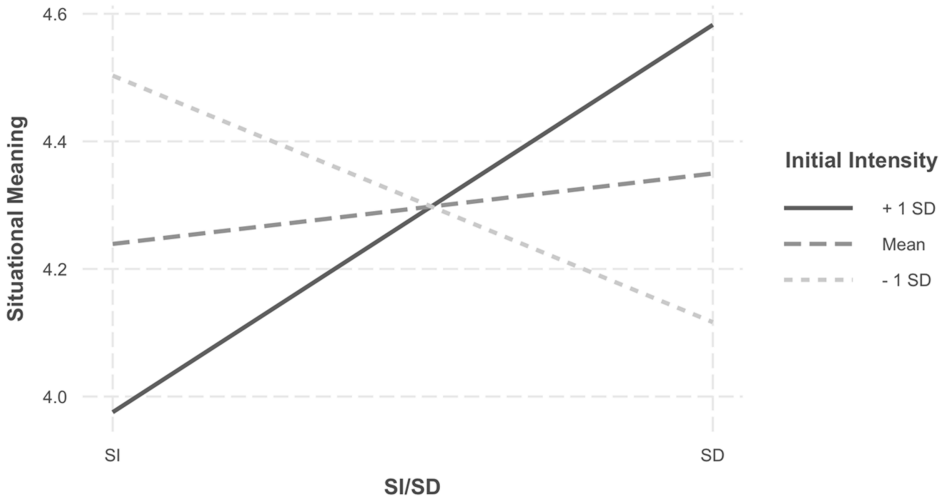

FIGURE 1
Initial intensity of negative experience moderates the effect of self-distancing on situational meaning. *Note*. SD, self-distanced reflection; SI, self-immersed reflection.

TABLE 4 Three-way interaction between positive reappraisal, self-distancing, and intensity on situational coherence.

Predictor	*b*	*t*	*p*
SD	−0.00	−0.01	0.99
PR	0.42	3.55	<0.01
Intensity	−0.18	1.92	0.06
SD × Intensity	0.42	2.05	0.04
PR × Intensity	−0.15	−0.73	0.47
SD × PR	−0.22	−1.22	0.22
SD × PR × Intensity	−0.43	−2.09	0.04

SD, self-distanced; SI, self-immersed; PR, positive reappraisal; RO, reflection-only.

reappraisal × self-distancing interaction was significant at low-intensity, $b = 0.60$, $p = 0.01$, 95% CI [0.17, 1.37], and high-intensity experiences, $b = -0.95$, $p = 0.049$, 95% CI [−1.96, −0.07], but not significant at mean-level intensity, $b = -0.17$, $p = 0.52$, 95% CI [−0.69, 0.35].

Among the low-intensity negative experiences, positive reappraisal had similar effects on mattering whether it was performed with a third-person perspective (*distanced reappraisal*) or a first-person perspective (*immersed reappraisal*), $b = 0.25$, $t = 0.49$, $p = 0.62$ (the solid line in left panel of Figure 3). In contrast, when reflecting on the experience without positive reappraisal, taking a third-person perspective (*distanced reflection*) reduced mattering more than taking a first-person perspective (*immersed reflection*), $b = -1.45$, $t = -2.42$, $p = 0.02$. Similarly, among high-intensity experiences, positive reappraisal had similar effects whether it was performed with a third-person perspective (*distanced reappraisal*) or a first-person perspective (*immersed reappraisal*), $b = -0.32$, $t = -0.47$, $p = 0.64$. However, when reflecting on high-intensity experiences without positive reappraisal, taking a third-person perspective (*distanced reflection*) enhanced mattering more than taking a first-person perspective (*immersed reflection*), $b = 1.57$, $t = 2.03$, $p = 0.04$. In other words, the effects of self-distancing on mattering—without positive reappraisal—depended on the intensity of the negative experience. While distanced reflection enhanced mattering at high intensities, it reduced mattering at low intensities.

4.2.2.3. Situational purpose

The only effect to emerge from this analysis was the main effect of positive reappraisal, $b = 0.60$, $p < 0.01$, 95% CI [0.31, 0.90] (Table 7). No other effects were observed.

4.2.3. Standard implementation of positive reappraisal and self-distancing

In the present study, the positive reappraisal and self-distancing manipulations were crossed with each other leading to a hybrid condition in which participants reappraised the negative experience from a distanced, third-person perspective (i.e., distanced reappraisal). Although the previous analyses focused on the main effects and interaction between these two manipulations, we felt it was also insightful to compare the standard implementation of these two approaches. Specifically, as positive reappraisal is usually performed from a first-person perspective, the immersed reappraisal condition represents how it is typically practiced. In contrast, as self-distancing is usually performed *without* reappraisal, the distanced reflection condition represents the more conventional approach. Thus, we revisited our analyses and compared the relative effects of immersed reappraisal and distanced reflection across the different measures of situational meaning. We constructed a 95% confidence interval [CI] for the predicted values of situational meaning for distanced reflection and immersed reappraisal and examined whether their CIs overlapped. If they do not overlap, then it is evident that the two means are significantly different at the $p < 0.05$.[4]

4 It has been suggested that looking at the overlap of the 95% CI of the means between two groups is not comparable to examining whether the two means are significantly different from each other at $p<0.05$ (e.g., Austin and Hux, 2002; Knol et al., 2011)—as the former tended to produce a probability of a Type 1 error below 0.05 (i.e., 0.0056), which is a more conservative estimate. As such, it is recommended to use the criterion of an 83% CI overlap to determine whether two means are significant different from each other at $p<0.05$. However, the results were similar when using either 95% or 83% CI.

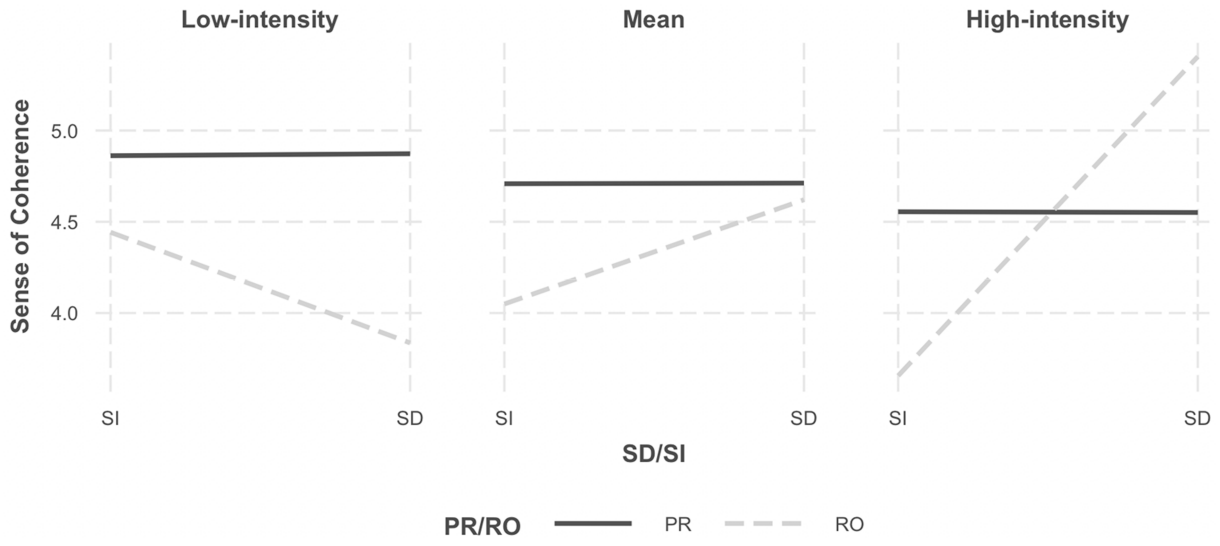

FIGURE 2
Initial intensity of negative experience moderates the interaction between positive reappraisal and self-distancing on situational coherence. *Note*. PR, positive reappraisal; RO, reflection-only; SD, self-distanced; SI, self-immersed.

TABLE 5 Regression coefficients of the three-way interaction between positive reappraisal, self distancing, and intensity on perceived importance.

Predictor	*b*	*t*	*p*
SD	−0.05	−0.62	0.54
PR	0.27	2.37	0.047
Intensity	0.14	1.89	0.06
SD × Intensity	−0.02	−0.34	0.73
PR × Intensity	0.05	0.80	0.42
SD × PR	−0.02	−0.29	0.77
SD × PR × Intensity	−0.02	−0.29	0.77

SD, self-distanced; SI, self-immersed; PR, positive reappraisal; RO, reflection-only.

Although immersed reappraisal often produced higher levels of meaning than distanced reflection, there were two exceptions to this pattern. First, for high-intensity negative experiences, distanced reflection (95% CI [5.39, 6.09]) enhanced coherence more than immersed reappraisal (95% CI [4.22, 4.91]). In contrast, for low-intensity experiences, immersed reappraisal (95% CI [4.53, 5.20]) enhanced coherence more than distanced reflection (95% CI [3.48, 4.22]).

A similar pattern was observed for existential mattering. For high-intensity negative experiences, distanced reflection (95% CI [4.80, 5.69]) enhanced mattering more than immersed reappraisal (95% CI [3.58, 4.45]). In contrast, for low-intensity experiences, immersed reappraisal (95% CI [4.10, 4.96]) enhanced mattering more than distanced reflection (95% CI [2.64, 3.57]). Broadly, these results suggest that for some aspects of meaning (i.e., coherence and mattering), self-distancing is more (less) effective than positive reappraisal for high (low) intensity experiences.

In sum, effects of positive reappraisal and self-distancing on situational meaning depended on the intensity of the experience. Specifically, engaging in self-distancing tended to enhance overall situational meaning, coherence, and mattering at high intensity but reduced them at low intensity. In contrast, positive reappraisal enhanced meaning across most indicators, but in two instances (coherence and mattering), this effect was qualified by intensity of the negative experience and whether reappraisal was performed in a self-distanced or self-immersed manner. A careful inspection of Figures 2, 3 indicates that the interaction effect has more to do with the effectiveness of distanced reflection than it does with positive reappraisal *per se*. Specifically, at low intensities, distanced reflection tended to *reduce* coherence and mattering relative to distanced reappraisal. However, at high intensities, distanced reflection *enhanced* coherence and mattering relative to distanced reappraisal.

4.2.4. Effects on global meaning

In general, no effects of positive reappraisal or self-distancing were observed on measures of global meaning, nor were their effects moderated by intensity. The only exception was a two-way interaction between self-distancing and initial intensity on sense of global purpose, $b = 0.10$, $p = 0.03$, 95% CI [0.01, 0.19] (Table 8). The pattern was similar to that of situational meaning (see Figure 1), whereby self-distancing significantly reduced global purpose for low (0.55 SD below the mean) but not high intensity experiences.

5. Discussion

The present study had three main aims. First, we examined the effectiveness of positive reappraisal and self-distancing for making meaning from negative events. Second, we explored the extent to which the intensity of the experience altered the effectiveness of the meaning-making coping strategies. Third, instead of relying on a unidimensional conceptualization of meaning, we investigated meaning at both levels (i.e., global, and situational), and across three facets (i.e., coherence, purpose, and significance).

On average, positive reappraisal enhanced overall situational meaning of negative experiences as well as specific facets (purpose, coherence, and mattering). Specifically, the main effects of positive reappraisal were statistically significant across nearly all indicators of situational meaning. However, in the case of coherence and mattering, these main effects were qualified by a three-way interaction between

TABLE 6 Regression coefficients of the three-way interaction between positive reappraisal, self-distancing, and intensity on existential mattering.

Predictor	*b*	*t*	*p*
SD	−0.21	−1.23	0.21
PR	0.55	3.16	<0.01
Intensity	−0.05	−0.34	0.73
SD × Intensity	−0.17	−1.21	0.23
PR × Intensity	0.21	1.52	0.13
SD × PR	0.10	0.60	0.55
SD × PR × Intensity	−0.62	−2.07	0.04

SD, self-distanced; SI, self-immersed; PR, positive reappraisal; RO, reflection-only.

distanced perspective. When experiences are emotionally intense, distanced reflection results in greater coherence and mattering than distanced reappraisal. When experiences are not very intense, distanced reflection actually results in less coherence and mattering than distanced reappraisal.

A possible objection is that "distanced reappraisal" (i.e., positively reconstruing the event from a third-person perspective) does not represent how positive reappraisal is typically practiced. Therefore, we also compared the standard implementations of positive reappraisal and self-distancing. That is, we compared reappraisal from the first-person perspective (*immersed reappraisal*) with reflection from a third-person perspective *without* reappraisal (*distanced reflection*). These analyses support the basic conclusion that when a negative event is

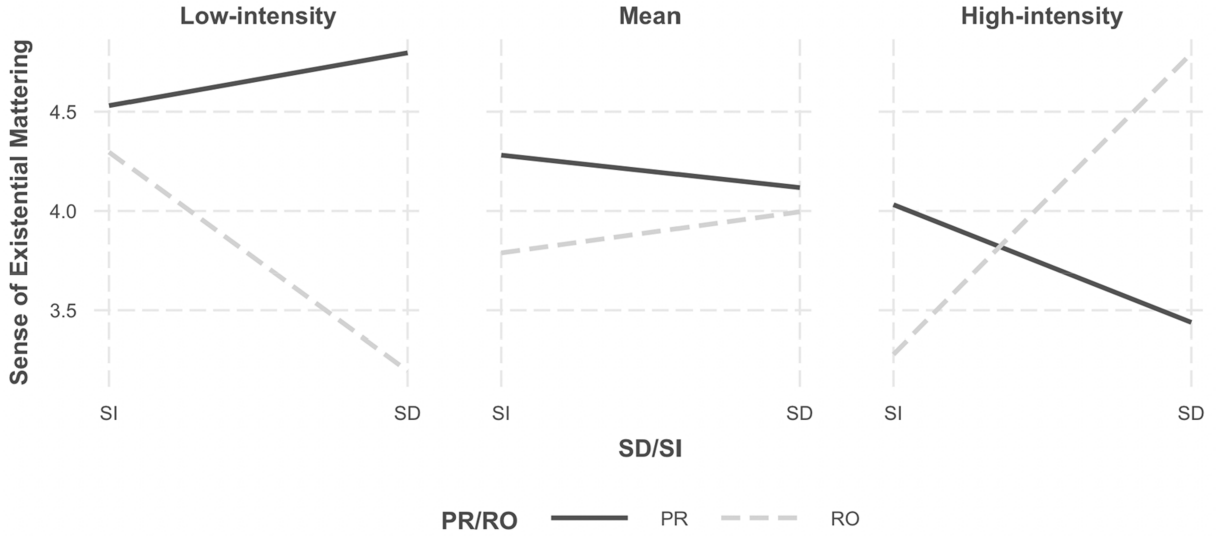

FIGURE 3
Initial intensity of negative experience moderates the effects of positive reappraisal and self-distancing on existential mattering. *Note*. PR, positive reappraisal; RO, reflection-only; SD, self-distanced; SI, self-immersed.

positive reappraisal, self-distancing, and the emotional intensity of the negative event.

Indeed, we expected a significant three-way interaction given our prediction that self-distancing would enhance the effectiveness of positive reappraisal for high-intensity negative experiences. However, the results revealed that the effects of positive reappraisal on coherence and mattering (the solid lines in the Figures 2, 3) were similar whether it was performed with a self-distanced (third-person) perspective or a self-immersed (first-person) perspective. This was true across levels of emotional intensity. Thus, our prediction was not supported.

When we carefully inspect the patterns underlying the three-way interaction (Figures 2, 3), we see that it is mainly driven by the effects of reflection *without* reappraisal (the dashed lines in the figures) and how it varies across different levels of intensity and perspectives (distanced versus immersed). For high-intensity negative events, distanced reflection enhanced coherence and mattering relative to immersed reflection. For low-intensity negative events, the effect was reversed: distanced reflection resulted in *less* coherence and mattering than immersed reflection. The three-way interaction emerges because these highly contrasting effects determine whether it is better to reappraise the negative experiences or to simply reflect on the experience from a highly emotionally charged, self-distancing is more effective than positive reappraisal for enhancing coherence and mattering. However, when a negative event is mild, positive reappraisal is more effective than self-distancing.

The discrepant results we obtain for self-distanced reflection at high and low emotional intensity may be surprising given past work has found that reflecting on a negative experience from a distanced perspective generally promotes situational meaning (Ayduk and Kross, 2008; Kross and Ayduk, 2008, 2009, 2011; Kross et al., 2014). A key difference between previous studies and ours is that the former tended to elicit very distressing life experiences (e.g., the loss of a loved one or divorce). In contrast, in the present study, participants were prompted for everyday negative experiences—such as problems in school (e.g., lack of cooperation from a group mate) or problems with relatives and family (e.g., argument with siblings). Thus, the events studied by Kross and colleagues tended to be of higher intensity, whereas the events elicited in the present study may have varied more across intensity levels.

Why might self-distancing reduce rather than enhance the meaningfulness of low-intensity experiences? Perhaps lower intensity experiences afford less complexity, with fewer insights emerging when broadening one's perspective of the event. Alternatively, individuals

TABLE 7 Regression coefficients of the three-way interaction between positive reappraisal, self-distancing, and intensity on situational purpose.

Predictor	*b*	*t*	*p*
SD	−0.07	−0.47	0.64
PR	0.60	3.99	< 0.01
Intensity	0.03	0.28	0.78
SD × Intensity	−0.17	−1.43	0.15
PR × Intensity	0.19	1.56	0.12
SD × PR	−0.03	−0.20	0.84
SD × PR × Intensity	0.05	0.44	0.66

SD, self-distanced; SI, self-immersed; PR, positive reappraisal; RO, reflection-only.

TABLE 8 Regression coefficients of the three-way interaction between positive reappraisal, self-distancing, and initial intensity on global purpose.

Predictor	*B*	*t*	*p*
SD	−0.06	−1.11	0.27
PR	0.00	0.06	0.95
Intensity	−0.03	−0.60	0.55
SD × Intensity	0.10	2.21	0.03
PR × Intensity	0.02	0.34	0.74
SD × PR	0.05	0.90	0.37
SD × PR × Intensity	−0.07	−1.54	0.12

SD, self-distanced; SI, self-immersed; PR, positive reappraisal; RO, reflection-only.

may not have much personal investment or engagement in the low-intensity experiences to begin with (White et al., 2019), and thus, individuals are constrained by the amount of content and information they can work with when they engage in self-distancing—inducing a floor effect.

Finally, whereas positive reappraisal and self-distancing affected situational meaning in various ways, no effects emerged for global measures of meaning (with the exception of global purpose). Perhaps this is not surprising given that only a single event—and one that could be relatively mundane—was examined. Nevertheless, it is possible that if individuals were trained to repeatedly process their negative experiences by engaging in reappraisal or self-distancing, a cumulative effect on global meaning could emerge over time. Future research to examine such interventions with experience sampling methodology would be extremely insightful.

5.1. Implications

In line with previous studies, our findings indicate that the tendency to engage in a self-immersed reflection (i.e., without positive reappraisal) results in diminished sense of meaning (Ayduk and Kross, 2010). In the attempt to understand the negative experience, individuals often engage in rumination. This perpetuates their fixation on self-relevant negative content—and may subsequently reduce their sense of meaning. However, we found that either adopting a self-distanced perspective or engaging in positive reappraisal buffered individuals against the reduced levels of meaning after a negative experience. Importantly, the effectiveness of one approach versus the other depends on (i) the emotional intensity of the experience; as well as (ii) which component of meaning one seeks to enhance.

Although positive reappraisal is generally an effective meaning-making strategy across a range of negative experiences, it may not be the most effective strategy for those that are highly emotionally charge. In particular, if individuals are struggling to make sense of such experiences or are questioning whether their own existence has value—reflecting on the experience in a distanced manner might be more helpful than attempting to reappraise it in a more positive manner. This observation could improve the development of meaning-based intervention. For example, expressive writing tasks could be structured in specific ways to promote one's sense of meaning rather than simply divulging one's deepest thoughts and feelings. Instead of delineating the concrete terms of the experience, a self-distanced reflection of the experience could foster additional insights and closure. Moreover, engaging in these writing tasks in the form of either positive reappraisal, or distanced reflection in one's daily life is both time-and cost-efficient to make meaning out of negative events. Other approaches that seek to alter negative emotional responses through self-compassion may also help people develop new meanings from daily negative experiences (e.g., Sebri et al., 2022). Therefore, applying strategies that seek to reduce NA as well as promote an alternate perspective of the negative experiences may be especially critical in promoting meaning in long-term distressing circumstances such as COVID-19 pandemic (Eisenbeck et al., 2021; Wong et al., 2021).

5.2. Limitations and future research

The self-distancing manipulation may have exerted a small effect and thus be ineffective in certain ways. For example, distanced participants did not differ significantly from immersed participants in their emotional reactivity—as assessed by the extent to which participants re-experienced the negative emotions they felt in the original event. This is inconsistent with prior studies (e.g., Kross et al., 2005; Ayduk and Kross, 2008; Kross and Ayduk, 2009). One factor could be the type of emotion elicited by the negative experience. Prior studies instructed participants to write about specific experiences (e.g., one that elicited anger or sadness). In contrast, the present study simply instructed participants to write about a negative experience. Hence, other negative emotions such as guilt and shame could also be evoked—which self-distancing may not be as effective in regulating (Katzir and Eyal, 2013). Further, although distanced participants reported lower levels of NA and PA on average than immersed participants, this difference was not statistically significant. It is important to note that affect was measured using the PANAS, which mainly consists of adjectives representing high activation and arousal (Jovanović, 2015; Jovanović et al., 2019). Affect characterized by low to medium arousal may not be adequately measured using PANAS. Thus, future research should consider measures that fully capture the diversity of positive and negative feelings, across varying arousal levels (for a review see Tov et al., 2023).

We also recognize that the implications and generalizability of this study are limited by the use of a predominately female Singaporean student sample. While it is not the primary aim of the study to examine the moderating role of gender, recent studies have revealed gender differences vis-à-vis positive reappraisal. Specifically, positive reappraisal was negatively associated with depressive symptoms more so in females than in males (Duarte et al., 2015). In contrast, we found that positive reappraisal

strengthened the perception of benefits in females and increased greater positive affect in males (Footnote 3). Thus, future research should consider the role of gender when developing meaning-based interventions.

In addition, cultural differences in the effects of positive reappraisal and self-distancing can be explored. A recent study suggested that dialecticism—the assumption that contradictory information can coexist (Peng and Nisbett, 1999)—may influence the ability to appraise negative situations more positively (Chen and Lee, 2021). For instance, East Asians (higher in dialecticism) were able to focus more on the positive aspects of negative events, as compared to North Americans who tended to hold more polarizing attitudes (Peng and Nisbett, 1999; Grossmann et al., 2014). Hence, individuals endorsing high dialectical thinking may face lesser resistance and difficulty in engaging positive reappraisal—as it involves the integration of positives (i.e., perceived valued gains) with the negatives (i.e., distressing reality). This could explain why we did not find an additional benefit of reappraising negative experiences from a distanced perspective, given our Singaporean sample. It is possible that in cultures where positive reappraisal may be more difficult, its effectiveness could be aided by practicing it from a third-person perspective.

Data availability statement

The datasets presented in this study can be found in online repositories. The names of the repository/repositories and accession number(s) can be found below: https://osf.io/s93hz.

Ethics statement

The studies involving human participants were reviewed and approved by Singapore Management University Institutional Review Board. The patients/participants provided their written informed consent to participate in this study.

Author contributions

CL and WT contributed to the conceptualization, design, and implementation of the research, to the analysis of the results, and to the writing of the manuscript. WT supervised the project. All authors contributed to the article and approved the submitted version.

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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.

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Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyg.2023.1093412/full#supplementary-material

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What's next for wellbeing science? Moving from the Anthropocene to the Symbiocene

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The modern world is now living through the Anthropocene (Slaughter, 2012); a "new human" era signifying the impact that human activities have had on the ecosystems within which we live, characterized by distinct ecological change. Anthropogenic climate change is increasing risk and frequency of natural disasters, with rising global temperatures leading to more devastating droughts, wildfires, and floods, as well as loss of life and agricultural capacity. The climate crisis is a systemic problem contributing to a multitude of socioeconomic, demographic, and political consequences (Kalwak and Weihgold, 2022) moving us toward what has been described as "Hothouse Earth" (McGuire, 2022), a phenomenon that cannot be reversed through human intervention once the tipping point is passed (Steffen et al., 2018). The Power Threat Meaning Framework (Johnstone et al., 2018) provides a lens through which different responses to climate breakdown including eco-distress, climate trauma and feelings of institutional betrayal may be understood. These are no longer issues that can be understood through traditional models for understanding psychological distress (e.g., the Diagnostic and Statistical Manual), but issues tied to wider contextual factors including vested interests of the fossil fuel industry, carbon intense lifestyles, geopolitics and war (Morgan et al., 2022). Developments in psychological science and ecophilosophy highlight an urgent need to foster a sense personal agency for the promotion of planetary wellbeing, rediscovering a sense of purpose and hope, and reconnecting with and cultivating compassion for the natural world, which will require reaching out to those with different personal values (Morgan et al., 2022; Pihkala, 2022). Despite the positive contributions of psychology, including the promotion of climate action (Gulliver et al., 2021), the field has been criticized for focusing on the individual rather than the system (Kern et al., 2020). Our own work (Kemp et al., 2017; Mead et al., 2019, 2021a; Kemp and Fisher, 2022; Wilkie et al., 2022), and the work of others (Kern et al., 2020; Lomas et al., 2021; Lambert et al., 2022), has highlighted how the combination of top-down (e.g., public policy) and bottom-up (i.e., individual behavior change) approaches may be combined to support responses to complex problems. Our focus in this paper is on the need for population-wide inner development and self-transformation to improve progress on the United Nations Sustainable Development Goals (UNSDGs), drawing on scientific developments embedded in existential and positive psychology.

On the need for inner development for people and planet

The UNSDGs represent a universal call to action to achieve peace and prosperity for people and the planet by the year 2030 (https://sdgs.un.org/). These goals provide a blueprint for sustainability and focus on the promotion of good health and wellbeing, minimizing poverty, reducing inequalities, building sustainable cities and communities, and acting against climate change. Progress on the UNSDGs has been disappointing (see https://unstats.un.org/sdgs/report/2022/ for further information), indicating that policy mandates alone are not sufficient to spur collective action—we must *also* focus on individuals and communities at scale and nurture their capacities to promote planetary wellbeing. The suggestion that capacity for effective action will depend on the inner development and transformation of individuals (Wamsler and Brink, 2018; Woiwode et al., 2021) is an idea that has led to the so-called "inner development goals" (IDGs; https://www.innerdevelopmentgoals.org/).

The Inner Development Goals initiative highlights various skills and qualities for inner growth that must be supported in individuals, groups, and organizations if humanity is to achieve a sustainable global society in the face of complex societal and global issues. This includes cognitive and social skills, with a focus on being, thinking, relating, and civic engagement including collaboration and activism. These concepts are conterminous with developments in wellbeing science (Kern et al., 2020; Lomas et al., 2021; Mead et al., 2021a; Kemp and Edwards, 2022; Lambert et al., 2022), highlighting that actions to support planetary health and wellbeing are often synonymous to those required to achieve individual and collective wellbeing, highlighting the overlap between the complex constructs and systems of the modern world. Our own theoretical framework (the GENIAL model) focuses on similar concepts, including balanced minds, engaged communities, and connection to nature, around which we have promoted positive change at multiple levels of scale. We have defined the complex construct of wellbeing itself as a sense of connectedness to ourselves (the individual domain), others (the community domain), and nature (the environment domain) (Kemp et al., 2017; Mead et al., 2021b; Kemp and Fisher, 2022; Wilkie et al., 2022). Various societal crises reflect the result of a disconnection from ourselves, others, and nature (Bhaskar, 2012; Weintrobe et al., 2021); such that rebuilding our sense of connection (or "relatedness", as per the Inner Development Goals) is crucial for supporting ourselves, communities and planet.

A sense of connection to the self (i.e., the individual) may be supported by activities which engage the body and mind, such as mindfulness. Defined as intentional, non-judgemental attention to the present moment (Kabat-Zinn, 2005), mindfulness has been linked to theories of attention and awareness (Brown et al., 2007; Sumantry and Stewart, 2021), with research demonstrating that regular mindfulness meditation influences structural changes in brain regions involved in learning, emotion regulation, self-referential processing and perspective taking (Hölzel et al., 2011). Mindfulness-based behavioral therapies, such as Acceptance and Commitment Therapy, focus on defusing thoughts, feelings, and experiences and explicitly seek to promote mental health and wellbeing by increasing meaningfulness and valued living (Hayes et al., 1999). Mindfulness may support clarification of one's values, with value-based living driving thoughtful future actions. Together these strategies offer one example of evidence-based and sustainable means for supporting inner development (Ericson et al., 2014) by broadening mindsets and increasing the capacity of individuals to deal with complex issues (such as climate change), reducing avoidance-based coping tendencies that may otherwise arise when overwhelmed (Centre for Research on Environmental Decisions, 2009). A focus on inner development may therefore encourage and facilitate "sustainability from within" (Wamsler et al., 2018).

We now provide examples of how we have sought to promote inner development within the context of education and the healthcare sector—two complex systems with great capacity to promote wellbeing at a population-wide level.

Promoting inner development through complex systems

A system can be conceptualized as an integrated or interdependent set of elements forming a complex whole (WHO Regional Office for Europe, 2022). Systems-based approaches therefore emphasize a need for understanding dynamic interconnections between elements within a system (which may include individuals, populations, and organizations) to recognize how agents evolve in response to each other and their varying contexts (WHO Regional Office for Europe, 2022). Systems-informed thinking lends itself to addressing societal health challenges by taking a broader viewpoint which accounts for the complexity and interdependence of related and overlapping systems (Kreuter et al., 2004). Healthcare is one such system that is inherently complex (Tien and Goldschmidt-Clermont, 2009), as is the education sector. Recent efforts have combined developments in positive psychology with systems-based thinking to identify leverage points where meaningful change may occur (Kern et al., 2020). This approach has been successfully applied to education (Kern et al., 2020), with such developments inspiring our own work within the education and healthcare sectors (Kemp and Fisher, 2022). Our recent efforts have demonstrated how inner development may facilitate collective action aimed at societal challenges that include the climate crisis, demonstrated through the strategic design and delivery of an evidence-based module based on our GENIAL framework (Kemp et al., 2017; Mead et al., 2021a). This module educates students about the latest developments in wellbeing science and theory and empowers them to apply these ideas to promote individual, collective and planetary wellbeing (Kemp and Fisher, 2021; Kemp L. et al., 2022; Kemp A. H. et al., 2022). Delivery of this module was found to significantly improve levels of student wellbeing at a time of suffering and crisis—specifically during the height of the COVID-19 pandemic, during which time levels of anxiety and depression increased (Castaldelli-Maia et al., 2021) especially in those at a social or economic disadvantage (Gloster et al., 2020). It is this focus on building inner development alongside suffering that is a key part of second wave positive psychology (Wong, 2019).

Suffering is an inevitable feature of the human experience (Malpas and Lickiss, 2012; Wong, 2022). This is not to say that we must surrender to suffering, but rather that we must learn to transcend (Nhât Hạnh, 2014) and harness its potential to foster growth in contrast to experiential avoidance (Chawla and Ostafin, 2007). Existential positive psychology outlines the foundations for growth through adversity (Wong, 2019), with philosophical underpinnings based on the work of Frankl (1984), and more recently, the writings of Paul Wong (Wong, 2011, 2019, 2020). As evidenced by the COVID-19 pandemic, suffering can be a driver for positive change, ranging from small-scale changes at the individual level (such as health behaviors; Jaeger et al., 2021) to large-scale changes that impact upon the environment, such as reductions in pollution and greenhouse gas emission (Khan et al., 2021). However, change is not always permanent, as is evidenced by ever increasing emissions (Ripple et al., 2021; Davis et al., 2022) despite slight improvements during multi-national COVID-related lockdowns. Our own work has identified the role of tragic optimism (optimism despite suffering) in supporting wellbeing (Mead et al., 2021b) during the pandemic, along with routes through which post-traumatic growth can be achieved, including gratitude (a self-transcendent emotion) and connection to nature (Mead et al., 2022). Embedding these insights into the psychology curriculum and encouraging students to apply these principles to their own lives has the potential to scale up opportunities for positive change. We have also applied our GENIAL theoretical framework to our work within the healthcare sector leading to previously unimagined interventions for individuals with pervasive impairments resulting from acquired brain injury (Tulip et al., 2020; Wilkie et al., 2021; Gibbs et al., 2022a). This work is focused on achieving positive change at multiple levels of scale including the individual (e.g., post-traumatic growth), community (group-focused positive psychotherapy) and the organization (e.g., co-production and partnership working), positioning the individual within increasing phenomenological scales that extend to the ecosystem and life course, with important implications for the sustainability of the healthcare sector (Gibbs et al., 2022b).

Laying the foundations for the Symbiocene

The Sustainable Development Goals and Inner Development Goals highlight the role that wellbeing and psychological science can play in securing a better future for ourselves and the planet. Small steps have been taken in positive psychology to move from a sole focus on the individual to include a focus on groups and societies (Lomas et al., 2021); we further these steps by highlighting the need for fostering inner development (a focus on the individual) in order to drive societal change supported by top-down initiatives (a focus on the community and environment) at a higher level through, for example, wellbeing public policy (e.g., Fabian and Pykett, 2022). Strategies which nourish inner dimensions and foster connection, community, and a belief in something greater than oneself have been described as an emerging "*recovery movement*" in response to the various crises we face (Koger, 2015). These crises in part, stem from an extreme disconnection from the self, others and nature (Bhaskar, 2012; Way et al., 2018; Weintrobe et al., 2021), and we argue therefore that methods to facilitate these connections may help to build our inner resources (Mead et al., 2021b; Wilkie et al., 2022), supporting individual change needed to achieve positive change at higher levels of scale. A focus on the inter-relationships of the self, others and nature will lay strong foundations for a new era described as the Symbiocene (from the Greek "sumbiosis", or companionship; Albrecht and van Horn, 2016), in which all living beings live together harmoniously in mutual benefit, providing a potential antidote to the "*long emergency*" (Kunstler, 2007) of the climate crisis.

Conclusions

We suggest that the health and wellbeing of individuals, communities and nature is dependent upon humanity moving toward a new epoch—the Symbiocene—characterized by an interconnectedness and "eco-homeostasis" between all living beings (Albrecht and van Horn, 2016). Progress on inner development must be supported alongside commitments to systemic change for a new "ecological economics" of a future post-growth society (Jackson, 2016). Inner development will play a key role in driving positive planetary change, and psychological scientists have a unique opportunity to facilitate such change by promoting the need for self-development and transformation to manage, cope and inevitably flourish despite suffering. This potential has motivated the development and continued refinement of our own GENIAL model, research and applications, guided by a need to better align sustainability and wellbeing agendas (Kemp et al., 2017; Mead et al., 2021b; Kemp and Fisher, 2022). The emerging fusion of ideas between sustainability literature, wellbeing science, and behavior change, offers huge potential for developing novel, evidenced-based approaches to societal transformation.

Author contributions

JM and AK developed the manuscript aims and refined iterations of the manuscript. JM and KG developed the first iteration of the manuscript and integrated feedback into the manuscript. AK and ZF provided continuous feedback on variations of the manuscript. All authors contributed to the article and approved the submitted version.

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.

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Changes in Chinese early adolescents' group orientation and mental health from before to during the COVID-19 pandemic

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Adolescence is a critical period for formulating and developing value orientations. The COVID-19 pandemic has dramatically restricted people's lives, potentially leading adolescents to reevaluate what they prioritize in life (i.e., their values) and affecting their mental health. Previous studies suggest that Chinese early adolescents' group orientation is negatively associated with mental health more strongly in rural than in urban, whereas this rural–urban differs may vary after the outbreak of the pandemic. To examine potential changes in group orientation, mental health, and their associations during the pandemic, two cross-sectional surveys of ninth-grade students in the same three school were conducted in rural and urban China in 2019 and 2021. The results showed that compared with students before the pandemic (2019, N=516, 48.8% girls, M_{age}=14.87years), students during the pandemic (2021, N=655, 48.1% girls, M_{age}=14.80years) displayed lower group orientation such as group responsibility and rule abiding of rural students, and higher loneliness and depressive symptoms. Social equality, group responsibility and rule abiding were all significantly negatively associated with loneliness and depressive symptoms. Those negative associations were stronger in the urban regions than in the rural region. Follow-up invariance analysis revealed that this rural–urban difference in the relations between social equality, group responsibility, and rule abiding and mental health problems was only significant during (and not before) the pandemic. The protective effect of group orientation on mental health seems to be weakened only in rural contexts. The results suggest that significant changes in macrolevel contexts may play an important role in shaping adolescents' value orientation and mental health.

KEYWORDS

COVID-19, group orientation, mental health, rural–urban difference, Chinese early adolescents

1. Introduction

Since the World Health Organization declared the novel coronavirus disease (COVID-19) a pandemic on 11 March 2020, the surge of infections seriously threatened citizens' lives and posed a significant challenge to national healthcare systems (Zhang N. et al., 2022). To interrupt the spread of the pandemic, some preventive and suppressive measures have been implemented

worldwide, including school closures, social distancing, and masking (Zhang N. et al., 2022). The true extent of the pandemic is not yet known, yet research already suggests that COVID-19 will have a persistent and profound impact on individuals' mental health and wellbeing, especially for at-risk and vulnerable groups such as children and adolescents, infected and suspected infected individuals, medical frontline workers, home isolators, older adults (65 years and older), chronically ill patients, and disabled persons (Zhang N. et al., 2022). Children and adolescents, in particular, have limited event interpretation skills and coping strategies, which may leave them more vulnerable to psychological health problems during the pandemic (Dalton et al., 2020). Moreover, online teaching and prolonged home isolation have reduced opportunities for interacting with peers and teachers, which may undermine the physical and mental health of children and adolescents (Liu et al., 2021; Lichand et al., 2022). For instance, researchers found that Norwegian adolescents had higher depressive symptoms and lower optimism about their future lives during (relative to before) the pandemic (von Soest et al., 2022).

The COVID-19 pandemic greatly affected people's lives, potentially leading individuals to reevaluate their views and beliefs regarding what is important (Daniel et al., 2021). Value orientations reflect what people prioritize in life (Schwartz, 1992), and thus form the basis for constructing belief systems on what is right or wrong, good or bad. Adolescents' value orientations could be directly associated with their mental health: for instance, group orientation has been found to significantly weaken children's loneliness and depressive symptoms (e.g., Liu et al., 2018). Shifts in the values of early adolescents during the COVID-19 pandemic may have far-reaching consequences for the societal future, particularly those regarding group orientation, which is highly valued in traditional Chinese culture. Early adolescence is a critical time for formulating and developing value orientations, which are susceptible to influence by society, school, family, and peers (Sagiv and Schwartz, 2022). Moreover, as regional culture differs between urban and rural areas in China, the association between group orientation and mental health may vary (Chen et al., 2012; Liu et al., 2018). It will be interesting to investigate how adolescents' group orientation, mental health, and their associations change in the rural and urban environment during a continuous crisis.

1.1. Early adolescents' group orientation during COVID-19

Group orientation is characterized by concern for group welfare and collective harmony (Chen et al., 2012). Higher group-oriented individuals are more likely to display responsiveness and respect, especially when expressing their own views and feelings, which is extremely important to maintain group functioning and positive social relationships (Kitayama et al., 2010). As a core component of the self, value orientations have great stability through life but are also adaptive and may be altered by the external environment, especially for adolescents (Alvarez et al., 2021; Daniel et al., 2021). Early adolescence is an important period in the development of identity and autonomy (Kroger et al., 2010) and the emergence of mental health problems (Kessler et al., 2005). As their need for autonomy and independence awakens, adolescents are generally more open to change than adults, and place a higher value on hedonism and stimulation, as well as personal success, achievement, and power (Alvarez et al., 2021). However, the value orientations of early adolescents are susceptible to influence by surroundings, and could thus be altered by life adversities such as the spread of major infectious diseases (e.g., COVID-19).

In most studies of changes in personal values during the pandemic, researchers have used of 10 basic individual values identified by Schwartz (1992). In the Schwartz value theory, values are structured on a circular continuum according to their expressed motivations. Adjacent values express compatible motivations, while opposing values express conflicting motivations, categorized by two pairs of higher-order dimensions (e.g., Daniel et al., 2021; Sagiv and Schwartz, 2022). On the one hand, the openness to change vs. conservation dimension captures the conflict between the motivation to promote creativity, independence, novelty, and excitement expressed by self-direction, stimulation, and hedonism values. On the other hand, motivation to maintain order and safety and resistance to change is expressed by conformity, tradition, and security values. Similarly, the self-transcendence vs. self-enhancement dimension captures the conflict between the motivation to promote concern for the welfare of others, as expressed by universalism and benevolence values; the motivation to promote self-interest, success, and dominance is expressed by power and achievement values. Previous studies have found that major existential threats can change an individual's value orientation. For example, in the aftermath of the 2008 financial crisis (Sortheix et al., 2019) and exposure to war (Daniel et al., 2013), early adolescents' conservation values became more important, while motivationally opposing values, including self-direction, stimulation, and hedonism, weakened. According to evolutionary theory, the collective behavioral reactions to major infectious diseases could lead to adaptive change in an individual's value orientations (Thornhill and Fincher, 2014). To reduce disease spread during a disaster, behavioral avoidance systems (e.g., decreased out-group contact) and conservation values may be activated (Woltin and Bardi, 2018). Previous studies have also documented systematic population-wide changes in personal values during the COVID-19 pandemic. Some longitudinal studies have reported that conservation values have strengthened, while self-transcendence values have weakened during the pandemic (Daniel et al., 2021; Yu et al., 2022). According to the terror management theory (Greenberg et al., 1986), there are conflicting predictions of changes in self-transcendence. Increased mortality is likely to increase the willingness to defend one's own worldview (Burke et al., 2013), which could decrease the value of the universalism aspect (concern for welfare of all) of self-transcendence (Courtney et al., 2020). However, other studies found that increased mortality salience would provoke enhanced associations with close others after major existential threats (Mikulincer et al., 2003), thereby increasing the importance of the benevolence aspect (concern for welfare of close others) of self-transcendence. Daniel et al. (2021) explored these effects in Australian adults and revealed that the outbreak of the pandemic was initially followed by declining concern for distant others, society, and nature; later, connections with close others began falling too. Over time, the decreased importance of self-transcendence values was more likely in individuals with high levels of worry about the pandemic than those with medium or low levels of worry.

Notwithstanding the robustness of the evidence produced under the theory identified by Schwartz (1992), thus far, relevant research on

the pandemic has mostly focused on values in adults and adolescents (Russo et al., 2022; Sagiv and Schwartz, 2022), with a paucity of evidence on the younger population, namely early adolescents. Therefore, this study will explore the change of group orientation from before to during the pandemic in Chinese early adolescents.

1.2. Group orientation and mental health in rural and urban contexts

China is considered a collectivist society, with Confucianism as the predominant ideology guiding people's lives (Ho, 1986; Yang, 1986). Confucianism requires that people restrain their behaviors and emotions to maintain positive social relationships and group harmony (i.e., Chen et al., 2012). Chinese society encourages concern for group functioning and prioritizing collective welfare over one's own benefit, especially amid the emerging conflict between individual and collective interests (Chen, 2012). Therefore, adolescents who display self-control and value group functioning are more likely to be appreciated by parents, educators, and peers. According to Lu (2006), group orientation creates a "cultural fit" with the social expectations of China's collectivist culture. It has also been shown to be positively associated with psychosocial adjustment: for instance, adolescents who focus more on group orientation have greater social competence and higher self-esteem, while also experiencing less loneliness and depressive symptoms (Chen et al., 2012; Liu et al., 2018; Wang et al., 2018; Tan et al., 2021).

Studies on how context affects the relationship between value orientations and mental health suggest that the same value orientation may relate positively or negatively to mental health, depending on the social context (Sagiv and Schwartz, 2022). Value orientation may create or enhance positive associations with mental health if pursuing the value helps the individual overcome contextual obstacles. Before the pandemic, unprecedented market-oriented reforms and increasing urbanization dramatically changed Chinese social circumstances (Chen et al., 2005, 2012). Notably, individualism is on the rise, while collectivism is declining (Cai et al., 2020). Self-orientation, which emphasizes personal competition and independence, is increasingly accepted, particularly by the young urban generations (Chen et al., 2005, 2021; Liu et al., 2018). For example, a study of 6th to 12th grade Chinese students revealed that individualistic orientation positively contributed to adolescents' perceived self-worth (Tan et al., 2021). However, the large-scale market-oriented reform and urbanization in China has been largely limited to urban centers and cities. In rural regions, the group orientation traditionally endorsed by Confucian ideologies is still more likely to prevail (Liu et al., 2018; Yue et al., 2020). It has been found, for example, that compared to their urban peers, rural adolescents who emphasize group orientation will receive more social reinforcement and experience fewer emotional functioning problems (Chen et al., 2012; Liu et al., 2018).

It is noteworthy that although individuality, independence, and autonomy increase with rapid urbanization and individualization in early adolescents, they do not necessarily reduce their need for social relationships and a sense of belonging (Kagitcibasi and Ataca, 2005). Group orientation, such as social harmony and obedience, persists, and even strengthens, in modern Chinese society (Zeng and Greenfield, 2015; Zhou et al., 2018). Chen et al. (2012) found that urban youth's self- and group-orientation values become more coexisted and integrated in China. A recent three-year longitudinal study examined the developmental trajectories of value orientations across early adolescents. The study found that early adolescents' self- and group-orientation values increased in linear trajectories (Chen et al., 2018). Li et al. (2018) found that group orientation (i.e., social equality, group responsibility, and rule-abiding) was higher in urban cities than rural areas, and that the alleviative effect of group orientation on depressive symptoms did not vary with urbanization. Therefore, the relationships between group orientation and mental health in Chinese early adolescents are not inevitably stronger in rural than in urban areas, depending on various situational factors.

Major life events may cause substantial changes in people's values and their relationship with mental health. Whether new variations in rural–urban differences have emerged following the COVID-19 outbreak in the relationship between Chinese early adolescents' group orientation and mental health remains to be seen. China was the first country to adopt strict measures against the spread of the virus, such as school closures, physical distancing, and restrictions on recreational activities (Qi et al., 2022). These measures kept infections and deaths to very low levels, while also negatively impacted on the economy, employment, and public health (Zhang Q. et al., 2022). Researchers have suggested that the prevalence of mental health problems (e.g., depression and anxiety symptoms) in children and adolescents has increased considerably during COVID-19 (e.g., Racine et al., 2021).

There is also mixed evidence on rural–urban differences in the relationship between group orientation and mental health after the outbreak of the pandemic. Some studies have found that, compared to cities, the protective effect of group orientation on mental health seems to enhanced in rural contexts during the pandemic. For example, rural migrant children and left-behind children appeared to have higher psychological wellbeing than urban children during the initial phase of the COVID-19 outbreak in China (e.g., Zhang R. et al., 2022). Compared with United States and Japanese participants, Chinese participants had a stronger link between societal considerations and higher acceptance of society-level preventive measures (e.g., school closure) during the COVID-19 pandemic (Zhu et al., 2021). Zhu et al. (2020) argued that the learning style that adolescents adopt to cope with uncertainty threats in different cultural contexts may have profound psychological implications. Compared with adolescents in individualistic cultures who use an individual learning style (i.e., a free, independent search for innovative solutions) to enhance their sense of control, adolescents in collectivistic cultures who adopt a social learning style (i.e., copying existing solutions with deference and conformity) are more likely to benefit from those reconcile measures during the COVID-19 pandemic.

However, depending on the continuation of new life conditions, the longevity of changes in value may affect their relationship with mental health. Previous studies have pointed out that value orientations have returned to normal, such as openness to change in Australia in late 2020 (Daniel et al., 2021). Approximately 2 years following the outbreak, China entered a relatively stable stage of prevention and control of COVID-19 with low contagiousness and low mortality. Adolescents' fear and anxiety have alleviated, and the need for self-direction has increased consistently (e.g., Yu et al., 2022). While urban residents recovered quickly when virus transmission was effectively contained, the impact of the pandemic on rural regions remains unresolved, if not intensified (Shen et al., 2021). This suggests that when the virus spread is effectively contained, the return of value

orientation among early adolescents in rural areas may be somewhat higher than in urban areas. Relatively low socioeconomic status, unfavorable learning environment, and the coexistence contradiction between excessive supervision and frequent violations of pandemic prevention measures may be important factors hindering group orientation reacquisition. In this study, we explore whether there are new patterns of change in early adolescents' group orientation in relation to mental health that emerged among rural and urban samples from before to during the pandemic.

1.3. The present study

The COVID-19 pandemic greatly affected adolescents' lives, which may have impacted on their views and beliefs on what is important (i.e., their values; Daniel et al., 2021). The primary purpose of this study is to examine the relationships between group orientation and mental health in Chinese early adolescents before and during the COVID-19 pandemic. The study used two samples of ninth-grade students from three regular public junior high schools in rural and urban regions: the first sample was surveyed in 2019 and the second in 2021. The ninth-grade is a critical period in adolescents' formulation and development of their values and beliefs (Li et al., 2018; Wang et al., 2018). Additionally, Chinese entrance exams for high school place significant pressure on ninth graders, even during COVID-19 quarantine. Chinese adolescents' academic success or failure can have a ripple effect on their self-perception (e.g., self-esteem) and mental health problems including loneliness and depressive symptoms (e.g., Liu et al., 2018; Tan et al., 2021).

As Heim et al. (2019) contends, to produce meaningful findings on correlations between personal value orientations and self-reported symptoms of psychopathology, the cultural context must be considered. Dramatic social changes in China have resulted co-existence between modern and traditional values; the ideal and the secular; collectivism and individualism. To reveal changes in adolescents' values, Wang et al. (2018) developed the Adolescent Values Questionnaire (AVQ) based on contemporary China. This questionnaire has demonstrated high levels of reliability and validity in assessing the value orientations of Chinese adolescents (Li et al., 2018; Wang et al., 2018). In the present study, we chose social equality, group responsibility, and rule-abiding as indicators to reflect three aspects of group orientation. Social equality captures the approval of social norms and justice, concerns about social status, and respect for human rights. Group responsibility embodies concerns and preferences for group interests. Valuing group responsibility does not mean that individuals must sacrifice their independence; rather, they express the desire to integrate, belong, and grow together with the group. Rule-abiding captures an individual's adherence to social rules, laws, traditions, and customs, which is consistent with the concern for self-discipline and obedience advocated by Confucianism and Taoism in traditional Chinese culture. Previous studies have found that social equality, group responsibility and rule abiding were significantly negatively associated with mental health problems such as depressive symptoms (Li et al., 2018). By comparing the AVQ with Schwartz's (2005) theory of the structure of values, Wang et al. (2018) suggested that social equality is related to the universalism aspect of self-transcendence, rule-abiding is related to conservation value, and group responsibility is related to social-focused values that are directed toward the interests of the closer social network or society at large. Regarding youth mental health, loneliness and depressive symptoms are considered important indicators in the time of COVID-19 (e.g., Brooks et al., 2020). Moreover, previous studies have found that gender and parental education level may be related to group orientation and mental health (Liu et al., 2018; Zhao et al., 2022). Accordingly, we added both as control variables.

The current study is the first application of the Adolescent Values Questionnaire (AVQ) in contemporary China to examine the changes in value orientation and mental health problems of early adolescents before and during the pandemic. Based on previous theoretical and empirical studies (e.g., Daniel et al., 2021; Yu et al., 2022), we hypothesized that following the outbreak of COVID-19, Chinese early adolescents' social equality and group responsibility decrease, and rule abiding increase. In addition, based on the literature on rural–urban differences in China (e.g., Liu et al., 2018; Zhu et al., 2020, 2021), we expected the relationships between group orientation particularly group responsibility and mental health to be stronger in rural contexts than in urban ones.

2. Materials and methods

2.1. Participants

Of the three schools selected for the cross-sectional surveys, two were located in urban areas (Yantai, Shandong Province, and Shanghai) and one was in a rural area (Anyang, Henan Province). The sample for the first survey (November 2019, before the pandemic) comprised 516 ninth-grade students (48.8% girls, 69.4% urban residents, $M_{age} = 14.87$ years, SD = 0.54). Regarding parents' education level, 66.9% of fathers and 73.7% of mothers had not progressed beyond junior high school, 28.2% of fathers and 21.1% of mothers had achieved a senior high school degree, and the remainder had achieved a college degree or completed higher education. Two years later(November 2021), the second survey was conducted with a new sample of 655 ninth-grade students (48.1% girls, 56.8% urban residents, $M_{age} = 14.80$ years, SD = 0.57) from the same three schools. As regards parents' education level, 59.9% of fathers and 64.8% of mothers had not progressed beyond junior high school, 25.8% of fathers and 21.9% of mothers had achieved a senior high school degree, and the remainder had achieved a college degree or completed higher education. The rural and urban adolescents did not differ on age [$t(1125) = 1.89$, $p > 0.05$] or gender [$\chi^2(1) = 0.07$, $p > 0.05$], but urban fathers [$\chi^2(2) = 141.66$, $p < 0.001$] and mothers [$\chi^2(2) = 105.77$, $p < 0.001$] were more likely than their rural equivalents to have achieved a senior high school degree or completed higher education. The parental educational levels in this sample were similar to those reported for the general population in the regions (Bureau of Statistics of Anyang, 2021; Bureau of Statistics of Shanghai, 2021; Bureau of Statistics of Yantai, 2021). Most participants in both samples were of Han

TABLE 1 Basic characteristics of socioeconomic indicators.

Variables	Before the pandemic				During the pandemic			
	Urban		Rural		Urban		Rural	
	N	%	*N*	%	*N*	%	*N*	%
Full sample	358	69.4	158	31.6	372	56.8	283	43.2
Gender								
Girl	166	46.4	86	54.4	184	49.5	131	46.3
Boy	191	54.6	72	45.6	182	51.5	152	54.7
Father education								
Junior high school and below	189	58.5	122	85.9	144	41.7	225	83.0
Senior high school	112	34.7	19	13.4	114	33.0	45	16.6
College and above	22	6.8	1	0.7	87	25.3	1	0.4
Mother education								
Junior high school and below	216	66.1	126	92.0	173	49.9	226	84.0
Senior high school	88	26.9	10	7.3	97	28.0	38	14.1
College and above	23	7.0	1	0.7	77	22.1	5	1.9
Native residence								
Yes	274	80.8	137	99.3	288	81.4	274	98.9
No	65	19.2	1	0.7	66	18.6	3	1.1

nationality, which is the predominant ethnic group in China (over 90% of the population). Almost all participants were of native residence (over 80% of the population). Preliminary analyses indicated no significant differences between Shanghai and Yantai in the relations between group orientation and mental health problems. Basic characteristics of socioeconomic indicators are presented in Table 1.

2.2. Measures

2.2.1. Group orientation

Group orientation of early adolescents was assessed using the Adolescent Values Questionnaire developed by Wang et al. (2018). The original instrument comprises 46 items across eight dimensions: social equality, group responsibility, rule abiding, family wellbeing, friendship, self-improvement, fashion, and personal happiness. Each item describes a person's view or belief, and participants report the extent to which that view/belief matches their own, responding on a five-point scale from 1 ("not like me at all") to 5 ("very much like me"). Previous studies have shown that this scale has high levels of reliability and validity in the Chinese cultural context (Li et al., 2018; Wang et al., 2018). As this study focused more on the early adolescents' concern for group welfare and collective harmony than the concern for self- or close others' interests, according to the recommendations of Wang et al. (2018), the following were used as indicators of group orientation: social equality (six items, e.g., "He/she believes that all people are equal, regardless of race, gender, social status, etc."); group responsibility (seven items, e.g., "He/she believes that people can forsake their own interests to promote group functioning"); rule abiding (five items, e.g., "He/she believes that everyone has to abide by discipline and rules"). Standardized loadings ranged from 0.468 to 0.836, and the three-factor model had acceptable goodness of fit for the before- and during-pandemic groups: $\chi^2(129) = 308.486$ and 376.825, comparative fit index (CFI) = 0.929 and 0.940, root mean squared error of approximation (RMSEA) = 0.052 and 0.054, standardized root mean square residual (SRMR) = 0.044 and 0.039, respectively. The Cronbach's alpha coefficients for social equality, group responsibility and rule abiding before and during the pandemic were 0.826, 0.849, 0.836 and 0.885, 0.872, 0.876, respectively.

2.2.2. Loneliness

Early adolescents' loneliness was assessed using Illinois Loneliness Scale, a self-report measure adapted from Asher et al. (1984). The measure comprises 16 statements describing loneliness (e.g., "I have nobody to talk to"; "I feel lonely"), and participants respond by indicating the extent to which each statement applies to them. Responses are given on a 5-point scale, ranging from 1 ("not at all true") to 5 ("always true"). Previous studies have shown that this scale has high levels of reliability and validity in a Chinese cultural context (e.g., Liu et al., 2021). Standardized loadings ranged from 0.376 to 0.821, and the five-factor model had acceptable goodness of fit for the before- and during-pandemic groups: $\chi^2(92) = 226.93$ and 300.50, CFI = 0.942 and 0.940, RMSEA = 0.053 and 0.059, SRMR = 0.047 and 0.057, respectively. The Cronbach's alpha coefficients for loneliness before and during the pandemic were 0.862 and 0.877, respectively.

2.2.3. Depressive symptoms

Depressive symptoms in early adolescents were measured through the Childhood Depression Inventory, developed by Kovacs (1985) and revised by Chen et al. (2005). The inventory comprises 14 items covering a wide range of typical depressive symptoms, such as sleep disorders, loss of appetite, and suicidal ideation. Each item is answered on a three-point scale and the scores for reverse questions are transformed to obtain the mean score. A higher score indicates stronger depressive symptoms. The inventory has shown relatively high reliability and validity for a Chinese adolescent sample (Liu et al., 2014). Standardized loadings ranged from 0.371 to 0.729, and the one-factor model had acceptable goodness of fit for the before- and during-pandemic groups: $\chi^2(73) = 175.56$ and 187.12, CFI = 0.926 and 0.944, RMSEA = 0.052 and 0.049, SRMR = 0.043 and 0.039, respectively. The Cronbach's alpha coefficients for depressive symptoms before and during the pandemic were 0.856 and 0.867, respectively.

2.3. Procedure

After obtaining the consent of the school, data collection was conducted in 2019.11 (before the pandemic) and 2021.11 (about 2 years after the outbreak of the pandemic). The procedure was the same in the urban and rural groups. All researchers involved in collecting

data were Ph.D. or master's students majoring in developmental and educational psychology. Prior to data collection, they underwent training in psychological assessment. When administering the questionnaire survey, the researchers explained to participating students and their parents/legal guardians the study's purpose, that responses would remain confidential, and that participation was entirely voluntary. In the study, participants completed self-report measures of group orientation, loneliness, and depressive symptoms. It took approximately 30 to 45 min to complete the measures. All participating students and their parents (or legal guardians) signed the informed consent form before the survey.

2.4. Data analysis

We first examined measurement invariance for group orientation, loneliness, and depressive symptoms. The latent constructs of social equality, group responsibility and rule abiding as well as loneliness and depressive symptoms were formed based on the corresponding items. Then, we tested the main effect of group orientation on loneliness and depressive symptoms through structural equation modeling. Finally, a set of multigroup invariance tests were conducted to assess overall differences across rural–urban group and rural–urban group interactions with before-during pandemic in the relations. A significant difference in χ^2 between the constrained model (all the paths were set equal across groups) and the unconstrained model (all the paths were freed across groups), which calculated by Wald Chi-square test, indicated the path coefficients in the relations could not be considered equivalent between the groups. When overall group differences are found, the sources of difference will be investigated through follow-up invariance tests on specific path coefficients across rural–urban group, constraining individual relations between group orientation and mental health problems. In structural equation modeling and multigroup invariance tests, we controlled for adolescent's gender and parental education level (the mean of mother and father educational levels). The analyses were conducted in Mplus 7.4 (Muthén and Muthén, 2012).

Overall model fit was evaluated by four indices: chi-square goodness-of-fit statistic, CFI, RMSEA, and SRMR. The criteria for acceptable model fit were CFI ≥ 0.90, RMSEA ≤ 0.06, and SRMR ≤ 0.08 (Hu and Bentler, 1999). We also reported 95% bias-corrected confidence intervals (95% CI), with significance denoted by the 95% CI not including zero (MacKinnon et al., 2004).

3. Results

3.1. Measurement invariance

We tested measurement invariance of group orientation, loneliness, and depressive symptoms by fitting and comparing a series of sequentially more constrained models. The aim was to verify that the factor loadings and intercepts for indicators were invariant across rural–urban group, before-during pandemic group, and gender. Measurement invariance was tested by using chi-square values and the changes in the value of CFI, RMSEA, and SRMR (Chen, 2007). Significant chi-square test results suggest potential heterogeneity of the model across groups, while small changes in SRMR, CFI, and RMSEA suggest model invariance (Chen, 2007). Because of Chi-square tests are sensitive to sample size and may incorrectly reject measurement invariance, we further applied the change criteria of CFI, RMSEA and SRMR to ascertain measurement invariance in cases of significant chi-square test results. We examined the invariance of loadings, intercepts, and means of the model. Specifically, for testing loading invariance, ΔCFI ≥ 0.010, ΔRMSEA ≥ 0.015, or ΔSRMR ≥ 0.030 indicated non-invariance; for testing intercept invariance, ΔCFI ≥ 0.010, ΔRMSEA ≥ 0.015, or ΔSRMR ≥ 0.010 indicated non-invariance (Chen, 2007). As shown in Table 2, the results indicate that factor loadings and (partial) intercepts invariance was established for group orientation, loneliness, and depressive symptoms.

3.2. Descriptive data

No item has more than 2.39% missingness. Little's MCAR test (Rubin, 1976) showed that the data were missing completely at random [$\chi^2(60) = 76.85$, $p > 0.05$]. As suggested by other researchers (e.g., Graham, 2009), we used full information maximum likelihood estimation to handle missing data.

A multivariate analysis of variance was conducted to examine gender, before-during pandemic, and rural–urban group on the variables. The results showed that the main effects of rural–urban group [*Wilks'* $\lambda = 0.945$, $F(5, 1{,}149) = 13.37$, $p < 0.001$, $\eta^2 = 0.055$], before-during pandemic group [*Wilks'* $\lambda = 0.976$, $F(5, 1{,}149) = 5.71$, $p < 0.001$, $\eta^2 = 0.024$] and gender [*Wilks'* $\lambda = 0.944$, $F(5, 1{,}149) = 13.52$, $p < 0.001$, $\eta^2 = 0.056$] were all significant. There was a significant interaction effect of rural–urban group and before-during pandemic group [*Wilks'* $\lambda = 0.990$, $F(5, 1{,}149) = 2.24$, $p < 0.05$, $\eta^2 = 0.010$], and other interaction effects were all no significant.

Follow-up univariate analyses revealed that social equality [$F(1, 1{,}153) = 21.28$, $p < 0.001$, $\eta^2 = 0.018$], group responsibility [$F(1, 1{,}153) = 12.72$, $p < 0.001$, $\eta^2 = 0.011$] and rule abiding [$F(1, 1{,}153) = 16.32$, $p < 0.001$, $\eta^2 = 0.014$] were significantly higher, loneliness [$F(1, 1{,}153) = 9.00$, $p < 0.01$, $\eta^2 = 0.008$] and depressive symptoms [$F(1, 1{,}153) = 12.86$, $p < 0.001$, $\eta^2 = 0.011$] were significantly lower before than during the pandemic. Social equality [$F(1, 1{,}153) = 15.12$, $p < 0.001$, $\eta^2 = 0.011$], group responsibility [$F(1, 1{,}153) = 12.39$, $p < 0.001$, $\eta^2 = 0.011$] and rule abiding [$F(1, 1{,}153) = 48.10$, $p < 0.001$, $\eta^2 = 0.040$] were significant higher, loneliness was significantly lower [$F(1, 1{,}153) = 4.85$, $p < 0.05$, $\eta^2 = 0.004$] in the urban regions than in the rural region. Girls reported greater social equality [$F(1, 1{,}153) = 17.65$, $p < 0.001$, $\eta^2 = 0.015$] and rule abiding [$F(1, 1{,}153) = 10.67$, $p < 0.001$, $\eta^2 = 0.009$], loneliness [$F(1, 1{,}153) = 9.23$, $p < 0.01$, $\eta^2 = 0.008$] and depressive symptoms [$F(1, 1{,}153) = 21.32$, $p < 0.001$, $\eta^2 = 0.018$] than did boys. In rural, students reported greater group responsibility and rule abiding before than during the pandemic; these effects were not evident in urban. The means and standard deviations of group orientation and mental health problems are presented in Table 3.

As shown in Table 4, Pearson's correlation analysis indicated that, for urban adolescents, social equality, group responsibility and rule abiding were significantly negatively associated with loneliness and depressive symptoms before to during the pandemic. For rural adolescents, before the pandemic, social equality, group responsibility and rule abiding were significantly negatively associated with loneliness, however, during the pandemic, only group responsibility

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TABLE 2 Fit statistics for measurement model and tests of measurement invariance.

Model	Model χ^2 (*df*)	$\Delta\chi^2$(*df*), *p*	RMSEA	CFI	SRMR	ΔRMSEA	ΔCFI	ΔSRMR
Group orientation								
Rural–urban group								
Configural	665.900(258)		0.052	0.941	0.040			
Loadings	694.490(273)	25.62(15), <0.05	0.051	0.939	0.049	−0.001	−0.002	0.009
Intercepts	730.310(288)	34.62(15), <0.01	0.051	0.936	0.050	0.000	−0.003	0.001
Before-during pandemic								
Configural	685.910(258)		0.053	0.936	0.041			
Loadings	703.610(273)	13.74(15), >0.05	0.052	0.935	0.047	−0.001	−0.001	0.006
Intercepts	735.100(288)	27.26(15), <0.05	0.051	0.933	0.049	−0.001	−0.002	0.002
Gender								
Configural	653.26(258)		0.051	0.941	0.039			
Loadings	676.25(273)	19.59(15), >0.05	0.050	0.940	0.049	−0.001	−0.001	0.010
Intercepts	710.87(288)	33.19(15), <0.01	0.050	0.937	0.053	0.000	−0.003	0.004
Loneliness								
Rural–urban group								
Configural	497.31(184)		0.054	0.947	0.050			
Loadings	521.65(199)	24.29(15), >0.05	0.053	0.945	0.059	−0.001	−0.002	0.009
Intercepts	602.65(214)	93.57(15), <0.001	0.056	0.934	0.059	0.003	−0.011	0.000
Intercepts_m	581.18(213)	69.04(14), <0.001	0.054	0.937	0.059	0.001	−0.008	0.000
Before-during pandemic								
Configural	528.83(184)		0.057	0.940	0.053			
Loadings	548.34(199)	19.97(15), >0.05	0.055	0.940	0.058	−0.002	0.000	0.005
Intercepts	581.22(214)	29.88(15), <0.05	0.054	0.937	0.057	−0.001	−0.003	−0.001
Gender								
Configural	519.19(184)		0.056	0.940	0.053			
Loadings	537.00(199)	18.46(15), >0.05	0.054	0.940	0.058	−0.002	0.000	0.005
Intercepts	631.21(214)	114.18(15), <0.001	0.058	0.926	0.061	0.004	−0.014	0.003
Intercepts_m	599.65(212)	78.11(13), <0.001	0.056	0.931	0.061	0.002	−0.009	0.003
Depressive symptoms								
Rural–urban group								
Configural	353.72(146)		0.049	0.940	0.040			
Loadings	370.24(159)	17.80(13), >0.05	0.048	0.939	0.048	−0.001	−0.001	0.008
Intercepts	416.30(172)	49.12(13), <0.001	0.049	0.929	0.049	0.001	−0.010	0.001
Before-during pandemic								
Configural	362.66(146)		0.050	0.937	0.041			
Loadings	366.93(159)	6.72(13), >0.05	0.047	0.939	0.045	−0.003	0.002	0.004
Intercepts	408.11(172)	43.50(13), <0.001	0.048	0.931	0.047	0.001	−0.008	0.002
Gender								
Configural	408.62(146)		0.056	0.923	0.044			
Loadings	453.79(159)	44.23(13), <0.001	0.057	0.913	0.067	0.001	−0.010	0.023
Intercepts	510.96(172)	60.52(13), <0.001	0.058	0.900	0.075	0.001	−0.013	0.008
Intercepts_m	483.48(171)	28.97(12), <0.001	0.056	0.908	0.074	−0.001	−0.005	0.007

Configural, testing whether the factor structure is the same across groups; Loadings, testing whether the factor loadings (from items to constructs and from constructs to higher-order constructs) are similar across groups; Intercepts, testing whether model intercepts are also equivalent across groups; Intercepts_m, Intercepts invariance model modified.

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TABLE 3 Means and standard deviations of group orientation and mental health problems(M±SD).

Variables	Urban region				Rural region			
	Before the pandemic		During the pandemic		Before the pandemic		During the pandemic	
	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Social equality	4.53 ± 0.57	4.37 ± 0.65	4.45 ± 0.68	4.19 ± 0.86	4.48 ± 0.53	4.24 ± 0.7	4.12 ± 0.75	4.03 ± 0.84
Group responsibility	4.03 ± 0.71	3.94 ± 0.74	3.96 ± 0.77	3.97 ± 0.84	3.98 ± 0.68	3.95 ± 0.69	3.60 ± 0.70	3.71 ± 0.77
Rule abiding	4.47 ± 0.66	4.31 ± 0.70	4.40 ± 0.69	4.22 ± 0.85	4.31 ± 0.63	4.07 ± 0.80	3.91 ± 0.80	3.84 ± 0.89
Loneliness	2.06 ± 0.73	2.00 ± 0.64	2.19 ± 0.71	2.00 ± 0.74	2.11 ± 0.64	2.01 ± 0.52	2.34 ± 0.66	2.17 ± 0.73
Depressive symptoms	1.55 ± 0.39	1.40 ± 0.33	1.60 ± 0.38	1.46 ± 0.34	1.44 ± 0.31	1.43 ± 0.27	1.59 ± 0.37	1.49 ± 0.36

TABLE 4 Correlations of study variables in urban and rural groups before and during the pandemic.

Variables	1	2	3	4	5	6	7
Before the pandemic							
1. Social equality	1.00	0.73***	0.73***	−0.35***	−0.24***	0.19***	−0.13*
2. Group responsibility	0.65***	1.00	0.67***	−0.42***	−0.25***	0.25***	−0.06
3. Rule abiding	0.74***	0.71***	1.00	−0.36***	−0.27***	0.13*	−0.12*
4. Loneliness	−0.29***	−0.36***	−0.32***	1.00	0.63***	−0.13*	−0.04
5. Depressive symptoms	−0.21**	−0.29***	−0.27***	0.61***	1.00	−0.07	−0.21***
6. Parental education	0.02	0.02	−0.02	−0.16	0.03	1.00	−0.08
7. Gender	−0.19*	−0.03	−0.15	−0.08	−0.02	0.002	1.00
During the pandemic							
1. Social equality	1.00	0.77***	0.82***	−0.32***	−0.26***	0.13*	−0.17**
2. Group responsibility	0.75***	1.00	0.77***	−0.47***	−0.40***	0.10	0.01
3. Rule abiding	0.76***	0.71***	1.00	−0.35***	−0.33***	0.14*	−0.11*
4. Loneliness	−0.16**	−0.29***	−0.13*	1.00	0.62***	−0.11*	−0.13*
5. Depressive symptoms	−0.07	−0.14*	−0.08	0.54***	1.00	−0.001	−0.19***
6. Parental education	0.01	−0.001	0.02	−0.06	−0.09	1.00	−0.06
7. Gender	−0.06	0.07	−0.04	−0.12*	0.14*	0.09	1.00

Above the diagonal: correlations for urban adolescents; underneath the diagonal: correlations for rural adolescents. Gender (0 = girl, 1 = boy). *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

was significantly negatively associated with depressive symptoms. In addition, we also found parental education level and adolescent's gender were both negatively correlated with loneliness and depressive symptoms, while parental education level was significantly positively associated with group orientation. Therefore, we controlled for the influence of parental education level and adolescent's gender in the subsequent analyses.

3.3. Multigroup analysis of the influence of group orientation on mental health problems

We conducted structural equation modeling to test the main effect of group orientation on mental health problems, controlling for adolescent's gender and parental education. All model of social equality, group responsibility and rule abiding on mental health problems fitted the data well. The results showed that social equality, group responsibility and rule abiding were significantly negatively associated with loneliness ($\beta = -0.40$ to -0.30, $ps < 0.001$) and depressive symptoms ($\beta = -0.35$ to -0.28, $ps < 0.001$). Main effect of group orientations on mental health problems are presented in Table 5.

Next, we conducted a set of multigroup invariance tests to examine the associations between group orientation and mental health, controlling for adolescent's gender and parental education. The model of each aspect of group orientation and mental health problems, in which all paths were allowed to vary across rural–urban group, had acceptable goodness of fit ($\chi^2/df = 1.90$ to 2.01, RMSEA < 0.042, CFI > 0.915, SRMR < 0.059). The Wald chi-square test indicated there were significant differences in the relations between group orientation and mental health problems across rural–urban group overall [social equality: $\chi^2(2) = 11.41$, $p < 0.01$; group responsibility: $\chi^2(2) = 7.79$, $p < 0.05$; rule abiding: $\chi^2(2) = 9.54$, $p < 0.01$]. Follow-up invariance tests showed that social equality, group responsibility and rule abiding were negatively associated with loneliness and depressive symptoms more strongly in urban than in rural [$\chi^2(1) = 4.94$ to 14.46, $ps < 0.05$]. The results of the tests and the effects of group orientation

TABLE 5 Main effect of group orientations on mental health problems.

					Goodness–of–fit				
Path	*β*	*SE*	*t*	95% CI	χ^2	*df*	RMSEA	CFI	SRMR
SE on LN	−0.30	0.04	−7.96***	−0.37, −0.22	1649.75	615	0.038	0.926	0.052
SE on DS	−0.28	0.04	−7.39***	−0.36, −0.21					
GR on LN	−0.40	0.04	−11.07***	−0.47, −0.33	1830.00	660	0.039	0.919	0.056
GR on DS	−0.35	0.04	−9.95***	−0.41, −0.28					
RA on LN	−0.32	0.04	−8.70***	−0.39, −0.25	1689.14	589	0.040	0.920	0.054
RA on DS	−0.31	0.04	−8.41***	−0.38, −0.24					

LN, Loneliness; DS, Depressive symptoms; SE, Social equality; GR, Group responsibility; RA, Rule abiding. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

TABLE 6 Multigroup invariance of group orientation on mental health problems across rural–urban group.

	Rural				Urban				
Path	*β*	*SE*	*t*	95%CI	*β*	*SE*	*t*	95%CI	$\chi^2(1)$
SE on MHP									
SE on LN	−0.19	0.06	−3.01**	−0.32, −0.07	−0.37	0.05	−8.19***	−0.46, −0.28	12.91***
SE on DS	−0.18	0.07	−2.49*	−0.32, −0.04	−0.36	0.04	−8.45***	−0.44, −0.28	8.89**
GR on MHP									
GR on LN	−0.28	0.06	−4.60***	−0.40, −0.16	−0.47	0.05	−10.38***	−0.55, −0.38	7.08**
GR on DS	−0.23	0.07	−3.42***	−0.36, −0.10	−0.42	0.04	−10.67***	−0.50, −0.34	6.44*
RA on MHP									
RA on LN	−0.21	0.06	−3.33***	−0.33, −0.09	−0.39	0.04	−9.02***	−0.48, −0.31	8.75**
RA on DS	−0.20	0.07	−3.01**	−0.33, −0.07	−0.40	0.04	−9.73***	−0.48, −0.32	7.93**

MHP, Mental health problems; LN, Loneliness; DS, Depressive symptoms; SE, Social equality; GR, Group responsibility; RA, Rule abiding. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

on mental health problems across rural–urban group are presented in Table 6.

Finally, we further conducted multigroup analysis to test whether there were rural–urban group differences in the relations before to during the pandemic. The results of rural-group differences in the relations of group orientations on mental health problems before and during the pandemic are presented in Table 7. The Wald chi-square test indicated there were group differences between social equality [$\chi^2(6) = 18.83$, $p < 0.01$], group responsibility [$\chi^2(2) = 7.72$, $p < 0.05$, only constrained path coefficient of main effect] as well as rule abiding [$\chi^2(6) = 18.31$, $p < 0.01$] and mental health problems overall. Follow-up invariance tests indicated that before the pandemic, social equality, group responsibility and rule abiding were all negatively associated with loneliness and depressive symptoms in rural and urban, and no rural–urban group differences in the relations. However, during the pandemic, the associations of social equality, group responsibility and rule abiding on loneliness and depressive symptoms in urban, group responsibility on depressive symptoms in rural, were all significant, and there were rural–urban group differences [$\chi^2(1) = 7.08$ to 13.77, $ps < 0.01$] in the relations. In addition, the before-during pandemic group differences between social equality and loneliness [$\chi^2(1) = 47.27$, $p < 0.001$], rule abiding and loneliness [$\chi^2(1) = 58.50$, $p < 0.001$] and depressive symptoms [$\chi^2(1) = 4.87$, $p < 0.05$] were all significant in rural (rather than in urban).

4. Discussion

By surveying rural and urban early adolescents shortly before and 2 years into the COVID-19 pandemic in China, we found that, compared with students before the pandemic, during-pandemic students displayed lower group orientation such as group responsibility and rule abiding of rural students, and increased loneliness and depressive symptoms. More importantly, we found stronger negative associations between group orientation and mental health problems in urban contexts than in rural ones. The protective effect of group orientation on mental health seems to weaken only in rural contexts. These results indicate different implications regarding group orientation and the mental health of urban and rural early adolescents facing threats posed by the COVID-19 pandemic in China.

We found that early adolescents' loneliness and depressive symptoms were significantly higher during the pandemic than those before the pandemic. These results suggest that the pandemic has negatively impacted mental health, which could be explained by COVID-19-related restrictions (Liu et al., 2021). In line with previous studies (e.g., Chen et al., 2012), we found that girls reported higher group orientation, loneliness, and depressive symptoms than did boys.

Approximately 2 years after the COVID-19 outbreak, we found that both feelings of social equality and group

TABLE 7 Rural-group differences in the relations of group orientations on mental health problems before and during the pandemic.

	Rural				Urban				
Path	*β*	*SE*	*t*	95%CI	*β*	*SE*	*t*	95%CI	$\chi^2(1)$
SE on MHP									
Bef: SE on LN	−0.43	0.13	−3.40***	−0.68, −0.18	−0.39	0.07	−5.82***	−0.53, −0.26	1.21
Dur: SE on LN	−0.10	0.08	−1.34	−0.25, 0.05	−0.35	0.06	−5.56***	−0.47, −0.23	12.63***
Bef: SE on DS	−0.37	0.13	−2.78**	−0.64, −0.11	−0.32	0.07	−4.97***	−0.45, −0.20	1.67
Dur: SE on DS	−0.09	0.09	−0.96	−0.26, 0.09	−0.36	0.06	−5.94***	−0.48, −0.24	8.71**
GR on MHP									
Bef: GR on LN	−0.35	0.10	−3.46***	−0.55, −0.15	−0.44	0.06	−6.77***	−0.56, −0.31	1.11
Dur: GR on LN	−0.22	0.08	−2.90**	−0.42, −0.07	−0.48	0.06	−7.47***	−0.60, −0.35	7.08**
Bef: GR on DS	−0.34	0.11	−3.13**	−0.56, −0.13	−0.36	0.06	−6.18***	−0.47, −0.24	0.89
Dur: GR on DS	−0.15	0.09	−1.74	−0.32, 0.02	−0.47	0.05	−8.85***	−0.57, −0.37	7.98**
RA on MHP									
Bef: RA on LN	−0.44	0.11	−3.86***	−0.66, −0.22	−0.41	0.06	−6.65***	−0.53, −0.29	0.28
Dur: RA on LN	−0.10	0.08	−1.32	−0.26, 0.05	−0.36	0.06	−5.82***	−0.49, −0.24	11.88***
Bef: RA on DS	−0.44	0.12	−3.63***	−0.67, −0.20	−0.36	0.06	−6.32***	−0.47, −0.25	0.07
Dur: RA on DS	−0.09	0.08	−1.07	−0.25, 0.07	−0.43	0.06	−7.21***	−0.54, −0.31	13.77***

Bef, Before the pandemic; Dur, During the pandemic; MHP, Mental health problems; LN, Loneliness; DS, Depressive symptoms; SE, Social equality; GR, Group responsibility; RA, Rule abiding. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

responsibility decreased. These changes may be due to personal and societal disease prevention measures restricting behavior that expresses self-transcendence, such as altruistic behavior (e.g., helping classmates) and cooperation (e.g., actively negotiating conflict) during a continuous crisis event (Daniel et al., 2021). Alternatively, it is possible that concern for self-preservation and personal safety outweighs some concern for others, which is consistent with previous research suggesting that excessive worry may cause social withdrawal (Seligman, 1972). Contrary to previous hypotheses, we found that rule-abiding declined, and that group responsibility and rule-abiding were reduced only in rural students before and during the pandemic, not urban students. It may be that, although the tighter society-level preventive measures implemented in rural areas (e.g., closed access to villages and police-enforced social distancing) resulted in very low infection rates, the relatively wide living space and lack of disease knowledge rendered individual-level preventive measures (e.g., wearing facemasks and handwashing) difficult to monitor, leading to frequent violations of pandemic prevention measures, which may reduce rural adolescents' acceptance of the values like group responsibility and rule-abiding. Moreover, as values can be transmitted intergenerationally (Knafo and Schwartz, 2004), the generally higher education level of urban adolescents' parents may result in these teenagers receiving more attention, thus alleviating the decline of group orientation.

In line with earlier research findings (e.g., Li et al., 2018), we did not find a significantly stronger negative relationship between group orientation and mental health problems in rural areas. Further analysis revealed that the attenuating effect of each aspect of group orientation on mental health weakened or even disappeared in rural (but not urban) areas during the pandemic. This finding differs from those of previous studies (Chen et al., 2012; Liu et al., 2018). This may be related to new changes in external threat pressure over time. In the early stages of the COVID-19 pandemic, whether in urban or rural areas, the imposition of unfamiliar public health measures, infringements on personal freedoms, speculation about uncertain health prognoses, large and growing financial losses, conflicting and changing messaging from authorities, and severing of social connection contributed to widespread distress and risk of mental health difficulties (Pfefferbaum and North, 2020). Even rural migrant children and left-behind children appeared to have higher psychological well-being than urban children (Zhang R. et al., 2022). Approximately 2 years following the outbreak, however, while urban residents recovered quickly when virus transmission was effectively contained, the impact of the pandemic on rural regions remains unresolved, if not intensified (Shen et al., 2021). Persistent uncertainty and reduced sense of control make some rural adolescents less concerned about group interests, which is in line with research on learned helplessness (Seligman, 1972). Therefore, rural adolescents may benefit less from group orientation to prevent mental health problems than their urban peers.

In the specific context of the COVID-19 pandemic, previous studies had indicated that activating group orientation could promote prosocial behaviors among adolescents (e.g., Russo et al., 2022). It is also suggested by existential positive psychology and Wong et al.'s (2021) self-transcendence paradigm model that human beings can best flourish through the transformation of suffering and concern for others in a difficult and uncertain world. This study's findings suggest the importance of social context in the relationship between value orientation and mental health symptoms. To create a good

environment for cultivating adolescents value orientations during and after the pandemic, policymakers and educators should emphasize their growth and learning circumstances that minimize the influence of risk factors on adolescents' values, especially in rural areas.

Several study limitations and future research directions should be noted. First, this study only identified changes in early adolescents' group orientation and mental health during the pandemic, it did not elucidate how value orientations influence mental health. Future studies should examine the mechanisms through which group orientation affects loneliness, depressive symptoms, and other aspects of mental health, such as whether mental health problems can be alleviated through prosocial behaviors (Russo et al., 2022). Second, this research only focused on group orientation and did not address other, self-oriented values such as fashion and personal happiness. Previous studies have found that collectivistic and individualistic orientations coexist among young Chinese individuals (Tan et al., 2021). Third, the cross-sectional design, single-subject groups (Chinese ninth graders), and higher percentage of urban residents in the pre-pandemic sample prevents us from drawing causal conclusions and limits the generalizability of our findings. Finally, we examined societal changes in values using a self-report survey at the individual level, future research should use additional methods such as classify free-formatted texts according to the values that they express (Sagiv and Schwartz, 2022), and also encompass the cultural and social levels.

5. Conclusion

Overall, this study reveals that during a continuous crisis affecting many fields of life, environmental conditions may lead to change in the value orientation of early adolescents, with possible long-term implications for mental health. Two years after the outbreak of the pandemic, we found lower group orientation and more loneliness and depressive symptoms among early adolescents. Moreover, during the pandemic, the positive effects of group orientation on loneliness and depressive symptoms were stronger among urban adolescents than their rural peers. These results indicate that, during a continuous crisis event that affects many areas of life, value orientations and their relationships to mental health may change in multiple directions.

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 Ethics Review Board of the Social Sciences Office of Shanghai Normal University. Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin.

Author contributions

XH: conceptualization, methodology, formal analysis, resources, data curation, and writing—original draft. DL: conceptualization, methodology, writing—review and editing, and validation. MZ: data curation. YX, PY, XD, and RZ: methodology, investigation, and writing—review and editing. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that they have no known competing financial interests or personal relationships that could appear to influence the work reported in this paper.

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Values mediated emotional adjustment by emotion regulation: A longitudinal study among adolescents in China

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Values have a direct impact on adolescents' mental health. However, its potential mediated mechanism has received little attention. A 1-year longitudinal survey design was used to explore the mediating role of emotion regulation in the relationships between self-transcendence (vs. self-enhancement) values and emotional adjustment among adolescents. Participants were 863 senior school students from Shanghai and Qingdao, Shandong Province. Data on self-transcendence and self-enhancement values, loneliness, depression, and emotion regulation were collected at 2019 and 2020 by using self-report measures. The results showed that (1) adolescents' endorsement with self-transcendence values decreased and self-enhancement values increased; compared to adolescents in Qingdao, adolescents in Shanghai were more depressed, (2) emotion regulation only mediated the effect of self-transcendence values on loneliness, and (3) not only the relationship between self-transcendence values and depression, but also the relationships between self-enhancement values and loneliness and depression were suppressed by emotion regulation. The study may provide more empirical evidences for the benefits of self-transcendence values and may also give more references on how to improve adolescents' emotional adjustment.

KEYWORDS

self-transcendence values, loneliness, depression, emotion regulation, adolescents

Introduction

Values are abstract and desirable goals which reflecting what is important to us (Schwartz, 1992). Adolescence is an important period to form and develop one's values (Inglehart, 1978), previous studies found that values which adolescents endorse have a significant affect on their psychological adjustment and well-being (Bojanowska and Piotrowski, 2018; Liu et al., 2021). However, how values and emotion adjustment are linked is unclear. According to the General Aggression Model (Anderson and Bushman, 2002) and the Self-centeredness/Selflessness Happiness Model (Dambrun and Ricard, 2011), the current study seeks to address this gap by examing the mediating role of emotion regulation in the relationship between values and emotional adjustment, which may be helpful for intervention for values and mental health among adolescents.

Theory of human basic values and emotional adjustment

Over the decades, there were many different constructs and theories about values, such as the equality freedom model of ideology proposed by Rokeach (1973). Up to date, the most

comprehensive and commonly used one is the model of Human Basic Values proposed by Schwartz (1992). The model assumptions have been extensively studied within different samples and in over 70 countries (Schwartz and Rubel, 2005). In Schwartz's value theory, there are 10 values which can divided into four higher-order dimensions. According to the motivation the ten values expressed, the values system is organized by a circular continuum. On the adjacent sides of the circle, the values express compatible motivations and usually drive individual to show similar behaviors. However, on the opposite sides of the circle, values express conflicting motivations and usually make individual show opposite behaviors (Cieciuch et al., 2015). As one of the pairs of values with conflicting motives, self-transcendence values include benevolence and universalism values, which express concern for well-being of others and the whole world. In contrast, self-enhancement values include power and achievement values, which express concern for self-interest.

Schwartz (2014) noted that researchers can determine the number of values and the classification of value sets based on their research interests, the type and instrument of analysis used, and the population sampled, as long as the order of the values in circle model is kept constant. The present study focuses on self-transcendence and self-enhancement values. First, the two values are more closely related to emotional adjustment among adolescents. Specifically, self-transcendence values are related to higher-level happiness (Bojanowska and Piotrowski, 2018), less loneliness and depression (Liu et al., 2021), which are important indexes for measuring adolescents' emotional adjustment (Al-Yagon, 2011). More important, with the rapid development of society and economy, adolescents have become more independent and competitive and pay more attention to personal interests (Chen et al., 2012), which is often accompanied by negative emotions such as anxiety and frustration (Twenge, 2015). Therefore, the study of self-transcendence (vs. self-enhancement) values is also in line with the current development of adolescents, and may help to meet the urgent need to alleviate adolescents' negative emotions and promote their emotional adjustment.

The relationships between values and emotional adjustment: The mediating role of emotion regulation

As the above stated, although self-transcendence and self-enhancement values are closely related to emotional adjustment among adolescents, less studies have explored how self-transcendence values prompt adolescents' healthy growth. Emotion regulation, which refers to the attempts individuals make to maintain, inhibit and enhance emotional experience and expression (Rottenberg and Gross, 2007), may be an important mediating variable. Effective emotion regulation not only promotes one's mental health and well-being (Haines et al., 2016; Preece et al., 2021), but also motivates one to be more altruistic in social interactions (Song et al., 2018). More important, adolescence has always been called "stormy period," and it is one of the main characteristics of adolescents with large emotional fluctuations (Casey et al., 2010). Thus, mature emotion regulation is also very important in adolescence.

To our knowledge, previous studies have less examined the relationship between values and emotion regulation. However, some theories as follows may offer a better explanation. The General Aggression Model (GAM; Anderson and Bushman, 2002) states that values as an important individual factor guide aggressive behaviors. Previous studies demonstrated that self-transcendence values are negatively related to aggression, but self-enhancement values are positively associated with aggression among adolescents (Benish-Weisman, 2019; Benish-Weisman et al., 2019). In addition, individual factors further influence aggressive behavior through internal states such as emotions. If negative emotions such as anger and jealousy are not effectively regulated, adolescents may be more aggressive (Strayer and Roberts, 2010). Therefore, values may predict aggression through emotion regulation, and there may be a strong association between values and emotion regulation.

Similarly, the Self-centeredness/Selflessness Happiness Model (SSHM; Dambrun and Ricard, 2011) holds that self-centeredness and selflessness are two qualitatively distinct dimensions and relate to two types of happiness, respectively. Specifically, if one focuses on the self-enhancement values, he or she may experience more fluctuating happiness, which is characterized by the alternation of transitory pleasure and afflictive effects (e.g., hostility and frustration). If one endorses the self-transcendence values, by contrast, he or she may experience more authentic-durable happiness, which is characterized by a state of durable peace and feeling of harmony. Such harmonious connection relies less on positive or negative feedback from the environment, and more on the one's internal resources, such as mental resilience and emotional regulation, to cope with all experiences of pleasure and pain. In addition, self-transcendence values are associated with durable happiness through emotion stability (Dambrun, 2017), and Liu et al. (2022) also stated that it is necessary to examine the effect of self-transcendence values on emotion regulation to provide new perspectives for understanding the relationship between self-transcendence values and durable happiness. Thus, it is speculated that values may be closely linked to emotion regulation.

As mentioned above, individuals who endorse the self-transcendence values care for the interests and well-being of others and try to connect with others and society in harmony (Dambrun and Ricard, 2011). To maintain friendly social relationships, they may be more proactive in regulating their emotions and preventing inappropriate emotional expressions from negatively affecting interpersonal relationships. In contrast, individuals who endorse the self-enhancement values are more concerned with personal interests. When encountered information that is potentially threatening to their positive self-image, they may often react defensively, such as failing to regulate and control their emotions and expressing their hostility and anger unabashedly (Tamir et al., 2016), regardless of whether these emotions cause harm to others. In summary, we hypothesize that person who endorses the self-transcendence (vs. self-enhancement) values may have proper emotion regulation ability, and then may have better emotion adjustment (i.e., less negative emotions).

The current study

Although previous studies have suggested that values have an important influence on emotional adjustment, cross-sectional design cannot reveal the causal relationship between variables; and less study has investigated its potential mediation mechanism. Moreover, some theories offer a better explanation to understand values and emotion regulation, however, the relation between them needs to be further

examined. Thus, a 1-year longitudinal design is used to explore the mediating role of emotion regulation between the two values (i.e., self-transcendence and self-enhancement) and emotional adjustment (i.e., loneliness and depression) in Chinese adolescents. The mediation hypothesis model is shown in Figure 1.

Methods

Participants

Participants in senior schools from Shanghai and Qingdao, Shandong Province were selected. Shanghai, locates on China's central eastern coast at the mouth of the Yangtze River, is an international metropolis. Qingdao is located on the eastern coastal areas of Shandong Province, which is the origin of Confucian culture. There were 939 students in Grade 1 (371 in Shanghai and 568 in Shandong) at Time 1. From the original sample, there were 863 students at Time 2, 330 in Shanghai (*M*age = 17.15 years, SD =. 75), and 533 in Qingdao (*M*age = 17.35 years, SD =. 80). There were 10 and 24 classes in Shanghai and Shandong samples, respectively. Ten classes in Shanghai were surveyed and 11 classes in Shandong were randomly selected, with approximately 45 students in each class. The χ^2-test and *t*-test results showed that there was no significant difference between adolescents who participated at T2 and those who did not on gender ($\chi^2(1) = 2.07$, $p = 0.15$), age (t (937) = −0.07, $p = 0.947$), T1 self- transcendence ($t(894)$ =. 20, $p = 0.844$), T1 self-enhancement ($t(894) = 1.69$, $p = 0.091$), but there was significant difference between the two groups on T1 emotional regulation ($t(925) = -4.02$, $p < 0.001$). We gave a gift to participants as a reward for their participation after the survey.

Measures

Values. We used the Portrait Values Questionnaire (PVQ; Cieciuch and Schwartz, 2012) to assess participants' values. The PVQ included 40 items, and by using an implicit way, each item described a short verbal portrait, which reflecting a person's goals or aspirations that point to the importance of a value type. We only used the self-transcendence (including 10 items) and self-enhancement values (including 7 items) subscale. By using a 6-point (1 = not like me at all, 6 = very much like me) scale, participants should rate how similar was the described person to them (e.g., "*It is important for him/her to help the person around him/her. He/she wants to care about them and make their lives happy*" describes a person who endorses with the self-transcendence values. "*Success is important to him/her. He/she likes to make a good impression on others*" describes a person who endorses with the self-enhancement values.). To control for response tendency, we used a previous adjustment method (Schwartz and Bardi, 2001; Gu and Tse, 2018) to calculate the scale scores. Previous study in Chinese adolescents had proved the PVQ was reliable and valid (Liu et al., 2021). For the self-transcendence values, the internal reliabilities were .75 and .80 at Time 1 and Time 2 respectively; in addition, T1 McDonald's Omega (Ω) = 0.753, T2 McDonald's Omega (Ω) = 0.799; T1 CR (Composite Reliability) = 0.82, T1 AVE (Average Variance Extracted) = 0.32; T2 CR = 0.85, T2 AVE (Average Variance Extracted) = 0.36. For the self-enhancement values, the internal reliabilities were .72 and .73 at T1 and T2 respectively; in addition, T1 McDonald's Omega (Ω) = 0.726, T2 McDonald's Omega (Ω) = 0.278; T1 CR = 0.81, T1 AVE = 0.39; T2 CR = 0.81, T2 AVE = 0.41. Factor analysis showed that Comparative Fit Index (CFI) = 0.746, Tucker Lewis Index (TLI) = 0.724, Root Mean Square Error of Approximation (RMSEA) = 0.066.

Emotion regulation. We used the Self-Regulation Scale (SRS; Novak and Clayton, 2001) to assess participants' emotion regulation. The SRS consists 26 items and three subscales (i.e., cognitive, emotional and behavioral regulation). The questionnaire is 4-point scale, from 1 (never) to 4 (always). In the study, we only used the emotional-regulation subscale which including 7 items (e.g., "*I have difficulty controlling my temper*"). Previous study in Chinese adolescents had proved the SRS was reliable and valid (Zhou et al., 2015). The internal reliabilities were 0.82 and 0.85 for the emotion-regulation at T1 and T2, respectively. In addition, T1 McDonald's Omega (Ω) = 0.822, T2 McDonald's Omega (Ω) = 0.848; T1 CR = 0.86, T1 AVE = 0.41; T2 CR = 0.88, T2 AVE = 0.45. Factor analysis showed that CFI = 0.855, TLI = 0.806, RMSEA = 0.057.

Loneliness. We used a self-report measure adapted from Asher et al. (1984) to assess participants' loneliness. By using a 5-point (1 = not at all true, 5 = always true) scale, adolescents should respond to 16 statements (e.g., "*I'm always alone*"). The higher the score, the more lonely. Previous studies in Chinese adolescents had proved the

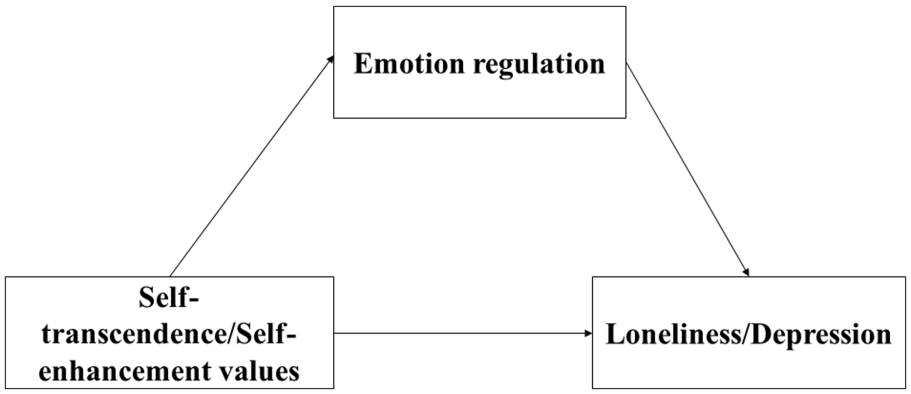

FIGURE 1
The mediation hypothesis model.

measure was reliable and valid (Liu et al., 2021). The internal reliabilities were 0.93 and 0.92 for the loneliness at T1 and T2, respectively. In addition, T1 McDonald's Omega (Ω) = 0.921, T2 McDonald's Omega (Ω) = 0.919; T1 CR = 0.93, T1 AVE = 0.49; T2 CR = 0.93, T2 AVE = 0.47. Factor analysis showed that CFI = 0.896, TLI = 0.880, RMSEA = 0.091.

Depression. We used the Chinese version of the Children's Depression Inventory (Kovacs, 1992) which consisting 14 items to assess participants' depression. Each item provided three alternative responses (e.g., "*I'm not happy occasionally*," "*I'm often unhappy*," and "*I'm always unhappy*"), and participants should choose the best response according to their past 2 weeks life. The higher the score, the more depressed. Previous studies in Chinese adolescents had proved the measure was reliable and valid (e.g., Li et al., 2018). The internal reliabilities were 0.91 and 0.93 for the depression at T1 and T2, respectively. In addition, T1 McDonald's Omega (Ω) = 0.913, T2 McDonald's Omega (Ω) = 0.928; T1 CR = 0.88, T1 AVE = 0.35; T2 CR = 0.89, T2 AVE = 0.38. Factor analysis showed that CFI = 0.913, TLI = 0.897, RMSEA = 0.061.

Design

Because cross-sectional design cannot reveal the causal relationship between variables, thus, by using questionnaire survey, a 1-year longitudinal design was used to explore the mediating role of emotion regulation between the two values and emotional adjustment (i.e., loneliness and depression) in Chinese adolescents.

Procedure

The Ethics Committee of Shanghai Normal University reviewed and approved the design of the current study. During school hours, we measured all questionnaires on one school day, and the questionnaires administered in paper-and-pencil form. Before data collection, we trained postgraduate students as research assistants, and we also obtained approvals of schools and written informed consent of parents and students. The research assistants introduced the study aims and promised to keep the participants' answers confidential. During the data collection, research assistants gave more explanations to participants, make sure that participants can understand the procedures. There was no evidence that participants had difficulties to understand the measure items and procedures. Data at Time 1 were collected in November of 2019, and data at Time 2 were collected in November of 2020.

Data analysis

Data were analyzed by using SPSS 23.0. First, a 2 (Gender) × 2 (Region) × 2 (Time) multivariate analysis of variance (MANOVA) was conducted to compare boys and girls from two regions at Time 1 and 2 in terms of the two values, emotion regulation, loneliness and depression. The result of Test Kolmogorov–Smirnov showed that our data was normality ($p > 0.05$). In addition, the MANOVA analysis in our study met the key assumptions: independent variables, univariate normality (Test Kolmogorov–Smirnov) and homoscedasticity, the assumption of equality of variances (Test Levene), i.e., $ps > 0.05$. Second, the Person correlation was used to explore relations between the study variables. Third, the mediating model was used to test the mediating role of emotion regulation between the two values and loneliness and depression.

Results

Common method bias test

We examined the common method bias by using Harman's single-factor test. We conducted the exploratory factor analysis (EFA) for all study variables according to the rotated principal component, and EFA extracted 11 factors at both T1 and T2 whose eigenvalues were larger than 1. The first factor accounted for 22.24% at T1 and 21.94% at T2 respectively, which less than 40% of the variance, and suggesting that the study had no serious common method bias.

Preliminary statistics

All study variables were entered into a 2(Time: T1/T2) × 2(Gender: boy/girl) × 2(Region: Shanghai/Qingdao) multivariate analysis of variance (MANOVA). Descriptive statistics were shown in Table 1. Time ($F(4, 767) = 14.49$, Wilks' $\lambda = 0.93$, $p < 0.001$, $\eta_p^2 = 0.07$) and Region ($F(4, 767) = 10.14$, Wilks' $\lambda = 0.95$, $p < 0.001$, $\eta_p^2 = 0.05$) effect were significant, other effects were nonsignificant. Follow-up univariate analyses revealed that scores of self-transcendence values at T1 were higher than that of T2, but scores of self-enhancement values at T1 were lower than that of T2. And scores of depression of students in Shanghai were higher than that of students in Qingdao.

As shown in Table 1, the Pearson correlation results mainly found that self-transcendence was negatively related to self-enhancement; loneliness and depression were negatively related to self-transcendence but positively related to self-enhancement; emotion regulation was positively correlated to self-transcendence, but negatively correlated to self-enhancement; emotion regulation was negatively related to loneliness and depression.

The mediating effects analysis

Mplus7.0 was used to test the longitudinal mediation effect of emotion regulation at T2 between self-transcendence/self-enhancement values at T1 and loneliness and depression at T2, and gender, region and loneliness and depression at T1 were considered as controllable variables. In addition, according to Wen and Ye (2014), the indirect effect was significant but the total effect was not significant, indicating that the relationship between independent variable and dependent variable was suppressed by mediating variable.

The relationship between self-transcendence and loneliness: Mediating role of emotion regulation

The regression results found that self-transcendence values at T1 negatively predicted loneliness at T2 ($\beta = -0.08$, $p = 0.049$). After adding

TABLE 1 Means, standard deviations, and correlations among study variables (N=863).

	1	2	3	4	5	6	7	8	9	10
1. T1_ST	1									
2. T1_SE	−0.53**	1								
3. T1_LO	−0.09**	0.03	1							
4. T1_DE	−0.05	0.06	0.64**	1						
5. T1_ER	0.11**	−0.22**	−0.39**	−0.58**	1					
6. T2_ST	0.55**	−0.32**	−0.05	−0.01	0.07*	1				
7. T2_SE	−0.36**	0.58**	0.02	0.04	−0.17**	−0.48**	1			
8. T2_LO	−0.11**	0.06	0.66**	0.47**	−0.29**	−0.09**	0.06	1		
9. T2_DE	−0.06	0.07*	0.49**	0.68**	−0.41**	−0.01	0.10**	0.61**	1	
10. T2_ER	0.13**	−0.24**	−0.32**	−0.42**	0.60**	0.09**	−0.27**	−0.34**	−0.50**	1
M	0.18	−0.48	2.08	1.48	3.19	0.11	−0.33	2.10	1.47	3.16
SD	0.45	0.63	0.69	0.33	0.52	0.43	0.59	0.67	0.35	0.55

ST, self-transcendence; SE, self-enhancement; LO, loneliness; DE, depression; ER, emotion regulation. *p < 0.05, **p < 0.01.

TABLE 2 Mediating effect analysis.

	Effect value	95%CI	
		LLCI	ULCI
Total effect	−0.08	−0.17	−0.003
Direct effect	−0.05	−0.14	0.03
Indirect effect	−0.03	−0.05	−0.01

emotion regulation at T2 into the regression equation, self-transcendence values at T1 did not negatively predict loneliness at T2 (β = −0.05, p = 0.204). In addition, self-transcendence values at T1 positively predicted emotion regulation at T2 (β = 0.17, p < 0.001), and emotion regulation at T2 negatively predicted loneliness at T2 (β = −0.18, p < 0.001), R^2 = 0.406 (i.e., the proportion of variance explained).

The results of the mediating effect of emotion regulation at T2 were shown in Table 2 and Figure 2. Bootstrap test found that the indirect effect was 0.03 (R = 0.349, i.e., the ratio of indirect effect to total effect), p =. 004, 95% CI = [−0.05, −0.01], which suggested that emotion regulation at T2 mediated the relationship between self-transcendence values at T1 and loneliness at T2.

The relationship between self-transcendence and depression: Mediating role of emotion regulation

The regression results found that self-transcendence values at T1 did not predict depression at T2, β = −0.02, p = 0.358. After adding emotion regulation at T2 into the regression equation, self-transcendence values at T1 did not predict depression at T2 (β = 0.01, p = 0.521). In addition, self-transcendence values at T1 positively predicted emotion regulation at T2 (β = 0.16, p < 0.001), and emotion regulation at T2 negatively predicted depression at T2 (β = −0.18, p < 0.001).

The Bootstrap test found that the indirect effect was 0.03, p = 0.001, 95%CI = [−0.05, −0.01]. According to Wen and Ye (2014), these results indicated that the relationship between self-transcendence values and depression was suppressed by emotion regulation (see Figure 3).

The relationship between self-enhancement and loneliness: Mediating role of emotion regulation

The regression results found that self-enhancement values at T1 did not predict loneliness at T2, β = 0.04, p = 0.15. After adding emotion regulation at T2 into the regression equation, self-enhancement values at T1 did not predict loneliness at T2 β = 0.005, p = 0.521. In addition, self-enhancement values at T1 negatively predicted emotion regulation at T2 (β = −0.21, p < 0.001), and emotion regulation at T2 negatively predicted loneliness at T2 (β = −0.18, p < 0.001).

The Bootstrap test found that the indirect effect was 0.04, p < 0.001, 95%CI = [0.02, 0.06]. According to Wen and Ye (2014), these results indicated that the relationship between self-enhancement values and loneliness was suppressed by emotion regulation (see Figure 4).

The relationship between self-enhancement and depression: Mediating role of emotion regulation

The regression results found that self-enhancement values at T1 did not predict depression at T2, β = 0.02, p = 0.138. After adding emotion regulation at T2 into the regression equation, self-enhancement values at T1 did not predict depression at T2, β = −0.02, p = 0.254. In addition, self-enhancement values at T1 negatively predicted emotion regualtion at T2 (β = −0.21, p < 0.001), and emotion regulation at T2 negatively predicted depression at T2 (β = −0.18, p < 0.001).

The Bootstrap test found that the indirect effect was 0.04, p < 0.001, 95%CI = [0.03, 0.06]. According to Wen and Ye (2014), these results indicated that the relationship between self-enhancement values and depression was suppressed by emotion regulation (see Figure 5).

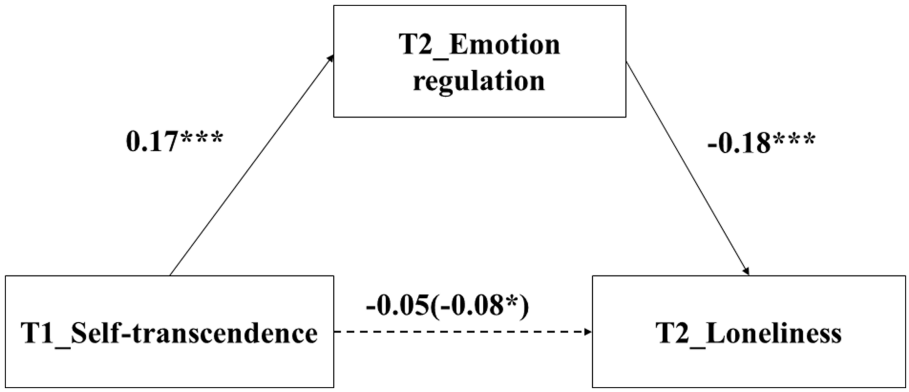

FIGURE 2
The mediating effect of emotion regulation. * $p<0.05$, *** $p<0.001$.

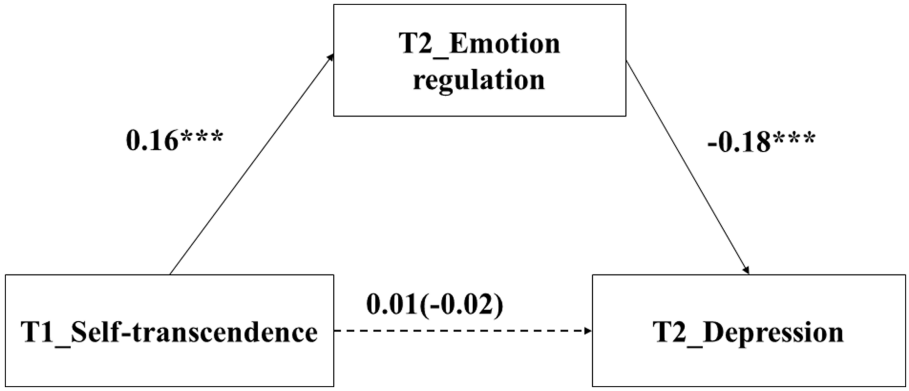

FIGURE 3
The mediating effect of emotion regulation. *** $p<0.001$.

Discussion

Previous studies have suggested that values have an important influence on emotional adjustment, little is known about its potential mediation mechanism. The findings of the present study showed that emotion regulation played a very important role in values and emotional adjustment among adolescents. The study contributes to our understanding of how values related to emotional adjustment, and also provides more evidences to understand relevant theories about values and emotion regulation.

Temporal changes and region differences in adolescents' values, emotional adjustment, and emotion regulation

The present study found that from T1 to T2, adolescents' endorsement with self-transcendence values decreased and self-enhancement values increased. This finding is consistent with previous studies examining changes in adolescent values development (Schwartz, 2012; Benish-Weisman, 2019). On one hand, adolescence is the period of transition from childhood to adulthood, the transitions include a search for independence and the assertion of personal opinions (Braams et al., 2015; Gruenenfelder-Steiger et al., 2016). On the other hand, the changes of adolescent values may be not only influenced by the rapid development of social and economic (Huang et al., 2021), but also by popular pop culture, such as celebrity talent shows which convey the importance of materialism and personal achievement (Uhls and Greenfield, 2012). According to Schwartz's theory of basic human values, changes in the importance of individual values occur in an organized and coherent manner (Schwartz, 2015). Specifically, if the importance of one value increases in importance while another value with the opposite motivation remains stable, adolescents may be disturbed by the inherent inconsistency between the two values. Thus, as the importance of one value increases, the importance of values driven by conflicting motives may decrease (Bardi et al., 2014).

In addition, the depression scores of Shanghai adolescents were higher than those of Shandong adolescents. This may be due to the fact that for adolescents in Shanghai, they may be more influenced by the rapid social development and new and different stimuli, and are prone to psychological conflicts under the heavy academic burden, thus they may experience more depression. In addition, Shanghai parents may experience more depression because they are under more economic, social, life and family pressures, so parental depression may affect adolescent depression (Lewis et al., 2017). Finally, crowded living environment may be another risk factor for adolescent depression (Ho et al., 2017).

We did not find any significant differences on the two values among two samples in the present study. Qingdao is more influenced by Confucian culture, which emphasizes harmonious relationships,

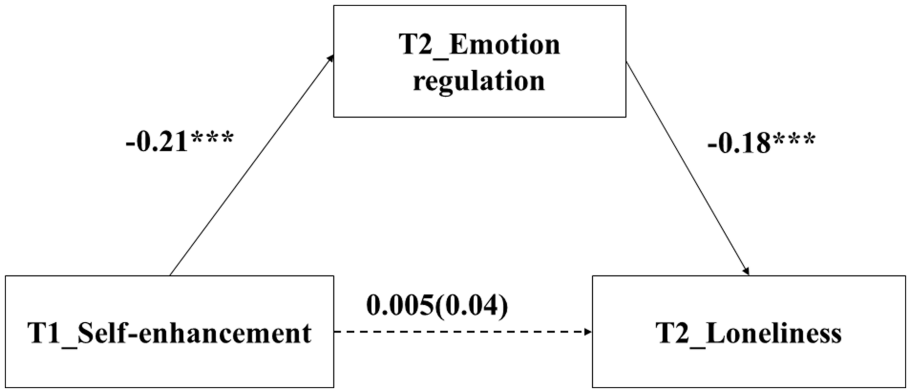

FIGURE 4
The mediating effect of emotion regulation. *** $p<0.001$.

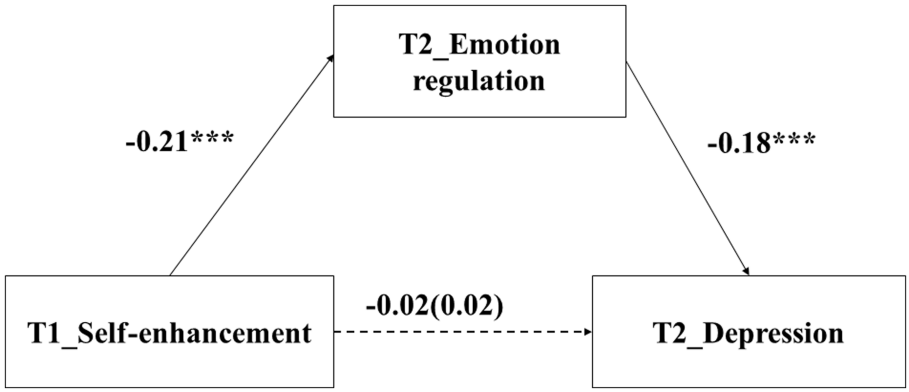

FIGURE 5
The mediating effect of emotion regulation. *** $p<0.001$.

and requires adolescents to comply with authority (Chen et al., 2012). Meanwhile, over the past three decades. China has dramatically morphed into a highly competitive and market-oriented society, with economic and social development (Liu et al., 2018). Whether in Shandong or Shanghai, adolescents are required to learn new social skills such as self-direction, independence, and self-confidence, in order to adapt to the new environment and pursue success (Liu et al., 2018). Thus, adolescents from Shanghai and Shandong in the present study showed similar values endorsement. However, previous studies suggested that contextual factors may moderate the relationships between adolescents' values and adjustment (Heim et al., 2019). For example, compared to adolescents in rural areas, adolescents in urban areas value uniqueness show better peer relationships and academic performance (Chen et al., 2012). Thus, it is necessary to explore the role of culture on values and adjustment in samples with large background differences, such as eastern and western cities in China.

The relationships between values and emotional adjustment: The mediating role of emotion regulation

We only found that there was a significant mediating effect of emotion regulation between self-transcendence values and loneliness; that is, self-transcendence values predicted adolescents' loneliness through emotion regulation. Adolescents who endorsed on self-transcendence values not only feel more social-engaged emotions, such as empathy and compassion (Persson and Kajonius, 2016; de Leersnyder et al., 2017), but also engage in more activities that contribute to harmonious relationships, such as pro-social behaviors (Benish-Weisman et al., 2019). Thus, good interpersonal connections reduce their loneliness. In addition, individuals who identify with self-transcendence values tend to concern for the well-being of others and try to keep harmony with others and society (Dambrun and Ricard, 2011). In order to maintain friendly social relationships, they may be more proactive in regulating their emotions to prevent inappropriate emotional expressions which may cause negative effect on interpersonal relationships. Moreover, a lot of studies suggested that effective emotion regulation is related to mental health and well-being (Haines et al., 2016; Preece et al., 2021). In general, self-transcendence values contribute to regulate one's emotion effectively, and effective emotion regulation further reduces one's loneliness.

In addition, our results may suggest that emotion regulation may play a suppressed role between self-transcendence values and depression, between self-enhancement values and loneliness and depression. That is, although the relationships between values and emotional adjustment are not unrelated, their relationship may

be linked through emotion regulation. Traditional tests for mediating effects assume that the independent and dependent variables are significantly correlated and that the total effect of the independent variable on the dependent variable is also significant. However, it has been suggested that the absence of a significant correlation between variables does not negate the causal relationship (Hayes, 2013). In other words, the prerequisite for the mediating effect test does not require a significant correlation between the variables (Rucker et al., 2011). In this study, the total and direct effect are not significant, but the indirect effect is significant. According to the new procedure for testing mediating effects (Wen and Ye, 2014), if the indirect effect is significant but the total effect is not, the final result should be interpreted as the suppressed effect.

Some possible reasons are explained as follows. First, the present study used two higher-order values, and it is possible that lower-order values may be more strongly associated with depression. One study found that power values were positively related to depression (Maercker et al., 2015), while benevolence values were negatively related to depression (Mousseau et al., 2014). Sagiv and Schwartz (2022) also noted that future examination of the relationship between values and variables requires consideration of which value categories (e.g., 10 lower-order values, 4 higher-order values) are more effective predictors. Thus, the relations between lower-order values and emotional adjustment should be explored in the future. Second, there may be other moderating variables between values and emotional adjustment (Heim, 2019). For example, some researchers have suggested that the association between values and subjective well-being is influenced by the socioeconomic context of the country (Sortheix and Lonnqvist, 2015). Specifically, in developed countries, identifying with social-oriented values (e.g., benevolence values) will increase one's life satisfaction, but identifying with personal-oriented values (e.g., achievement values) may decrease one's life satisfaction. However, in developing countries, the more one identified with benevolence values, the lower their life satisfaction; while the more they identified with achievement values, the higher their life satisfaction. Sortheix and Schwartz (2017) further found that compared to high cultural egalitarian contexts, in low cultural egalitarian contexts, growth-orientation and personal-orientation values (e.g., openness to change values) have stronger positive associations with subjective well-being, while self-protective orientation and social-orientation values (e.g., conservation values) have stronger negative associations with subjective well-being; and while achievement and power values have weaker negative associations with subjective well-being in low cultural egalitarian contexts. The above findings are helpful to understand our results, future studies could further examine the moderating role of variables such as socioeconomic status in the relationship between values and emotional adjustment.

Some meaningful implications of the study are as follows. The study found that values and emotional adjustment are linked by emotion regulation, which provides more evidences to understand GAM and SSHM theories. Moreover, the study sheds lights on the intervention of values and mental health. On one hand, families, schools, and society should take some effective measures to cultivate adolescent's self-transcendence values; on the other hand, adolescents can learn how to regulate their emotions by using adaptive regulation strategies. Overall, suitable values and adaptive emotion regulation are two significant factors for promotion of emotional adjustment among adolescents.

Limitations and future directions

First, participants in Shanghai were surveyed by convenient sampling, which may influence the accuracy of results. Participants in future studies should be all chosen at random. Second, although the study is a longitudinal design, the follow-up time was short and two measurements were not enough to reveal the long-term effects between variables. Future studies should extend the follow-up time, which helps to ensure the results of reliability and validity. Third, all the data of this study was collected by self-report, and there may be subjective bias in the process of subjects filling it out. Therefore, it is necessary to expand the data sources, such as parents, teachers and peers. Forth, as mentioned above, there may be some moderating variables between values and emotional adjustment. Future studies need to explore the relationship between values and emotional adjustment was moderated by possible variables (e.g., SES), which may provide more evidences and references to understand the effect of values on adjustment among adolescents.

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.

Ethics statement

The studies involving human participants were reviewed and approved by the Ethics Committee of Shanghai Normal University. Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin.

Author contributions

PL analyzed the data and wrote the manuscript. DL designed the study and revised the manuscript. SL and DC revised the manuscript. BM and PY collected the data. All authors contributed to the article and approved the submitted version.

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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.

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Male graduates transitioning into the workplace: managing stress through the sense of coherence components

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Male graduates are faced with many challenges when transitioning into work life after graduation. This transition from university to the workplace is one of the most important developmental stages in a young adult's life. It has an important impact on their careers and causes increased stress levels. Often, young men are suffering from mental health challenges and feel as though they cannot seek the appropriate help. Thus, it is necessary to determine how young male graduates cope with the changes experienced in this period, especially relating to their sense of coherence and salutogenesis. The aim of the study is to investigate the transition from university to the workplace and to understand their stress and well-being experiences in terms of activating the three sense of coherence components for coping. A qualitative approach is employed through the use of semi-structured interviews with 10 male South African university graduates. A content analysis technique was used to analyse the qualitative data. The findings indicate that most of the young male graduates understand the transition from university to the workplace and the challenges that come with it (comprehensibility). They also have the necessary personal resources to cope with the stress (manageability) while experiencing this life phase as meaningful (meaningfulness). To understand the transition into the workforce was the most important aspect to stay health during the transition. However, male graduates mainly coped by applying their personal coping strategies and mechanisms and thereby managed their transition mainly by themselves, not based on organizational structures or integrative processes. Meaning applied to the transitional process mainly derived from their personal concepts of creating a meaningful life, not as such from the meaning applied to the work or position they held. The findings provide insights which can be used by higher education institutions to prepare graduates for the transition into the workforce and for organizations to develop programmes for graduates to improve their transition into the organization.

KEYWORDS

salutogenesis, sense of coherence, stress, young male, transition from university to the workplace

1. Introduction

Young adulthood is a critical developmental stage which has profound and long-lasting implications and impacts on people's lives. These implications and impacts contribute to the people's employment and career paths, their economic security and to their physical, psychological, and emotional well-being (Mayer, 2014). The world has changed drastically in recent decades; there are increasing demands on young adults, with less latitude to fail (Stroud et al., 2015).

The increased global competition for jobs, coupled with the structural changes within the labor force, work has become less stable for employees entering into the labor force (Aronson et al., 2015). Apart from these changes, graduates enter into a workplace that is characterized by economic instability and challenges, resulting in them being less likely to find a suitable job that matches their knowledge and skills (Monteiro and Almeida, 2015). These insecurities in work contexts cause stress, which can be defined Ivancevich and Matteson (as cited in Oosthuizen and van Lill, 2008, p. 64) as the

> "adaptive response, mediated by individual differences and psychological processes, that is a consequence of any external (environmental) action, situation, or event that places excessive psychological and physical demands on a person."

Stressors impact on employees functioning in their day-to-day lives, often leading to a change in their normal functioning patterns (Oosthuizen and van Lill, 2008). When employees experience stress, they may have a positive response that encourages and motivates them in their work, or they may have an adverse reaction which may cause distress (Oosthuizen and van Lill, 2008). Therefore, stress occurs when the magnitude of the stressor that is experienced exceeds that individual's capacity to cope (Rothmann and Malan, 2006; De Simone, 2014; Braun-Lewensohn and Mayer, 2020).

The transition from university to the workplace is a crucial developmental stage for graduates of male and female gender, as the literature shows (Maxwell and Broadbridge, 2014; Papafilippou and Bentley, 2017; Melendro et al., 2020). During this transition, the graduates will put to use the skills and knowledge they have gained in the context of the work environment. However, at times when graduates start working, they are challenged by the realities of the working world, more specifically the work environment, job security and non-technical tasks (Baytiyeh and Naja, 2012). Additionally, there are specific skills and knowledge that may be required in an organization for high productivity and performance. Therefore, graduates not only face the challenges associated with their skills gap and knowledge, but they also have to manage the possible disappointment resulting from unmet expectations (Baytiyeh and Naja, 2012).

There is a lack of research conducted of young male graduates transitioning from university to the workplace in general (Cheng et al., 2016) and with regard to salutogenesis (Mayer, 2014). Therefore, it is necessary to carry out more research to determine how the graduates cope with these specific changes. To manage the change and meet the challenges of entering into the workplace, one needs to have a strong sense of coherence to comprehend and manage it in a resourceful manner. Moreover, it is important to determine what makes the young male graduates work meaningful, to give them the motivation to carry on in their chosen careers.

Based on a comprehensive literature review the main research question is: How do young male graduates, specifically working within the private sector in South Africa, experience the transition from university to the workplace in relation to their SOC levels? The SOC factors of comprehensibility, manageability and meaningfulness can help to determine the aspects in an individual's life that give them the means to cope with stress they experience within the workplace. By making use of the salutogenesis and SOC framework, researchers will be able to understand the experience that young male graduates have had while transitioning from university to the workplace, especially during COVID-19. Moreover, it will determine how the graduates have been able to manage the demands they have experienced during this transition period. Finally, it will determine what makes the transition meaningful for them while coping with the demands.

2. The transition from university to the workplace

The transition that young adults go through from university to the workplace is a critical developmental period (Baytiyeh and Naja, 2012; Haase and Heckhausen, 2012; Melendro et al., 2020). The success of this transition poses essential long-term effects on graduates mental and physical health, their personality development, social relationships, and future career success (Haase and Heckhausen, 2012; Tuononen et al., 2019). These new changes in the graduate's life may change their assumptions about themselves and the world, resulting in them needing to change their behavior and relationships (Griffith et al., 2013; McBeth et al., 2017).

Currently, there is an increase in the global competition for jobs and the structural changes within the labor force, making work unstable for graduates entering the labor force (Aronson et al., 2015; Monteiro and Almeida, 2015). This is specifically the case in South Africa: At the end of is the first quarter in 2021, Statistics SA published that the unemployment rate among the youth (ages 15–34 years) had reached 46.3%; of that 2.1% were unemployed graduates, and 7.5% had other tertiary qualifications as their highest level of education (Statistics South Africa, 2021). Additionally, some graduates may enter into a temporary contract and are left facing difficulty in finding permanent employment (Tuononen et al., 2019).

Aronson et al. (2015) show that adapting to the workplace schedule is challenging as some graduates found it challenging to get used to working a 40-h workweek, not having the same amount of free time and work being less "spontaneous" or "enjoyable" then university life (Aronson et al., 2015). Thus, this can also contribute to graduates' inaccurate perceptions of the working world and work-life (Rothmann and Malan, 2006; Wendlandt and Rochlen, 2008).

Graduates also face the challenge of lacking specific skills and experience when entering the workplace (Wendlandt and Rochlen, 2008). Although universities teach graduates essential skills and knowledge regarding the subject they are studying, skills such as communication may be lacking (Baytiyeh and Naja, 2012). Graduates may come across as being underprepared to fit into the company's culture, they may not understand the politics in the corporate world, function within the structures of power and rewards, may have difficulty building effective working relationships, be accepted by their team members, and earn respect and creditability from their colleagues (Baytiyeh and Naja, 2012). Thus, these challenges may impact the graduate's self-confidence in their skills, abilities, and competence in their position, causing the

graduates to experience extreme amounts of stress within their first few years of employment (Baytiyeh and Naja, 2012).

3. Stress in young men and the impact of COVID-19 on the workplace

Men and women are exposed to different work environments and different types of job demands and tension, even when working within the same company, position, or sector (Rivera-Torres et al., 2013). When considering graduates' experiences of this perceived stress, studies mainly focus on women only, with a few studies focusing on men only.

Stress is considered to be critical determinate of African American men's health which ultimately, directly and indirectly, contributes to their high rates of unhealthy behaviors, chronic disease diagnosis, and premature mortality among men (Griffith et al., 2013). Within the South African context, past research has focused on female Colored women and stress, and only very few studies explore men's stress and coping mechanisms in the workplace (Watson et al., 2011). However, research on young male graduates from different cultural background entering the South African workplace is extremely limited and therefore strongly needed.

Evidence has shown that there is a connection between work-related stress and various physical and mental health problems (Bowen et al., 2014). This stress can result in either physical (e.g., sleep, headaches, and gastrointestinal upsets), emotional (e.g., anxiety and depression), intellectual (e.g., decreased concentration and lack of motivation) and behavioral (e.g., substance abuse, absenteeism, and poor motivation) disturbances (Bowen et al., 2014; Stroud et al., 2015). The transition from university to the workplace can be a very stressful event. However, when the stress is too overwhelming for men, they may not seek the necessary professional help to cope with it (Oliffe and Han, 2013; Lynch et al., 2016). Additionally, young men may experience a stigma, as well as discomfort, embarrassment, fear and shame when required to ask for help (Lynch et al., 2016). This may play into the idea that men need to be "macho" and "man up" and that seeking professional help for feelings of stress may mean that they are seen as lesser men (Lynch et al., 2016).

This COVID-19 pandemic has caused even more significant disruptions in people's everyday functioning, global economic recessions that have come with enormous financial volatility and caused extreme stress (Ruiz-Frutos et al., 2021; Yu et al., 2021). To adapt to these changes, organizations and employees now need telecommute, forced to work from home in order to practice social distancing and limit the spread of COVID-19 (Palumbo, 2020). Oakman et al. (2020, p. 2) defined telecommuting/telework as making "use of information and communications technologies (ICTs) including smartphones, tablets, laptops, or desktop computers for work that is performed outside of the employer's premises". These changes add to the widespread and uncontrollable stress, when compared to the stress experienced in pre-pandemic everyday life (Yu et al., 2021).

Evidence suggests that starting a new position is often characterized as a time that is uncertain and potentially can be a very stressful experience, even more during the implications caused by the COVID-19 pandemic (Ployhart et al., 2021). Moreover, the pandemic has led to an increase in economic and health stressors that people face, which can lead to employees feeling depleted in their personal and social psychological resources to cope (Ployhart et al., 2021). Further, job enterers during the pandemic experienced the mixing of the physical and organizational boundaries between home and work as stressful and difficult, also due to the longer work hours, lack of boundaries between work and home life and the limited social support of the teams and organizations (Oakman et al., 2020).

4. The salutogenic approach

With the paradigm shift from a negative toward a positive health paradigm, theories have moved from a pathogenic approach that focuses on the harm-causing potential in the work environment (Roskams and Haynes, 2020) and ways that stressful life events pose themselves on an individual which causes a variety of negative health outcomes (Pallant and Lae, 2002; Bauer et al., 2020) toward a salutogenic approaches (Antonovsky, 1979, 1987a,b).

Salutogenesis focuses on enabling employees to increase their control over, and enhance, their overall health and well-being. Thus, organizations must create appropriate conditions that will assist health and well-being behaviors. Furthermore, the salutogenic approach focuses on the factors that encourage health and well-being instead lowering them (Ruohomäki et al., 2015). This theoretical approach was used in this study to explore the resources young male graduates use to manage their work start during COVID-19.

This functioning within an individual is characterized on three different levels. Firstly, on a cognitive level, individuals will perceive environmental stimuli positively and constructively and use that information to make effective decisions. Second, an individual will be maturely committed to their life, self-awareness, confidence, and self-fulfillment on an affective level. Finally, on a motivational level, individuals will be able to perceive stimuli within their environment as a personal challenge and channel their energy to cope with stressors, solve problems and achieve results (Oosthuizen and van Lill, 2008).

Antonovsky (1979) explained that an individual's state of health should not be focused on only the disease, but we should instead look at it as a continuum between ease and dis-ease (Nilsson et al., 2012). Therefore, it is a movement along this continuum that results in competing forces that influence an individual's state of health or well-being (Roskams and Haynes, 2020). An individual will face unavoidable everyday stressors and hardships that contain the pathogenic potential to drive them toward ill health and disease. However, individuals will also be able to draw on the generalized resistance resources (GRR) that will enable them to successfully cope with or avoid these stressors and prevent tension from being translated into stress (Roskams and Haynes, 2020). It then has the potential to promote more positive health outcomes for the individual (Roskams and Haynes, 2020). Furthermore, an individual's position on this continuum will be determined by the interaction of the environmental threats (stressors), their degree

of resistance (GRR), and the strength of their sense of coherence (SOC) (Mayer, 2011).

The SOC is the feeling of confidence that an individual has when faced with different life events, that they have the resources to face and cope with the demands of these events, and experiencing them as meaningful and worthy of engagement (Pallant and Lae, 2002). According to Antonovsky (1993), when confronted with a stressor, an individual with a strong SOC will:

- Know and trust that the challenge that they are facing is understood (comprehensibility).
- Know and trust that the resources that they need are available (manageability).
- Wish to be motivated to cope (meaningfulness).

These three main SOC components describe how an individual experiences and values a stressor concerning their capacity in terms of their understanding (comprehensibility), their ability to use their resources (manageability), and their personal commitmen to (meaningfulness) (Nilsson et al., 2012; Barnard, 2013; Bauer et al., 2020).

5. Research methodology

This study adopted a phenomenological (hermeneutic) design, combining phenomenological and hermeneutic views (Mayer, 2011). The premise of phenomenology is studying the lived experiences or real-life world, lived by the person and not by the world or reality that is separate from the person (Laverty, 2003). Thus, it takes an interest in understanding a phenomenon directly from the viewpoint of the participants involved in it (Venter et al., 2017).

This study adopts purposive sampling and snowball sampling strategies to determine the sample. The purposive sampling technique is used for "identification and selection of information-rich cases" (Palinkas et al., 2015, p. 534). Therefore, using this sampling technique aims to expand the depth and not the breadth of our understanding of the participants' experience (Campbell et al., 2020), allowing researchers to make the most of the limited resources available (Palinkas et al., 2015).

The sample consists of ten participants (P) who are young male graduates working within the Private Sector in South Africa in a variety of industries from engineering, law, fast moving consumer goods and information technology. All participants have obtained a South African qualified University degree, enter the South African workforce, are over 18 years old and speak English fluently.

5.1. Data collection and analysis

Data were collected through semi-structures interviews and aimed to explore participants' experience, emotions, processes, and practices in relation to their experience transitioning from university to the workplace (Venter et al., 2017). It also allowed for probing questions to be asked if extra elaboration was needed (Venter et al., 2017). Thus, the interviews consisted of 13 predetermined questions covering the SOC components of comprehensibility, manageability, and meaningfulness, while allowing the interviewer the opportunity to explore other ideas that may have arisen within the interview. the interview questions were developed based on an in-depth investigation of the literature and the constructs being measured within the Life Orientation Questionnaires of the Sense of Coherence (13- and 29-item scale) (Antonovsky, 1979, 1987a). Example questions adopted during the interview are:

- "How do you usually navigate your way through a difficult situation/challenge in your job?"—relates to comprehensibility
- "What makes your job meaningful?"—relates to meaningfulness
- "How do you manage your job?"—relates to manageability

The interviews were conducted virtually, making use of applications such as Zoom and Microsoft Teams. During the interview, the researcher introduced herself, explained the research study and built a trustful relationship with the interviewees, as far as this was possible within the given time frame (max. of 2-h). Finally, the researcher spent adequate time collecting data in the case-study sites to ensure that there was a full understanding of the constructs being researched. The lack of any new emerging data showed that data saturation had been achieved and the interview process stopped after conduct of 10 interviews (Houghton et al., 2013). Interviews were recorded and transcribed verbatim.

For the qualitative data set, the study employed content analysis defined as a "research method that provides a systematic and objective means to make valid inferences from verbal, visual, or written data in order to describe and quantify specific phenomena." (Downe-Wamboldt, 1992). It focuses on exploring the meanings, intentions, consequences, and context of the data (Downe-Wamboldt, 1992), by making use of existing theories, research and literature, key themes, concepts, or variables which have been identified as the initial coding categories (Hsieh and Shannon, 2005). To analysis the gathered data, the study followed the 5-step process outlined by Terre Blanche et al. (2006): Step 1: Familiarization and immersion. Step 2: Inducing themes. Step 3: Coding. Step 4: Elaboration. Step 5: Interpretation and checking. Codes that were applied to the SOC-components were counted to present frequencies which show the emphasis of the three components. The use of frequencies in content analysis regarding SOC components has been used in previous research (e.g. Mayer, 2011) and was adopted here.

5.2. Quality criteria and ethical considerations

Credibility within this study was achieved through thick descriptions, crystallization of data, providing evidence that could be used for a wide range of stakeholders (organizations and young male graduates) and engaging in member reflections with the participants (Tracey and Hinrichs, 2017). This study ensured transferability by discovering meaningful findings through thick descriptions, explaining the sampling strategy (Walsh and Downe,

2006), research methods, the examples of the raw data used (Houghton et al., 2013) and describing the findings in relation to the existing literature (Walsh and Downe, 2006). The study ensured that dependability was reached by answering the research question based on the findings it produced by using appropriate methods that fit its paradigmatic and research stances (Tracey and Hinrichs, 2017). To show that confirmability can be achieved, the study outlined details with regards to the general methodological procedures, such as data collection, transcription, analysis and interpretation of data (Mayer, 2011).

Ethical consideration were applied on the proper treatment and protection of the participants throughout the research (Lefkowitz, 2017), including: gaining ethical clearance to gather the data, creating informed consent given to the participants, respect the right of the participant to withdraw from the data collection process, protection of confidentiality, the respect regarding participants, data, and transparency. Ethical approval of this study was provided by the University of Johannesburg, Johannesburg, South Africa.

6. Findings and discussion

The findings will be presented and discussed with regard to the three SOC components.

6.1. Comprehensibility

The comprehensibility component refers to the understanding of the world of the participants.

6.1.1. The overall transition

In terms of comprehensibility, "The overall transition" (Table 1) is a major issue for graduates who have varying experiences, such as simultaneously working and studying and the COVID-19 pandemic. Four participants felt as though their transition was relatively easy:

> *"For me, that was different it was learn a lot, try a lot, a lot of uncertainty in the sense of, also, you know you now not just dealing with people at your university but different universities from around the country, different degrees, different backgrounds. So, I think it was relatively easy"* (P1[1], White, Bachelor of Commerce (Honors) in Marketing Management, working in the FMCG industry).

Others highlighted the impact of Covid-19 (P2, White, Bachelor of Commerce in Informatics and Economics, working in the Information Technology Industry):

> *"…probably not like everyone else's. Because when I started, I only worked for two months, and then COVID hit. So, I started work, working from home, and it was very relaxing and never had to go in, and in my line of work, it was very easy to work from home. And it also eliminated a lot of stress."*

Other participants described their transition as smooth and the acceptance of not knowing anything initially gave them the ease to transition from university to the workplace. However, four participants described their transition to be full of challenges and difficulties (P8, Black, Bachelor of Law Degree, working in the legal industry):

> *"It was difficult. Still is difficult. I say because I think the biggest adjustment is just time wise."*

One participant described entering the workplace from university as a culture shock. Another participant stated that the biggest challenge was adjusting to the time limits and constraints. He felt as though the challenge for him came in the form of a knowledge and skill gap, describing that

> "In [his] first year, it was it was completely different. [he] felt like [he] had no idea what [he] was doing the majority of the time." (P9, White, Bachelor of Arts (Law) and Bachelor of Law Degree, working in the legal industry).

Three participants all described their transitions as relatively easy or smooth, because they had started working while they were still studying. This helped them understand the workplace and know what to expect in their overall transition:

> *"So, what happened was I was I started working while I was still studying. So, I feel like the going over from studying to working was a lot easier for me, because I did it little by little"* (P7, White, Master's degree in marketing, working in the Wine industry).

The participants all stated that their transitions from university to the workplace were met by many changes to their lives. Five participants stated that their work consumed a lot of their time outside of work:

> *"It doesn't remove the stress, anxiety of the deadline being looming, and it ends up with me having to work over weekends to compensate for it."* (P4, Black, Bachelor of Engineering in Mechanical Engineering and a Bachelor of Engineering (Honors) in Industrial Engineering and working in the Consulting Industry).

Four participants felt that it was difficult to adjust to the working hours and that the workload was more than what they had experienced in university.

> *"I have a problem with, with, with like the nine to five not in a, I don't know how to put it I just in that in that, like, in that sphere, the fact that this is now my life compared to what I had gotten used to as a master's degrees student, it's*

1 Descriptions of participants are as follows, e.g.: Participant 1 is abbreviated as P1.

TABLE 1 Transition toward the workplace.

Frequency	Code	Participant	Category	Frequency
4	Easy transition	P1, P2, P3, P7	The overall transition from university to the workplace	10
2	Smooth transition	P5, P6		
4	Difficult or challenging transition	P4, P6, P8, P9		
3	Working and studying	P3, P7, P10	Working and studying	3
5	Overtime/long hours	P3, P4, P6, P8, P10	Change from university to the workplace	21
4	Confidence	P4, P5, P6, P10		
5	Uncertainty	P1, P4, P5, P9, P10		
7	Experience	P2, P3, P5, P6, P8, P9, P10		
5	Understanding the complexities of the workplace	P1, P2, P5, P7, P9	Understanding the workplace	8
3	Understanding the work environment	P4, P6, P9		

TABLE 2 Relationships at work.

Frequency	Code	Participant	Category	Frequency
8	Good relationships	P1, P2, P3, P4, P5, P6, P8, P10	Relationship with co-workers	18
3	Professional relationship	P3, P7, P10		
5	Supportive relationship	P1, P4, P6, P7, P8		
1	Relationship outside of team	P6	Relationship with colleagues outside of the team	1
1	Rotation of teammates	P8	Rotation of teams	1

> *not that nice (laugh).*" (P6, Black, Master of Science Degree in Environmental Science and Remote Sensing working in the ICT industry).

Some participants stated that they started to question their abilities, skills and knowledge they had gained at university, which did not align with the workplace demands. From these statements, we can deduce that the participants felt their confidence was lowered when they were tasked with a project or work. However, one participant used his confidence to have a more positive experience transitioning from university to the workplace.

Further, uncertainty was a common theme throughout the interviews. Five participants stated that they felt a sense of uncertainty in their new positions. This uncertainty stemmed from what exactly their job responsibilities were, what was expected from them and the standard of work that was required from them. Another five participants stated that the main source of their uncertainty during this time was the lack of clear guidelines on what was exactly expected of them in their work. Seven participants expressed that they lacked a certain level of experience which played a role in their transition from university to the workplace. The participants highlighted that when they started their positions, they did not have the required experience that was needed for the level or type of work that they were tasked with. Finally, two participants explained that they need to understand the workplace and its complexities, as well as the work environment which they managed by trial and error or asking others for help (see Table 1).

TABLE 3 Learning.

Frequency	Code	Participant	Category	Frequency
5	Learning	P1, P3, P5, P7, P9	Learning	5

6.1.2. Relationships

All of the participants described their relationships with their co-workers, with this theme broken down into five categories (Table 2).

Eight participants stated that they had good working relations with their co-workers. However, this positive relationship were found to only extend within the participants direct team and not to other colleagues working for other teams or departments.

> *"I think in, in, the team that I work with, there was a good relationship a good report, we were happy team"* (P1, White, Bachelor of Commerce (Honors) in Marketing Management, working in the FMCG industry).

Three participants stated that their relationships with their co-workers is one that was strictly professional in nature and that they do not socialize outside of work.

> *"It's strictly professional. Apart from those ones, where I kind of have beers with every now and then every weekend. But with everyone else is just strictly collegial, strictly professional"* (P10, Black, Bachelor of Law Degree, working in the legal industry).

TABLE 4 COVID-19.

Frequency	Code	Participant	Category	Frequency
6	Negative experience	P4, P7, P8, P9, P10	Experience starting work during the COVID-19 Pandemic	10
2	Positive experience	P2, P3.		
2	Mixed feelings	P1, P6		
5	Connectedness	P1, P4, P5, P6, P10	Connectedness	5
2	Relationship building	P2, P6	Relationship building	2
6	Working from home	P1, P2, P3, P6, P7, P8	Working from home	6

TABLE 5 Future career.

Frequency	Code	Participant	Category	Frequency
6	Positive	P2, P3, P4, P5, P9, P10	Positive view of future career	8
2	Impact	P1, P5		
3	Negative	P6, P7, P8	Negative view of future career	3
1	Long term view	P3	Change in career	5
4	Change in career path	P4, P5, P7, P10		

Five participants stated that they had supportive relationships with their co-workers. This means that they supported each other in their work when they did not understand what needs to be done, or if other co-workers needed further assistance in cases such as having COVID-19.

> *"We chat a lot, we support each other, and we see it when you know somebody's struggling with something I think it's really been tested a lot now with COVID"* (P1, White, Bachelor of Commerce (Honors) in Marketing Management, working in the FMCG industry).

One participant stated that he felt as though the relationship that he had with colleagues who did not fall within his direct team was one that came with favors. Furthermore, one participant stated that when it is time to rotate teams in the workplace, the time it took to adjust and build the relationships with the new team was not a positive one right away.

6.1.3. Transition through learning

Five participants stated an eagerness to learn in the early years of their career (Table 3). The learning encompasses the environment that the participants are in and the potential to learn something new about their line of work.

> *"I think there's a lot of environments or a lot of potential that I can do to learn"* (P1, White, Bachelor of Commerce (Honors) in Marketing Management, working in the FMCG industry).

6.1.4. Transition through COVID-19

The COVID-19 pandemic has played a crucial role in the experience that the participants have had while transitioning from university to the workplace.

Six emphasized that they felt robbed or hard done by starting their careers during COVID-19, as their learning opportunities, training and team building was shifted due to working from home:

> *"… but I do feel I do feel quite robbed of my training. I feel like if COVID hadn't come about I would have been a better lawyer, or better candidate attorney, but that's okay"* (P8, black, Bachelor of Law Degree, working in the legal industry).

However, two participants stated that they a positive experience starting work during the COVID-19 pandemic.

> *"Well, it was actually quite, it's going to sound very bad, but it was actually quite nice for me. I didn't need to stand up six o'clock to go into work"* (P2, White, Bachelor of Commerce in Informatics and Economics, working in the Information Technology Industry).

For one participant, there was a sense of gratitude that he still had a job as many people around him had lost their jobs. Two participants demonstrated a mixed feeling about starting work during the COVID-19 pandemic:

> *"It's been a mixed bag"* (P1, White, Bachelor of Commerce (Honors) in Marketing Management, working in the FMCG industry).

Five participants reported that the COVID-19 pandemic influenced the connections that they had with their co-workers.

> *"So, there's been a lot of change in terms of can I say that connectedness with people and different people connect differently, some it's a big party some it playing soccer, some people it's just having a coffee and getting to know each other.*

TABLE 6 Mental health.

Frequency	Code	Participant	Category	Frequency
4	Mental health	P4, P5, P8, P10	Mental health and well-being	13
6	Stress	P3, P4, P7, P8, P9, P10		
1	Burnout	P8		
2	Panic	P9, P10		

TABLE 7 Managing the job.

Frequency	Code	Participant	Category	Frequency
8	Planning	P1, P2, P3, P6, P7, P8, P9, P10	Planning	8
6	Help	P2, P3, P4, P5, P7, P9	Asking for help	6
4	Working until the work is complete	P4, P5, P6, P8	Work	10
3	Challenge	P4, P5, P6		
3	One day at a time	P5, P8, P10		

> *So I think that connectedness has been disrupted*" (P1, White, Bachelor of Commerce (Honors) in Marketing Management, working in the FMCG industry).

Additionally, the connectedness theme can be expanded to include the internet connectivity that was needed for the participants to complete their work. Two participants explained that they missed out on building relationships with their co-workers. Additionally, one participant had missed the in-person interactions that he had with his team outside of work.

Finally, a main theme that is demonstrated through the participants' experience transitioning from university to the workplace during the COVID-19 pandemic is working from home. Moreover, one participant noted that being able to work remotely had shown people and companies that that was something that could be implemented in the future. However, some participants stated that as they were new to the working world and the company, they struggled to get in-person guidance on the running of the company as well as the training and learning that they needed at the beginning of their careers.

For one participant, working from home was something that caused stress and tension within his personal life. He stated that the boundaries of work and home were absent, and due to the nature of his work it was easier for him to work the longer hours (Table 4).

6.1.5. Participant's future career

All of the participants demonstrated some idea regarding what their future career looks like (Table 5). Six participants demonstrated that they have a positive view of their careers:

> *"I think in the future I want to be in like a working environment constantly, you know, seeing new projects and new things and stuff"* (P3, Indian, Bachelor of Engineering in Industrial Engineering, working in the Consulting industry).

Two participants stated that they wished to make some impact on their communities or on others with their careers. However, three participants had more of a negative view of their future careers. Two of the participants stated that they had not thought that far ahead in terms of what they would like to do, with one stating that he was not one to think about his career:

> *"I don't have a career vision, then I think I have a vision for other things in life that I'm doing, but not, not my career."* (P6, Black, Master of Science Degree in Environmental Science and Remote Sensing, working in the ICT industry).

All but one of the participants stated that they did not see a long future with their current company. Four participants expressed a desire to change their career paths. These participants stated a view to change the industry or sector they work within, but all wished to stay within the same type of work that they studied or currently doing (Table 5).

6.1.5. Participant's mental health

Mental health was a common theme to occur during the data gathering process (Table 6). The participants demonstrated categories or themes surrounding mental health and well-being.

Four participants alluded to their overall mental well-being and that they needed to deal with a lot of new pressures associated with the working world and that the working environment also had taken a toll on their mental well-being:

> *"I think I'm just a functioning psychopath, at this point in time, I think everyone in my team is. We cannot thrive in that high paced environment, but we are dying, health wise and mental wise because the strain has been too much to handle"* (P4, Black, Bachelor of Engineering in Mechanical Engineering and a Bachelor of Engineering (Honors) in Industrial Engineering and working in the Consulting Industry).

TABLE 8 Support.

Frequency	Code	Participant	Category	Frequency
5	Support	P1, P5, P6, P4, P10	Support provided by the organization	15
5	Mentor	P1, P2, P3, P6, P10		
3	Induction	P1, P2, P10		
2	Finances	P2, P8		
3	Graduate program	P4, P5, P6	Graduate program	3
5	Team members	P3, P6, P7, P9, P10	Support from team members	5

TABLE 9 Coping.

Frequency	Code	Participant	Category	Frequency
5	Drive	P1, P6, P7, P8, P10	Drive	5
4	Learning	P1, P5, P6, P7	Learning	4
1	Recognition	P1	Recognition	1
7	Socializing and drinking	P1, P4, P5, P7, P8, P9, P10	Non-work coping techniques	23
6	Physical activity	P1, P2, P5, P7, P8, P9		
4	Watching series/art shows	P4, P6, P7, P9		
3	Taking a step back	P2, P5, P8		
1	Meditation	P1		
1	Religion/faith	P8		
1	Smoking	P10		

Six participants mentioned that they experienced increased stress during their first year of working. The participants expressed the ways in which they handled the stress, either dealing with the challenge or "blanking" out the stressful moments.

> *"… but I think when it comes to dealing with a very difficult challenge or problem my first reaction is to actually stress, (laugh) so I do start, I do start stressing."* (P3, Indian, Bachelor of Engineering in Industrial Engineering, working in the Consulting industry).

For two participants the COVID-19 pandemic caused their stress levels to rise. Furthermore, one participant described the nature and environment of their work as situated in a stressful industry. Another participant experienced burnout due to the amount of work that they needed to complete and the duties they had to cover of another role. Two participants tended to panic at first when they faced with a new or stressful situation. They however added that once they took a step back and analyzed the problem or situation, they were able to overcome the panic that had initially set in.

6.2. Manageability

The manageability theme describes the participants' belief that they have the resources they need to manage stressful life events or demands.

6.2.1. Understanding how participants manage their job

To determine how the participants cope with the demands of their jobs during the transition, they were asked how they managed their jobs and the demands that came with it (Table 7).

Eight participants demonstrated that planning their days was one way of managing their jobs. The planning was centered on creating to-do lists or making use of a calendar system and ensuring the work that needed to be done got done. Furthermore, the planning assisted the participants to determine which tasks were of a priority and needed the most attention.

> *"I think it's just prioritizing. You know it's so cliché when people say yeah time management, but that is actually a real thing"* (P9, White, Bachelor of Arts (Law) and Bachelor of Law Degree, working in the legal industry).

Six participants stated that they asked for help when they did not know how to complete a task or when they had challenges in understanding the task. Four participants demonstrated that they managed their jobs by working until the task at hand had been completed. The participants stated that they had hard time leaving work unfinished and felt they needed to complete all assigned work, even if it meant working outside the standard working hours. Three participants enjoyed a challenge in their work. One participant indicated that when confronted by a challenge, he enjoyed tackling and overcoming it.

TABLE 10 Dealing with changes.

Frequency	Code	Participant	Category	Frequency
1	Digest the changes	P1	Digest the changes	2
1	Focusing on what needs to be done	P6, P9		
1	Learning	P5	Learning	1
1	Support mechanisms	P1	Support mechanisms	5
1	Comedy	P4		
1	Patience	P8		
2	Attitude	P9, P10		
1	Asking for help	P9	Help	1

TABLE 11 Meaningfulness.

Frequency	Code	Participant	Category	Frequency
2	Identity of the participants	P1, P10	The participants nature	3
1	Curiosity	P6		
1	Gratefulness	P3		
3	Learning	P2, P6, P7	Learning	3
3	Giving back to the community	P5, P9, P10	Giving back to the community	3
3	No meaning	P4, P7, P8	No meaning in their position	3

> *"How do I navigate myself through challenge? Umm brute force. Brute force"* (Participant 4, Black, Bachelor of Engineering in Mechanical Engineering and a Bachelor of Engineering (Honors) in Industrial Engineering and working in the Consulting Industry).

However, two participants stated that they enjoyed working through challenges that enabled them to try new things which ultimately helped them learn something new. Three participants stated that they managed their jobs by taking it 1 day at a time. In this way, they stated that they focused on what needed to be completed on a given day.

6.2.2. Organizational support

Support provided by organizations is an important component of how their employees manage and cope with job demands (Table 8). Six participants were provided with positive support during their transition from university to the workplace.

> *"So that was one way of support I think also, I was given a lot of opportunities to learn a lot of skills, which I never thought I would need so if it was presentation skills, building the presentation, actually presenting"* (P1, White, Bachelor of Commerce (Honors) in Marketing Management, working in the FMCG industry).

Participant 6, who joined a graduate program, stated that his organization provided ample support by growing their skills and knowledge. However, participant 4 stated that despite his organization thinking that it supported the graduate employees, he felt that this was not the case and wished for more support.

Five participants emphasized that they felt their organizations supported them by having senior employees as mentors. As such, the participants could turn to them for guidance and learn from them. Furthermore, some participants were also given "buddies" who were also going through the same process and transition as them. Three participants commented that their organizations provided a useful induction process at the beginning of their employment. This induction process allowed the participants to learn about the company. Additionally, for one participant, an induction project was given to him during this process which assisted him in developing his skills. Two participants stated that they would have preferred to join a graduate program for their first employment position. They stated that they felt like they would have benefited more in if they were in a more structured program as it would have exposed them to all they were expected to know in the field that they were in. On the other hand, participant 6 joined a graduate program and stated that is provided him with the support he needed during his transition from university to the workplace. Another two participants highlighted that they appreciated the financial support in the form of competitive salaries that they received from their organization, which helped ease the financial stress that others may face. In addition, one participant stated that the organization financially supported him by paying his law school fees as well as the Board Examinations. Finally, the participants emphasized that they were able to manage this process with the support of their co-workers. The participants revealed that that they could count on their colleagues and senior members

TABLE 12 Changes.

Frequency	Code	Participant	Category	Frequency
2	Knowledge and skills	P1, P4	Collaboration	5
1	Proactive communication	P1		
2	Boundaries	P6, P8		
3	Finances	P2, P5, P8	Finances	3
1	Working from home	P3	Flexibility	1
3	Impact	P5, P8, P9	Giving back to the community	3
1	Transformation	P10	Transformation	1

if they did not understand their tasks or were having difficulty accomplishing them.

6.2.3. Coping techniques

The coping techniques that the participants use at their disposal is an important component that falls within the manageability theme (Table 9).

Five participants all stated they had an inner drive to cope with the stress, pressure and tasks that they needed to complete in their positions. The drive expressed by the participants stemmed from their need to succeed, their enjoyment of their jobs and need to learn as much as they could in their first few years of working.

> *"I think it's quite a few things I think number one, I think, I want it, I want to succeed, I want to grow, I want to learn, I want to try, so I'd say inner motivation to want to do it"* (P1, White, Bachelor of Commerce (Honors) in Marketing Management, working in the FMCG industry).

The participants all stated that their first 2 or 3 years of their career was involved immense learning opportunities hence their main focus was on learning what they needed for their future. Participant 1 stated that he coped with the demands of the job through his own recognition of what he had achieved and the recognition he received from his seniors for the work that he was doing.

The participants provided their non-work coping mechanisms when faced with the stress Seven participants stated that they coped with the stress by socializing and talking with friends and family. The socializing involved having a drink and alcohol. Additionally, six participants stated that doing physical activity assisted them in clearing their minds after a long day at work and de-stressing. Three participants stated that playing online video games with their friends which helped them to cope with the work stress and take their mind off their tasks. Additionally, four participations stated that watching movies or series assisted them in de-stressing. They stated that by watching series or art shows they were able to clear their minds and not think about work.

Four participants stated that they dealt with their stress by taking a step back to determine what was causing it, before tackling the stress that they were experiencing. They added that they did not like to dwell too long on the stress that they were experiencing and as such, moved on quickly. They also put a divide between work and personal life by for example putting their work computers away. Additionally, one participant stated that he used meditation to clear his mind and de-stress when he was experiencing a lot of stress at work. Another participant coped by turning to his religion and faith. Participant 9 stated that doing something that is not work-related was a way for him to cope. Finally, participant 10 stated that he coped with the stress at work by smoking hookah.

6.2.4. Dealing with change

Throughout the transition period, the participants deal with a lot of changes that are happening in their lives (Table 10). Therefore, the participants stated the ways in which they dealt with the stress and the coping mechanisms that they used. Some participants stated that they took a moment to digest what was happening and think about the situation before acting on it. Other participants stated that they resorted to their coping mechanisms to deal with new changes that were happening while some stated that they enjoyed changes and adapted quickly to them. The participants added that through these changes they are able to learn either new skills or from the situation itself:

> *"I like to digest them. I like to really get into it or think about it, or experience it, before I make an opinion. Even though it's, it's rather difficult to sometimes be objective, and that there is change and uncertainty let's wait and see how it goes"* (P1, White, Bachelor of Commerce (Honors) in Marketing Management, working in the FMCG industry).

6.3. Meaningfulness

The meaningfulness theme indicates if an individual believes that these life events or demands are worthy and meaningful to engage with and spend time and effort dealing with them (Table 11). Therefore, it concerns the participants' motivation to cope with the stress or the transition that they are experiencing. This also concerns the satisfaction that they are getting through this transition and if the transition from university to the workplace is worthwhile for their future careers.

6.3.1. Meaningfulness at work

The participants explained what they considered as meaningful in their jobs. For two participants, they viewed their job as part

of their identity that they were working toward, which made it meaningful to them.

> *"… what makes it meaningful is is knowing that I had studied all of these years to be an attorney. And I dreamed of being an attorney. And that's what I'm working toward."* (P10, Black, Bachelor of Law Degree, working in the legal industry).

Three participants demonstrated that they found meaning in what they were learning and their continuous learning throughout the transition from university to the workplace and in their job. One participant stated that the meaningfulness of his work came from his curiosity. This curiosity was due to his nature in wanting to learn and know how things work. Another participant demonstrated that the meaningfulness stemmed from his gratefulness of having a job in the current South African economic climate. Due to the COVID-19 pandemic, the job losses and the economic climate in South Africa, many of his peers did not have a job; therefore, having a job made it meaningful to him.

Three participants further stated that their work allowed them to give back to their community. The contribution that they felt they were making in their communities made their job meaningful. This contribution, they felt, was both for those in need as well as for the economy of South Africa. However, two participants reported that they did not find their jobs meaningful. They felt that their jobs had not given them too many moments to feel meaningful. They stated they felt that the job they were doing was not for them; as such, they did not find their jobs meaningful:

> *"You want to know the truth. I don't find meaning in my job"* (P4, Black, Bachelor of Engineering in Mechanical Engineering and a Bachelor of Engineering (Honors) in Industrial Engineering and working in the Consulting Industry).

Another participant stated that they did not find meaning in their job as it did not have an impact on other people's lives. One participant went to say that he was only staying in the position due to his family's financial situation.

6.3.2. Changes to increase meaning

The study explored the areas in which the participants wished they could change to make their jobs and ultimately their transition period more (Table 12). For two participants they stated that they would enjoy more knowledge or skill sharing with other departments and their co-workers.

Financial situation was a common theme among the participants. For three participants they alluded that getting more benefits, or a bigger salary would add more meaning to their jobs and the transition from university to the workplace. They were of the view that receiving better compensation could relieve the financial stress that participants faced.

> *"Umm, firstly getting more money"* (P5, Colored, Bachelor of Engineering in Civil Engineering, working in the Consulting Industry).

Due to the COVID-19 pandemic, working from home was an enforced change experienced in the working world. One participant stated that he would find more meaning in his work if he was able to have some days to work from home when back to office policies are reinstated. This level of flexibility would allow the participant to complete their work tasks as well as other tasks outside of work. Three participants stated that they would experience more meaning in their positions if their work was centered on giving back to the community and those in need, particularly to the South African community and people and not to companies. Two participants stated that they would enjoy their work more if their jobs had clearly defined boundaries. These boundaries had to be centered on the participants' job duties and the working hours that the participants were required to work. Finally, one participant mentioned that transformation at top management would add more meaning to his work as this would give him the belief that he could also become a top management lawyer.

7. Discussion

7.1. How graduates strive to understand their new work environment

The overall findings involving comprehensibility suggest that the graduates described transitioning from university to the workplace as relatively easy or smooth. In addition, the findings illustrate that this change was the most significant adjustment made by them. This sub-theme includes the changes that the graduates need to make in the amount of hours they are required to work and their confidence in their abilities, skills and knowledge to complete their work. It also includes their experience or lack of experience in the workplace and ultimately how they complete the required tasks while faced with the uncertainty of what is expected of them in terms of their job roles. These factors are all considered to be external to the control of the graduates. As such, the graduates feel as though they are unable to cope with the stress associated with the change from university to the workplace. Therefore, the demands that come with their work may cause more stress due to graduates feeling that they do not have the required experience or due to lack of adequate time or ability to complete the tasks, a view shared by Geirdal et al. (2019). Additionally, a handful of graduates demonstrated that they lacked confidence when completing their work. This is as found by Baytiyeh and Naja (2012), who state that a self-confidence challenge factor resulted in graduates finding their transition from university to the workplace as challenging.

The COVID-19 pandemic played a crucial role in the experiences of the graduates transitioning from university to the workplace. Due to the restrictions implemented to help prevent the spread of the COVID-19 virus, participants had to work from home for the first years of their careers. The findings illustrate that most of the graduates struggled with working from home, as they were unable to get assistance in a timely and efficient manner and were working longer hours. The boundaries between work and home were being crossed, which could affect the graduates' mental health resulting in stress. As reported by Grant et al. (2013), over-working remotely could affect employees' health, resulting in the

employee burnout. Palumbo (2020) adds that working from home may disrupt the work-life balance of remote employees.

The findings illustrate that the graduates' relationship with their co-workers and managers was affected by working from home, since they could not get assistance in a timely and efficient manner. Additionally, they could not build strong relationships at work due to the minimal face-to-face contact and the absence of relationship-building activities. As a result, the quality of the leadership that the graduates are exposed to, resulting in them not fully understanding what is required from them, was decreased. This finding is supported by Chen and Sriphon (2021) who demonstrated that remote working had disrupted the communal and social exchange relationship between employees and their managers.

The findings further illustrate that most of the graduates had a positive view of their future careers. These findings align with Tuononen et al. (2019) who reported that graduates who work in the field they have studied have increased job satisfaction. Yet although some graduates express that they would like to change their career path in the future, their work would still be centered on what they studied in university. On the other hand, two graduates stated that they would like to change the nature of their work due to them not doing what they had either studied or not enjoying the work that they are doing. This finding is echoed by Tuononen et al. (2019), who state that graduates wanting to change career paths may be due to having difficulty in finding the right opportunities to work in a field related to their studies.

7.2. How graduates mange the stress and activate their resources

The findings suggest that the graduates believe that they have the necessary resources to manage the challenges and changes they experience as they transition from university to the workplace. The findings illustrated that the graduates tend to manage their work by either working until the work is just completed, always looking for a way to challenge themselves or taking it 1 day at a time.

The graduates also ask for help from their co-workers or managers if they are unsure how to complete a task. Furthermore, how the graduates plan their days and time also provides a way to manage their jobs. These approaches by the graduates can be considered tools used to manage their jobs, which give them the ability to cope with the stress and the changes as they experience transition from university to the workplace. This finding is supported by Wijk et al. (2020), who suggest that manageability may be created through various tools. Moreover, the findings suggest that the graduates look at their work as a challenge and enjoy being able to challenge their knowledge, skills and capabilities. Therefore, the graduates consider this challenge component to provide them with the motivation to manage their jobs. This was the finding by Johnston et al. (2013), who suggest that individuals can use challenging stressors to experience positive emotions, motivation and productive coping, instead of hindrance stressors.

In addition, the findings demonstrate that the organization's role in supporting the graduates to manage their jobs is one of importance. The findings show that the graduates who felt that their organization supported them effectively managed their work tasks and, ultimately their jobs, during this transition period. The support from the organization can be in the form of an induction process at the beginning of the graduates' jobs, a time-based graduate program, and a buddy system or mentor program with other co-workers. Moreover, some graduates felt that their organizations financially supported them alleviate financial stress, especially during the COVID-19 pandemic, while others felt that they needed more financial support. As stated by Vogt et al. (2016), these findings assert that when employees feel that their work and environment provide them with the necessary social support and opportunity to develop their work, their SOC levels and ultimately their manageability level will allow them to integrate into their work seamlessly. Therefore, the job resources that the graduates have been provided with will help them assimilate into the company's environment and strengthen their manageability levels (Vogt et al., 2016).

Further, the graduates turn to non-work techniques to cope with the stress they experience at work as they transition from university to the workplace. These coping techniques were found to include socializing with friends and family, engaging in physical activities, watching series or movies and taking a step back to re-center themselves. By making use of physical activity exercises, the graduates can effectively deal with their stress outside of work. This is a view shared by Stults-Kolehmainen and Sinha (2013), who suggest that when individuals engage in exercise, they use it as a form to deal with or steer away from the stress they are experiencing. In addition, the findings illustrate that engaging in activities such as meditation, watching series or movies and socializing with friends and family can be an effective way for the graduates to manage their stress. This finding is supported by Kumar and Bhukar (2013) and Kebbi and Al-Hroub (2018), who state that individuals who meditate, turn to their family and friends for support and take days off to relax, tend to manage the stress they experience at work more effectively.

7.3. How graduates give their new work situation meaning

The findings illustrate that the graduates view their jobs mainly as meaningful. The findings demonstrate that the graduates find meaning in their jobs due to who they are, how they see themselves and the nature of their minds. More specifically, this suggests that the graduates find meaning in doing their jobs as it forms part of their identity. Thus, it can be said that the graduates are developing or changing their work identity from that of a student to a professional. This finding is supported by Smith et al. (2014) who suggest that students change their self-perceptions, their skills and capabilities and how they work following their graduations, and when they start working. However, the findings also suggest that some graduates did not find their work meaningful. In this case, the findings show that these graduates view their work as just one to get done, and do not find the tasks meaningful. It could be due to different expectations that the graduates had pertaining to the job or due to them not seeing their work contributing to anyone or to the community. As Wijk et al. (2020) found, this view by the

graduates have may be due to the different perceptions that they would have had from university to the workplace.

Furthermore, the results illustrate that knowledge and skill-sharing between the graduates and their more experienced co-workers would enable them to develop more meaning in their work. Additionally, the findings also demonstrate that the graduates would like to do more work for the communities in need hence positively impacting or helping others. Furthermore, the theme of transformation in the South African workplace would add more meaning to the graduates. In this sense, the graduates expressed that if they could see a person of color in a management, then they would believe that they could make it into a managerial position too. Hence, having these role models to look up to in the workplace would provide meaning to the graduates.

Finally, the participants expressed that despite experiencing some stress during the transition period, they were able to cope effectively with it. This finding is supported by Oosthuizen and van Lill (2008) and Wijk et al. (2020), who suggest that one could expect that individuals with a relatively strong SOC would cope more effectively with stress than those who have a relatively low SOC.

8. Conclusion and recommendations

This study aimed to understand the SOC components in the context of young male graduates transitioning from university into work life during Covid-19. It contributes to understand how male young graduates apply comprehensibility, manageability and meaning to their life situation to deal with stressors in their new work environment in South Africa. The research shows that male graduates understand their transitioning into the workplace and its challenges. They know how to manage it and thereby transform their stress experiences into a manageable process from which they can learn when they use their resources to counteract the challenges. Finally, they show that they apply meaningfulness toward their transition from university into the workplace, are motivated and manage the process well.

To understand the transitional process, graduates primarily reflect upon the transitional process and aim at understanding their new, specific work place as well. They in particular connect to their co-workers within the new work environment to understand the processes and the organization and are open to learn. They are aware of the challenge of COVID-19 and how it impacted on their transitioning, of the challenges of connecting to others and how COVID-19 impacted their relationship building within the new context and their personal mental health and well-being.

Their manageability was mainly impacted through the actual work they had to perform in the new context, their ability to plan and structure their work and their openness to ask for help and support provided by the organization. To manage their work, they predominately relied on non-work coping techniques, that means their personal coping strategies. This is a major finding in this study, because it shows that the manageability in the end is related to their personal coping strategies and not the organizational support as much as it could have been expected.

Finally, meaningfulness played a role in managing stress. Thereby meaningfulness to transition into the work field was related to personal meaningfulness concepts, the idea to give back to the community and the job position-related meaning-making. Meaningfulness in the job transition increased through collaboration and pay.

It can be concluded that comprehensibility and thereby the understanding of the transitional processes were the most important aspects for male graduates to manage stress. This was followed by the ability to manage the transition primarily through the application of personal resources and coping mechanisms. Finally, the ascription of meaningfulness was also important to manage stress, but not as much as the other two components.

The findings support previous research in the field of SOC in organizational contexts. It contributes to reinforcing the idea that the personal stress management and coping is predominately ascribed by young graduates to their own, personal abilities to deal with challenges and stress and not as much to the organization, its processes and structures to integrate graduates into the new workforce. That means, on the one hand, that organizations could reach out more to graduates and present supporting structures—especially to those who do not have the personal strengths and coping mechanisms to deal with change and transitions well on their own. On the other hand, it shows that the higher education system needs to focus on preparing young graduates even more for this transition by training their personal skills and coping mechanisms to keep mentally healthy during challenging times on the job and job transitions.

Finally, more research is needed to compare male graduates and their coping with transitions into the work force across cultures. Thereby, also other intersectional aspects (age, gender, socio-economic background, job and background of parents etc.) should be taken into consideration to explore which intersectional aspects do influence the comprehensibility most in young male (and female) graduates. Finally, research needs to further explore how to increase manageability and meaningfulness in transitional contexts within different cultures and country setting (e.g. developed and developing country-contexts). Based on this future research, trainings for graduates can be developed and conducted even with gender-specific aspects to make the transition into the work force even less challenging and increase graduates' mental health and well-being even more.

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 University of Johannesburg. The patients/participants provided their written informed consent to participate in this study.

Author contributions

KF collected the data. Both authors contributed to writing up this article. All authors contributed to the article and approved the submitted version.

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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.

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Martin Buber: guide for a psychology of suffering

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Martin Buber was untrained in psychology, yet his teaching provides helpful guidance for a psychological science of suffering. His ideas deserve attention at three distinct levels. For each of these, his ideas align with research findings, but also push beyond them. At the individual level, Buber's radical approach to relationships disrupts typical social cognitive cycles of suffering and can thereby build a defense against suffering. At the community level, he provides guidance that can help create a society that cares for people who suffer. At the dyadic level, Buber's guidance also matters. His ideas point toward a therapeutic dyad that can help address suffering when the individual and community responses are not sufficient. Specifically, he guides us toward a holistic view of the person that transcends labels and also toward ineffable human relations. Here again, his ideas align with empirical research, but push beyond. Buber's unique take on relationships has much to offer scholars seeking to understand and alleviate suffering. Some might perceive Buber as ignoring evil. That possible criticism and others deserve consideration. Nonetheless, readiness to adjust theory in response to Buber and other psychological outsiders may be valuable when developing a psychology of suffering.

KEYWORDS

Martin Buber, dialogue, suffering, guide, psychology, positive psychology

1. Introduction

This collection of articles is devoted to developing a psychology of suffering, a field of study clarifying the nature of suffering and offering paths for transcending suffering and building a good life. Martin Buber's ideas deserve consideration here because suffering was central to his thought. Friedman (2013) concluded, after a lifetime that included both friendship with Buber and intensive study of his works, that "the innermost core of Buber's teaching" is his attitude toward suffering (p. 163).

Nonetheless, why do we need a *psychology of suffering* in a discipline that already devotes considerable attention to psychopathology, along with clinical and counseling psychology? After all, much psychological research already focuses on negative aspects of human life, including various forms of suffering.

Indeed, near the beginning of this century, the 'positive psychologists' argued that psychological research was already saturated with negativity (Seligman, 1998a,b; Gable and Haidt, 2005). According to these critics, psychologists had failed to study and promote the good life—a striking neglect, as people need much more than mere alleviation of suffering. Positive psychologists responded by studying the good life and developing interventions to induce

happiness (Seligman et al., 2005). Some of their strategies seemed to work well (e.g., Seligman et al., 2005). Interventions included exercises such as focusing on gratitude, or focusing on one's strengths, or considering one's ideal self.

However, positive psychology's effort to bring balance created an equal but opposite imbalance: a focus on happiness to the exclusion of the need to address suffering (Wong, 2011). A call for people to be happy or even happiness interventions can be premature or even depressing if one is in the midst of suffering. Some empirical evidence supported this notion: brief happiness-inducing positive psychology strategies performed poorly for people who seemed to have the greatest need (Lyubomirsky et al., 2011).

Wong (2023a) has called for a new positive psychology, an existential positive psychology, built on a realistic presumption that all people face suffering, that suffering can be accepted, and that a willingness to face and transcend suffering is part of the foundation of a deep and stable form of well-being. From this perspective (Wong, 2023a), the good life requires facing and balancing both the light and dark side of life. He suggests that suffering is not something to flee, but instead something to face and transcend, so one can also turn toward and experience the positive aspects of life. Many sources of suffering exist such as chronic disease, genetic predisposition to lower levels of cheerfulness (Tov et al., 2022), and structural societal barriers, so suffering is pervasive. According to existential positive psychology (Wong, 2022), transcending suffering involves going beyond your individual self and contributing to humanity. Thus, existential positive psychology is relational. The relations Wong (2023b) highlights include not only relations within the self, but also relations with others, and with a faith world. Buber's orientation, as discussed in the current manuscript, focuses on relations with others as a response to a world in which one suffers, so, in some sense, Wong's perspective has links with Buber's ideas.

This discussion introduces Buber's central ideas while also illustrating their relevance to a psychology that helps people transcend suffering. We discuss implications in three levels: individual, community, and dyadic-therapeutic. At the individual level, Buber advocates for patterns of being that counter cognitive cycles of suffering. At the community level, his ideas address the separation, loneliness, and alienation that accompanies much suffering. At the dyadic-therapeutic level, Buber has relevance for an ineffable bond that transcends disconnection. In discussing professional therapy, we will also discuss his holistic view of the person and its relevance to diagnostic labels. At each of these points, Buber charts a path toward healthy responses to suffering, a path toward a good life that does not ignore the reality of suffering. Our overarching argument is that, for each of these levels, Buber's ideas fit with relevant contemporary research while also pointing beyond.

2. Who was Martin Buber?

Born in Vienna in 1878, Martin Buber's parents divorced when he was only 3 years of age, so he was raised by his grandfather in the city now known as Lviv, in Ukraine. Although raised in an Orthodox Jewish environment, a religious crisis in adolescence led him to abandon traditional practice and begin studies in philosophy. In 1896, he returned to Vienna to pursue formal studies in the discipline. After periods spent in Berlin and Heppenheim in Germany, Buber moved to Frankfurt in 1930 to take up a professorship—but he resigned in protest immediately after the rise of Adolf Hitler in 1933. Five years later, he left Germany and settled in Jerusalem, where he spent the rest of his life until his death in 1965 (Friedman, 2013; Zank and Braiterman, 2020).

Buber's early intellectual work consisted largely of mystical and mythical—most famously, Hasidic—texts grounded in predominantly Jewish sources. Although he had not yet set down a personal philosophy, the seeds of later concerns with dialogue and connection can already be observed in these works. His most famous book, *Ich und Du* (hereafter, "I and Thou") was published in 1923. Not long after, he undertook a translation of the Hebrew Bible into German in collaboration with Franz Rosenzweig, a translation known for its innovative phrasing designed to emphasize the multiple meanings inherent in the Hebrew original (Kaufmann, 1970).

In his later years, Buber became the most well-known Israeli professor of his time. He increasingly participated in political activism, including support for the goal of a bi-national state for Arabs and Jews in Israel/Palestine. This period also brought with it more engagement with psychiatry and psychology, including published correspondence with Carl Jung and Carl Rogers (Buber Agassi, 1999). Some of this work was influential to the founders of existential psychotherapy during the 1950s and 1960s, in particular the attention to the uniqueness of each individual person and the centrality of human connection between individual people (Roazen, 1999). In the pages that follow, we consider the continued relevance of Buber's I and Thou, as interpreted through the lens of his engagement with the psy-disciplines, to contemporary psychologists.

3. I-Thou versus I-It: construed, turned, exclusive, present, unbounded, reverent, impermanent, and transforming

We've used eight descriptors to summarize the Buber's central concept of an I-Thou relation: construed, turned, exclusive, present, unbounded, reverent, impermanent, and transforming. If people know only one idea from Buber, it is his distinction between "I-It" and "I-Thou." Buber (1958) suggested that one can relate to others in two ways: I-It or I-Thou. As a person walks through their day, they will have many I-It interactions; they may also have some I-Thou interactions. The distinction between these two, he suggests, is fundamental to human experience. A person can consider their day, and if they understand the nature of this distinction, they can judge each moment of interaction to be more I-It or more I-Thou. Without denying that many interactions would necessarily take an I-It form even over the course of a close relationship, Buber consistently advocated for more I-Thou.

Why "Thou"? Terms such as "intimate you" or "dear one" would capture part of Buber's idea of "thou." To the English-hearing ear, "thou" sounds formal and reverent, but *thou* was originally singular, informal, and intimate. This distinction remains in the original German—the book's original title is *Ich und Du*, not *Ich und Sie*—and exists in many other languages (e.g., French tu vs. vous). The greater intimacy of Du/Thou is central to Buber's idea, but no single English word captures this sense. The change in connotation for the English 'thou' over the centuries poses a translation challenge. As Kaufmann (1970, p. 14) notes

in the introduction to his translation of 'I and Thou,' "Thou and you are not the same. Nor is Thou very similar to the German *Du*. German lovers say *Du* to one another, and so do friends. *Du* is spontaneous and unpretentious, remote from formality, pomp, and dignity." English lovers do not address each other as thou. Interestingly, the Quakers held on to the use of 'thou' for a long time, precisely to retain this distinction so that free and equal individual people would be able to address each other as familiar and intimate—and would similarly address God.

3.1. Construed

An I-Thou relation involves construal. In the domain of the senses, perceptions may be correct or incorrect: if you think you see the sun rise, then you are either right or wrong. Construal is different. Construal, as frequently used by social psychologists, suggests some arbitrariness in the nature of the perception. When perceiving a person as thou or it, the perception depends not only on the person being perceived, but on the orientation of the perceiver. If you perceive (or construe) your employer to be dishonest, that partially determines the relationship. If you perceive your interlocutor to be thou, your experience will change. The self has some power to influence whether the interaction will be I-Thou or I-It.

3.2. Turned

I-Thou involves turning, in a deep relational sense, toward the other person "with the intention of establishing a living mutual relation" between yourself and them and an openness to being influenced by the other person (Buber, 2004). Buber wrote, "You, imprisoned in the shells in which society, state, church, school, economy, public opinion, and your own pride have stuck you, indirect one among indirect ones, break through your shells, become direct; man [and woman], have contact with men [and women]!" (Buber, 1957, p. 109). A reciprocal I-Thou relation requires the other to likewise turn, but one can initiate a form of I-Thou regardless of the participation of the other (Buber, 1970).

3.3. Exclusive

Buber suggested that other concerns recede if you turn toward another person and construe them as thou. You still perceive other aspects of the world, time of day, other sounds, but you perceive these other aspects of the world in relation to or in light of this other person. You are not distracted from this person with whom you are in dialogue. As Buber said, "Everything else can only be background" (Buber, 1970, p. 80). Thinking of the other as a Thou, is an act of "one's whole being" (Buber, 1970, p. 61), and thus, you lack mental capacity to focus on other factors. This exclusivity is perhaps easiest to grasp in the negative. If other events, past or future, or other concerns distract you, then you are not experiencing I-Thou.

3.4. Present

You focus on the present. If you instead decided to think in a strategic, even Machiavellian way in order to gain more power, you would think about what you have learned in the past to secure a better future. If you are seeking to sell the person an idea in order to gain a commission, to gain respect, or to gain a convert, you are focused on the future rather than the present. I-Thou directs you instead to the present.

3.5. Unbounded

According to Buber, treating a person as an it, involves limits and boundaries. The person is a thing amidst other things (Buber, 1958, p. 13). For example, using labels places boundaries; they place others in a class of people. A person may be kind or a cheat or a teammate or a sufferer from schizophrenia, but within an I-Thou relation, the I is conscious that the other is also much more. For Buber, even admiration degrades the other into an It, as it brings the danger of focusing on something specific such as their beauty, intelligence, virtue, or something else. It treats the person as a "bundle of named qualities" (Buber, 1958, p. 13). In contrast, a thou, suggests Buber, fills the heavens.

3.6. Reverent

Buber's exhortation to treat the other as somewhat mysterious begins to border on reverence (Adame and Leitner, 2011). Within religious and spiritual contexts, there are longstanding traditions treating valued ideals and entities as mysterious and somewhat unknowable. Arguments for negative theology are seen among some medieval Jewish theologians, such as Maimonides in *Guide of the Perplexed* (Ivry, 2016), some Eastern Orthodox Christian thinkers (Lossky, 1976), and some Western mystical authors such as the author of the *Cloud of Unknowing* (Wolters, 2001). They suggested that the best way to define the mysterious God is to assert what God is not; God is not human, God is not bound by time, and God is not limited by location, etc. God is ineffable. This approach to theology maintains mystery, and parallels Buber's approach to Thou: as precious, undefinable, uncontained, and even as sacred. Indeed, he explicitly makes this connection to God in Part 3 of I and Thou (Buber, 1970).

3.7. Impermanent

No one permanently persists in pure I-Thou relation. One must shop; one must make other exchanges in the marketplace to win work and gain security. In daily coordination with one's romantic partner, one may need to arrange chores and school pick-up schedules. Nonetheless, I-Thou moments can occur and can be transformative. But after the I-Thou moment passes, Buber suggested that a person can still retain a spark such that the I-It world presses less heavily on the self (Buber, 1958, p. 45).

3.8. Transforming

Nihilists deny that any greater meaning to life can be known because they think no meaning exists. Buber argued something similar, but importantly distinct; he believed the meta-narrative may exist, but is often hidden and unknowable (Buber, 2016). The apparent lack of meaning and purpose can be distressing (Wong, 2012; George

and Park, 2017). Buber believed that some people, in the midst of this feeling of meaninglessness, can turn toward others and treat them as thou. Buber believed that the person who turns then crystalizes toward the form of their true self. Kramer (2019), a devotee of Buber, summarized this position well: "the innermost growth of the self, despite what many people say, does not come in relation to one's self. Rather attaining one's authentic human existence emerges again and again through dialogue or in the realms of participatory consciousness" (loc. 207). Buber expected differences between people to persist. They would not become the same as each other—indeed, as they engage in I-Thou relations, they would become even more distinct—but they would each become their true unique self.

People regularly embodying Buber's ideals can thus seem strange because they become a different type of person. Francis of Assisi had no governmental position, but he valued relationships and people, and decided to stop a war by going to talk to the leader of the other side (Chesterton, 1990). He saw no reason to believe that the leader of his enemies was not an individual worthy of dialogue. Francis' demeanor seemed so bizarre that the leader seems to have simply let Francis walk free. Likewise, Coretta Scott King (King and King, 2010) reported that civil rights activists of 1960's America were distinguished by their belief that some of their opponents might respond to moral suasion, that they might change their hearts. They presumed that human relation with and response from at least some of their enemies, was possible. As another example, Buber met T.S. Eliot, who was reputed to be antisemitic. A friend of Buber's expressed surprise that Buber had interacted peacefully with T.S. Eliot. Buber replied, "When I meet a man … I am not concerned about his opinions but about the man himself" (Friedman, 2013, p. 36). To many people, these types of acts may seem strange and even morally questionable, but each one of these hints at a habit of I-Thou relations.

Some parallels to Buber's I-Thou ideas exist in psychology. For example, Carl Rogers said his most effective therapeutic moments occurred when he experienced a relationship with "mystical subjectivity" (Rogers, 1955, p. 267), and he contrasted this to a more rigorous scientific approach. Likewise, May (1983) warned therapists that technical thinking about the client can hinder the therapist's necessary full presence in the therapeutic relationship. Also, self-as-instrument theory has been interpreted as suggesting that an effective helper needs to engage in the psychological growth needed to become fully available to love others (Worth, 2017). Buber adds meaningfully to existing theory, in part because of his detailed description of the relationship with the precious other. This suggests that Buber can enrich existing psychological theory. In fact, a complete manuscript could be written to clarify Buber's overlaps with and distinctions from existing psychological theory.

4. Relevance to suffering

Buber's ideas can be applied to suffering in numerous domains. The focus here will be on three: individual, community, and dyadic-therapeutic.

4.1. At the individual level: anti-reactive

Buber describes a disruptive radical I-Thou dialogue that can occur with others, not only with loved ones or professional helpers. But how does this relate to suffering?

A common response to suffering might be to become preoccupied with cycles of painful ruminative cognitions that exacerbate suffering and damage relationships (Beck, 2019). For example, one could become preoccupied with self-blame which will have obvious negative psychological consequences. Another common response could be to become preoccupied with blaming the other. Even if that blame is accurate (as it was in Buber's case of contact with the Nazis), a preoccupation could have unforeseen consequences. A preoccupation with blame of self or others could lead to a negative view of humans, both a low view of self and of others.

Buber argued that acting out spontaneous responses can lead to ruin, or, to use his analogy, the spark within each person will become perverted if that person spontaneously grabs at whatever is available in the world (Buber, 2002). Buber (1957) argued that a habit of mistrust is the root that hinders true peace between people, groups, and even nations. In a similar vein, Clifton and Meindl (2022) gathered evidence that many parents think they are doing their children a favor by warning them that the world is unfair, cruel, and that people are dangerous, and helping them develop a spontaneous defensive pose toward others. Those parents may think that teaching a cynical view of other people will protect the child from harm, that the warned child is more likely to avoid victimization. However, a negative view of humanity seems to produce ill-being (Clifton and Meindl, 2022; Helliwell et al., 2022) and predicts lower future pay increases (Stavrova and Ehlebracht, 2016) and societal problems (Elgar and Aitken, 2011; Helliwell and Wang, 2011).

I-Thou can disrupt these patterns of thinking. One cannot focus on catastrophizing or blaming self or blaming others or cynicism when experiencing dialogue entirely in the present, or when ignoring past sins or future benefits. During those moments, one turns toward the other. The I-Thou state may not be spontaneous, especially when experiencing difficulty, but Buber calls for resistance against the spontaneous (Buber, 2002). Thus, the I-Thou will resist, at least for some moments, catastrophizing, self-blaming and other painful cognitions, whether the context be job loss, a relational breakdown, or a health problem. Those types of cognitions lie in direct contrast to the dialogical approach advocated by Buber. No one lives permanently amidst I-Thou, nor should they, but I-Thou banishes such cognitions, at least momentarily. This perspective fits well with Wong's (2007, 2019) approach to suffering because Buber does not promise a quick fix or an eradication of suffering, but instead a new way of being that can empower one to turn back toward the world of I-It and even suffering as a changed person.

In the long term, Buber suggested that genuine dialogue allows one to be oneself. It allows one to find the particularity in themselves and to learn their unique potential for contributing to the world in a way no other person can (Buber, 2002). As Buber said, "I become through my relationship with Thou" (Buber, 1957, p. 17).

Consider the following research. Schwartz and Sendor (1999) trained some multiple sclerosis victims in skills of listening and dialogue. The trainees were neither therapists nor advisors, but instead sufferers themselves who were briefly trained in careful attention to, and conversation with, another person. These laypeople then contacted others with multiple sclerosis and provided nondirective listening and dialogue once per month. They arranged a 15-min monthly meeting per case for a total of 3–4 h of dialogue per helper per month. The whole purpose was to show the impact on their clients, to show the power of receiving attention. The results,

instead, showed much larger effects for those trained in listening and dialogue, with improvements in life satisfaction and depression, along with qualitative findings suggesting improved self-acceptance, self-confidence, and a sense of transcendence. Surprised by their findings, Schwartz and Sendor (1999) invoked a two-stage model to explain their results. In this framework the suffering person turns "away from themselves and toward some other entity (e.g., talisman, amulet, healer, or abstract divine being" but then turns back to look at "themselves and their condition with shifted perspective" (p. 1,565). This two-stage model captures some elements of Buber's view of dialogue. Dialogue is not a cure for suffering, but dialogue is the response Buber recommended. He believed dialogue changes the self, so one can return to more mundane I-It relations as a changed person.

Other empirical evidence also supports Buber's idea that relations create change. The Harvard Grant Study of Adult Development, for example, tracked people from the 1930s until the death of many of the participants (Vaillant, 2004). When predicting years of physically healthy happy life after age 50, relationship quality showed stronger predictive power than some of the obvious predictors such as cholesterol level. Similarly, other research suggests that positive contact, even with strangers, contributes to well-being (Lange, 2021), with some of the support coming from well-designed randomized control trials (Sandstrom and Dunn, 2014; Sandstrom et al., 2022).

Buber's emphasis on relations concurs with a considerable body of psychological research. There is, however, no simple handbook for achieving I-Thou relations. We believe that a central implication of Buber's perspective here is a potential challenge to empirically-minded psychologists. Namely, although there is considerable evidence to support general statements about I-Thou's importance, the very nature of Thou's uniqueness precludes a formula or algorithm for this kind of connection. The science leads us up to the gate of genuine connection with a unique other—but by definition cannot tell us what we should expect to see or what we ought to do, other than in the most general terms. We can be reminded of the importance of appreciating the uniqueness of another but we cannot be instructed in advance of how their uniqueness is constituted.

I-Thou may be beneficial, but also challenging, and this is especially so when one lives in a social context that hinders status, or even simply blocks social connections. After all, how many people can sustain their best efforts to truly see others while rarely if ever being seen? I-Thou cannot simply be an individual commitment; rather, there is a call to build and maintain communities that leave space for I-Thou.

4.2. At the community level: promoting dialogue

For Buber, the right response to suffering is dialogue within true I-Thou relations. He never claimed this could end suffering, but instead seems to have believed that relations can be healing and can bring a new focus. Many people in society feel excluded, however; and indeed, divisions within society may feel insurmountable.

Many scholars have tried to bridge differences between people and groups. Unfortunately, the state of the art in prejudice reduction has been largely dismal. Long-term prejudice reduction after intervention is rare (Paluck et al., 2021).

Some interesting recent research, however, has shown promise (Hartman et al., 2022). Some of this work suggests that genuine listening can reduce animosity (e.g., Kubin et al., in press). A memorable example can be found in deep canvassing research (Broockman and Kalla, 2016), which involves canvassers going door-to-door seeking support for a political change, such as support for a new law increasing transgender rights. Rather than primarily sharing arguments, the canvassers began by asking the resident to rate their support for a legislative change to improve the rights of people who are transgender. Next, the canvassers asked the resident to share a story of a time when they were not accepted. Then, the canvassers listened closely without judgment to the resident's story of not being accepted. Next, the canvasser briefly shared a story of a time when the political status quo regarding transgender rights created similar feelings in themselves or a peer. Finally, the canvasser asked the resident to again rate their support for the legislative change. The 10-min intervention created changes in policy attitudes still measurable after 3 months. The deep canvassing framework seems to create change and showed the power of even brief relationship building.

The deep canvassing technique manipulates others, and some might even describe it as Machiavellian, but Buber offers something to move beyond this concern. Specifically, he considers much more broadly the extent to which dialogue and community may be possible.

Buber saw I-thou relationships as potentially much more pervasive throughout society. He defined community as, "a common life that embraces differences" (Kramer and Gawlick, 2003, loc. 1,227). Buber held a deep belief in dissimilarity between humans, believing that every person is unique and unlike any who has ever lived (Buber, 2002). From this perspective, relationships leave the dissimilarities undiminished; instead, through relationship, people will become fully themselves (Kramer and Gawlick, 2003).

Thus, for Buber, relationship requires bridging distinctions rather than simply finding like-minded others. This contrasts with a community of affinity which is formed because its members are all likeminded and feel that they have many commonalities in different avenues, such as race, religion, or politics (Kramer and Gawlick, 2003). Buber's essential message is to aim for a community of otherness, in which its members may not be likeminded and similar in many ways, but they share the common goal of caring and living in togetherness. A community that fosters I-Thou dialogues, to be fully whole and fully present, is a community that asks us to at least be capable of surrendering ourselves. Teaching Buber's ideals may help people move toward a society of greater resilience and compassion, a society that responds better to members who suffer. Note that this is not simply a call for more collectivism—nor for more individualism. If anything, Buber seems to endorse an unusual blend of the two cultural value systems: a third way that avoids both a self-serving self-focus (hence is more communitarian) and the reduction of people to social roles (valuing them as individuals). Thou values the *individual other* and is not an individual-ism.

Valuing the individual other demands much more tolerance of moral variability than either individualism or collectivism, an idea that fits well with some work by Gaus (2012). Diverse moral convictions lead to conflict, but Gaus saw neither possibility nor need to eradicate diversity of moral convictions. Gaus saw moral diversity as something to be expected and managed. He believed effective leaders will anticipate and manage rather than expect to fully eradicate the diversity of moral stances. How can one enter I-Thou when the

other is inevitably distinct and different from the self? Rather than see this bridging of a divide as a problem, Buber framed it as a solution. Buber believed that "all real living is meeting" (Buber, 1958, p. 17). True dialogue is "turning toward the other" (Buber, 2004, loc. 508).

Some researchers have argued for recognition of shared traits or identities (e.g., common humanity) as a means to reduce animosity (Hartman et al., 2022; Voelkel et al., 2022). This strategy seems to have some value, but Buber took a different approach. His ideas fit better with Peter Singer's claim that "Our best hope for the future is not to get people to think of all humanity as family-that's impossible. It lies, instead, in an appreciation of the fact that, even if we do not empathize with distant strangers, their lives have the same value as the lives of those we love" (Singer, 2015, p. 80). Research by Mousa (2020) and Lowe (2021) provides further evidence that community building need not always require reduction of differences, but instead can involve collaboration across them. Wong (2011) has argued against a positive psychology that treats the good life as something to be achieved in a few easy exercises, as if people in extreme difficulty can follow these steps and have a happy and cheerful life. Buber calls people to a difficult task of relationship and true dialogue across differences.

Nonetheless, one concern with Buber's focus on dialogue might be the relative neglect of oppression. Saguy (2018), for example, has argued that antipathy toward your oppressor is good, that it motivates social change. Dialogue and warm relations may sometimes disrupt motivation for change (Reimer and Sengupta, 2023). Admittedly, Buber offered little guidance for how to oppose oppression and how to change societal structures.

That said, Buber was hardly ignorant of oppression, as a Jew living in Germany in the 1930s. The Buberian orientation does not require a denial of reality, a denial of oppression, or a denial that struggle against others can be necessary. People suffer, and frequently that suffering is created or made worse by others. Buber never said to disavow struggle and effort to reform society, but he nonetheless saw the I-Thou as frequently possible and desirable.

Thus, Buber was advocating an antireactive approach to the life of suffering, but one that maintains space for struggle and activism. It might be difficult to advocate for I-Thou when one has suffered, not least when one has suffered from persecutory reduction to I-It. As an example, within Buber's (2002) fictional story entitled *Heart-Searching*, the speaker gives advice to listen and be reflective yet is not someone who lived an easy life, but instead a victim of group-based persecution.

Parallel to our discussion of the individual level, we are again brought to a point where we can see the importance of living in these kinds of communities, but there cannot be a repeatable formula for how to establish them. There are some general principles; for example, that such communities are ethically important, potentially beneficial, demand commitment, and so on. Also, the descriptions of I-Thou that we provided can offer some sense of the destination. Nonetheless, different communities might pursue these ends in different ways and the I-Thou moments that emerge will themselves have their own uniqueness.

4.3. At the dyadic level: skilled healers

Buber seemed to realize the links between his thinking and psychotherapy. In fact, a central event of Buber's life occurred when he failed to be fully present for a troubled student. Buber called this his "conversion" event (Kramer, 2019). Buber had been focused that morning on his own pursuit of mystical spiritual experience, so he provided only superficial conversation for the student who had arrived to talk. Later Buber heard from others that the student had been hoping for Buber's help with a difficult decision. Without that help, the student went off to fight in World War I and died. Buber was troubled that his pursuit of a spiritual experience had distracted him from providing human interaction, thereby failing to meet a human's need. After that, Buber turned away from mysticism and toward I-Thou encounters.

Buber explained his belief that dialogue could be therapeutic, among other places, in an essay entitled "Healing through meeting" (Buber Agassi, 1999). Also, he had sufficient interest in psychotherapy that he engaged in a public dialogue with Carl Rogers, which is available in transcript form (Buber Agassi, 1999). From those records, one can see Buber's awareness that specialists at initiating encounter may have elevated ability to meet human needs. His thinking aligns in significant ways with theory and research on therapy.

When people are suffering from considerable psychological distress and they no longer wish, or no longer can, keep it to themselves, the first step in seeking help is often informal support. This advice can be sought from family members, romantic partners, friends, religious leaders, or other trusted members of the community. There is considerable evidence for the importance of social relationships as protective against prolonged suffering, and potentially sufficient even in cases when the suffering is acute (Kawachi and Berkman, 2001; Holt-Lunstad, 2018). Yet, there are times when this kind of help is insufficient: the person or their informal helper decide that a healer is required.

In *Persuasion and Healing*, Frank et al. (1993) present a transcultural model of healing practices. In their view, successful healing—which includes successful psychotherapy—involves four common elements: (1) an emotionally charged and confiding relationship between sufferer and healer; (2) special status and recognition of healing ability granted by the larger social context; (3) a clear rationale that is compelling to the sufferer; and (4) procedures and/or rituals that follow from the rationale. Although the authors noted that technique is by no means irrelevant, they argued that the success of all techniques requires the alliance. This view is supported by the evidence. Lambert (1992) studied four classes of common factors predicting therapy outcome and found that therapeutic alliance was second after aspects of the client and their external situation (e.g., a client meets an exciting new romantic partner, or suffers a death in the family, during a course of treatment). Therapeutic approach was ranked fourth, after hope and expectation; the lesser contribution of specific therapies has also been extensively documented by Wampold and Imel (2015). In a more recent meta-analysis, Flückiger et al. (2018) found that, after initial severity, no factor predicts outcomes better than therapeutic alliance.

How, then, does a therapist establish such an alliance? Therapist empathy, originally described by Rogers (1957), is routinely the strongest predictor of client progress across therapeutic approaches (Watson et al., 2002); meanwhile, lack of empathy consistently predicts negative outcomes (Mohr, 1995; Paulson et al., 2001). Unconditional positive regard, also first identified by Rogers (1957), also has support (Orlinsky and Howard, 1986; Orlinsky et al., 1994; Farber and Lane, 2010). Evidence for congruence is, however, decidedly more mixed

(Cain, 2010). The centrality of empathy and regard do give us something with which to start. We are then confronted, however, with a narrower version of the question that started this paragraph: how does a therapist demonstrate empathy or regard?

The evidence supports several ways for therapists to enhance empathy: (a) ensure good eye-contact while maintaining a concerned expression; (b) lean forward while nodding the head appropriately; (c) maintain a vocal tone that indicates interest and emotional engagement; (d) communicate clearly; and (e) use emotional language (Watson et al., 2002). There is a problem here, however—and Buber helps us to see it. One cannot simply follow a set of instructions in order to emulate empathy, not least as there is also evidence that rote or ingenuine responses impair therapy (Glass and Arnkoff, 2000). Clients also vary in terms of what they understand to be empathic interpersonal behavior (Bachelor, 1988). In any case, Buber points to something more fundamental: a true encounter with another *cannot* make sense as a set of instructions. The attempt to do so is antithetical to the goal.

The existential and humanistic psychotherapy theorists have written most extensively about the therapeutic encounter in these terms. For May (1958), "the grasping of the being of the other person occurs on a quite different level than our knowledge of specific things about him [or her]" (p. 38). In other words, the other person must become Thou. Schneider and Krug (2017) describe the aim of existential-humanistic (E-H) psychotherapy as the endeavor to deeply understand the subjective experience of each client and their suffering and doing so while avoiding diagnostic or other theoretical presuppositions: "the E-H practitioner attempts to stay as open as possible to the living, evolving person who may or may not conform to present categorization" (p. 22). The 'It' of a particular diagnostic label, with its particular facts—albeit useful in specific circumstances—pulls us away from the 'Thou' who sits in the room with us.

Some of these theorists have engaged directly with Buber's work. Friedman (1993), who wrote a biography of Buber as well as books on existentialism and psychotherapy, outlined a theory of psychological development that is explicitly dialogical. Describing this approach as 'healing through meeting', he argues that when one is present for oneself while being open for another, the possibilities and constraints that emerge from this genuine relationship are then transferred to the self. Rather than self-actualization being a personal striving that might lead someone to seek this kind of human connection, it may instead be better understood as a consequence or even a by-product of these encounters. For these reasons, "a relationship of openness, presence, directness, and immediacy," is essential to the therapeutic relationship (Friedman, 2001, p. 344). Several other writers in this tradition, with varying degrees of direct engagement with Buber, make similar claims (Yalom, 2002; Mearns and Cooper, 2004; Yontef, 2007).

The argument here is not that we should abandon science and follow Buber. Rather, Buber and his fellow-travelers remind us that, although science can lead therapists to the threshold of I-Thou encounter by documenting its effects, it cannot then tell us what to do, precisely, with a specific person. The evidence outlines these relationships, argues for them and justifies them, but cannot finally instruct us on the specific ways we should be, in the moment, with another person. Indeed, this is not a limitation peculiar to science. The experienced clinicians referenced above also cannot provide these specifics, neither can Buber himself. Instead, he tried to capture some of the essence of what it means to have a genuine relationship. He tried to capture this essence through specific examples, especially in his *Tales of the Hasidim*, and then later through the aspirational prose of *I and Thou* and other works.

Rather than abandoning science, we might instead transform our use of science by considering research findings under a Buberian lens. Confronted by a specific client, we might be tempted to think, in effect, *this person has disorder X; the research shows that you get the best symptom reduction if you use therapeutic technique Y with disorder X, so I will now implement technique Y as accurately as possible*. It is not necessary to reject the database, only to reconsider how it is used. Perhaps instead, we might think, *I want to help this person using something I have to offer that I know has helped many others, as shown in the research, and I hope to offer this to them in a way that helps to relieve the suffering of this specific person, in this specific context*. The research becomes part of what we have to offer to another person, rather than something we apply to that person.

Besides, although psychotherapy research might not tell therapists precisely what to do, it can certainly get them started. There may be a large number of different ways to interact with a client that are directly helpful to them; there is surely a much larger number of ways to fail as a therapist. A recurring finding in the psychotherapy process literature is the better outcomes consistently observed in some therapists compared with others. Anderson et al. (2009), for example, demonstrated that therapists showing a set of characteristics, including the warmth, empathy, and alliance-building that points toward seeing a client as Thou, have better therapy outcomes. Incredibly, trainees able to show these characteristics during an interpersonally challenging situation in the first few weeks of training had better client outcomes 2–3 years later (see also Schöttke et al., 2017). While we cannot perfectly imitate these people, they can certainly show us the way.

5. I-Thou too difficult? Nuance as middle ground

For some, the I-Thou ideal may sound unattainable. As when one sees a tall mountain, the height of Buber's I-Thou peak may create volitional paralysis rather than desire to climb. We think a conceptualization of levels underneath I-Thou might help rectify this problem.

We begin at the lowest level of relation. Buber believed that hatred requires a focus on only part of a person: "Hatred remains blind by its very nature; one can hate only part of a being" (Buber, 1970, p. 67). If you see your neighbor as only a person who impedes your privacy, you can hate them, but if you perceive a more complete person with worries and concerns like yours, hate may dissipate. When you hate, you are turning away from the whole person and justifying hatred by attending to a subset of their personhood. This approach is definitely within the realm of I-It. At its most extreme this type of focus on one hateful trait or a hateful subset of traits might provoke denial of all sense of personhood in the other, dehumanizing them, such as by labeling outgroup members as cockroaches (Vaes et al., 2021).

Above that, Buber anticipated utilitarian relations such as conducting business or work or collaborating with others. I may recognize that if I complete my assignments, my teacher will give a grade, or if I complete tax forms, the tax officer will give me a tax refund, or if I lend books, my neighbor will share home repair tools.

This trade with and use of others need not be evil or harmful, but use is in the domain of I-It. Like hate, it may involve recognition of only one aspect of a person.

I-Thou, in contrast, cannot rely on trait descriptors or social roles, but instead takes a holistic view. There exists a long distance, however, between seeing one or a few aspects of another and experiencing I-Thou. We suggest that Buber's ideas can be extended by inferring a middle ground between seeing a small slice of a person and the holistic perception of I-Thou.

Between seeing a small slice a person and transcending perception of traits and roles, we suggest a middle ground of nuance. Nuanced perception recognizes a combination of qualities that are sometimes at odds with one another. When I'm being nuanced, I will realize that my stubborn co-worker is more than merely stubborn; they may also sometimes be a loving friend or hard worker or good citizen. I move toward the unbounded view by holding consciousness that the other is more than the immediately obvious traits. Like a cloud that is partially clear and derived from the subtle transformations of vapor to water, the nuanced figure is veiled with a fog of subtle elements which flow together both paradoxically and in unity. Nuance creates the expectations to look further into our slight differences and forces us beyond our assumptions and generalizations.

In *The Way of Man*, Buber reflects on the uniqueness of each person: "Every person born into this world represents something new, something that never existed before, something original and unique" (Buber, 2002, p. 9). Because humanity is comprised of individuals who are unique in many minute ways, people can be considered deserving of nuanced perception. Every experience we live is uniquely our own. It is impossible to have every person in the world feel and behave in the exact same way because of the immense variability in our environments, and so it becomes inevitable that we cross paths with someone whose values, opinions, and beliefs are dissimilar to our own. Different perspectives and ways of life embraced by different people will inevitably clash. Nuanced perception recognizes many aspects of the other, some positive, some negative, and will prompt hesitation to judge the whole person because it anticipates there are many more yet unknown aspects of the other.

Nuanced perception, though is still not the full I-Thou relation. The I-Thou involves turning toward the other and perceiving the other as a whole, not focusing on particular traits, but nuance may provide a middle goal, a useful starting point for approaching I-Thou.

6. Other barriers to Buber's ideas

One concern is that Buber's I-Thou approach can be too tolerant of evil. Buber lived during the holocaust, and some have criticized his high and hopeful view of humanity as untenable in a post-holocaust world. The Post-holocaust Jewish philosopher Emil Fackenheim believed that "Buber had a lifelong difficulty with the recognition of evil" which became apparent in Buber's response to the holocaust (Fackenheim 1982, p. 195). Others, however, argue that the holocaust was truly unthinkable, and that Buber's reluctance to think the unthinkable is no discredit to Buber (Lawritson, 2012). Also, the fact Buber wrestled deeply with the horror of the holocaust is evident through his post-holocaust writings. Furthermore, Buber left Germany in 1938, before the full extent of Nazi cruelty was evident, and from 1932 to 1938 he spoke courageously and clearly against the evils that were evident. Buber's claims are not a call to avoid the social activism that leads to social change, nor is it a call to believe people are good or always trustworthy. Buber never claimed people were all good, but he did argue that every person is precious (Buber, 2002). This belief that others are precious and worthy of dialogue, when accompanied by realization that those others are far from perfect, could be protective. A positive but realistic view of others seems to promote well-being (Tweed et al., 2021).

Also, the religious nature of much of his writing can create barriers to entry for people wanting to learn about Buber. Separating Buber from his religious roots would be difficult. His orientation expresses a Jewish anthropology that views humans as in relation, one that also hews close to a Christian perspective in some ways. Indeed, he engaged deeply with Christian thought (Buber, 2016) and has been influential to Christian writers in turn. From this perspective, we come into existence because of others, and we share existence through others, and at no point are we separable. Specifically, he brings an emphasis on religion as relationship rather than on religion as a set of intellectual assertions, and an emphasis on religious identity that is found through participation with others in community. Even though religious ideas permeate his thinking, his ideas can nonetheless hold broad appeal. For Buber, much of suffering is coping with the hiddenness of meaning and hiddenness of God. How could Buber maintain a dialogical understanding of reality when the God with whom he believed he was in dialogue appeared so silent and inactive during the Holocaust? Buber (2016) explores this question in *The Eclipse of God*.

All people, religious or not, face difficulty with the hiddenness of purpose and meaning in life. The question is much the same for both religious and nonreligious. If I put forth effort, if I contribute to the community, does it serve a purpose? Does suffering serve a greater purpose? Buber presumed yes and expresses that through valuing of relationships and experiencing relationship on the level of the immanent, with other people. As he said, in *Pointing the Way*, Each person "you meet needs help, each needs *your* help … [and] even when you yourself are in need—and you are—you can help others and, in so doing, help yourself" (Buber, 1957).

7. Exploring further

If readers want to explore these ideas further, they could read psychologists who have explored related concepts such as encounter (Rogers, 1980), presence (May, 1983), love (Fredrickson, 2014), faith in humanity (Tweed et al., 2021), and transcendence of suffering (Wong, 2023a). One could also read about interventions that bridge differences (Broockman and Kalla, 2016; Mousa, 2020; Hartman et al., 2022; Kubin et al., in press). There could also be value in examining Urban's (2023) lighthearted trade publication focused on helping nonacademics learn to bridging differences. One may also benefit by reading about concepts that contrast with I-Thou, such as dehumanization (Haslam, 2022). Knowledge of Buber's ideas and language can help enrich our reading of these related topics.

A good place to start with Buber might be his classic I and Thou book. It is short, though admittedly cryptic in some sections. The translations by Kaufmann (Buber, 1970) and Smith (Buber, 1958) both have value. A simpler place to start might be with the Kramer (2019) and Kramer and Gawlick (2003) works on Buber which offer a fascinating combination of narrative, life applications, and technical insight into

Buber's ideas. Also, the transcript of Buber's discussion with Carl Rogers offers a glimpse of Buber's way of being (Buber Agassi, 1999).

8. Key insights

Buber's ideas offer a response to suffering, a way to transcend suffering. To call his direction a solution to suffering would be in some ways a misnomer. He makes no claim for eradicating suffering. He instead gives a response focused on I-Thou relations and dialogue. The deeper underlying meaning of events and suffering in the world may seem concealed, but Buber nonetheless called for persistence in turning toward the I-Thou.

The I-Thou relation becomes clearer when considering eight descriptors: Construed, turned, exclusive, present, unbounded, reverent, impermanent, and transforming. The relation is at least partly a matter of construal, i.e., one's own chosen perception of others. The relation involves turning, being open to relation, and open to being influenced. The relation is exclusive; other concerns recede during I-Thou. I-Thou is present-focused; past injuries and future concerns are set temporarily aside. The Thou is unbounded; the self realizes it cannot comprehend or control the Thou. The self feels a sense of reverence toward the wonder that is the thou; the other is precious. I-Thou is impermanent. No one can live continually in I-Thou, but one can experience it and be changed. One becomes more of one's true self after experiencing I-Thou.

In the individual domain, Buber's ideal creates a wave that flows against the current of some spontaneous responses to suffering. These responses such as preoccupation with self-blame or other-blame or catastrophizing may create a cycle of suffering, but I-Thou will disrupt these at least temporarily. He calls for two stages, turning toward the other to enter I-Thou relation and then turning back as a changed person (see also Schwartz and Sendor, 1999).

In the community domain, Buber calls for broad dialogue across difference. Buber's response to suffering involves not merely professional caregivers or therapists, but dialogue within community, dialogue in the form of I-Thou experiences. Thus, one does not run from suffering, but within suffering one meets others and relates. His call fits with empirical research on social contact but goes beyond by not calling for relations that reduce differences, but calling for relations across differences, dialogue that enhances both relationship and distinctiveness of each partner. This type of relation is a prescription for moments when the meta-narrative of the world is hard to find.

In the dyadic-therapeutic domain, Buber suggests that healing-in-relationship can be salutary for both sufferer and healer. The therapist might be in a professional-client relationship, exchanging money for services (I-It). The therapist may have diagnostic impressions, and these impressions may point to specific interventions (I-It). Yet there is potential for a genuine relationship, for the therapist to use the generalities of science in a caring way with a specific person, and to move beyond those generalities to connect with that person.

Some similarities can be seen with Wong's (2023a) call for development of an existential positive psychology that addresses suffering while also promoting well-being. He argued that by facing suffering and managing relations, suffering can be transformed and transcended and become a path to wholeness.

Within a psychology of suffering, Buber's ideas deserve attention for their focus on coping with both suffering and the hiddenness of meaning by turning toward others as precious beings, deserving of reverence. This approach may not eradicate suffering, but it may diminish suffering, change the meaning of suffering, and may transform the self to courageously face and transcend suffering.

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Effects of mindfulness on stress, life satisfaction, and savoring beliefs among Hong Kong Chinese adolescents during the COVID-19 pandemic

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Adolescents all over the world are vulnerable in facing developmental challenges. Recent studies have evidenced that the unexpected interruptions of school learning during the COVID-19 pandemic have raised concerns about the well-being of adolescents. This present study sought to investigate the relationship between mindfulness, stress, savoring beliefs, and satisfaction of life among adolescents in Hong Kong during COVID-19. A total of 240 Hong Kong Chinese adolescents between 15 and 19 years of age (M=15.60; SD=0.70) from schools with different religious backgrounds completed an online survey. Findings from hierarchical linear regression indicated that statistically, mindfulness negatively predicted stress and positively predicted life satisfaction and savoring beliefs. Students with faiths did not show any significant differences in mindfulness and other variables in this study from students without faiths. In terms of implications, these findings provide positive evidence that mindfulness may be an important aspect for interventions designed to enhance life satisfaction and savoring beliefs, and reduce stress of adolescents over challenging times. Overall, this study suggests youth service providers to develop effective strategies in schools and communities for further promoting wellbeing and resilience of adolescents.

KEYWORDS

wellbeing, mindfulness, stress, life satisfaction, savoring beliefs, adolescents, Hong Kong

Introduction

Prior to COVID-19, studies found that factors such as unhealthy lifestyles, peer pressure, busy school schedules, and mood fluctuations were crucial for adolescents' well-being (Lam and Hui, 2010; Neff and McGehee, 2010; Elgar et al., 2015). Since the declaration of the pandemic by the World Health Organization (WHO) in March 2020, the outbreak has had an unprecedented impact on the education, well-being, health, and mental health of youths due to school closures, home confinement, and social distancing policies (Rao and Fisher, 2021). It is estimated that 94% of children and youths were affected by the closures and 33% were unable to access remote online learning (UNICEF, 2021). Students from lower socioeconomic backgrounds, such as those with parents who had less education and those from areas with

greater residential crowding, were more likely to be affected by school closures compared to their more advantaged peers (Rao and Fisher, 2021). As such, there is an urgent call to examine the needs of youths around the world (Rao and Fisher, 2021). The well-being and mental health of adolescents throughout the pandemic should also be given priority in education and social policies (Gore et al., 2011).

Stress level and stress coping

The level of stress and coping of students during the pandemic has become a concern because unpredictability can affect the well-being, life satisfaction, and mental health of families and children (Moreno et al., 2020; Dymecka et al., 2021). A cross-sectional study by Evli and Şimşek (2022) found that mental distress, including anxiety, depression, and stress, emerged due to feelings of uncertainty and imaginary situations. Recent studies pointed out that adolescents were worried about their health situation (Li et al., 2022; Mikkelsen et al., 2022), relationships with classmates, such as social support (Larsen et al., 2022; Schoeps et al., 2022), and academic results (Lessard and Puhl, 2021; Tasso et al., 2021). A study by Rodríguez-Cano et al. (2022) revealed that anxiety over academic and economic consequences predicted adolescents' poor psychological health, including poor emotion regulation and greater depressive symptoms, especially in families of adolescents with low socioeconomic status. Due to limited access to school counseling services, adolescents' levels of stress and self-destructive behavior, such as self-injury, increased during the pandemic (Hasking et al., 2020; Orsolini et al., 2022). Therefore, assessing the stress level of adolescents for early intervention and exploring effective online stress coping strategies are extremely important.

Well-being of adolescents

Life satisfaction is a component of subjective well-being (Pavot and Diener, 2008; Moksnes and Espnes, 2013). It is extensively evidenced that a high level of life satisfaction is related to physical and mental health. Life satisfaction is related to the quality of life of children and adolescents and is based on several factors, for example, social life, socioeconomic status, and affective experiences (Huebner, 2004). Adolescence is a critical period of cognitive, psychological, and physical development, and there is an increased level of stage-salient stress during this phase (Bergin et al., 2018). Several studies have found that life satisfaction is positively related to academic achievement (Diseth et al., 2012; Wong and Siu, 2017; Bozzato, 2020), whereas adolescents' life satisfaction also influenced by the use of social media and peer relationships (Geraee et al., 2019; Orben et al., 2019). In the findings of a longitudinal study, adolescents who reported positive life satisfaction were at a lower risk of developing external behaviors in stressful events (Suldo and Huebner, 2004). Another large-scale study involving high-school students ($N = 5{,}032$) also found that life satisfaction was inversely related to alcohol and chemical use (Valois et al., 2001). Life satisfaction is also a negative predictor of suicidal ideation (Heisel and Flett, 2004).

It is evidenced that anti-epidemic measures, such as home confinement, decrease psychological health, as well as increase psychiatric symptoms among adults and adolescents (Rohde et al., 2020; Santini et al., 2020; Xie et al., 2021). Depressive symptoms are positively associated with home confinement. During the pandemic, adolescents faced various adjustments to their daily lives, for example, school closures, online learning, and missed extracurricular activities. Cross-sectional research by Schwartz-Mette et al. (2022) showed that the changes brought about by COVID-19 adversely impact adolescents' depressive symptoms. Interestingly, research conducted by Sun et al. (2020) found that adolescents who had social support through social contacts were more likely to have fewer depressive symptoms during the pandemic. Thus, accessing the level of life satisfaction of adolescents can help determine their well-being and mental health risk.

Despite reports of the many negative effects of COVID-19 and the anti-pandemic policies, such as home confinement, some impacts have been neutral or positive. For instance, a US-based survey conducted during the pandemic found that people experienced high levels of parental warmth for their children and quality time with their children increased despite the hardships (Center for Translational Neuroscience, 2021). In another study, it was parental stress, instead of COVID-19 stress, that predicted parental burnout (Vaydich and Cheung, 2022). During this stressful period, it is important for people to be able to savor or derive pleasure from the past, present, and future. The process of savoring requires a mindful awareness of being conscious and enjoying the various experiences (Bryant and Veroff, 2007; Cheung and Lau, 2021). Based on previous research, a lower level of savoring is associated with hopelessness, depression, and anxiety (Bryant, 2003; Chiu et al., 2020). Therefore, identifying the level of savoring positive experiences may be helpful in accessing the potential needs of adolescents during the pandemic.

Mindfulness, stress, life satisfaction, and savoring

Mindfulness has received a great deal of attention in the past three decades as an intervention for promoting well-being and preventing mental distress among clinical populations, general adults, and adolescents and children (Felver et al., 2016; Creswell, 2017). Mindfulness is defined as moment-to-moment awareness of the present moment, on purpose, and without judgment (Kabat-Zinn, 1990). Mindfulness is the capacity of self-regulation of attention so that it is maintained on immediate experience with curiosity, openness, and acceptance (Bishop et al., 2004).

There is a significant amount of empirical research supporting the idea that mindfulness is beneficial to well-being, including subjective feelings of happiness, life satisfaction, and positive emotions (Felver et al., 2016; Fabian, 2022). It is evidenced that mindfulness is a useful stress reduction strategy for adolescents (Lau and Hue, 2011; Felver et al., 2016). Apart from applying mindfulness to daily stressful life events, mindfulness also plays a crucial role in coping with traumatic events. Research has found that mindfulness practice favors the treatment of people who have experienced a disaster, showing that mindfulness is a protective strategy for stressful and advanced situations (Eriksen and Ditrich, 2015; Bergin and Pakenham, 2016).

Recent studies have revealed that there is a positive correlation between mindfulness and well-being (Hanley et al., 2014). It has been found that the positive relationship between mindfulness and well-being is mediated by self-esteem (Bajaj et al., 2016). Mindfulness is associated with life satisfaction mediated through the savoring of positive experiences and gratitude (Cheung and Lau, 2021). Another

longitudinal study also indicated that mindfulness is associated with psychological distress *via* awareness and acceptance of negative emotions, impulse control, and emotion regulation (Cheung and Ng, 2019). A recent study involving Chinese adolescents demonstrated that mindfulness is not only positively associated with life satisfaction, self-esteem, and resilience, it also predicts life satisfaction through the mediating effect of self-esteem (Wang and Kong, 2020). Furthermore, in another study of Chinese adolescents, mindfulness was also found to enhance the meaning in life and life satisfaction as a mediating role (Dong and Geng, 2022). Overall, mindfulness not only cultivates an open and accepting awareness of one's thoughts and feelings, it also facilitates life satisfaction through the savoring of positive experiences and meaning in life.

While the challenges faced by adolescents during the pandemic may vary from country to country, recent studies have shown that Hong Kong adolescents have experienced increased mental health risks, such as depression and anxiety, compared to the past decade (Lau et al., 2017; Ni et al., 2020). Investigation of the psychological condition of Hong Kong adolescents in the context of the COVID-19 pandemic is urgently needed and would be significant to society and the education sector in terms of exploring early intervention methods. However, there is a lack of research on the relationship between mindfulness, stress, and well-being among Chinese adolescents in the context of the COVID-19 pandemic. Hence, this study aims to examine these associations among Chinese adolescents in Hong Kong. The study hypothesizes that, first, mindfulness is negatively associated with stress; second, mindfulness is positively associated with life satisfaction; and third, mindfulness is positively associated with the savoring of positive experiences among Hong Kong Chinese adolescents during the pandemic. The research team also asked the adolescent participants a series of short questions to explore their religious affiliations, stress coping strategies, contemplation practices, and the duration of said practices.

Methods

Participants

The participants were 240 Chinese adolescents (52.50% boys, $n = 126$) recruited from three secondary schools in Hong Kong, ranging in age from 14 to 19 years ($M = 15.60$; $SD = 0.70$). The majority of participants reported that they were not affiliated with any religion (77.50%, $n = 186$). On a scale of 1 (not interested) to 4 (interested), participants reported that they were mildly interested in meditation ($M = 2.80$; $SD = 0.78$). A total of 76 participants reported that they had practiced meditation for 1 week or less, eight participants reported that they practiced for 2–3 weeks, 18 reported that they had practiced for 4 weeks or above, and 138 did not provide data on meditation practice. Regarding the duration of practice, 82 participants reported that each practice usually lasted 1–5 min, 13 reported that it usually lasted 6–10 min, five reported that it usually lasted 11–15 min, eight reported that it lasted 15 min or more, and 132 did not provide data on the duration of practice.

Procedures

The research was approved in November 2020 by the Human Research Ethics Committee of The Education University of Hong Kong. Over the period of frequent school closures between December 2020 and February 2021, letters of invitation were sent out to the teachers and principals of secondary schools through snowball sampling, with brief information about the study and a sample questionnaire being provided. Three schools from different districts accepted the invitation and the research team invited senior secondary school students to voluntarily participate in this study from March to June 2021. As Form 5 and Form 6 students had tight school study schedules in preparation for their public examinations, only Form 4 students were targeted participants. The three schools had different backgrounds, i.e., Buddhist, Christian, and secular. A mixed-method research approach was implemented in this study. Consent was obtained from the schools and each participant before they were allowed to take the online questionnaire. At the end of the questionnaire, students were invited to attend a voluntary 15-min interview *via* an online social media tool.

Measures

Dispositional mindfulness

The Five Facet Mindfulness Questionnaire-Short Form (FFMQ-SF; Baer et al., 2006; Hou et al., 2014) was used to assess dispositional mindfulness. The measures comprised 20 items on five subscales: observing, describing, nonjudging, nonreacting, and acting with awareness. Participants rated on a five-point Likert scale ranging from 1 (*never/very rarely true*) to 5 (*very often/always true*). The raw scores were averaged, with higher averaged scores indicating greater mindfulness. Sample items included, "I pay attention to sensations such as the wind in my hair or sun on my face," "In difficult situations, I can pause without immediately reacting," and "When I do things, my mind wanders off and I'm easily distracted." The Cronbach's alpha for this study was 0.83.

Perceived stress

The 10-item Perceived Stress Scale was used to access the perceived stress of the participants (PSS-10; Cohen and Williamson, 1988). Participants rated the frequency that they experienced each item on a five-point Likert scale ranging from 0 (*never*) to 4 (*very often*). Positive items were reverse scored and the item scores were then averaged, with a higher score indicating a greater level of perceived stress. Sample items included, "How often have you been upset because of something that happened unexpectedly," "How often have you felt nervous and stressed," and "How often have you felt difficulties were piling up so high that you could not overcome them?" The Cronbach's alpha for this study was 0.67.

Life satisfaction

Life satisfaction was assessed by the Satisfaction with Life Scale (SWLS; Diener et al., 1985), which is evidenced to be a reliable and valid measure for adolescents cross-culturally (Pavot and Diener, 2008). The scale comprises five items and ratings were given on a seven-point Likert scale ranging from 1 (*totally disagree*) to 7 (*totally*

agree). The raw scores were averaged, with higher averaged scores indicating greater life satisfaction. Sample items included, "In most ways, my life is close to my ideal" and "I am satisfied with my life." The Cronbach's alpha for this study was = 0.83.

Savoring

The 24-item Savoring Beliefs Inventory (SBI; Bryant, 2003) was used to assess perceived beliefs of savoring on an eight-item subscale that included anticipation, savoring the moment, and reminiscing. Sample items included, "Get pleasure from looking forward," "Feel fully able to appreciate good things," and "Easy to rekindle joy from happy memories." Participants rated on a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Item scores were averaged to form three subscale scores. Higher scores indicated a greater savoring tendency. The Cronbach's alpha for this study was 0.78.

Data analysis

Quantitative analysis

Mean, standard deviation (SD), correlation, and hierarchical linear regression analyses were conducted using IBM SPSS Statistics 27. In the hierarchical regression models, demographic data including adolescents' age, gender, and religion were entered in the first block as covariates. Adolescents' mindfulness was then entered in the second block to predict perceived stress, savoring, and life satisfaction, respectively. Given that 48.75–57.50% of the data were missing for household income, meditation interest, meditation experience, and practices, the variables were not included as covariates in the regression analyses.

Qualitative analysis

Online individual interviews with three adolescents were conducted. The transcripts were analyzed into several themes by content analysis, including sources of stress, coping strategies, interest in mindfulness, and mindfulness experiences.

Results

Quantitative findings

Table 1 indicates the mean, SD, and zero-order correlations of the variables. Table 2 indicates the findings from three hierarchical linear regression models, with adolescents' demographic variables entered as covariates in Block 1 and mindfulness entered in Block 2 as a predictor of perceived stress, savoring, and life satisfaction. The first model with perceived stress as a dependent variable explained 14.98% of the variance in perceived stress, $F(4, 235) = 10.78$, $p < 0.001$. Notably, greater mindfulness was significantly associated with lower perceived stress among adolescents ($\beta = -0.39$, $p < 0.001$). The second model with savoring as a dependent variable explained 20.00% of the variance in savoring, $F(4, 235) = 16.96$, $p < 0.001$. Notably, greater mindfulness was significantly associated with greater savoring among adolescents ($\beta = 0.45$, $p < 0.001$). The final model with life satisfaction as a dependent variable explained 8.41% of the variance in life satisfaction, $F(4, 235) = 7.16$, $p < 0.001$. Notably, greater mindfulness was significantly associated with greater life satisfaction among adolescents ($\beta = 0.29$, $p < 0.001$). Furthermore, Table 3 indicates the findings of the reported usual practices of stress coping of the participants. Nearly half of the participants (46.7%) declared that the use of electronic devices, e.g., PlayStation, Switch, etc., was a common way of coping with stress. Nearly 80% of participants accessed YouTube to reduce their stress. Only a minority would reduce stress through sports activities (29.2%) and dancing (5%).

Qualitative interview findings

From the interviews, two participants from the same school without a faith background expressed their interests and potential challenges. Pseudo names are used to protect the students' identities. A male student, Gary, shared, "…I think mindfulness is training that can soothe the body and mind, and allows us to concentrate. In fact, I know that I am under pressure and those mindful practices are useful. I am curious to know and try it if I have time, as I know the benefits of mindfulness." Gary expressed that he might follow mindfulness practices from social media and invite family members and friends to also practice.

A female student, Helen, said, "Sometimes when working on my assignments, I notice my heart beating fast… and once I could not sleep at night. When doing homework, I feel tense and anxious because my exams are soon, and I am weak in the subject." She tried mediation in school and felt relief after the practices. "I felt relaxed psychologically. I want to train my patience and attention when eating and my attitude towards walking about at the same time. I often leave my seat and walk back and forth several times during dinner. I complain about being distracted and I really want to improve myself."

Paul from the Buddhist school mentioned that his pressure and anxiety originated from his academic studies and family conflicts. Due to his bad mood and impulsive thoughts, Paul would practice mindfulness in his daily activities. "When taking a shower, I pay attention to the water flow and temperature in order to relax. Gradually, I have been able to maintain a certain level of attention through such practices." Paul reported that the practices have changed his mental state, improving his attention span, emotional regulation, and even altruistic behavior. "I know that my classmates go to sleep late at night because they are on their phones. It is hard to relax [in this way]. I want to avoid looking at social media and using electronic gadgets late at night, so I choose to practice mindfulness, which works for me," Paul added. The above cases show the feasibility of mindfulness practices for Chinese adolescents.

Discussion

In this small-scale study involving 240 Chinese adolescents from three schools in Hong Kong, we investigated how mindfulness was related to stress reduction, life satisfaction, and savoring in light

TABLE 1 Zero-order correlations, means, and *SD*s.

	1	2	3	4	5	6	7	8	9	10	11
1. Family income	—										
2. Age	0.13	—									
3. Gender (0 = male; 1 = female)	0.04	−0.16*	—								
4. Religion (0 = no; 1 = yes)	−0.06	−0.12	0.11	—							
5. Interest in meditation	−0.19	0.04	−0.10	−0.03	—						
6. Meditation experience (in weeks)	−0.25	0.11	−0.22*	0.03	0.16	—					
7. Minutes of practice per week	0.01	0.07	0.12	0.11	−0.21*	−0.06	—				
8. Mindfulness	0.04	0.11	0.03	−0.04	0.06	0.10	−0.10	—			
9. Perceived stress	0.03	−0.06	0.01	−0.03	−0.22*	0.02	0.11	−0.39***	—		
10. Savoring	−0.07	−0.08	0.13*	0.08	0.17	−0.15	−0.13	0.44***	−0.31***	—	
11. Life satisfaction	0.07	0.15*	0.02	0.02	0.10	−0.21*	−0.17	0.31***	−0.51***	0.35***	—
Means	1.58	15.60	—	—	2.80	1.63	2.79	3.03	3.01	3.34	3.89
Standard deviations	0.65	0.70	—	—	0.78	1.16	0.75	0.29	0.50	0.46	1.06

*$p < 0.05$. ***$p < 0.001$.

TABLE 2 Hierarchical regression models of mindfulness as a predictor of perceived stress, savoring, and life satisfaction among adolescents.

Variables	Stress				Savoring				Life satisfaction			
	Block 1		Block 2		Block 1		Block 2		Block 1		Block 2	
	β	*B* (*SE*)	β	*B* (*SE*)	β	*B* (*SE*)	β	*B* (*SE*)	β	*B* (*SE*)	β	*B* (*SE*)
Age	−0.06	−0.05 (0.05)	−0.02	−0.01 (0.04)	−0.05	−0.04 (0.04)	−0.11	−0.07 (0.04)	0.16*	0.24 (0.10)	0.12	0.19 (0.10)
Gender	0.01	0.01 (0.07)	0.03	0.02 (0.06)	0.11	0.10 (0.06)	0.09	0.08 (0.05)	0.04	0.09 (0.14)	0.03	0.06 (0.13)
Religion	−0.04	−0.05 (0.08)	−0.05	−0.06 (0.07)	0.06	0.07 (0.07)	0.08	0.08 (0.06)	0.04	0.09 (0.17)	0.05	0.11 (0.16)
Mindfulness			−0.39***	−0.67(0.10)			0.45***	0.72 (0.09)			0.29***	1.08 (0.23)
Adjusted R^2	−0.01		0.14		0.01		0.21		0.01		0.09	
R^2	0.01		0.16		0.02		0.22		0.03		0.11	
R^2 change	0.01		0.15		0.02		0.20		0.03		0.08	
D.f.	3/236		1/235		3/236		1/235		3/236		1/235	
F change	0.42		41.66***		1.93		60.58***		1.98		22.17***	

*$p < 0.05$; ***$p < 0.001$.

of the challenges posed by the COVID-19 pandemic, which has created a critical health and humanitarian crisis. The major findings show that mindfulness was inversely correlated to stress, but also predicted a lower level of stress in the regression analysis. Mindfulness, which cultivates moment-to-moment non-judgmental awareness, induces a non-reactive psychological change mechanism towards a negative environment. The results are consistent with the previous findings that mindfulness can act as a buffer towards the effects of perceived stress on depression and anxiety among adults (Bergin and Pakenham, 2016) and adolescents (Lau and Hue, 2011; Felver et al., 2016).

Regarding the well-being of the participants in this study, mindfulness predicted both life satisfaction and savoring in the regression analyses. Both life satisfaction and savoring were positively associated with each other, and negatively associated with stress. These results are consistent with previous research which finds that mindful awareness, with its function of openness and curiosity, enhances the capacity to savor and enjoy positive experiences in the past, present, and future (Bryant and Veroff, 2007; Cheung and Ng, 2020). Mindfulness was related to life satisfaction with the mediating role of savoring (Cheung and Lau, 2021). Mindfulness also predicted life satisfaction and meaning in life for Chinese adolescents (Dong and Geng, 2022).

Furthermore, from the questions asked about the usual practices of coping with stress, it was found that the majority of adolescents had high exposure to electronic devices and social media, which might have been due to the pandemic. Recent studies have argued that excess screen time among youths during the pandemic has resulted in eye discomfort, unhealthy eating habits, family conflicts, concentration difficulties when studying, and even mental health problems (Rao and Fisher, 2021; Ho and Lee, 2022). However, in other studies, the use of social media may increase the life satisfaction of some adolescents because it can enhance peer relationships, especially during school closures (Geraee et al., 2019; Orben et al., 2019).

TABLE 3 Usual practices of stress coping among adolescents.

Usual practices of stress coping	Number	%	*N* (Total number of students who responded)
Dancing (hip hop, K-pop, Jazz, etc.)	12	5.0	240
Sports (football, basketball, running, etc.)	70	29.2	240
Electronic devices (play station, games, Switch, etc.)	112	46.7	240
Religious activities (visit churches)	3	1.3	240
YouTube (drama, music, etc.)	187	77.9	240
Others (reading, drawing, sleeping, playing with pets, etc.)	57	23.8	240

From a previous study, adolescents with high levels of spiritual experience benefited from both religious practice and mindfulness (Cobb et al., 2015). Another study indicated that individuals who pray regularly and with mindfulness have better mental health than those who do not (Ijaz et al., 2017). Interestingly, in this present study, students with religious affiliation did not show any significant differences in mindfulness and other variables compared to those without a religious affiliation. This may be because the number of adolescents who declared having a faith was too small to have any impact. Moreover, there was a lack of detailed information about the usual religious practices of the participants to explore the possible impacts on well-being.

In summary, there are a few education policy implications from the above study results. Based on the regression analyses, it is evidenced that mindfulness predicted not only stress adversely, but also life satisfaction and life savoring positively. Assessing the level of mindfulness, stress level, life satisfaction, and savoring of adolescents may help screen those students, especially vulnerable groups, for early intervention. According to recent research, mindfulness intervention not only improves the quality of mindfulness and the psychological resilience of adolescents, it also reduces stress by helping students to cope with stress through non-reactive awareness (Liu et al., 2022). Moreover, previous research has shown that mindfulness interventions can also facilitate healthy life habits, mindful eating habits (Hendrickson and Rasmussen, 2017), and mindful social media use (Weaver and Swank, 2019). Developing programs with mindfulness training may help adolescents to enhance their well-being and resilience in challenging times, such as when there are school closures or social distancing policies.

Limitations and suggestions for further research

Due to the difficulties of school closures during the COVID-19 pandemic, this study was not carried out with stratified sampling. The adolescents from the three schools in this study were mainly from the median level of academic ability in the education system of Hong Kong. Stratified cluster sampling study with students from a diverse range of backgrounds should be considered in the future. Moreover, because of a lack of data regarding socioeconomic status, special education needs (SEN), and underprivileged ethnic minorities, the information on the most disadvantaged adolescents was not articulated for analysis in this study. The above information may be significant for developing school-based mindfulness interventions. From previous research, while various school-based mindfulness programs were effective in enhancing well-being and resilience by significantly reducing stress among adolescents in a Chinese setting (Lau and Hue, 2011; Lam and Seiden, 2020; Schussler et al., 2021; Liu et al., 2022), it is necessary to explore accessible and feasible mindfulness practices targeting the needs of adolescents, especially those of low socioeconomic status and with special needs, during challenging periods such as the COVID-19 pandemic.

In summary, the current study provides encouraging evidence that mindfulness is crucial for enhancing well-being and stress coping among adolescents in a Chinese social context during challenging times. Overall, the findings suggest that researchers and youth service providers may want to explore mindfulness-based training in schools and communities to promote well-being and alleviate the mental suffering of adolescents.

Data availability statement

The datasets presented in this article are not readily available due to confidentiality. Requests to access the datasets should be directed to ngarszelau@cuhk.edu.hk.

Ethics statement

The studies involving human participants were reviewed and approved by Human Research Ethics Committee (HREC), The Education University of Hong Kong. Written informed consent from the participants' legal guardian/next of kin was not required to participate in this study in accordance with the national legislation and the institutional requirements.

Author contributions

N-sL has contributed to the conception and design of the work, coordination of data collection, and drafting and revising most parts of the work. RC has contributed to the quantitative data analysis, drafting the result section, and revising most parts of the work with critical comment. CL has contributed to data collection and interview. AL has contributed to drafting introduction and some parts of literature review. MF has contributed to exploring literature related to discussion section. All authors contributed to the article and approved the submitted version.

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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.

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Varieties of suffering in the clinical setting: re-envisioning mental health beyond the medical model

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In this paper, we argue for the need to rethink mental health beyond the medical model because much of human suffering cannot be diagnosed by the DSM-5. During the pandemic and post-pandemic, people have learned to accept the fact that no one is immune from suffering. Given the universality and complexity of human suffering, it is natural for people to wrestle with existential questions such as "Why struggle when all life end in death?" and "How can one flourish when life is so hard?" Existential positive psychology (EPP or PP2.0) was developed to address these existential concerns. After explaining the inherent limitations of the medical model and the need for EPP as an alternative vision for mental health, we provide illustrative clinical cases to demonstrate the advantages of this broader existential framework for both case conceptualization and interventions. According to EPP, mental illness is reconceptualized as both deficiency in knowledge and skills in coping with the demands of life and deficiency in meeting the basic needs for livelihood and mental health, the Soul's yearnings for faith, hope, and love. Finally, we introduce integrative meaning therapy as a therapeutic framework which can equip people with the needed skills to achieve healing, wholeness, and total wellbeing.

KEYWORDS

suffering, deep life, existential positive psychology, complete wellbeing, sustainable wellbeing

Introduction

The era of coronavirus disease 2019 (COVID-19) has ushered in a global mental health crisis (De Kock et al., 2022; de la Rosa et al., 2022; Wong et al., 2022a). We need to rethink mental health beyond the medical model and the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013) because most human suffering cannot be diagnosed by the DSM-5. For example, many people suffer from the frequent mass killings (Metzl et al., 2021) and overloading of bad news (Huff, 2022), but this type of social suffering is not covered by the DSM-5.

After the pandemic, people have generally learned to accept the fact that no human being is immune from suffering. This creates an opening for a broader conversation regarding the various effects of suffering on mental health. Most people do not realize that suffering is not always bad for us, because suffering and wellbeing are intertwined in a complex way (Anderson, 2014). That is why a science of suffering is needed to develop a taxonomy of suffering and the different outcomes of suffering depending on how individuals react to it.

A preliminary taxonomy of suffering encompasses at least four kinds of suffering: physical suffering (physical injury or pain in one's body), psychological suffering (the ego, painful emotions and inherent human limitations), social and interpersonal suffering (injustice, interpersonal

conflicts and crimes; Kleinman et al., 1997; Moghaddam, 2022), and existential suffering (struggling with the ultimate concerns and unmet spiritual needs for meaning; Bates, 2016; Wong and Yu, 2021).

Given the universality and complexity of suffering, it is only natural for people to wonder "How could we find happiness when suffering is an inescapable part of life?" and "What is the point of striving when all life ends in death?" Neither existential philosophy nor positive psychology can by itself provide a complete answer to the human quest for meaning and happiness. We need a broader, integrative, and interdisciplinary framework to address the existential angst of common people regarding the ultimate concerns (Yalom, 1980), the meaning of life and suffering (Frankl, 1985), and the meaning of love in a multicultural society (Wong and Mayer, 2023). We also need an inviolable narrative of human beings' role in the world and beyond (Feder, 2020). Existential positive psychology (EPP or PP2.0) was developed to provide a such holistic and interdisciplinary framework for mental health beyond medical model (Wong, 2020a).

In this paper we first explain the inherent limitations of the medical model in today's complex and fragmented society and why EPP is both necessary and beneficial for both mental health. We then provide illustrative case studies to demonstrate the advantages of this broader alternative framework for case conceptualization and interventions. According to EPP, mental illness can be reconceptualized as both deficiency in knowledge and skills in coping with the demands and suffering of life and deficiency in meeting the basic needs for livelihood and mental health. Finally, we introduce integrative meaning therapy as a therapeutic framework to achieve healing, wholeness, and sustainable flourishing even in times of suffering.

The medical model and the Diagnostic and Statistical Manual of Mental Disorders

The medical model is essentially a biomedical model which "posits that mental disorders are brain diseases and emphasizes pharmacological treatment to target presumed biological abnormalities" (Deacon, 2013). Accordingly by design, the Diagnostic and Statistical Manual of Mental Disorders (DSM) inherently implies that something is wrong with a person and that they are ill.

The stigmatizing effects of the DSM have been documented for a long time (Piner and Kahle, 1984; Corrigan and Penn, 1999). Diagnostic labels derived from the DSM can also lead clinicians to "implicitly adopt a disease model which may have negative consequences for the process of psychotherapy, such as less empathy for the client as a fellow human being." (Honos-Webb and Leitner, 2001, p. 38) Recently, Raskin et al. (2022) found that nearly 90% of psychologists used the DSM despite being dissatisfied with it. For many people, their psychological problems can be attributed to the circumstances of their lives. Focusing only on the individual misses the complex relational context and malfunctioning social structures (Robbins et al., 2017). Therefore, the first goal of any therapist should be to recognize the source, nature and context of the client's presenting problems.

Unfortunately, the DSM cannot assess the complex human experiences that are central to the human condition, such as existential loneliness or existential anxiety. Pathologizing these fundamental human experiences actually prevent the psychotherapist from offering the needed help. The cartesian approach is insufficient for realizing the complexities and nuances of the lived human experiences (Bradford, 2009).

Any manual bold enough to monopolize an entire profession inevitably lacks the necessary scope to include all the causes of psychological suffering, as we have alluded to in the introduction. It would be more helpful for the psychotherapist to understand clients' struggles for reasons of living in an absurd world or their need for guidance and wisdom to resolve common problems such as how to relate better with their spouses and their bosses.

Likewise, cognitive-behavioral therapy (CBT) handbooks are promoted to explain away any kind of psychic pain in terms of irrational thinking, thus, either blaming or clinically gaslighting clients. In a post-pandemic world, this approach often ignores clients' existential struggles for meaning and happiness and the macro problems such as climate change, internet scams, abuse of AI for personal gains, and the potential for international wars in Europe and Asia.

Mental health is more than an individual issue. It is also interpersonal, societal, cultural, and transcendental. Furthermore, it is not helpful to pathologize normal human reactions to complex and difficult life situations. Therefore, a new narrative of mental illness is needed to reduce the stigma by recognizing that other factors, such nature, society, and fate, are often beyond individual control and can negatively impact one's mental health.

What is EPP? Why is it a necessary and beneficial framework for mental health?

EPP is based on Wong's five decades of research on suffering, clinical practice on suffering, and the integration of East and West such as the ancient Chinese wisdom of the dialectical principles of Yin and Yang (Wong and Cowden, 2022; Wong, n.d.a).

Culture plays an important role in shaping our attitude toward suffering. Traditionally, children in China were taught by their parents and schools that the most important lesson in life is the ability of "eat bitterness" [不吃苦, 不成人]. This simple Chinese proverb means that if you do not learn how to endure hardships, you will never amount to anything in life. An analogy is that if you do not develop deep roots, you cannot grow into a tall tree. To me (Wong), this is a truism, but this worldview is not widely accepted in the West.

In the Western culture, the dominant worldview is to enjoy life; if we focus on the positives, the negatives simply go away. In some way, it is desirable to be happy-go-lucky people, who have both the temperament and economic resources to enjoy life without much worry. The downside of this approach is that they are ill prepared when their comfortable life is disrupted by the inescapable storms of life, such as the pandemic, death of a loved one, bitter divorce, or terminal cancer.

Human nature does not change. At the deepest level, what is personal is also universal. The existential universals are the same for all cultures. These existential givens are our ultimate concerns, such as personal mortality, existential loneliness, the meaning of human existence, and the meaning of suffering. Repressed existential anxiety may manifest itself in other forms (Yalom, 1980).

Another existential universal is that we all have experienced the civil war between good and evil (Challa, 2020). Yet, it is painful to confront our dark side; as a result, we do not know how to relate to our Shadow, which is part of our true self (Perry, 2015). The lack of deep self-knowledge often leads to bad decisions. Denial or covering up our mistakes only make things worse.

Perhaps, the biggest existential challenge for anyone is going through the pain, isolation, and fears of the unknown during the last

stage of life. As an 86-year-old man, I (Wong) have gone through near death experience more than once. More than 10 years ago, I was rushed to the hospital by an ambulance after collapsing in a poor of blood. I gave a blow-by-blow account of the horrors of being "to hell and back" (Wong, 2008). This experience led my discovery of mature happiness (Wong and Bowers, 2018).

Recently, I had another close encounter with death and went through all the painful procedures and aftermaths of surgery (Wong, 2023a). Strong belief in self-efficacy and all my research on successful aging was not enough to cope with the existential crisis of the end-of-life stage. One needs all the existential competences and all the spiritual and social support in order to go through the crisis with inner peace or equanimity (Wong and Yu, 2021; Wong, 2023b).

In view of the above, we need to recognize that suffering remains a missing link in wellbeing research (Anderson, 2014; Fowers et al., 2017; Soper, 2020; Clifton, 2022; Wong et al., 2022) and a promising direction of future research on human flourishing. According to EPP, the new science of flourishing through suffering involves not only research on different types of suffering, but also the processes and the outcomes of sustainable wellbeing.

The following represents some of the advantages of the EPP framework of integrating East and West and intertwining suffering and happiness, which expands wellbeing research beyond the binary approach:

1. The process of navigating the dialectical interactions between Yin-Yang in order to discover the adaptive balance or the middle way between positives and negatives (Wong, 2012a; Wong, 2016a; Wong and Cowden, 2022).
2. The process of transcending suffering, inherent limitations, and duality through self-transcendence (Kaufman, 2020; Wong, 2020a; Wong et al., 2021a,b).
3. The outcome of true positivity of seeing the light in the darkness, such as tragic optimism (Leung et al., 2021), existential gratitude (Jans-Beken and Wong, 2019), chaironic happiness (Wong, 2011), and mature happiness (Carreno et al., 2023). This type of happiness is characterized by achieving some kind of inner peace, balance and harmony through the difficult process of adapting to suffering or difficulty (Lomas, 2021).

There are hopeful signs of a paradigm shift (Harvard Human Flourishing Program, 2022; Wong et al., 2022a). Various recent publications (Bloom, 2021; Cain, 2022; Ho et al., 2022; Rashid and Brooks, 2022) also emphasize the need to integrate suffering for happiness and flourishing. Buddhist psychology has been the strongest advocate of ending suffering as the precondition for happiness. Its first noble truth is that life is suffering because our desires for carnal happiness and our ignorance of the impermanence of life (Thera, 2004; Targ and Hurtak, 2006; Cowden et al., 2021).

The need to embrace suffering and transform it into something meaningful is a recurrent theme in philosophy, literature, and religion (Heller, 2015). EPP is simply an extension of existential psychology (May, 1969; Yalom, 1980; Frankl, 1985) into a new science of suffering by developing a comprehensive account of the effects of suffering and its complex interactions with wellbeing (Wong, 2019; Wong et al., 2021b, 2022b). The following examples serve to illustrate the advantages of the broader EPP framework for mental health and psychotherapy.

Illustrative examples of suffering in clinical settings[1]

Many of my (Wong) clients came to me because they were attracted to my meaning-centered therapy and counseling.

Case one

Jackie suffered from depression. She was a 39-year-old attractive woman with a five-year-old son. Her husband was a very successful developer who worked 7 days a week and seldom came home for dinner. She used to work as a real state agent together with her husband; they used to struggle together in the early years of their marriage. Those were her happiest time of her life. After the birth of their first son, she became a stay-at-home housewife. Even though she was able to hire two helpers and had lots of time to do whatever she liked, she could not get rid of her sense of loneliness and emptiness. Her marriage no longer gave her happiness. That was why she wanted a divorce, hoping that this would solve her problems.

During joint sessions, it became clear that her husband was a good, responsible man, who really loved and adored his wife. He thought that by working hard, he could provide more financial security and a better future. As a result of meaning therapy, he decided family was more important than money, and that he needed to better manage work-family balance; as a result, he drastically cuts down his projects so that he could spend more time at home. Jackie discovered that her depression was because she was bored with life and did not have an outlet for her love for creative work. She decided to return to college to pursue her interests in internal design. As a result of the above changes, she no longer needs antidepression medication or desires a divorce.

Case two

Oscar suffers from anxiety. He is a very successful medical professor teaching in an Ivy league university. His main problem is that his 10-year-old son has Type One diabetes, and he feels guilty for his inability to help his son medically in spite of all the honors and awards he has received in his medical field. In addition, he also suffers from his inability to see his son as much as he wants, because his estranged wife (now living in separation) manipulates his visiting time in order to squeeze out more money from him. His previous psychologist advised him to divorce his wife and win the child custody case. But he is reluctant to go to court, because of his concern for his son's wellbeing. These problems caused him immense pain and anxiety.

Existential answers for Oscar's problems revolved around the following themes: (a) the Stoic wisdom of changing ourselves rather than changing others (e.g., Aurelius, 2016); (b) cultivating the wisdom of loving his son, but with some emotional detachment so that he would not suffer so intensely; (c) treating his wife with kindness and forgiveness, even though she remains a manipulative and deceitful

1 The case illustrations provided here are fictional characters based on similar cases. Their personal characteristics and identities are disguised so that no one can identify a real person from these case adaptations.

woman (he wants to believe that love will eventually prevail over evil); and (d) learning to endure the pain with joy and gratitude, because his suffering has brought him closer to God and made him a very successful surgeon because of his extraordinary skills and compassion toward patients. Oscar finds stoic philosophy most helpful in its emphasis on doing what is within his control and what matters most to him. In addition, he finds some inner peace from the principle of acceptance, enduring and praying to God for what is beyond his control.

Space would not allow me to provide more cases. My clients over the last 30 years include successful movie stars, lawyers, physicians, scientists, professors, bankers, CEOs; these individuals possess everything people can only dream of, and yet they still suffer in their private hell, such marital problems, work stress, inner emptiness, and disillusion with life. Therefore, there is the need for a more holistic and meaning-centered narrative for mental health.

Varieties of suffering in the clinical setting: a new conceptualization

As illustrated by Wong's examples, many clinical cases are simply normal human reactions to the inescapable sufferings from any one or any combination of the four sources of suffering. We propose that most psychological disorders can be contributed to different types of deficiencies, such as:

1. Deficiency in meeting one's basic physical needs, such sleep, food, or exercise (Columbia University Department of Psychiatry, 2022).
2. Deficiency in caring for the soul's yearning or spiritual meaning for hope (for a meaningful future), love (loving relationships with others) and faith in protection and help from God or a higher power (Wong, 2023b).
3. Deficiency in emotional regulations (temper tantrum, frequent mood swing, or lack of emotional intelligence) and self-control and discipline (indulgence in pleasure, addiction, or bad habits such as laziness and gluttony).
4. Deficiency in meaning attribution (exaggerated common attribution biases, such as claiming credit for success and blaming others for failure).
5. Deficiency in responsibility for one's wellbeing and future in addition to failing to take responsibility for one's words and deeds (Arslan and Wong, 2022).
6. Deficiency in relational skills, such as listening and speaking truthfully and clearly.
7. Deficiency in basic human decency or virtues, such as honesty, integrity, and kindness.
8. Deficiency in coping resources and skills (Wong et al., 2006).
9. Deficiency in endurance and tolerance of suffering and people one does not like (Wong, 2004).
10. Deficiency in life intelligence (LQ; Wong, 2017) or existential intelligence (Gardner, 2020).

Integrative meaning therapy

The above examples illustrate that most inorganic psychological difficulties can be re-conceptualized as existential concerns and difficulties in coping with various suffering in life. Therefore, integrative meaning therapy (IMT; Wong, 2010, 2016b, 2020b) seems most appropriate because it focuses on the fundamental human needs for meaning, relationship, and spiritual faith, with the human quest for meaning as its central organizing construct, and inner peace as its desirable outcome. IMT reduces the stigma of mental illness because it focuses on unleashing peoples' natural power of meaning for healing and flourishing.

Meaning is one of core experiences of human existence. The important role of meaning and purpose for our wellbeing is supported by a mountain of empirical research (e.g., Wong, 2012b; Hicks and Routledge, 2013). At present, many people are wrestling with finding meaning and purpose in their work, marriage, or life in general.

As illustrated by the first case study, one's primary need for meaning is replaced or suppressed by one's blind pursuit of happiness and success. Ironically, research has shown that such pursuit is a main source of suffering (Schumaker, 2006; Wong, 2007; Zerwas and Ford, 2021). In addition, toxic positivity has attracted increasing public attention (Scully, 2020; Kaufman, 2021; Princing, 2021; Villines, 2021; Cain, 2022).

The advantages of cultivating a meaning-mindset (Wong, 2011) includes: (1) allowing one to facilitate the discovery of meaning in situations and in one's life overall; (2) adding a spiritual perspective to everyday activities; (3) allowing an individual to orient themselves to the values of eudemonia and self-transcendence; (4) contributing to personal growth and becoming a fully functioning person; and (5) increasing one's likelihood of success in having a meaningful purpose.

The good news is that research has shown that meaning is an antidote to the perils of pursuit of happiness and success, when meaning is defined as self-transcendence reorientation (Frankl, 1988; Wong, 2014; Wong et al., 2021a). Self-transcendence can be illustrated by the following widely cited saying from Dalai Lama: "Our prime purpose in this life is to help others. And if you cannot help them, at least do not hurt them."

IMT focuses on meaning-centered coping which includes (a) finding benefits or lessons from suffering, (b) leaning to accept and transcend inescapable suffering, (c) praying to God or a Higher Power for help, (d) reframing suffering into something more manageable and positive, (e) linking suffering to some meta narrative or mythology, and (f) integrating suffering with something positive or meaningful (Wong et al., 2006; Eisenbeck et al., 2022). Meaning is a common factor in all kinds of therapies (Vos, 2018). Here are 10 characteristics of a meaning-centered psychotherapist:

1. Holds a hopeful view of every client and treats them with respect and dignity.
2. Makes effective use of the self—the therapist is the therapy.
3. Help clients move toward both healing and wellbeing simultaneously.
4. Sees both the big picture and situational problems.
5. Integrates different modalities around the central construct of meaning.
6. Integrates the art and science of meaningful living.
7. Considers meaning as both personally and socially constructed.
8. Empowers clients to take personal responsibility to develop their potentials.
9. Equips clients with skills of making the right decision and effective coping.
10. Takes a holistic view of wellbeing, including spiritual wellbeing.

In sum, IMT involves how to manage the three broad themes of human existence: (1) How to live a fulfilling and meaningful life, (2) How to become better and stronger though overcoming and transforming suffering into something meaningful, and (3) How to love and relate well to others in a multicultural society (Wong, n.d.b).

Total wellbeing and why the best possible life is a deep life

From the perspective of EPP, we can enjoy total wellbeing when we are able to transcend our limitations, suffering, and cultural differences. In doing so, we can enjoy living a meaningful life involving all four dimensions of our personhood – bio, psycho, social, and spiritual.

According to the American Psychological Association (n.d.), wellbeing is defined as "a state of happiness and contentment, with low levels of distress, overall good physical and mental health and outlook, or good quality of life." The World Health Organization (2021) has a broader conception of wellbeing beyond physical and mental health as follows:

Well-being is a positive state experienced by individuals and societies. Similar to health, it is a resource for daily life and is determined by social, economic and environmental conditions. Well-being encompasses quality of life and the ability of people and societies to contribute to the world with a sense of meaning and purpose. Focusing on well-being supports the tracking of the equitable distribution of resources, overall thriving and sustainability. A society's well-being can be determined by the extent to which they are resilient, build capacity for action, and are prepared to transcend challenges (World Health Organization, 2021).

Thus, it calls for total mobilization of all sections and all citizens to be involved in actions of promoting wellbeing in societies, in which all people can enjoy some good quality of life. Toward this goal, we have developed a tripartite meaning management model of focusing on managing three existential universals for sustainable wellbeing: meaningful living, meaningful suffering, and meaningful relationships in a multicultural society.

Research has also shown that illness can be viewed as a spiritual phenomenon according to Dame Cicely Saunders' ground-breaking concept of total suffering as comprising physical, emotional, social, and spiritual sources of pain (Balboni and Balboni, 2018). By the same token, we can also have total wellbeing, which includes the spiritual-existential source of wellbeing (Wong, 2023b).

A complete model of mental health depends on how well we manage suffering, and to what extend we embrace meaning. Figure 1 explains both the importance of suffering and meaning as well as the need for balance.

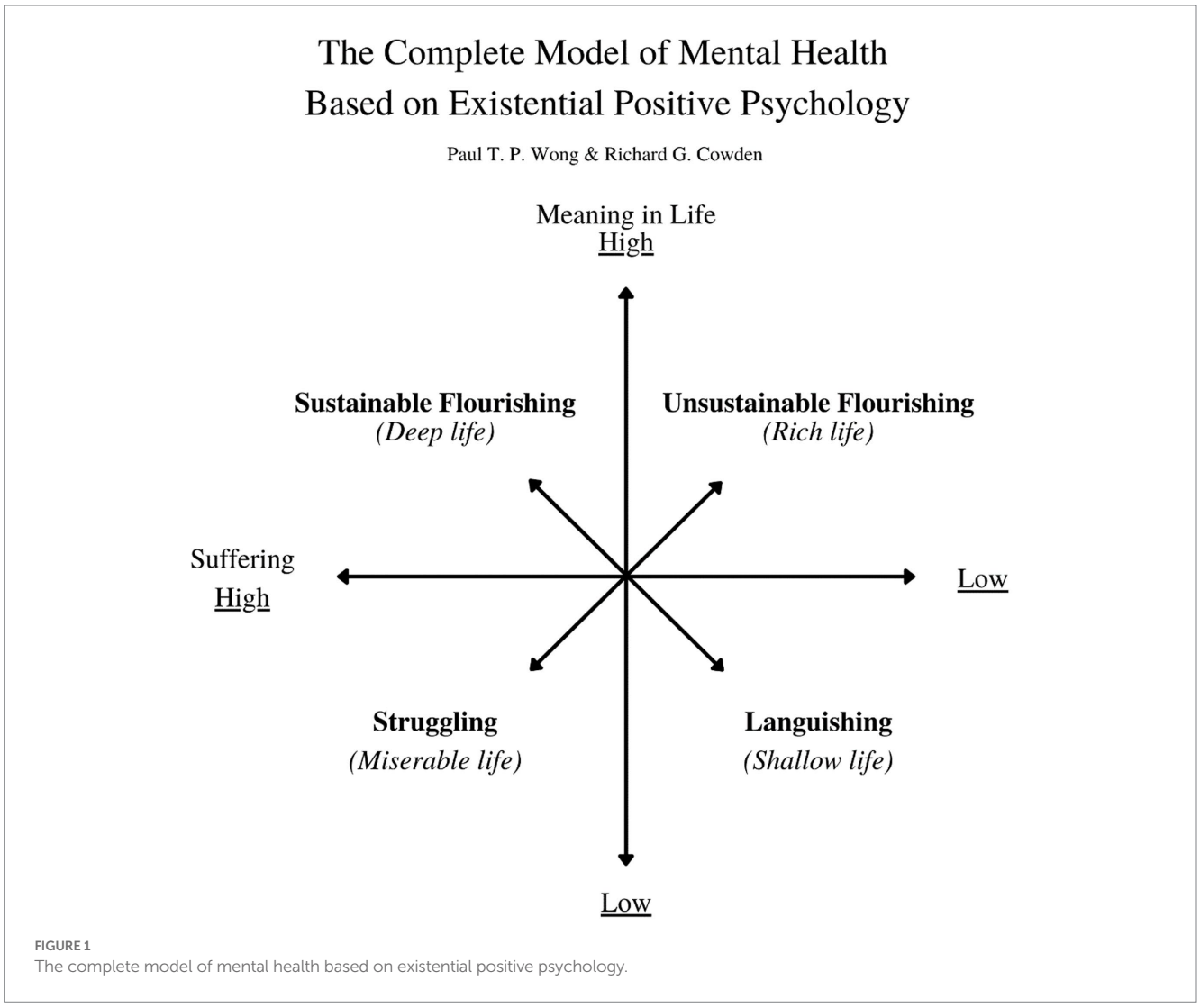

FIGURE 1
The complete model of mental health based on existential positive psychology.

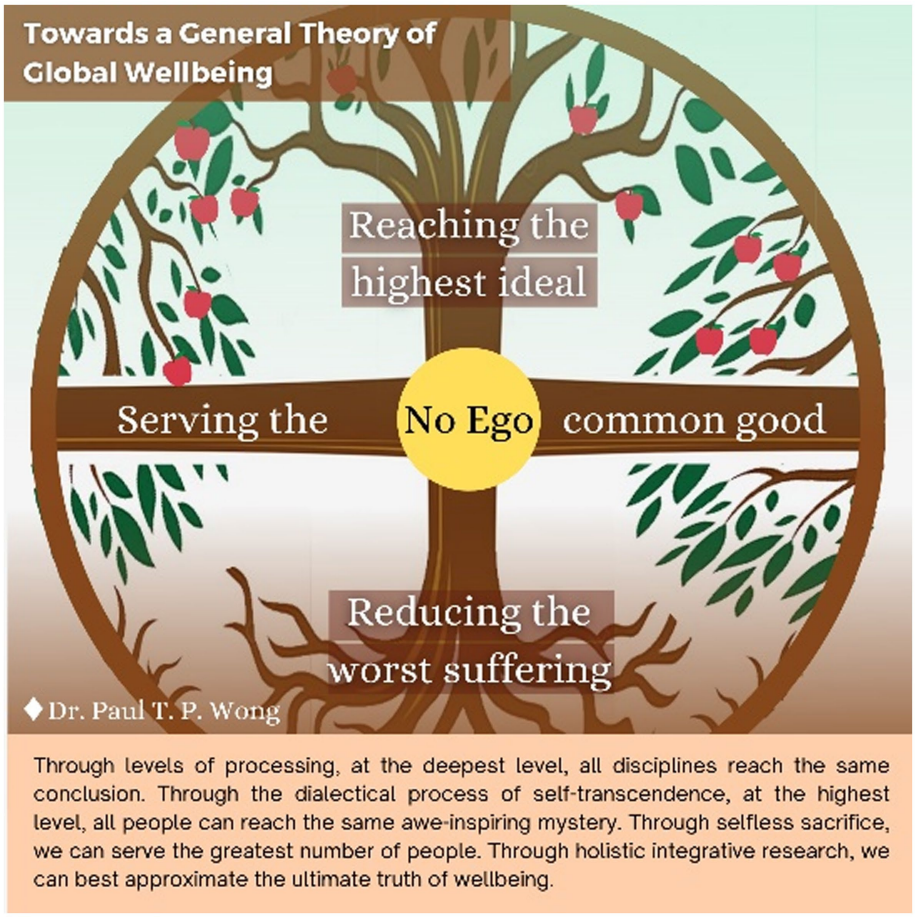

FIGURE 2
Towards a general theory of global wellbeing.

Regarding the four quadrants, in times like this, when life is full of suffering and stress, the best possible life is a deep life or sustainable flourishing. It may sound counter-intuitive because we instinctively avoid suffering. Figure 2 provides the reasons why suffering is necessary for a deep life.

The second-best life is where the privileged can avoid most of the pain common folks suffer from and engage in all kinds of desirable experiences. This kind of life has been described as the rich life. According to Oishi and Westgate (2022), "Unlike happy or meaningful lives, psychologically rich lives are best characterized by a variety of interesting and perspective-changing experiences." (p. 790).

But a rich life is unsustainable in the long run, because when one encounters a tough patch of life, struck by unexpected tragedy or trauma, one does not have the solid foundation or resilience to maintain their rich lifestyle.

The quadrant of languishing refers to the ordinary shallow life of the eat-work-sleep cycle. A boring, meaningless existence can be described as a shallow life. "Happiness without meaning characterizes a relatively shallow, self-absorbed or even selfish life, in which things go well, needs and desire are easily satisfied, and difficult or taxing entanglements are avoided" (Baumeister et al., 2013).

The last quadrant refers to the worst possible life, full of suffering and devoid of meaning. It can be called a wasted life or miserable life. A miserable life may be a better description of a living hell without meaning transformation.

Our tripartite model of meaningful living, meaningful suffering, and multicultural relationship can also be translated into the evolutionary psychology of the pain-brain-culture model of wellbeing. From an evolutionary perspective, the main thing animals or human beings have to contend with is danger, pain, or death in order to stay alive. That is why learning how to cope with painful experiences or suffering is a matter of survival and striving, not a matter of pathology or sickness. Meaning and happiness are necessary to make life worth living in order to prevent us from committing suicide or giving up (quiet suicide). This is the logic Soper (2020) and Wong (2022) have argued for.

Conclusion

The main contribution of this paper is threefold: it explains the need to incorporate suffering as an important factor for sustainable wellbeing, the need for IMT and learning how to live a meaningful life in times of adversity, and the importance of spiritual-existential wellbeing.

We have made the case that suffering is necessary for sustainable wellbeing and flourishing. If we focus only on the negative events in our life, we will be swallowed up by the black hole of depression and anger. However, if we focus on the meaning of suffering and learn to see light or be the light in the darkest hours though practicing hope, love, and faith, we will be strengthened and blessed.

As a new narrative beyond the medical model, our EPP framework encourages the following new trends which may help resolve the current mental health crisis.

1. From a symptom-based approach to a holistic approach to total wellbeing.
2. From clinical treatment to practical guidelines for living fully and vitally.
3. From adhering to a particular school of thought to integrating multiple modalities.
4. From Western-ethnocentric psychology to multicultural and indigenous psychology.
5. From depending only on the medical profession to including educational, and other social institutions.

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.

Ethics statement

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Written informed consent for participation was not required for this study in accordance with the national legislation and the institutional requirements.

Author contributions

PTPW drafted the manuscript. DL conducted a literature review and reviewed the draft manuscript. All authors contributed to the article and approved the submitted version.

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.

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Les Misérables: An analysis of low SWB across the world

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Global trends indicate that the prevalence of low subjective wellbeing is on the rise, though not all regions are equal in terms of both absolute levels and their trajectories. In this paper, we explore the relative importance of individual- and country-level factors in predicting low SWB. Put differently, we ask if a person found themselves behind a veil of ignorance, should they want to know who they will be or what country they will live in to better understand their risk of having low wellbeing. To answer this question, we leverage data from the most extensive wellbeing survey in the world—the Gallup World Poll. We explore people's likelihood of reporting low evaluative wellbeing (that their life is close to the worst possible life on the Cantril ladder) and low experiential wellbeing (reporting having felt angry, sad, stressed, and worried for most of the day yesterday). Using multilevel models on both measures, we show that individual factors have the greatest explanatory power across both measures, but that country level factors are almost four times more important in explaining the variation in low evaluative wellbeing than low experiential wellbeing around the world. We also present evidence that individual and country-level factors interact, suggesting that a complex system of people and places determines people's likelihood of reporting low SWB.

KEYWORDS

subjective wellbeing, low life satisfaction, misery, hierarchical models, Gallup World Poll

1. Introduction

The science of "happiness" or subjective well-being (SWB) was born, in part, out of a rejection of psychology's historical focus on mental ill-being, as well as of the use of economic indicators as the sole measures of societal progress (Veenhoven, 1996). This science has contributed much to our understanding of what constitutes the "good life" or, in other words, what makes happy people happy (Diener et al., 2018b), and SWB indicators are increasingly widely considered social indicators of primary importance (Boarini et al., 2012; Stone and Mackie, 2013). Given the inroads that have been made, we argue that it is time to employ the data and approaches that have contributed to this science to understand who is at risk of missing out on the good life altogether. The low wellbeing of these people and its determinants have been largely unexplored by the SWB literature to date, despite some existing evidence showing that the drivers of SWB vary across the wellbeing distribution (Dolan et al., 2008; Binder and Coad, 2011). Our argument is well-aligned with the increasing emphasis being placed on the negative quality of life indices and trends in the broader social indicators movement (Glatzer et al., 2015; Land and Michalos, 2018), for example, in the work of Anderson (2015) which examines the poor quality of life in terms of both low SWB and other objective indicators. Those suffering from low wellbeing are also of policy importance: identifying those who fall within this group can inform efforts to address disadvantage (Dolan et al., 2022).

SWB measures include both people's evaluations of their lives and reports of their experiences as they go about them (Dolan et al., 2017). People with low SWB can, therefore, be identified as those who evaluate their life poorly and/ or report negative experiential wellbeing on a day-to-day basis. Longitudinal data from the World Happiness Report indicate that on both counts, low SWB is on the rise around the world, though these trends vary across regions (Helliwell et al., 2019). These trends are ascertained from data from the Gallup World Poll (GWP)—an annual survey conducted from 2005 to 2021 that is, as a result of a probabilistic sampling strategy, representative of 98% of the world's population. The sample includes 164 nations, with a sample size of more than 1.8 million observations. It is the largest and most representative sample of wellbeing data from the world's population available. The poll includes responses to the Cantril ladder question, which asks people to rate their life on a ladder, the bottom rung representing the worst possible life and the top the best. The poll also captures individuals' reports of both positive and negative experienced wellbeing yesterday.

The GWP data provide an unparalleled resource with which to examine and better understand the SWB of the world. They have been productively used to investigate the role of specific determinants of wellbeing around the world, including marriage, employment, prosociality, and life meaning (Jebb et al., 2020), and separately, health (Joshanloo and Jovanović, 2021), age (Blanchflower and Graham, 2020), food insecurity (Frongillo et al., 2017), social engagement and air pollution (Xia et al., 2022), and inequality (Gluzmann and Gasparini, 2018), among other factors. They have also been used to track trends in wellbeing across the life-course (Deaton, 2018) and in how people are faring globally (Helliwell et al., 2019). Almost no work, however, has leveraged the Gallup World Poll to investigate the risk and protective factors, at both the individual and country level, for falling among the worst off around the world.[1]

The literature leaves many questions outstanding regarding what puts people at risk of low SWB, but a first-order question is the relative importance of individual and country-level factors. Put differently, if you were in Rawls' position behind a veil of ignorance, should you want to know who you will be or what country you will live in to better understand your risk of falling into that category? (Rawls, 2020). Though existing work with Gallup has examined individual and country-level factors (e.g., Deaton, 2008), we are unaware of any work to date which has directly examined a range of possible risk and protective factors to compare their relative power at predicting low SWB.

Many of the strongest predictors of average SWB that have been identified by the literature to date are individual-level factors. For example, whether someone is healthy, socially connected and employed have all been highlighted as key determinants of SWB (Dolan et al., 2008, 2022). People living in urban compared to rural areas typically report lower SWB, as do men compared to women (Joshanloo and Jovanović, 2020; Okulicz-Kozaryn and Valente, 2021). Income has also been shown to have a association with SWB, particularly at the bottom end of the income distribution, with most prior studies finding a log-linear relationship (Stevenson and Wolfers, 2013), and some studies suggesting that the marginal benefits of income decrease with income (Jebb et al., 2018). Additionally, much of the health and economic literature on SWB provides evidence of the popular notion of the midlife crisis, with both younger and older adults having better SWB than those in their 40s and 50s (López Ulloa et al., 2013). Finally, research indicates that a substantial proportion of the variance in SWB can be explained by genetic factors (De Neve et al., 2012).

By comparison, the associations between country-level factors and SWB are typically smaller in magnitude. For example, in their study of country-level air pollution using the Gallup World Poll, Xia et al. (2022) report standardized individuals' health on happiness of 0.094, compared to 0.050 from country level air quality. The same study also reports standardized coefficients of 0.037 of income, compared to 0.027 of GDP at the country level. Why might this be the case? People may be more prone to adapting to country-level factors—adjusting to both the positive and negative features of their country—than they are to their own life circumstances (Headey, 2010). Although existing work does identify substantial adaptation to some individual life events including bereavement and divorce too, not others such as becoming unemployed (Luhmann et al., 2012). Adaptation can be understood as a process of withdrawal of attention *via* explanation (Dolan et al., 2021). Except in extreme circumstances such as war or famine (Matanov et al., 2013; Shemyakina and Plagnol, 2013), many country-level factors may not be as regularly attention-seeking as individuals' circumstances, like health, and might be easier to explain away given that people have less agency over country-level factors than their own circumstances, therefore potentially undermining their relative importance for predicting low SWB.

Research into the determinants of wellbeing across evaluative and experiential measures indicates that the relative importance of life circumstances including, for example, income, health, and employment status, varies substantially across these different dimensions of wellbeing (Dolan et al., 2017; Miret et al., 2017; Macchia et al., 2020). These findings emphasis the importance of adopting a multidimensional approach to modeling SWB, irrespective of whether the focus is on average or low SWB. Existing work which compares the country-level determinants of average evaluative and experiential wellbeing measures using the GWP finds that external factors like governance and community context are more closely related to evaluative wellbeing (Diego-Rosell et al., 2018). In other words, these factors are relatively more important when people reflect on their lives than when they report the emotions they experienced on the previous day. A potential explanation for this is that evaluative measures of SWB, and in particular, the Cantril ladder question contained in the GWP, involve greater levels of social comparison.

Based on the existing literature, our first hypothesis is that more of the variation in low SWB will be explained by individual-level factors than by country-level ones (H1a). Many country-level factors like politics and the state of the economy are

1 See Gandelman and Hernández-Murillo (2009) and Diener et al. (2018a) for work that goes beyond looking at average SWB and, speaking to those below neutral and average, respectively.

likely to be more closely related to evaluative than experiential well-being, on account of their being more salient when making cognitive evaluations of one's life as compared to how often they come to mind over the course of a day (Stone and Mackie, 2013). As a result, we further hypothesize (H1B) that country-level factors will have greater predictive power in relation to low evaluative, compared to experiential, wellbeing. To examine these questions we estimate null three-level logistic models which account for the fact that responses are clustered in both countries and years. The null or empty model contains just one fixed term—the mean—and then a variance component at each of the 3 levels (individuals, countries, years). This allows us to calculate the proportion of the total variation explained by the country level, the year and also how similar individuals within a country and a year are on the two outcomes. In order to further examine the relative importance of individual, country-level and year factors, we also carry out the same analysis broken down by region.

> H1a: The variation in low SWB will be better explained by individual-level factors than country-level ones.
> H1b: The variation in low evaluative wellbeing will be explained by country-level factors to a greater extent than the variation in low experiential wellbeing.

This approach decomposes unexplained variation, but as highlighted above the SWB literature offers insights into the key determinants of average SWB. These insights are likely informative about the correlates of low SWB too. We go on to incorporate several of the individual factors that are commonly examined in the SWB literature: income, gender, age, health issues, support, marital status, retirement status, and whether they live in an urban area. We examine the explanatory power of these determinants both on their own and when we include Gross Domestic Product (GDP) per capita at the country level. GDP is the most widely used conventional economic measure of social progress and has been the focus of a large body of literature that aims to understand differences in average well-being around the world (Stiglitz et al., 2009; Deaton and Stone, 2013; Stone and Mackie, 2013). By exploring the extent of the unexplained variation in our original models that GDP accounts for once we include it we are able to comment on its relative importance across both measures of low SWB.

Finally, the SWB literature indicates that individual, time and country-level factors may interact such that certain individual factors matter more or less depending on the country you live in or the period under consideration. Existing research suggests that the relationship between who people are (demographic characteristics like age or gender) and their SWB depends upon their social and economic contexts. For example, contrary to much of the evidence on the U-shape pattern between age and SWB, Steptoe et al. (2015) find that people living in former Soviet Union countries and eastern Europe have worse SWB with age—but in Latin America, there was little difference in SWB across the life-course. Gender differences in SWB have been also shown to depend on whether people live in a place with strong gender rights (Graham and Chattopadhyay, 2013). The relationship between unemployment and SWB has also been shown to vary across time according to economic conditions of the period (Arrondo et al., 2021).

In this work, we add to this literature by focusing on the role of income. Income is not the only individual-level factor that we would expect to vary in importance across countries but given that factors such as welfare provision and the cultural importance placed on income and wealth vary substantially across countries and regions (Duffy and Gottfried, 2013; Dollar et al., 2015), it is interesting to consider whether the relationship between how much people earn and their probability of reporting low SWB varies across countries too.

Our second main hypothesis is that income is differently related to low SWB in different countries around the world. To examine this we run a random slope model that allows for cross-country differences in the relationship between income and both measures of low SWB. This approach allows us to investigate how what people earn and the country that they live interact to protect or enhance the risk of people experiencing low SWB.

> H2: The relationship between individual income and low SWB varies across countries.

Taken together, these investigations help us better understand the geography of low subjective well-being around the world, while also shedding light on differences across evaluative and experiential dimensions of well-being in different regions. In what follows, we present the data in Section 2, analysis in Section 3 and discuss the results in Section 4.

2. Data

To explore cross-country differences in low SWB, we use data from GWP between 2005 and 2021. Countries were sampled to represent the population of each nation. The sample includes 164 nations, with a total sample size of more than 1.8 million observations, the largest and most representative sample of the world available.[2] We draw on relevant survey variables from the GWP that were polled across most nations. Table 1 includes a variable list and respective descriptive statistics.[3]

2.1. Measures

The GWP identifies individuals as suffering if they report that their current and future (in 5 years) satisfaction with life is 0–4 in

2 Details on the questions asked and sampling are available through the Gallup World Poll Methodology (Gallup, 2022). Some of the results include fewer countries since not all nations were surveyed on the variables of interest throughout the survey. Further information on the GWP, sampling methodology, and coverage are available in the SM.

3 For income we use a measure that uses Per Capita Annual Income in International Dollars to divide respondents into five groups of equal size. This provides a measure of respondent wealth that is relative to other respondents in that country.

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TABLE 1 Summary statistics.

Statistic	*N*	Mean	St. Dev.	Min	Max
Low eval. SWB	1,835,719	0.289	0.453	0	1
Low exp. SWB	1,835,719	0.071	0.257	0	1
Household size	1,835,719	4.137	2.681	1	22
Income (quintiles)	1,817,483	3.229	1.418	1	5
Gender (Female = 1)	1,835,719	0.533	0.499	0	1
Age	1,835,719	41.409	17.604	15	99
Subjective health	1,835,719	0.246	0.431	0	1
Count on help	1,800,231	0.831	0.447	0	4
Worry	1,835,719	0.379	0.485	0	1
Sadness	1,835,719	0.234	0.423	0	1
Stress	1,835,719	0.331	0.470	0	1
Anger	1,835,719	0.199	0.399	0	1
Retired	1,835,719	0.199	0.399	0	1
GDP (log)	1,835,719	8.685	1.400	5.641	11.595

the Cantril ladder (0–10). For this research, we define low SWB based on if they report a 0–4 life satisfaction only currently and not in the future to focus on current states of wellbeing. We recode this measure into a binary variable of 0 (not low) and 1 (low). In the Supplementary Table 7, we test whether using the GWP's measures of suffering or a threshold of 0–3 for low evaluative wellbeing alters any of our analyses and results remain substantively the same.

In addition to this definition, our paper explores cross-country differences in low experiential wellbeing. We define this measure based on individuals that report they experienced yesterday all of the negative emotions asked in the GWP: sadness, worry, stress, and anger. Using questions about feelings yesterday is the standard approach to capturing experiential SWB in large surveys. Inquiring into yesterday lessens the impact of survey effects on reports of experiential wellbeing, while still capturing feelings close to the time frame of interest thus mitigating recall bias (Stone and Mackie, 2013). We create a new binary variable that indicates that they have low experiential wellbeing (1) if an individual reported yes in all 4, otherwise not (0). In the Supplementary Table 7, we test whether using an alternative threshold of reporting at least 3 out of 4 of the negative emotions yesterday substantively influences our results. It does not.

Summary statistics suggest that on average about 28.9% of the world population surveyed through the GWP evaluates their life poorly. In comparison, only about 7.1% of respondents experience it poorly as measured by whether they experienced anger, sadness, worry, and stress yesterday. Looking at Figures 1, 2, we observe great disparities around the world in the levels of low evaluative and experiential wellbeing. Supplementary Figures 7–9 show the evolution of low SWB by year as well as by year per global region. In addition to that Supplementary Figures 10–14, show the evolution of that variation over time by country in different global regions, respectively.

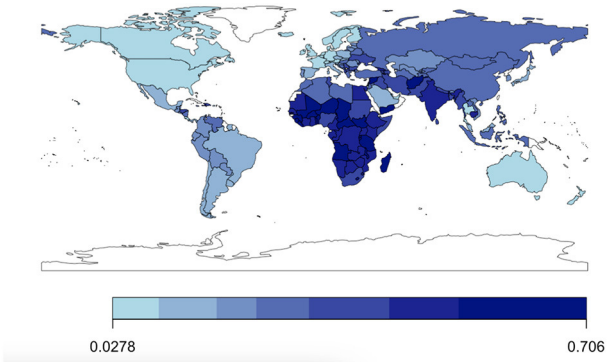

FIGURE 1
Low evaluative SWB across the world (mean values for 2005–2021).

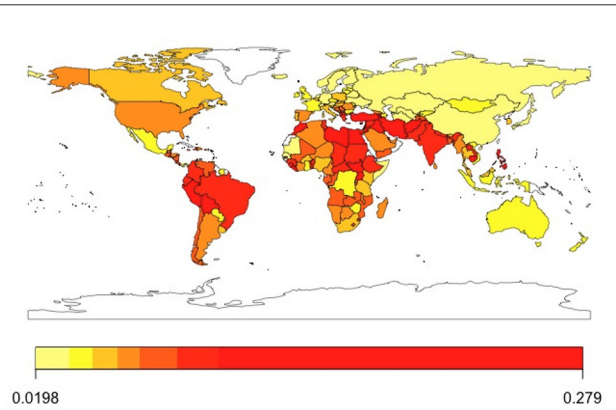

FIGURE 2
Low experiential SWB across the world (mean values for 2005–2021).

3. Analysis

In psychology, economics, and other social sciences, we often observe data with natural groupings, nested data (i.e., students nested in different schools, firms nested in states, individuals nested in different countries). Accounting for this data structure is important on both theoretical and statistical grounds. Ordinary Least Squares (OLS) regression models assume the independence of units, an assumption that is often violated when we have such structures. For example, individuals living in the same country probably have similar outcomes (or more similar than a random sample). These similarities could be due to shared institutional frameworks, economic conditions, language, culture, education, history, and others. Since this violates the independence assumption of OLS, ignoring the nesting might lead to biased estimates. A way to account for the bias is multilevel modeling (Mehmetoglu and Jakobsen, 2016).

In addition, this hierarchical structure of the data can actually help us understand important insights about the population at hand as it allows for a clear decomposition of variation. Knowing how much variation is due to each level can inform both theory and policy. In this case, we use multilevel models to understand how

important living in a country is in explaining people's probability of low SWB.

Imagine on one extreme, you observe a country where virtually everyone has low wellbeing and another where the opposite is true. This could imply that country of residence determines their low SWB or lack thereof. At the other extreme, all of the variation could come from the individual, implying that countries have no role to play in people's probability of reporting low SWB. Using a multilevel model that accounts for the nested nature of the data at the country level and years across our sample allows us to estimate these different sources of variation.

To explore the variance across different levels in a multilevel model, we compute the variance partition coefficient (or inter-class correlation coefficient—ICC). ICC represents the proportion of the total variability in the outcome that is attributable to each level. In other words, the country ICC indicates how strongly residents of the same country resemble one another in terms of their low SWB. Therefore, the higher the country-level ICC the more similar citizens within countries are.

In a linear model, the ICC is based on the clear distinction that exists between the individual-level variance and the country-level variance (Rasbash et al., 2003; Merlo et al., 2006). In our case, our low SWB measures are coded as binary variables. In multilevel linear regression, the individual and area-level variances are expressed on the same scale. Therefore, the partition of variance between different levels is easy to perform for detecting contextual phenomena. In multilevel logistic regression, however, the individual level variance and the area level variance are not directly comparable. Whereas, the area level residual variance V_A is on the logistic scale, the individual level residual variance V_I is on the probability scale. Moreover, based on Merlo et al. (2006), V_I is equal to π $(1-\pi)$ and therefore depends on the prevalence of the outcome (probability).

We follow the linear threshold model method as proposed in Goldstein et al. (2002) and expanded in Merlo et al. (2006) in order to be able to identify the ICCs. This involves converting the individual-level variance from the probability scale to the logistic scale, on which the area-level variance is expressed. In our case, the method assumes that the propensity for low SWB is a continuous latent variable underlying our binary response. In other words, every person has a certain propensity for low SWB, but only persons whose propensity crosses a certain threshold actually report it. ICC equals the proportion of well-being variance explained by unobserved individual variables. The unobserved individual variable follows a logistic distribution with individual-level variance V_I equal to $\pi 2/3$ (that is, 3.29) (Merlo et al., 2006). On this basis, the ICC is calculated as:

$$ICC = \frac{V_A}{V_A + 3.29} \quad (1)$$

3.1. Cross country variations

Using this approach, we compute the ICC in our dataset for an empty three-level model (individuals nested in countries, nested in years) for low SWB using Gallup's survey weights to minimize bias.

TABLE 2 Understanding variance decomposition by level.

	Individuals	Country	Years
Evaluative SWB			
Variance	3.29	1.03	0.01
ICC	75.92%	23.87%	0.21%
Observations	1,835,719		
Experiential SWB			
Variance	3.29	0.31	0.01
ICC	90.47%	8.56%	0.97%
Observations	1,835,719		

Table 2 reports the results. The ICC for the two measures provides a very interesting insight. Where individuals live (that is, country-specific level variance) explains almost 25% of the variance in low evaluative wellbeing (measured as low life satisfaction today, 0–4 in the Cantril ladder) but only about 9% of the variation in low experiential wellbeing (measured as the combined experience of anger, stress, sadness, and worry yesterday). Across both metrics, time only explains a small fraction of the overall variance.

3.2. Cross regional variations

Table 3 and Figure 3 suggest that the predictive power of country characteristics varies across different regions of the world and individual countries. Results of the empty random models suggest that country characteristics vary substantively in predicting evaluative vs. experiential wellbeing across different world regions. In industrialized economies such as in European countries and North America, country characteristics can explain about 1/5th of the variance in low evaluative wellbeing, whilst in sub-Saharan Africa, the predictive power of country characteristics can only explain <5% of the variance. With respect to low experiential wellbeing, the variance explained by country characteristics across different regions of the world remains below 8% with the exception of sub-Saharan Africa.

There are many differences between the regions of the world under consideration, including dimensions like institutional capacity, climate, and economic stability. It is beyond the scope of the current work to examine the potential explanatory factors behind the differences in the explanatory power of individual and country-level factors in these places. Recent evidence (Berggren and Bjørnskov, 2020) shows, however, that institutional quality and state capacity significantly affect SWB. Based on data from the Quality of Governance database, institutional quality in sub-Saharan Africa is in almost all countries[4] homogeneously low (26,66 percentile rank on average in 2021). In addition to that, an important point of difference between the regions in which our findings diverge to the greatest extent, i.e., Sub-Saharan Africa and Europe and North America is the underlying prevalence of low evaluative and experiential wellbeing. The majority of people

4 With the exceptions of South Africa, Botswana, Namibia, and Senegal.

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TABLE 3 Understanding variance decomposition by global region.

	Individuals	Country	Years
Europe and North America			
Evaluative SWB	77.51%	20.60%	1.89%
Experiential SWB	91.69%	7.80%	0.51%
Asia & Indep. Com. States			
Evaluative SWB	85.05%	14.93%	0.01%
Experiential SWB	90.76%	6.61%	2.63%
Middle East and North Africa			
Evaluative SWB	81.32%	18.19%	0.49%
Experiential SWB	92.14%	6.74%	1.12%
Sub-Saharan Africa			
Evaluative SWB	93.53%	5.57%	0.9%
Experiential SWB	84.70%	10.30%	5.10%
Latin America			
Evaluative SWB	90.51%	9.30 %	0.19%
Experiential SWB	94.92%	4.30%	0.77%

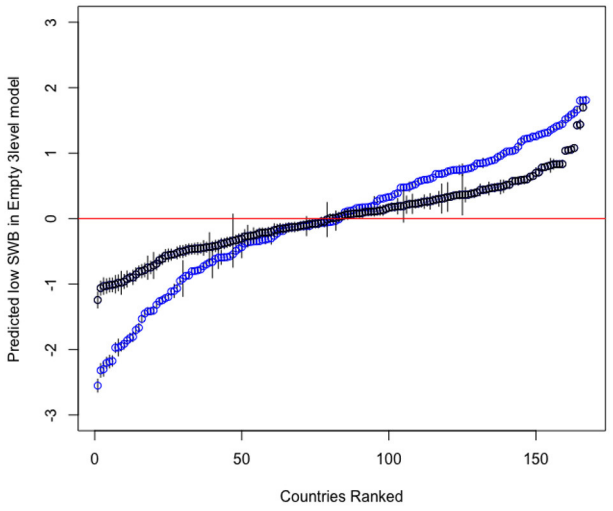

FIGURE 3
Predicted low SWB across the world.

report low lie evaluations in Sub-Saharan Africa compared to just 14% in Europe and North America. Less stark but still substantive differences exist across these regions in experiential wellbeing: 7.2% of Sub-Saharan Africa reports low experiential wellbeing while 4.5% do in Europe and North America 4.5. Statistically speaking, the greater prevalence of both low life evaluations and low experiential wellbeing in Sub-Saharan Africa might partly explain why in low institutional quality states, where the scope and role of government in increasing SWB is limited, country-level factors explain less of the variation in low SWB.

Both the mean and by region variance decomposition suggest high heterogeneity between countries. To examine this heterogeneity, we use the empty models to obtain the predicted values of low SWB by country and plotted them against the respective intercepts of the empty models (ranked by predictive power). Figure 3 shows the results confirming the relatively higher importance of country characteristics in explaining evaluative in comparison to experiential wellbeing. Figure 3 also suggests that this difference in predictive power arises from the fact that at both tails of the predictions' distribution, country characteristics can predict either much higher (or lower) levels of low evaluative wellbeing than of experiential wellbeing.

3.3. Individual level predictors

To explore the effect of individual and country-level explanatory variables on low SWB, we now expand our model and introduce explanatory variables on income (measured according to which country-level income quintile the person falls into), gender, age, health issues, social support, whether the person is retired, married and lives in an urban area, as well as per capita GDP in their country measured 2015 US dollars. Table 4 shows the results using cluster-robust SE following (Huang and Li, 2022). Including solely individual-level controls for predictors of low SWB suggests a very similar variance decomposition as the empty models. However, including per capita GDP in log[5] as a country predictor, the percentage of variance that explains low evaluative wellbeing attributed to countries decreases to 8%.

3.4. Income heterogeneity

In our estimations up to now we assume that the relationship between individual factors and low SWB is the same across all countries. In other words, individual- and country-level features do not interact. There are good reasons to think that this may not hold. For example, the role of higher income in protecting people from low SWB might be expected to vary across places, even when controlling for the overall economic prosperity of a country, for example, due to differences in welfare provision. This is what we turn to next. To test that we run a random slope model that allows for cross-country heterogeneity in the relationship between income and both types of low SWB. Figure 4 plots the results showing that there are a lot of countries on the top right (and bottom left) of the income graph where the effect of income is significantly more (less) important for low SWB. A list of each country where income has a significantly above or below-average correlation with income is included in Supplementary Tables 6, 7 for low evaluative and experiential wellbeing, respectively. Of the 164 countries in our sample, a fifth of them has a significantly higher than the average relationship between income and low evaluative wellbeing and just over 18% have a below-average one.

5 Data were collected by the World Bank Governance Indicators and refer to constant 2015 USD per capita GDP (Kaufmann et al., 2011).

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TABLE 4 Probability of reporting low SWB.

	Dependent variable			
	Eval. SWB	Exp. SWB	Eval. SWB	Exp. SWB
Income (in quintiles)	−0.254***	−0.164***	−0.257***	−0.164***
Gender (Female = 1)	−0.130***	0.260***	−0.138***	0.286***
Age	0.010***	0.046***	0.028***	−0.002***
Age^2	0.010***	0.046***	0.028***	−0.002***
Health issues	0.428***	0.821***	0.430***	0.819***
Count on help	−0.548***	−0.551***	−0.539***	−0.568***
Retired	−0.050***	−0.152***	−0.009**	−0.247***
Married	−0.203***	−0.148***	−0.247***	−0.045***
Urban	−0.185***	0.091***	−0.183***	0.099***
GDP per cap. in 2015 $ (log)			−0.740***	−0.152***
Constant	0.075	−3.204***	6.085***	−1.038***
Observations	1,635,201	1,635,201	1,622,269	1,622,269
ICC (country)	25.17%	8.03%	7.98%	7.52%
ICC (year)	0.01%	0.99%	0.08%	0.01%
Log likelihood	−814,960	−379,413	−807,083	−376,056
Akaike inf. crit.	1,629,942	758,850	1,614,192	752,136
Bayesian inf. crit.	1,630,078	758,998	1,614,352	752,283

The table shows the results for different choices of controls. Standard errors are in parentheses. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

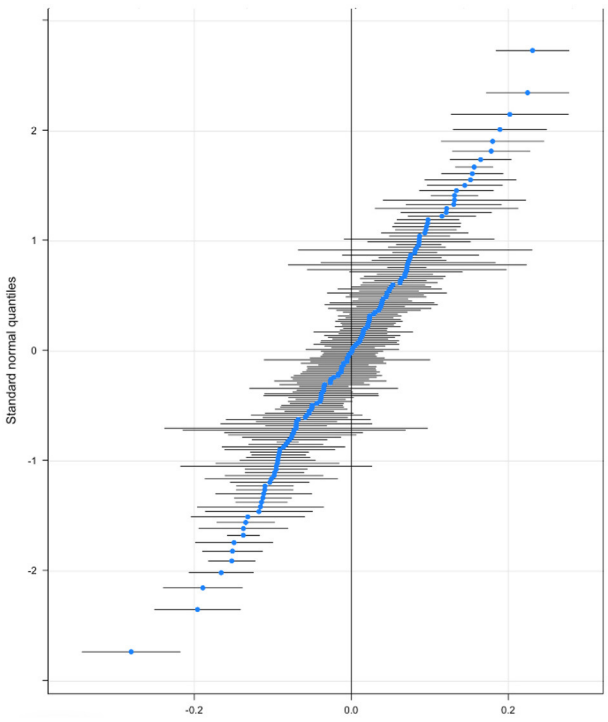

FIGURE 4
Random slope of income on low evaluative SWB.

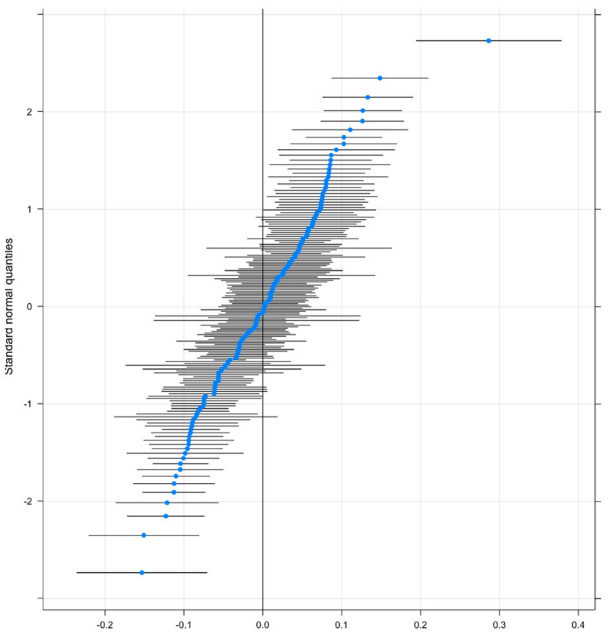

FIGURE 5
Random slope of income on low experiential SWB.

Similarly Figure 5 plots the same relationship for low experiential well-being.

4. Discussion

SWB research has generated important insights into the predictors of people's evaluations of their lives and their feelings as

they go about them. However, to date, this research has typically focused on wellbeing at the mean (for exceptions, see Binder and Coad, 2011; Dolan et al., 2022), and most often looked at individual level factors within a given country. In the current work, we examine the predictors of low SWB, both in terms of low life evaluations and negative affect on the previous day, and go beyond an individual country to look across 164 countries and five world regions using the GWP. In doing so, we provide insights into the relative importance of individual, time and country-level factors in determining people's likelihood of reporting low SWB.

The results yield a number of important insights. First, across both measures of low SWB, who you are matters far more than the country you live in and, to an even greater extent, the year you report your wellbeing. These individual factors capture everything about a person that is not attributable to the country they live in, including sociodemographics like gender, age, education etc. but also their genetic makeup and time use (both important determinants of wellbeing identified in previous literature (Rietveld et al., 2013; Brand et al., 2020), as well as many unobservable characteristics. These results speak to the question posed at the beginning: behind a veil of ignorance what you would want to know to better understand your risk of reporting low SWB? The answer across both measures is clearly who you are.

Second, when comparing the relative importance of individual, country, and time level factors across both measures of low wellbeing, we see that country-level predictors explain substantially more of the variation in low evaluative wellbeing than they do low experiential wellbeing. In other words, the country you are living in is more predictive of the probability of evaluating your life poorly than it is of feeling a range of negative emotions for most of the day yesterday. When people are asked to place themselves on a rung of ladder that runs from the worst possible life to the best, this requires people to have some concept of how both of these types of lives look. In order to rate themselves as having the worst possible life or close to that (the bottom four rungs in our definition of evaluative SWB), people must have better lives in mind. Our results suggest that country-level factors play a more important role in that comparative process than they do in reporting on negative emotions, particularly for those living in Europe and North America.

When we include the individual level factors: income, gender, age, health issues, being able to count on help being retired, married, and living in an urban area we find these variables to be statistically significant and to predict low SWB in the same directions previously identified in the existing literature (with the exception of urban which is negatively associated with reporting low SWB). At the same time, however, the variance decomposition remains largely unchanged indicating that other unobserved individual characteristics are responsible for much of the variation in the likelihood of reporting low SWB across both measures. In contrast, the variance in low evaluations explained by country-level factors is substantially reduced (from 25% to 8%) once GDP per capita is included. The variance in low experiential wellbeing explained remains largely stable. These results suggest that a substantial part of the role of country-level factors in low life evaluations, but not low experiential wellbeing, is attributable to differences in economic conditions across countries. Importantly though, even when controlling for GDP per capita, country-level variation remains across both measures. Previous work by Diener and Tay (2015) using the GWP suggests environmental health, equality and freedom in nations likely all play an additional role, while work by Heukamp and Arino (2011) suggests religion, culture, and corruption may also contribute.

Third, individual, country, and time factors do not exist in isolation. These factors represent a complex system in which who a person is, interacts with their country-level environment, and time trends to determine their risk of low SWB. To evidence this, in the current work, we look at one individual-level determinant of SWB, which has been the focus of much academic attention—income (Kahneman and Deaton, 2010; Killingsworth, 2021). More specifically, we examine the importance of income as an individual-level predictor of low SWB, allowing it to vary across all of the countries in our sample. Our results indicate that how much money you earn has significantly different associations with your chance of reporting low evaluative well-being and low experiential wellbeing depending on your country of residence. Social capital, inequality, welfare provision, and other institutional factors likely play a role in explaining this finding (Helliwell and Putnam, 2004; Mikucka et al., 2017). For example, existing work indicates that income and inequality levels interact to predict wellbeing (Macchia et al., 2020). The most important takeaway for our purposes, however, is that the importance of income varies depending on the country in which you reside. This finding echoes other work on smaller samples of countries (Stanca, 2010). Though we do not examine this in the current work, research suggests the importance of income and other individual factors will likely also vary across time (Arrondo et al., 2021).

The social indicators movement assesses both objective welfare measures and subjective measures of psychological satisfaction and wellbeing in order to examine and track the quality of life (Land, 1983). While work on objective welfare measures has often looked at negative outcomes, for example in the multidimensional poverty index and the gender inequality index (Land and Michalos, 2018) far less of the work on subjective wellbeing has considered the bottom of the wellbeing distribution. Furthermore, while we have some existing evidence to suggest that the relationships between objective factors and subjective wellbeing will vary across countries with different social, economic, political, and environmental conditions (Macchia et al., 2019) as is the case in the social indicators literature more broadly (Land and Michalos, 2018) little multilevel analysis of these relationships exist. Our work addresses these gaps by considering the variance in low subjective wellbeing across individuals, countries, and time.

We are aware that our approach is not without its limitations. In terms of identifying which individuals have low evaluative and experiential SWB, we make a number of technical assumptions about how these conditions would be reported through the World Poll. That our evaluative SWB measure refers to life overall and the experiential measure relates to feelings yesterday is reflective of these two levels of wellbeing being by definition on different time scales. It is important to highlight, however, that we assume that reports of feelings yesterday act as an adequate proxy measure for experienced well-being (as is assumed in the SWB literature more broadly). That assumption should be kept in mind in

interpreting the different results across the two measures. We also adopt arbitrary thresholds to identify low evaluative and experiential SWB. We examine the implications of these thresholds by using less strict criteria and results do not materially change (see Supplementary Tables 5, 6). Another assumption is that our measures of well-being are valid. The Cantril Ladder asks people to compare their life with an ideal and preferences is comparative in nature. Thus this item is seemingly more consistent with the preference satisfaction account of welfare rather than the mental state account that aligns with subjective wellbeing (Angner, 2010; Hausman, 2011).

A further limitation, that pertains to all cross-country SWB research, is the extent to which the well-being constructs and SWB measures translate across cultures. Gallup carries out extensive testing of all the measures included in the GWP and only includes those that they consider working across all of the counties in their sample. This robust approach (Gallup, 2021) provides reassurance that cross-country differences in low SWB that we identify are real differences in wellbeing as opposed to artifacts arising from different understandings of the questions being asked. The consistency of the results across different definitions of low SWB (see Supplementary Table 5) provides further reassurance.

We also cannot make causal claims based on our analysis. Like other correlational SWB research, the associations we present are vulnerable to reverse causality and omitted variable bias. As a result, insights from the current work do not suggest how to address people's low SWB but rather identify what parts of its variation can be explained by individual characteristics and time and country-level factors. We do not investigate mechanisms behind the patterns we identify, crucially, human attention (Dolan et al., 2021). Attention underlies one of the most prevalent lessons from SWB research—adaptation—and explains the consistent finding that income has diminishing marginal returns on SWB (Di Tella et al., 2010). More income matters most to those with the least of it because they focus attention on scarce resources, whereas more income is less noticeable to the wealthy (Layard et al., 2008). Our analysis emphasizes the importance of considering how and why individual and country-level factors may interplay to make people more or less vulnerable to low SWB.

It is perhaps not surprising that individual-level predictors of SWB are most closely associated with individually reported and analyzed SWB. An alternative approach to analysis is to consider SWB at the level of communities, which may be average SWB at the country level, or at lower geographical levels such as states and local authorities, or workplaces and schools (Deaton and Stone, 2013). It would then be possible to ask questions such as how do different features of communities shape community-level wellbeing and what can this tell us about how to intervene at local levels? What are the risk and protective factors for the low SWB of countries over time that national and global policies could intervene to shape? Such an approach moves us away from an individual focus to looking at social networks and considering wellbeing as a property of places and people, which public health interventions that draw on systems and place-based assets can shape (Krekel et al., 2020; Atkinson, 2021).

Finally, we examine a limited set of factors at the individual level and only include GDP at the country level. There are many more determinants of SWB, both individual and country level, identified in the existing SWB literature. While the factors we include represent many of the key determinants, future work could include a wider set of variables including for example unemployment, inequality and governance, thereby providing insights into the extent of the remaining unexplained variation at all levels.

Notwithstanding these limitations, the current work makes significant contributions to our understanding of what predicts low SWB across the world. In step with trends in the social indicators movement more broadly, it asks what matters for wellbeing, not on average, but for the worst-off, and how that varies across countries. The analysis we present demonstrates the value of going beyond an individual focus, to examine the complex interplay between people, places, and time in order to uncover who is at risk of falling among the world's worst off.

Data availability statement

The data analyzed in this study is subject to the following licenses/restrictions: Access under individual license with Gallup. Requests to access these datasets should be directed to GM, g.melios@lse.ac.uk.

Author contributions

GM: conception, design, data analysis, acquisition, and writing and editing draft. PD: conception and design, data acquisition, and editing draft. LK: conception and design and editing draft. KL: conception, design, data analysis, and writing and editing draft. All authors contributed to the article and approved the submitted version.

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Conflict of interest

Authors GM and PD were affiliated to The Gallup Organisation. The company was involved in data collection - the data (World Poll Dataset) is one of Gallup's products. The company was not involved in the study design, analysis, interpretation of data, the writing of this article, or the decision to submit it for publication.

The remaining 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.

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Supplementary material

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyg.2023.1107939/full#supplementary-material

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Transcending the self to transcend suffering

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Suffering is inevitable in human life. Our perspective paper theorizes on precise mechanisms for how *self-transcendence*—the state in which an individual looks beyond the self and adopts a larger perspective including concern for others and the world—may help people endure the experience of suffering. From an examination of empirical literature ranging from social psychology to clinical research, we propose that self-transcendence may aid the endurance of suffering along three psychological levels: (1) On the level of affect, the unique profundity and positivity of *self-transcendent experiences* (e.g., awe, flow, compassion) may *supersede and reduce the salience* of negative affect arising from suffering (e.g., fear, despair, depressive mood). (2) On the level of cognition, the larger frame of reference provided by *self-transcendent thinking* may *contextualize* one's suffering as something comprehendible, thereby helping to resolve the challenges of making meaning from suffering (e.g., that one's existing meaning systems are unable to explain the suffering event). (3) On the level of motivation, the drive to fulfill one's *need for self-transcendence* may counterbalance the more hedonically-oriented motivations that can promote negative coping strategies in response to suffering (e.g., avoidance, substance abuse). All three mechanisms may also provoke downstream prosocial behaviors that help embed the individual into networks of social support. Altogether, by synthesizing specific mechanisms from affective, cognitive, and motivational self-transcendent processes, our paper establishes a theoretical framework for how self-transcendence may help people endure and transcend suffering, thereby elevating the conditions and experiences of our existence.

KEYWORDS

self-transcendence, suffering, human existence, meaning in life, coping strategies, positive emotions

Introduction

The history of human suffering is arguably as ancient as humanity itself. The oldest work of poetry in print today, The Epic of Gilgamesh (ca. 2750-2500 B.C.E./2003), details the story of a mighty king tormented by the grief he feels for his beloved's death as well as by the terror he suffers at the thought of his own. Whether it surfaces in Gilgamesh's ancient city of Uruk or in the intensive care unit of a modern hospital, suffering has been considered one of the great tragedies fundamental to human existence (e.g., Frankl, 1946/1992). For certain thinkers of philosophy, suffering in life is often unavoidable and too grueling to bear, so much so that it would have been better to have never come into being (e.g., Benatar, 2008; Schopenhauer, 2020). In spite of such doctrines, humanity has persisted all the same, driven perhaps by the hope that one might still derive from existence some durable reason or means to face one's suffering and endure it. Substantial empirical research has examined various strategies (e.g., self-regulation of emotion) and factors (e.g., social support) that may help people cope with events of adversity in

life, mostly from clinical perspectives and targeted at specific forms of suffering (e.g., trauma, illness, psychological disorders) (e.g., Matthews and Cook, 2009; Freh et al., 2013; Papa et al., 2013; Shear et al., 2014; Gruszczyńska and Knoll, 2015; Shear, 2015). The present perspective paper aims to articulate how *self-transcendence*—the state in which an individual looks beyond the self and adopts a larger perspective including concern for others and the world—may help people endure suffering as a form of positive coping. Building on existing literature and consistent with the propositions of second-wave positive psychology (Wong, 2019), we propose a theoretical framework specifying the effects of self-transcendence along three levels of analysis: the affective, the cognitive, and the motivational.

What precisely is "suffering"? A common definitional choice is to conflate it with pain (e.g., Vanden Bos, 2007). Although in everyday language, "pain" and "suffering" are indeed mentioned together frequently and even interchangeably, there are key distinctions between the two. Pain is the direct unpleasant physical or psychological sensation that may arise from different activities or events in life. Pain often can cause suffering, but not necessarily so. Some pain, such as what is felt when eating spicy food, taking a hot bath, or even feeling the muscle-burn of a strenuous workout can be experienced by many people as desirable (Bloom, 2021) instead of as a form of suffering. Other typically more severe cases of physical or psychological pain, such as what is felt when becoming terminally ill or struggling with a psychological disorder (Pompili et al., 2012; Wachholtz et al., 2016; Svenaeus, 2020; Lewis et al., 2021), are more likely to be experienced as negative and aversive. Many philosophers and psychologists consider that it is this mental disruption or aversion in response to pain that qualifies as suffering (e.g., Kauppinen, 2019; McClelland, 2019; VanderWeele, 2019; Brady, 2021; Stilwell et al., 2022). We thus adopt the view that suffering is not the sensation of pain itself, but rather *the negative and aversive mental state in response to physical or psychological pain*. Conceptualizing suffering as a mental state rather than purely a sensation opens the possibility that it can be potentially moderated by psychological mechanisms, the processes of which we will articulate in this paper.

Self-transcendence is a reorientation from egotism toward concern for others and the world. Self-transcendence has been examined from diverse perspectives in the literature, including as a phenomenological experience of ego-dissolution, a set of prosocial motivations and behaviors, a subtype of emotion, an attribute of religious experience, as well as a constellation of character strengths (Montemaggi, 2017; Stellar et al., 2017; Yaden et al., 2017; Kitson et al., 2020; Lavy and Benish-Weisman, 2021; Liu et al., 2022). As a multi-faceted psychological phenomenon, the common feature across different manifestations of self-transcendence is that egotistic interests cease to be the individual's predominant focus; a perceived higher value presents itself in a target beyond the self, whether in other people, divinity, or even an overarching concept of nature (Stellar et al., 2017; Castelo et al., 2021; Magyar-Russell et al., 2022). Our paper examines the construct of self-transcendence at three levels of psychological processes: affect, cognition, and motivation. We surmise that these three levels may each have distinct benefits for the endurance of suffering and may also interact together in their functions.

The notion that self-transcendence may be a balm for suffering has rich roots in philosophy and psychology, particularly with regards to its theoretical connection to life-meaning. For example, based on his experiences in the Holocaust, Frankl (1946/1992) proposes that the life-meaning which best aids the endurance of suffering is discovered from devotion to something beyond the self. In an effort to solidify Frankl's propositions into operable constructs, Wong (2013) defines meaning as a multidimensional construct in the PURE model (i.e., purpose, understanding, responsible action, emotional evaluation). The model lays out meaning's implications for suffering, with self-transcendence referenced as a significant source of such meaning. The benefits of meaning in contending with adversity have been subsequently examined in the literature of meaning-centered coping (e.g., Eisenbeck et al., 2021; Sanchez-Ruiz et al., 2021; Avsec et al., 2022; Eisenbeck et al., 2022), and additional study in other frameworks has likewise affirmed the perceived link between self-transcendence and meaning (Huang and Yang, 2022). We wish to emphasize here, however, that although self-transcendence is closely related to the concept of meaning, it is nonetheless fruitful to examine self-transcendence as a distinct and coherent construct of its own. Our definition of self-transcendence—the state of looking beyond the self toward a larger perspective including others and the world—is concerned fundamentally with how one relates to the self. Such a definition differs from that of meaning, which has been conceptualized as consisting of sub-components like life-coherence, significance, purpose, and experiential appreciation (e.g., Martela and Steger, 2016; Kim et al., 2022). Our intent is specifically to help build upon the qualities and functions of the self-transcendence construct. Where Frankl's (1946/1992) proposition is that self-transcendence may give rise to a sense of meaning that helps people endure suffering, we wish to focus on self-transcendence in particular and theorize more specifically how it may help people endure suffering—not only through meaning—but through all manner of affective, cognitive, and motivational mechanisms.

On this subject of understanding self-transcendence's benefits, Wong et al. (2021) frame self-transcendence as an overarching means by which suffering might be integrated into pursuit of perceived higher goals or values. Self-transcendence in this proposition involves unconditional investment in the betterment of others (Communion), the actualizing of a better form of self (Hope), and the reverence of an ideal (Faith). In this manner, the endurance of personal suffering would be made possible *via* dedication to these three domains beyond the self (Wong et al., 2021). Empirical study has affirmed that self-transcendent values and experiences bear positive associations with diminished depressive symptoms, improved emotional well-being, and post-traumatic growth (Bojanowska and Kaczmarek, 2022; Monroy and Keltner, 2022; Xie et al., 2022).

We propose that self-transcendence bears benefits for the endurance of suffering along three psychological levels: (1) On the level of affect, the unique profundity and positivity of *self-transcendent experiences* (e.g., awe, flow, compassion) may *supersede and reduce the salience* of negative emotions arising in suffering (e.g., fear, despair, bitterness). (2) On the level of cognition, the larger frame of reference provided by *self-transcendent thinking* may *contextualize* one's suffering as something comprehendible, thereby helping to resolve the challenges of making meaning from suffering (e.g., that one's existing meaning systems are unable to explain the suffering event). (3) On the level of motivation, the drive to fulfill one's *need for self-transcendence* may counterbalance the more hedonically-oriented motivations that can promote negative coping strategies in response to suffering (e.g., avoidance, substance abuse). Beyond these direct benefits,

self-transcendence is theorized also to promote downstream behavioral and social consequences that wield their own benefits, including strengthening one's connections to networks of social support. We discuss further the mechanisms involved at each level of analysis as well as their interactions below.

Effects of self-transcendent experiences on suffering

The experience of suffering often entails negative affect, such as depressive mood states or negative emotions like grief, guilt, and anger (Freh et al., 2013; Kim et al., 2021). Severe negative affect may disrupt facets of daily life, as with cases of unexpected rushes of negative emotion accompanying intrusive thoughts (e.g., Calhoun, 2013b; Park and Kennedy, 2017). This attribute of intrusiveness indicates that the negative affect in suffering has potential to metastasize; otherwise-neutral domains of living may, in their disruption by these sudden upsurges, become themselves sources of additional suffering (VanderWeele, 2019). Excessive negative emotion has been connected to the development of depressive disorders, complications in grieving in cases of bereavement, and even detriments to physical health (Keyes, 2002; Zhang et al., 2006; Young et al., 2019; Frumkin et al., 2021). Therefore, the salience and potential intrusiveness of negative affect comprise a predominant problem to be addressed in the endurance of suffering.

Due to its power to promote profoundly positive affective states, self-transcendent experiences may reduce the salience of negative affect in suffering. Self-transcendent experiences (e.g., flow, awe, compassion) are characterized by the perceived dissolution of the boundaries of the self and an enhanced unity with other people or the world (Stellar et al., 2017; Yaden et al., 2017). This sense of unity is associated with a positive—even ecstatic—affective state, in tandem with a diminishing salience of selfhood (Hood, 1975; Hanley et al., 2020; Kitson et al., 2020). As an illustration, flow is a self-transcendent experience elicited by the performance of a deeply rewarding yet appropriately challenging task, and its defining characteristic is a total attentional focus on the task alongside a correspondingly low level of self-consciousness (Nakamura and Csikszentmihalyi, 2002; Croom, 2015; Yaden et al., 2017). This complete absorption into an intrinsically positive state may lessen the weight of one's negative affect. The self-transcendent experiences (e.g., flow, awe, compassion) derived from activities such as communal worship, musical performance, or immersion in vast scenes of nature have been linked to the heightening of positive affect, mitigation of negative affect, and efficacious therapeutic outcomes (e.g., Reynolds and Prior, 2006; Matthews and Cook, 2009; Moss, 2019; Kim et al., 2021; Monroy and Keltner, 2022).

As a caveat, profoundly positive as self-transcendent experiences may be, they do not aid the endurance of suffering solely by dint of being positive. Prior theories (e.g., Wong et al., 2021) make clear that the function of self-transcendence is not merely to reduce suffering, but also to engage with it in a manner that draws out some goodness despite its initial negativity. The positivity in self-transcendent experience does powerfully counterbalance the aversiveness of suffering, but there are additional benefits posed *via* bidirectional connections to the cognitive and motivational components of self-transcendence as well. These interactions will be discussed further in later sections.

Effects of self-transcendent cognition on suffering

During moments of suffering, there is often a need to comprehend the causes and effects of the events that gave rise to the suffering (Gan et al., 2013, 2018; Calhoun, 2013a; Courtois, 2017; Park, 2020). This desire can be conceptualized as a need to reconcile the initial negative implications of suffering with one's *global meaning*—fundamental beliefs of how the world works (e.g., the just world hypothesis or views of human nature) (Freh et al., 2013; Gan et al., 2013; Park and Gutierrez, 2013).

Two challenges may arise from such meaning-making processes. First, meaning-making involves the distressing possibility that one's global meaning belief systems are too optimistic or otherwise unable to account for the meaning of a suffering event (e.g. Calhoun, 2013c; Pak, 2019; Frounfelker et al., 2020). In such instances, there appears to be an irreconcilable rupture in one's conception of the world, and the failure to mend it may manifest in the intrusive thinking that produces the unexpected waves of grief mentioned prior (Calhoun, 2013b; Steger et al., 2015; McAdams and Jones, 2017; Pak, 2019; Milman et al., 2020). Second, to accommodate the meaning of suffering, individuals may shift their global meaning beliefs in a manner that makes negativity the predominant feature (Park et al., 2012; Gerrish et al., 2014; Gerrish and Bailey, 2020), as in the adoption of cynicism or existential nihilism. Such negative belief orientations are associated with poor well-being outcomes ranging from depressive and anxiety symptoms to suicidal ideation (Nierenberg et al., 1996; Dangel et al., 2018; Forsythe, 2021). Thus, the threat of failure to comprehend the meaning of a suffering event, as well as the potential negative global meaning one might derive, comprise a dimension of suffering that demands cognitive pathways of resolution.

Self-transcendent cognition—the reasoning and appraisal of phenomena according to a frame of reference beyond the self—gives rise to global meaning beliefs that may successfully account for suffering without setting negativity as the predominant feature. This self-transcendent cognition can occur *via* adopting a reasoning from the perspective of social entities beyond the self or even of abstract spiritual ones such as the idea of nature overall (e.g., Block, 2001; Frounfelker et al., 2020; Monroy and Keltner, 2022). Empirical research has found that people's perceptions of meaning are greatly influenced by a sense of self-transcendence (e.g., making a positive impact on society) (Huang and Yang, 2022). As a concrete example, an examination of positive coping strategies in response to cancer found that reframing one's terminal illness as part of natural cycles of "creation and destruction" may aid the peaceful acceptance of death (Block, 2001). Instead of prompting rumination over suffering as something happening specifically and unfairly to the self, the appraisal of one's suffering as natural recontextualizes it as something shared with the whole of humanity. Moreover, such self-transcendent systems of global meaning may likewise successfully incorporate the suffering event—the prospect of death linked to "destruction" in the given example—into a perspective that also emphasizes positive features such as "creation," thereby accounting

for negativity in existence without sacrificing the positive. In contrast, cynicism or nihilism also do provide explanations for suffering, but they do not allow for the inclusion of such positivity and thereby lead to their associated negative well-being outcomes (Dangel et al., 2018; Forsythe, 2021). In providing an orientation of global meaning with a larger perspective and a focus on superordinate values, self-transcendent cognition may thus help resolve both the struggle to formulate acceptable meaning of suffering as well as the potential for maladaptive interpretations.

Effects of self-transcendent motivation on suffering

On the level of motivation, the presence of suffering again provokes a twofold challenge. The first is that the inherent aversiveness of suffering triggers motivational systems oriented toward immediate alleviation of suffering (e.g., the desire to flee from the circumstances of one's suffering). Though the hedonic motivation to mitigate displeasure is not necessarily maladaptive, fixation on such mitigation at the expense of other motives necessary for well-being may result in drives toward negative coping mechanisms such as avoidance, substance abuse, or self-escape (Carver and Connor-Smith, 2010; Freh et al., 2013; Giuntoli et al., 2021). Second, the aforementioned threats to cognitive global meaning may also hamper one's eudaimonic motivations toward purpose (Park, 2008). Global meaning beliefs, in addition to providing coherent understandings of the world, also include prescriptive beliefs from which one may derive goal-oriented purpose in life (e.g., that one should help the sufferings of others) (Koltko-Rivera, 2004; Martela and Steger, 2016; McAdams and Jones, 2017; Park and Kennedy, 2017). To cast one's global meaning beliefs into doubt may therefore produce the aimlessness and avolition characteristic of "languishing" (Keyes, 2002). The risk of succumbing to overly hedonistic motivations and the risk of falling to an outright vacuum of motivations are the two motivational challenges posed by suffering.

Self-transcendent motivation is defined here as the drive to be devoted to an entity beyond oneself in terms of one's goals and purposes, which may lead to the tolerance and even embrace of suffering. For example, the desire among religious people to obey the edicts of their concept of the divine has been observed to compel outright embrace of one's suffering as an opportunity to demonstrate religious devotion, even amid especially severe cases of pain such as cancer and childbirth (Krause and Bastida, 2011; Taghizdeh et al., 2017). The same motivation to willfully engage with one's suffering in spite of its aversiveness has also been observed in non-religious forms of self-transcendence (e.g., desire to fulfill the self-sacrificial commitments of *agape* love) (Ozawa-de Silva et al., 2012; Van de Goor et al., 2020; Enright et al., 2022; Sørensen and Lien, 2022). As a point of differentiation, this motivation toward self-transcendence is fundamentally distinctive from the motivation toward self-escape (e.g., to "drown one's sorrows" in alcohol): though both entail a desire to lessen the burden of self-awareness, self-transcendent motivation does so through affirming meaningful connections with entities beyond the self, whereas self-escape motivation is driven by a desire to numb meaningful thought and thereby avoid awareness of suffering (Baumeister, 1990; Yaden et al., 2017). Self-transcendent motivation, if adequately engaged-in, compels the individual beyond the push and pull of hedonistic sensualism toward the goal-oriented purposefulness characteristic of more holistic forms of well-being.

Interactions between the three levels of self-transcendence

These three levels of self-transcendence do not operate in isolation from one another, but rather may each promote one another in the endurance of suffering. Past literature has suggested Meaning-Centered Coping wields its benefits along a holistic set of trajectories (e.g., positive reframing, engagement in meaningful activities, prosociality, etc.) (Wong, 2013; Eisenbeck et al., 2021), and we surmise the benefits of self-transcendence may function in a similar manner. We have established that the problem of suffering entails multiple fronts, including overwhelming negative affect and threats to systems of global meaning. This multifaceted nature of suffering ensures that the solutions best suited to combating it must be correspondingly holistic in their effects.

For example, self-transcendent experiences such as awe may give rise to a sense of meaning and provoke meaning-making processes that help solidify self-transcendent cognitive beliefs and values (Stellar et al., 2018; Zhao et al., 2019; Rivera et al., 2020; Monroy and Keltner, 2022; Kim et al., in press). Inversely, reframing one's suffering through self-transcendent cognition may likewise induce some self-transcendent experiences, such as feelings of serenity derived from believing in natural forces greater than the self (Kreitzer et al., 2009; Garcia-Romeu, 2010). To contrast, some positive but non-self-transcendent experiences such as the pleasure of a good meal may alleviate the experience of suffering to some extent, but it would not address the needs for global meaning or purpose that have also been provoked by suffering.

Similarly, both self-transcendent experiences and self-transcendent cognitive beliefs can incentivize self-transcendent motivations. As an example, self-transcendent experiences from spending time in nature have been connected to a drive for prosocial behaviors due to feelings of greater connectedness with the world (Castelo et al., 2021). Likewise, the prescriptive values entailed in self-transcendent cognitive beliefs comprise the goals and purpose that compel self-transcendent motivations (Koltko-Rivera, 2004; McAdams and Jones, 2017). As an outcome of one's cognitive religious beliefs, as noted prior, one may have a strong motivation to serve others (e.g., Krause and Bastida, 2011). In this fashion, all three levels of self-transcendence may feed into each other and thereby trigger cascades of each other's mechanisms in aiding the endurance of suffering holistically.

Downstream behavioral and social effects of self-transcendence

We conceptualize self-transcendence as a set of subjective mental processes, but its effects do not necessarily remain confined to the mind of the individual. Past research has suggested that subjective processes like meaning may stimulate constructive and prosocial behaviors (e.g., Van der Heyden et al., 2015; Klein, 2017; Eisenbeck

et al., 2021), and we correspondingly hold that self-transcendent experiences may also have these positive effects on prosociality. For example, self-transcendent experiences such as awe motivate people to perform prosocial behaviors such as helping (Piff et al., 2015; Perlin and Li, 2020). In addition, self-transcendent experiences involving the sense of unity with others (e.g., communal worship, patriotic camaraderie in war) have been found to promote prosocial and pro-group behaviors (Swann and Buhrmester, 2015; Moss, 2019). These outward expressions of self-transcendence may also serve to signal prosociality to others and promote reciprocal positive social connections, giving rise to the systems of support that have been consistently observed as a potent resource for adaptive coping of suffering (Stallard et al., 2001; Matthews and Cook, 2009; Freh et al., 2013; Al-Kandari et al., 2017; Hoang et al., 2020; Fu et al., 2022).

Conclusion

Our theoretical model maps out the precise effects self-transcendence may have in aiding the endurance of suffering. Prior research has measured self-transcendence primarily as general *personality traits* or *disposition* (e.g., Garcia-Romeu, 2010). Based on our theoretical model, it may be fruitful to adopt a different approach and measure self-transcendence as three interrelated *psychological processes*. Our approach provides the theoretical basis for operationalizing self-transcendence empirically at different levels of analysis. Past work has referenced self-transcendence as a potential source of many factors that help people endure suffering (e.g., meaning, problem-focused coping) (Frankl, 1946/1992; Matthews and Cook, 2009; Eisenbeck et al., 2021; Sanchez-Ruiz et al., 2021; Avsec et al., 2022; Eisenbeck et al., 2022). By specifying the affective, cognitive, and motivational mechanisms through which self-transcendence helps the endurance of suffering, our work sharpens the precision of past theoretical models and allows us to more effectively assess the beneficial effects of self-transcendence through quantitative and qualitative research. The story of Gilgamesh (*ca.* 2,750–2,500 B.C.E./2003) culminates in the king attaining a level of peace upon looking out over his city walls and recognizing his contribution to the happiness of his people. With our theoretical framework for the functions of self-transcendence, we hope to elucidate how the people of modernity may likewise endure and transcend the inevitable suffering in life by transcending the self.

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 authors.

Author contributions

BG and FY conceived the ideas and revised the manuscript. BG wrote the initial draft. All authors contributed to the article and approved the submitted version.

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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.

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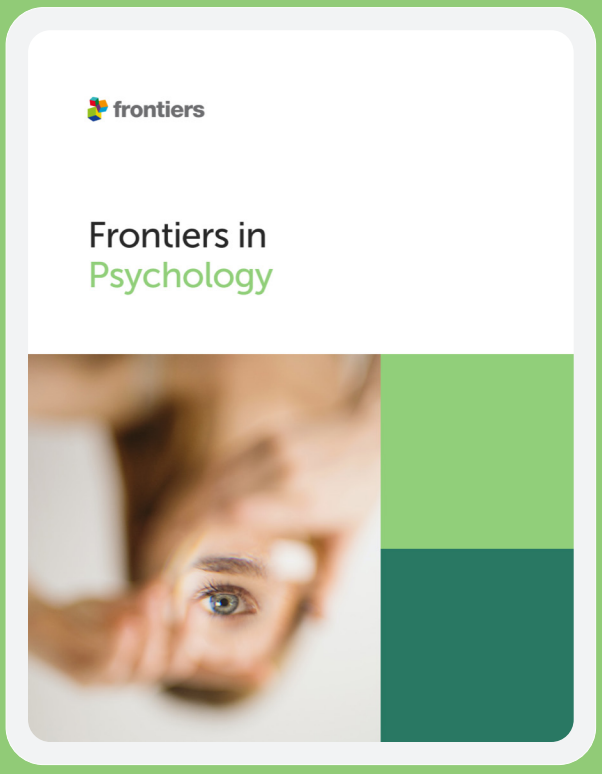

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