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# Specific reasons for living and suicide resilience mechanisms negatively predict suicide risk among sexual minorities

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**Introduction:** Sexual minority (SM) adults experience disproportionately high rates of suicide, yet it is not clear what protective factors offset the risk of suicide.

**Method:** A cross-sectional online survey of 564 SM adults assessed associations between suicide outcomes, suicide resilience and reasons for living (RFL).

**Results:** Survival and Coping Beliefs and Moral Objections subscales of the RFL, as well as Suicide Resilience were negatively associated with likelihood of future suicide attempts.

**Conclusion:** Suicide resilience and some RFL subscales are protective against suicide for SM adults, which not only supports the use of RFL and resilience among SM adults, but provides an empirical foundation for developing a culturally-specific RFL measure.

## KEYWORDS

suicidality, protective factors, suicide resilience, reasons for living, LGBTQ+

## Introduction

Suicide risk is higher among sexual minority (SM) individuals compared to individuals who do not identify as SM (Boyer et al., 2021; Figueiredo and Abreu, 2015; Mak et al., 2020). Heightened suicide risk in this population is likely a byproduct of sexual minority stress (Meyer, 2003), which outlines the health risks associated with living in a society with a pervasive, negative stigma against SM individuals (Boyer et al., 2021; Figueiredo and Abreu, 2015; Mak et al., 2020). As outlined by the cultural model of suicide (Chu et al., 2010), culture influences suicidal behaviors through language and method (i.e., “idioms of distress”), stressors present in a cultural context (e.g., minority stress, social upheaval, or cultural sanctions), and meanings of and perspectives on suicide. The experience of minority stress – in the context of other social systems of oppression for SM adults who are intersectionally marginalized (Williams et al., 2022) – is believed to contribute to the four components of the Interpersonal Theory of Suicide (Joiner, 2005), namely thwarted belongingness (e.g., through social exclusion), perceived burdensomeness (e.g., through rejection by family and peers), acquired capability for suicide (e.g., through higher exposure to discrimination events that may reduce fear of death), and hopelessness [see Chang et al. (2023) for a review]. Minority stress positively predicts both suicidal ideation and attempts, mediated directly by perceived burdensomeness

and indirectly by thwarted belongingness through burdensomeness (Fulginiti et al., 2020). Enhancing belongingness, as a way of reducing the pain of burdensomeness, may be a promising intervention for SM individuals at risk for suicide (Hatzenbuehler et al., 2014).

## Suicide resilience and protective factors

Given the higher prevalence of suicide in SM populations, most studies have taken a deficits-based approach to understanding suicide (Fulginiti et al., 2020; Meyer et al., 2021; Plöderl et al., 2014). This is likely a holdover from debunked pathological models of homosexuality (Drescher, 2015). The reality is that SM individuals often use various internal (e.g., identity pride, hope, and optimism; Kwon, 2013; Riggle et al., 2014) and external (e.g., connection to supportive communities, engagement in social justice; Simon et al., 2015; Parmenter et al., 2020) resources to persevere when faced with adversity and minority stressors (Meyer, 2015). Perseverance in the face of adversity is the hallmark of resilience, commonly conceptualized as comprising individual assets alongside social and community resources (Kuldas and Foody, 2022). The transactional socio-ecological approach to resilience considers the interplay between trait- (i.e., intrinsic, stable characteristics) and state-based (i.e., temporary, situational) factors occurring in an environment that optimizes or detracts from an individual's resilience (Kuldas and Foody, 2022). In the context of suicide resilience, an individual may survive a suicidal crisis by using intrinsic characteristics, developed abilities (e.g., coping skills), and external supports and resources. An individual's suicide resilience may fluctuate as the environment either depletes resilience, thus contributing to suicide risk by inculcating feelings of alienation and burden; or alternatively, factors in the environment may boost resilience and protect against suicide risk by providing a sense of belonging and support (Joiner, 2005). Several studies have shown state changes in suicide resilience can occur in response to events and pertinent contexts (e.g., Yurgil et al., 2021). Suicide resilience has been associated with decreased reported suicide attempts among SM college students (Woodford et al., 2018) and has been included as a component in the cumulative factor model for SM youth suicide (Rutter, 2008). Suicide risk and resilience do not appear to exist on a continuum but exist as separate dimensions, and resilience may buffer the relationship between risk and suicide behaviors (Johnson et al., 2011). Thus, in light of the Interpersonal Theory of Suicide, suicide resilience may not necessarily indicate high belongingness or low burdensomeness; rather, it may moderate the relationship between these causal variables dynamically based on trait and state-based factors.

Protective factors are elements of suicide resilience that specifically mitigate the impact of detrimental environmental effects, such as minority stress. These factors, which can be trait- or state-based, are associated with reduced risk for suicide in the general population (Centers for Disease Control and Prevention, 2022), among SM youth (e.g., Gorse, 2022) and in transgender samples (e.g., Moody and Smith, 2013). Although these initial findings are promising, little research has been done with regard to protective factors among SM adults, particularly delineating whether trait- and state-based protective factors can reduce suicide risk for SM adults in the context of minority stress and other cultural factors. Investigating the relationship between protective factors, expressed as suicide resilience and reasons for living, and suicide outcomes (self-reported suicidal

ideation and behaviors) in SM adults can inform targeted interventions that optimize trait and state-based assets and resources to save lives. To our knowledge, there exists no other research which explicitly explores suicide protective factors, let alone the concepts of resilience and reasons for living, among SM adults as a means to inform the clinical application of these ideas. This aligns with calls to investigate suicide resilience in a broader range of populations and in relation to a various suicide outcomes (Johnson et al., 2011).

## Suicide resilience inventory

In their seminal work on the construct, Osman and colleagues define suicide resilience as “the perceived ability, resources, or competence to regulate suicide-related thoughts, feelings, and attitudes” (p. 1351). The construct has three domains: (1) internal protective attributes, such as positive self-regard or life satisfaction; (2) external protective resources, that is, an individual's sense of being able to identify resources and enlist support from others when faced with a suicidal crisis; and (3) emotional stability, which includes the self-perception that one can regulate suicidal thoughts and behaviors during periods of emotional distress. The Suicide Resilience Inventory (SRI) - has not been explicitly defined as a trait-based measure of suicide resilience, yet its individual-level resources closely approximate this conceptualization (Johnson et al., 2011; Osman et al., 2004). Moreover, this measure has not been tested with a SM sample nor as predictive of suicide outcomes. Suicide resilience may serve as a way to measure how trait-based protective factors relate to suicide outcomes among SM adults.

## Reasons for living

Among the general population, Reasons for Living (RFL) is another key protective factor against suicide, conceptualized as adaptive beliefs for choosing to live when faced with the thought of suicide (Linehan et al., 1983). Linehan et al. (1983) created the RFL inventory which consists of the subscales survival and coping beliefs, responsibility to family, child-related concerns, fear of the act of suicide, fear of social disgrace, and moral concerns (Linehan et al., 1983). Generally, higher scores on the RFL have been positively correlated with suicide protective factors (e.g., a sense of belonging; Kissane and McLaren, 2006), whereas lower scores on RFL subscales are predictive of suicidal ideation, suicide attempts, and/or likelihood of future suicidal behaviors (Connell and Meyer, 1991). The RFL can be conceptualized as a state-based measure of suicide resilience, shifting over time with age, life circumstances, and life experiences. For instance, survivors of suicidal crises may seriously consider their reasons for living as a result of an attempt (Chan et al., 2017), RFL related to fear of suicide may shift with acquired capability for suicide (Joiner, 2005), or RFL related to moral objections may be dependent on an individual's transitory religiousness through the lifespan (e.g., Koenig et al., 2008).

## Reasons for living among SM samples

Since its inception, the RFL has been adapted multiple times among various cultural contexts including adolescents (Connell and Meyer, 1991; Gutierrez et al., 2000), young adults (Gutierrez et al.,

2002; Pirani et al., 2021), college students (Westefeld et al., 1998), older adults (Edelstein et al., 2009; Segal et al., 2012), as well as Spanish (Oquendo et al., 2000; Garza and Cramer, 2011), Russian (Chistopolskaya et al., 2022), Portuguese (Madeira et al., 2022), French (Labelle et al., 2015) and Italian (Innamorati et al., 2006; Ronconi et al., 2009) language speakers. The existing RFL research is relevant, particularly as it relates to the changes in an individual's reasons for living across the lifespan, which is impacted by the cultural differences between different age groups. Previous RFL studies have also been focused on, and adapted to, individuals from different geographical regions, which provides insight into the differences in reasons for living between these different geographic and linguistic cultures.

The RFL is shown to have a strong connection to decreasing suicide ideation in the broader population, however, the research on RFL among LGBTQ+ people is sparse and shows that LGB individuals endorse fewer RFL than heterosexual comparison groups on at least four of the subscales (see paragraph below for the review of the literature). The RFL was normed on a predominantly cisgender and heteronormative sample, calling into question whether RFL is protective for LGBTQ+ people. While the general population demonstrates that it is helpful in decreasing suicide, we wonder if the same effects can be seen in a sample of LGBTQ+ individuals.

There is a dearth of research examining whether RFL are associated with decreased suicide risk among SM populations. Unfortunately, the few studies that investigate RFL among SM use a deficits-based approach. For example, two studies found that SM individuals endorse fewer RFL than non-SM counterparts, overall, with one study finding lower scores across all subscales (Hamilton, 2001), while the other observed significant differences on four of the six subscales with the exception of the Fear of Suicide and Survival and Coping Beliefs (Hirsch and Ellis, 1998). These differences were thought to demonstrate that SM adults had fewer reasons to live compared to non-SM people, potentially due to minority stress (Hamilton, 2001) or intrapersonal problems (e.g., different approaches to life and relationships that correlated with fewer RFL for SM young people; Hirsch and Ellis, 1998). Following the logic of the negative relationship between RFL and suicide outcomes demonstrated in other populations (Edelstein et al., 2009; Wadhwa and Heisel, 2020), we could expect that having fewer RFL would also correspond with higher likelihood of suicidal ideation and behaviors, which could help to explain disproportionate rates of suicidality among SM populations; yet, this has been untested until now.

## Rationale for investigating the relationships between of RFL, suicide resilience and suicide outcomes

In efforts to mitigate suicide among SM adults, suicide resilience and its related protective factors are an essential consideration. The minority stress model considers the buffering effect of social support on mitigating the negative impacts of minority stress (Meyer, 2003), which has been incorporated into models for understanding suicide among SM populations, such as the Queer Prevention of Youth Suicidality Model (Queer-PRYSM) (Williams et al., 2022) and can address the interpersonal causal variables linked to suicide (Joiner, 2005). These socio-ecological factors then transact with intrapersonal attributes (traits) and contextual factors (state), which then dynamically surpasses the power of any of

those protective factors alone to potentially facilitate suicide resilience (Kuldas and Foody, 2022). When considering approaches to comprehensive and culturally-competent risk assessment and mitigation, there may be benefit in considering both trait- and state-based protective factors. Combining the SRI and RFL as part of risk assessment may have such a utility if they cover different protective aspects in risk mitigation. Firstly, the SRI's development emerged from the groundbreaking focus of RFL on protective factors (Osman et al., 2004). Secondly, both measures attend to trait- and state-based protective factors (Bakhiyi et al., 2016) and have been shown to be highly correlated ( $r = 0.497$  between RFL and SRI scores) (Villalobos-Galvis et al., 2012). From a strengths-based approach, we want to examine if both trait and state-based factors combined decrease suicide for SM adults. However, this does not speak directly to resilience, which is reflected in the survival and coping beliefs subscale of the RFL. This particular subscale has been repeatedly shown to be most predictive of negative suicide indicators (Connell and Meyer, 1991; Cole, 1988; Linehan et al., 1983; Oquendo et al., 2005) yet this phenomenon is not captured by Joiner's model.

## The current study

Important questions remain regarding whether trait and state-based protective factors relate to suicide outcomes as well as which protective factors might account for reduced risk. In this regard, most work on protective factors has not considered the unique cultural factors involved in the lives of SM adults. This gap reveals the underlying assumption that either protective factors are shared universally across communities of different sexual orientations, thereby applying generally accepted protective factors to the lives of SM adults; or that SM adults have less access to protective factors given the realities of minority stress in SM individuals' lives, thus explaining the disproportionate suicide rates in SM populations. Understanding the relationship between specific protective factors using a trait and state-based conceptualization and suicide risk offers implications for counseling and suicide risk assessment.

The present study seeks to address an important gap in the literature by exploring the relationship between trait-based (internal protective, external protective, and emotional stability) and state-based (RFL) protective factors (e.g., suicide resilience and RFL) and suicide risk (e.g., history of suicidal ideation and likelihood of future suicide behavior) among a sample of SM adults. We hypothesized that greater suicide resilience and more RFL, individually, would predict lower perceived likelihood of engaging in future suicidal behavior. As an exploratory analysis, we sought to understand the associations among the subscales of suicide resilience and RFL with each of the two suicide risk outcomes to outline which protective factors, if any, might be more culturally appropriate predictors of reduced suicide risk among SM populations.

## Methods

### Participants

We recruited 564 participants, all of whom self-identify as sexual minority and were over the age of 18. Six hundred and forty-two participants started the study survey; of those, 78 were excluded from

the survey for not consenting to participate or for not meeting inclusion criteria. Sixty-nine percent of the sample had intersecting identities, identifying with both a sexual minority and gender minority identity. This is consistent with identified trends that most transgender and gender diverse individuals also identify as a sexual minority [see Kuper et al. (2012)]. Table 1 provides the demographic characteristics of the sample.

## Procedures

The current study was reviewed and approved by the Institutional Review Board at Palo Alto University. Data collection occurred March–September 2019. Participants were recruited through Facebook via the page of a special interest group for Risk Resilience and Reasons for Living. The page used to post the link to the study, has an international reach and is followed by individuals from across the world, however participants were not asked to disclose their geographic location. A paid Facebook boost was initiated to increase the reach of the study flyer. Informed consent was obtained from participants, notifying them of protections for their privacy and storage of their data. They were also debriefed about the purpose of the study.

Eligible individuals (i.e., those 18 years of age and older who identify as a sexual minority) were directed to an online Qualtrics survey link where they provided informed consent before completing the 30–45-min survey. Because of the sensitive nature of the questions in this survey, participants were provided information about mental health support and LGBTQ+ resources (1) whenever any suicidal behaviors or thoughts were endorsed, (2) after the section containing suicidal questions, (3) after participants were prematurely routed to the end of the survey (for not meeting the age requirement, not providing consent, or failing one of the two attention checks), and (4) again upon completion of the survey. Participants could elect to enter a raffle for a \$100 Amazon gift card as an appreciation for their involvement in the study by entering their email addresses in a separate Qualtrics survey, which were recorded and stored separately from study responses.

## Measures

### Demographics

Items assessed ethno-racial, sexual and gender identity, religious identity and involvement, level of income, and family structure (i.e., children).

### Suicide behaviors questionnaire-revised

We used two items from The Suicide Behaviors Questionnaire-Revised (SBQ-R; Cole, 1988), a condensed version of the original validated SBQ measure (Linehan & Nielsen, 1981). The SBQ-R was validated on college students (Cole, 1988) and psychiatric outpatients (Peters and Range, 1995). As we are interested in the history of suicidal ideation and the likelihood of future suicide, two questions were asked from the SBQ-R: (1) “How often have you thought about killing yourself in the past year?” with the options “never,” “rarely (once),” “sometimes (twice),” “often (three to four times)” and “very often (five or more times),” and (2) “How likely is it that you will attempt suicide someday?” with the options “no chance at all,” “rather unlikely,” “unlikely,” “likely,” “rather likely,” and “very likely.”

### Suicide resilience inventory

The Suicide Resilience Inventory (SRI-25) is a 25-item measure used to assess strengths and protective factors among non-suicidal individuals (Osman et al., 2004). The SRI consists of three subscales: Internal Protective (e.g., “I am happy regardless of my problems”;  $\alpha = 0.91$ ), Emotional Stability (e.g., “I can resist suicidal thoughts when I am feeling hopeless”;  $\alpha = 0.89$ ), and External Protective (e.g., “I can ask for support if I become suicidal”;  $\alpha = 0.92$ ). Each item is on a 6-point scale, from 1 (*strongly disagree*) to 6 (*strongly agree*). Suicide Resilience scores were tabulated as averages requiring at least 20 items completed. Subscale scores are calculated by averaging item scores, with higher scores suggesting greater suicide resilience.

### Reasons for living inventory

The Reasons for Living (RFL) Inventory (Linehan et al., 1983) is a 48-item, 6-point Likert-type scale, ranging from 1 (*not important at all*) to 6 (*extremely important*), which asks participants to rate the importance of various reasons for not committing suicide. The RFL consists of six subscales: Survival and Coping Beliefs (e.g., “I have a desire to live,” “I believe I can learn to adjust or cope with my problems”;  $\alpha = 0.95$ ), Responsibility to Family (e.g., “My family depends upon my and needs me”;  $\alpha = 0.91$ ), Child-Related Concerns (e.g., “The effect on my children could be harmful”;  $\alpha = 0.89$ ), Fear of the Act of Suicide (e.g., “I am afraid of death”;  $\alpha = 0.74$ ), Fear of Social Disgrace (e.g., “Other people would think I am weak and selfish”;  $\alpha = 0.78$ ), and Moral Objections (e.g., “My religious beliefs forbid it”;  $\alpha = 0.81$ ). Total RFL scores were calculated for respondents who completed at least 38 of the 48 items. Average scores were calculated and then multiplied by 48. Scores for the RFL subscales were averaged for respondents with at least 22 of the Survival and Coping Beliefs items, at least five of the Responsibility to Family items, at least two of the Child-Related Concerns, at least two of the Fear of Social Disapproval items, at least five of the Fear of Suicide items, and at least two of the Moral Objections items (Linehan et al., 1983). The RFL has good validity with other self-report measures of suicide and general psychopathology (Osman et al., 1993).

## Analytic plan

Survey data was collected via Qualtrics and were cleaned and then analyzed in SPSS Version 29 (*IBM SPSS Statistics for Mac*, 2023). In order to determine the existence of relationships, as well as the strength of these relationships, bivariate Pearson product–moment bivariate correlations and descriptive statistics were used to explore initial associations between protective factors (i.e., RFL and SRI subscales) and suicidal risk (e.g., history of suicidal ideation and likelihood of suicidal behavior). Next, we assessed gender diverse identities as a potential covariate using an independent samples *t*-test given previous research has documented that gender diverse people are at increased risk for suicide (Mak et al., 2020). Finally, to answer the primary research questions, hierarchical linear regressions were run to predict the history of suicidal ideation and perceived likelihood of future suicide based on gender identity (block one), suicide resilience (block two), and RFL (block three). The order of variables placed into blocks was based on hierarchical linear regression guidelines (Cohen et al., 2013), which suggest that variables should be ordered based on how variables may influence one another. In other words, it is likely that suicide resilience could causally influence reasons

TABLE 1 Demographic characteristics of the analytic sample.

	<i>n</i>	%
<b>Age</b>		
18–24	365	64.70
25–34	146	25.90
35–44	37	6.60
45–64	15	2.70
65+	1	0.20
<b>Gender</b>		
Women	205	36.34
Genderqueer/Gender non-conforming	205	36.34
Trans male/trans man	86	15.25
Another gender	83	14.72
Men	53	9.40
Trans female/trans woman	13	2.30
<b>Sexual identity</b>		
Bisexual	135	23.94
Queer	113	20.03
Pansexual	83	14.72
Lesbian	82	14.53
Gay	54	9.57
Asexual	49	8.69
Demisexual	24	4.26
Questioning	16	2.84
Unsure	8	1.42
Another sexual identity	0	0.00
<b>Ethnoracial identity</b>		
Another ethnoracial identity	67	11.88
Arabic/North African	0	0.00
Black/Afro-Caribbean/African-American	12	2.13
Latino/a/x	28	4.96
Mediterranean/South European	11	1.95
Middle Eastern	2	0.35
Native American/American-Indian	6	1.06
Pacific Islander/Polynesian	0	0.00
South/East/Other Asian	17	3.01
White/North European	426	75.53
<b>Religiosity</b>		
Not at all spiritual/religious	224	39.70
Somewhat spiritual/religious	280	49.60
Strongly spiritual/religious	59	10.50
<b>Religious affiliation</b>		
No religious affiliation	248	44.00
Spiritual	102	18.10
Christian	98	17.40
Self-described	69	12.20

(Continued)

TABLE 1 (Continued)

	<i>n</i>	%
Jewish	28	5.00
Buddhist	12	2.10
Muslim	3	0.50
Hindu	3	0.50
Sikh	1	0.20
<b>Household income</b>		
\$0–25,000	269	47.70
\$25,000–50,000	147	26.10
\$50,000–75,000	59	10.50
\$75,000–100,000	46	8.20
>\$100,000	36	6.40
<b>Education</b>		
Middle school, some high school	12	2.10
High school degree, or equivalent (i.e., GED)	71	12.60
Some college, no degree	246	43.60
Business or technical training	8	1.40
Bachelor's degree	126	22.30
Graduate degree or professional degree (M.S./M.A., Ph.D., M.D., J.D.)	98	17.38

for living, such that having trait-based suicide resilience protective factors could affect state-based reasons for living. For the regression analyses, appropriate assumptions were tested indicating that the sample size was large enough to account for skewness and kurtosis without problems related to multicollinearity, singularity, outliers based on a calculation of Mahalanobis distance, as suggested by [Tabachnick et al. \(2013\)](#), given that studies of suicidality seldom result in a normal distribution. Further, multicollinearity was not found given values of variation inflation factors (VIF) were below 10 and tolerance values were above 0.2 ([Thompson et al., 2017](#)). The magnitude of each block's influence on the relationship was assessed by the change in  $R^2$ .

## Results

### Descriptive results

A summary of scores on each independent and dependent variable is contained in [Table 2](#), alongside between-group analyses. Respondents in the sample endorsed experiencing suicidal ideation at least twice on average over the past twelve months ( $M = 3.31$ ,  $SD = 1.45$ ). Likelihood of future suicidal behaviors was unlikely for the average respondent ( $M = 2.74$ ,  $SD = 1.35$ ).

### Preliminary analyses

A summary of means, standard deviations, and bivariate correlations are included in [Table 2](#). Overall, some of the RFL subscales (Survival Coping Beliefs, Responsibility to Family, Child-related Concerns, and Fear of Social Disapproval) and all SRI subscales

TABLE 2 Means, standard deviations, and pearson product-moment correlations for all study variables.

Variables	1	2	3	4	5	6	7	8	9	10	11	M (SD)
1. Survival coping beliefs	--											4.41(1.27)
2. Responsibility to Family	0.26***	--										4.47(1.76)
3. Child-related concerns	0.21***	0.39***	--									2.66(1.97)
4. Fear of suicide	-0.02	0.09*	-0.02	--								3.99(1.36)
5. Fear of social disapproval	0.19***	0.36***	0.09*	0.34***	--							3.17(1.73)
6. Moral objections	0.16***	0.19***	0.26***	0.15***	0.24**	--						1.76(1.23)
7. SRI internal protective	0.66***	0.22***	0.14***	-0.23***	0.05	0.01	--					4.05(1.30)
8. SRI emotional stability	0.59***	0.16***	0.08	-0.21***	-0.01	-0.02	0.66***	--				4.68(1.37)
9. SRI external protective	0.52***	0.28***	0.10*	-0.11**	0.05	-0.001	0.60***	0.58***	--			4.79(1.35)
10. history of suicidal ideation	-0.50***	-0.18***	-0.10*	0.13***	-0.10*	-0.06	-0.57***	-0.53***	-0.39***	--		3.31(1.45)
11. Likelihood of future suicidal behavior	-0.60***	-0.21***	-0.13**	0.11**	-0.04	-0.11**	-0.57***	-0.62***	-0.49***	0.58***	--	2.74(1.35)

(i.e., Internal Protective, Emotional Stability, and External Protective) were negatively correlated with history of suicidal ideation. Negative bivariate correlations were also found between RFL subscales (Survival Coping Beliefs, Responsibility to Family, Child-related Concerns, and Moral Objections) and all SRI subscales with likelihood of future suicidal behavior. Interestingly, Fear of Suicide was positively correlated with both history of suicidal ideation and likelihood of suicidal behavior. Finally, there were no significant relationships between Moral Objections and history of suicidal ideation, nor between Fear of Social Disapproval and likelihood of future suicidal behavior.

Assumptions for equal variances were met for *t* tests. *T*-tests revealed significant differences in history of suicidal behavior,  $t(562) = -5.05, p < 0.001$ , Cohen's  $d = -0.42$ , and future suicidal behavior,  $t(562) = -4.36, p < 0.001$ , Cohen's  $d = -0.37$ . Analyses suggest that gender diverse people report greater history of suicidal behaviors ( $M = 3.58, SD = 1.37$ ) than cisgender people ( $M = 2.98, SD = 1.49$ ), and future suicidal behavior ( $M = 2.96, SD = 1.30$ ) than cisgender people ( $M = 2.47, SD = 1.36$ ). As a result, a dichotomous variable indicating whether participants were gender diverse or cisgender was included as a covariate in the regression models.

## Regression analyses

### Suicide resilience, reasons for living, and history of suicidal ideation

A hierarchical multiple linear regression model was used to predicting history of suicidal ideation from RFL and SRI. After controlling for gender identity, only the Internal Protective ( $\beta = -0.31, p < 0.001$ ) and Emotional Stability ( $\beta = -0.22, p < 0.001$ ) subscales of the SRI negatively predicted the variance in history of suicidal ideation,  $\Delta R^2 = 0.33$ , change in  $F(10, 555) = 100.84, p < 0.001$ . After controlling for SRI subscales, Survival Coping Beliefs ( $\beta = -0.14, p = 0.003$ ) was the only RFL subscales that significantly contributed to explaining the variance in history of suicidal ideation,  $\Delta R^2 = 0.02$ , change in  $F(6, 549) = 2.61, p < 0.05$ . The full model was significant,

$F(10, 549) = 36.21, p < 0.001$ , and explained 39.7% of the variance in predicting history of suicidal ideation.

### Suicide resilience, reasons for living, and perceived likelihood of future suicidal behavior

A hierarchical multiple linear regression model was conducted to see if RFL and SRI subscales predicted likelihood of future suicidal behavior while controlling for gender identity. After controlling for gender identity in the first block, all SRI subscales negatively predicted likelihood of future suicidal behavior: Internal Protective ( $\beta = -0.11, p = 0.02$ ), Emotional Stability ( $\beta = -0.33, p < 0.001$ ), and External Protective ( $\beta = -0.08, p = 0.03$ ). Overall, SRI subscales significantly contributed to explaining the variance in likelihood of future suicidal behavior,  $\Delta R^2 = 0.42$ , change in  $F(3, 555) = 2.61, p < 0.001$ . After controlling for gender identity and SRI subscales, RFL subscales helped predict likelihood of future suicidal behavior,  $\Delta R^2 = 0.04$ , change in  $F(6, 549) = 8.76, p < 0.001$ . Interestingly, Survival Coping Beliefs ( $\beta = -0.27, p < 0.001$ ) and Moral Objections ( $\beta = -0.07, p = 0.03$ ) were the only RFL subscales that predicted likelihood of future suicidal behavior. All results for multiple regression models are presented in Table 3.

## Discussion

Confirming our hypotheses, SM who endorsed greater suicide resilience and more RFL were less likely to envision engaging in future suicidal behaviors. RFL and suicide resilience collectively accounted for nearly 47% of the variance in likelihood of future suicidal behaviors. Our results indicate that both trait and state-based protective factors, like suicide resilience and RFL, are relevant to SM adults, as has previously been shown in one application to a transgender sample (Moody and Smith, 2013). Our findings provide a powerful demonstration of how suicidality may be influenced by the presence of protective factors among SM adults despite being at

greater risk for suicide. The average respondent in our survey had experienced some suicidal ideation in the past 12 months, which increases risk for completed suicide on its own in vulnerable populations (e.g., Funahashi et al., 2000) with relevance for SM adults. Their combined predictive power for a lower likelihood of future suicidal behaviors prompts the inclusion of both as a means of assessing future suicide risk, conceptualizing suicide in SM populations, and determining opportunities for intervention that enhances trait-based characteristics and adequately optimizes state-based factors towards decreasing suicide risk and building resilience.

Correlation analyses provided some insight to which of the SRI and RFL subscales were negatively associated with past suicidal ideation and the likelihood of future suicidal behaviors. Based on our findings, all of the SRI subscales and some of the RFL subscales negatively correlated with the two suicide outcomes. It is not surprising that Internal Protective, Emotional Stability, and External Protective Factors are negatively associated with suicide outcomes given findings from previous research in various populations (Moody and Smith, 2013; Osman et al., 2004; Woodford et al., 2018). Surprisingly, *Fear of Suicide* positively correlated with both outcomes, which may suggest that fearing suicide inevitably involves thoughts of death. It is conceivable that individuals who have considered suicide seriously in the past decided not to go through with it because of the fear of death and suicide indicated by the endorsement of this subscale. In regard to higher likelihood of future suicide, future research could investigate if thoughts about suicide and death desensitize the individual to the point where fear is not a deterrent to suicide. *Moral Objections* did not significantly correlate with history of suicidal ideation. Supposing that moral objections are informed by religious, spiritual, or cultural teachings, this finding is consistent with literature that suggests that SM often experience rejection and loss of connection to their faith community prior to coming out or shortly after coming out (Rosati et al., 2020). Loss of connection with faith communities could explain why moral objections would not be associated with fewer suicidal thoughts. In their analysis, Garrett et al. (2012) found that respondents considered the morality of suicide to be a personal decision and not one determined by universal truths or the tenets of organized religion; thus, participants in our sample may similarly have not resounded with the items in this subscale. *Fear of Social Disapproval* did not correlate with likelihood of future suicidal behavior, which is consistent with previous literature (Linehan et al., 1983). One way of conceptualizing this is through various resilience resources SM populations garner to facilitate positive health and well-being as they grow into their SM identities (Meyer, 2003; Riggle et al., 2014). As Garrett et al. (2012) explored, many SM respondents rejected conventional notions of social approval as being tied to heterosexist ideologies and instead, reflected on a sense of self-worth and responsibility to their communities, close members of which might be hurt as a result of suicide. Another way of conceptualizing this is through minority stress, in that exposure to identity-based stress for extended periods may reduce sensitivity to social disapproval (Hatzenbuehler, 2009).

In the exploratory regression analyses, internal protective factors and emotional stability individually and negatively predicted past suicidal ideation, accounting for 34% of the variance in this suicide outcome, whereas external protective factors was not predictive of past suicide ideation. The absence of significant effects for external protective factors may reflect the realities of marginalization and/or

that this subscale may not assess specific external resources. For example, even in the presence of general external protective factors, systems of inequity may restrict access to external resources (e.g., peers, family, crisis centers) for SM adults. Further, this subscale measures broad external resources (e.g., “I can find help if I am suicidal,” “If I am in trouble I can find help”) and does not measure external protective factors in specific contexts (e.g., family, peers, LGBTQ+ community). Future research should create suicide resilience measures assessing specific external resources from various contexts.

All three SRI subscales also individually and negatively predicted likelihood of future attempts, accounting for 42% of the variance. Such findings demonstrate that SM adults have access to trait-based internal resources that are protective against suicide. SM adults draw resilience from aspects of their experiences that are specifically relevant to their identities (e.g., identity disclosure) to combat the effects of minority stress (Meyer, 2015); in turn, these effects may extend to suicide resilience as demonstrated in this study. In past research with a transgender sample, only the emotional stability subscale served as a protective factor for suicide (based on a composite score of lifetime suicidal ideation and/or behavior, past-year frequency of suicidal ideation, disclosure of suicidal thoughts to others, and the likelihood of future attempts; Moody and Smith, 2013). As emotion dysregulation is one potential pathway for minority stress to “get under the skin” (Hatzenbuehler, 2009), counselors should use interventions that promote emotional stability as an effective method for suicide mitigation (Pachankis et al., 2022). Moody and Smith (2013) also demonstrated that perceived social support from family played a crucial protective factor in this model as well, which we did not measure in our study and is worth additional investigation.

Among the RFL subscales, *Survival and Coping Beliefs* and *Moral Objections* negatively predicted likelihood of future suicidal behavior, which is consistent with previous literature in other samples (Connell and Meyer, 1991). To contextualize how this might be protective for SM adults specifically, SM may draw strength from previous experiences of effective survival and coping (e.g., disclosing their sexual identity, survival and thriving despite oppression) as well as derive hope and meaning from difficult times (Garrett et al., 2012; Parmenter et al., 2020). These beliefs may also show a realistic acceptance of the realities of life based on the experience of difficulty and the experience of overcoming those difficulties and a rejection of naivete (Garrett et al., 2012). *Survival and coping beliefs* accounted for unique variance in the regression analysis, supporting its conceptualization as a state-based variable. Yet, this RFL subscale also strongly correlated with the SRI subscales ( $r = 0.52-0.66$ ), showing some predictive overlap between trait-based characteristics and state-based coping. This aligns with interactional perspectives on trait and state variables (Hamaker et al., 2007).

With regards to the relationship between *Moral Objections* and likelihood of future suicidal behavior, spiritual beliefs may have helped SM individuals who practice faith through difficult times related to their identities (Schuck and Liddle, 2001), and some churches are welcoming of different sexual identities (Gattis et al., 2014). The finding that moral objections are negatively correlated with the likelihood of future suicide suggests that individuals who were once exposed to religious, spiritual, or cultural teachings against suicide may still retain

TABLE 3 Hierarchical multiple linear regression analyses predicting suicidal risk outcomes from reasons for living and suicide resilience subscales.

Predictor variables	History of suicidal ideation							
	B	SE	$\beta$	t	R <sup>2</sup>	R <sup>2</sup> change	F change	df
Step 1					0.04	0.04	24.75***	1, 558
GD/Cisgender status	0.31	0.10	0.10**	3.09				
Step 2-Suicide resilience					0.37	0.33	100.84***	3, 555
SRI internal protective	-0.35	0.06	-0.31***	-5.87				
SRI emotional stability	-0.24	0.05	-0.22***	-4.56				
SRI external protective	0.02	0.05	0.02	0.39				
Step 3-Reasons for living					0.39	0.02	2.61*	6, 549
Survival coping beliefs	-0.17	0.05	-0.14**	-2.96				
Responsibility to family	-0.02	0.03	-0.02	-0.61				
Child-related concerns	0.01	0.03	0.02	0.53				
Fear of suicide	0.04	0.04	0.04	1.02				
Fear of social disapproval	-0.05	0.03	-0.06	-1.54				
Moral objections	-0.01	0.04	-0.01	-0.29				

  

Predictor variables	Likelihood of future suicidal behavior							
	B	SE	$\beta$	t	R <sup>2</sup>	R <sup>2</sup> change	F change	df
Step 1					0.03	0.03	19.04***	1, 558
GD/Cisgender status	0.17	0.08	0.06*	1.99				
Step 2					0.45	0.42	141.09***	3, 555
SRI internal protective	-0.11	0.05	-0.11*	-2.26				
SRI emotional stability	-0.32	0.04	-0.33***	-7.38				
SRI external protective	-0.08	0.04	-0.08*	-2.09				
Step 3					0.49	0.04	8.76***	6, 549
Survival coping beliefs	-0.29	0.05	-0.27***	-6.14				
Responsibility to family	-0.03	0.03	-0.04	-1.09				
Child-related concerns	0.007	0.02	0.01	0.32				
Fear of suicide	0.003	0.03	0.003	0.09				
Fear of social disapproval	0.04	0.03	0.05	1.46				
Moral objections	-0.08	0.03	-0.07*	-2.17				

GD, gender diverse; SRI, suicide resilience. Regression coefficients reported from final step. \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001.

these beliefs regardless of current religious affiliation. *Moral Objections* did not significantly correlate with the SRI subscales and thus may account for unique state-based prediction of suicide outcomes.

There are a few explanations for the absence of a relationship between the other RFL subscales and likelihood of future suicide behavior. Firstly, the buffering hypothesis of suicide contends that even variables with negative relationships with suicidal thoughts and behaviors do not necessarily buffer risk, and conversely, there may be variables without a linear association to suicide thoughts and behaviors that may still moderate risk (Johnson et al., 2011). Secondly, in this sample, respondents endorsed Moral Objections, Child-related Concerns, and Fear of Social Disapproval at lower levels on average. This might indicate a lack of cultural relevance of these subscales for this sample. For example, past research in a sample of transgender adults also found an absence of relationships among RFL subscales and

suicide behavior with the exception of child-related concerns, which negatively predicted suicidal behavior when combined in a model with suicide resilience (Moody and Smith, 2013). Previous research on RFL indicated that SM individuals may have fewer reasons for living than non-SM individuals (Hamilton, 2001; Hirsch and Ellis, 1998), that RFL may not be a valid measure among SM populations (McBee-Strayer and Rogers, 2002), or that it may only be partially culturally-relevant (Garrett et al., 2012). Garrett et al. (2012) used a protocol analysis to investigate SM adults' perception and interpretation of the RFL items and found that most items resonated with the sample, yet respondents also criticized the heteronormative assumptions and belief systems underlying some of the items. The authors recommended adaptation of the RFL specifically to SM lived experiences (Garrett et al., 2012). Adapted RFL scales may be more predictive of suicide thoughts and behaviors among SM



adults. Our study demonstrates that RFL, in particular Survival Coping Beliefs, can be protective against suicide for SM adults, and supports that RFL should be adapted to reflect the particular reasons for living of SM communities.

The awareness of having a life worth living for may, in and of itself, protect SM individuals from the onset of suicidal ideation. As mentioned earlier, conventional suicide risk assessment and treatment focus primarily on risk factors, taking a deficits approach. We support the assertion of Dr. Linehan that the presence and awareness of protective factors may decrease the thought of suicide as a response to life's stressors. In compiling an individual's reasons for living, Linehan et al. (1983) believed they could serve as an antidote to the negative beliefs that contribute to suicidality and help individuals choose to continue to live. Merely asking someone about their reasons for staying alive prompts them to consider their strengths and resources, which they may not otherwise have considered (i.e., a state-based intervention). Thus, Linehan and her colleagues recommend counselors use RFL cards as part of a safety plan and/or therapeutic strategy since the person may not have considered their reasons for living until they are asked about them. In addition to this, we encourage counselors and others in a clinical capacity consider discussing reasons for living with their clients in order to help them recognize their strengths and resilience and by doing so, potentially prevent suicidal ideation in response to life stressors.

## Limitations and future research directions

Findings from our study must be interpreted within the context of the study's limitations. The sample was mostly White/North European SM participants; therefore, future research should examine these constructs with SM people of color to take into account those with multiple marginalized identities. While participants were recruited through an internationally recognized association's webpage, we did not assess geographical location or residence, thus are unable to draw claims that our findings are relevant to a particular geographical context. Other limitations of the current study involve the methods and analytic strategies. First, the current study used two items from the SBQ-R to assess suicide behaviors. Future research could benefit from a more comprehensive assessment of suicide behaviors or scales measuring non-suicidal self-injury. Second, dichotomizing gender identities in our analyses risk collapsing various diverse identities and experiences into an overarching category of "gender diverse." Scholars should further investigate differences in the RFL across gender identities, as previous work has found that those with genderqueer and non-binary identities may experience more mental health disparities than binary gender identities (Lefevor et al., 2019). Similarly, we did not control for age differences in our analysis, which could have confounded the results due to the differences in suicide behaviors between different age groups. Finally, our cross-sectional study design does not allow us to draw conclusions about temporality. Longitudinal designs may help understand how past suicidal ideation may increase RFL and resilience, thereby predicting a lower likelihood of suicidal behaviors among SM populations.

We encourage researchers to build upon our work by further examining RFL and suicide resilience and how they may reduce the risk of suicide among SM populations, thereby providing further insight into protective factors and building a strong foundation for creating future affirming and tailored suicide assessment, prevention, and intervention efforts.

## Data availability statement

The data that support the findings of this study are available from the corresponding author, data available upon request.

## Ethics statement

The studies involving humans were approved by the Palo Alto University Institutional Review Board. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

## Author contributions

MZ: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Resources, Software, Supervision, Writing – original draft, Writing – review & editing. JB: Formal analysis, Methodology, Writing – original draft, Writing – review & editing. JP: Formal analysis, Methodology, Writing – original draft, Writing – review & editing. KJ: Writing – original draft. BB: Supervision, Conceptualization, Writing – review & editing. PG: Supervision, Conceptualization, Writing – review & editing.

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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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## References

- Bakhiyi, C. L., Calati, R., Guillaume, S., and Courtet, P. (2016). Do reasons for living protect against suicidal thoughts and behaviors? A systematic review of the literature. *J. Psychiatr. Res.* 77, 92–108. doi: 10.1016/j.jpsychires.2016.02.019
- Boyer, T. L., Youk, A. O., Haas, A. P., Brown, G. R., Shipherd, J. C., Kauth, M. R., et al. (2021). Suicide, homicide, and all-cause mortality among transgender and cisgender patients in the veterans health administration. *LGBT health* 8, 173–180. doi: 10.1089/lgbt.2020.0235
- Centers for Disease Control and Prevention. *Risk and Protective Factors*. Washington, DC: CDC. (2022). Available at: <https://www.cdc.gov/suicide/factors/index.html#print> (Accessed June 20, 2023).
- Chan, K. J., Kirkpatrick, H., and Brasch, J. (2017). The reasons to go on living project: stories of recovery after a suicide attempt. *Qual. Res. Psychol.* 14, 350–373. doi: 10.1080/14780887.2017.1322649
- Chang, C. J., Dorrell, K. D., Feinstein, B. A., Depp, C. A., Ehret, B. C., and Selby, E. A. (2023). Testing the interpersonal theory of suicide in a sample of sexual minority young adults: attention to within-group differences. *Suicide Life Threat. Behav.* 53, 415–425. doi: 10.1111/sltb.12952
- Chistopolskaya, K. A., Kolachev, N. I., Enikolopov, S. N., Nikolaev, E. L., and Drovosekov, S. E. (2022). Suicidality and agency: the reasons for living inventory by M. Linehan". *Психологическая наука и образование* 27, 65–88. doi: 10.17759/ps.2022070306
- Chu, J. P., Goldblum, P., Floyd, R., and Bongar, B. (2010). The cultural theory and model of suicide. *Appl. Prev. Psychol.* 14, 25–40. doi: 10.1016/j.appsy.2011.11.001
- Cohen, J., Cohen, P., West, S. G., and Aiken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences*. New York: Routledge.
- Cole, D. A. (1988). Hopelessness, social desirability, depression, and parasuicide in two college student samples. *J. Consult. Clin. Psychol.* 56, 131–136. doi: 10.1037/0022-006X.56.1.131
- Connell, D. K., and Meyer, R. G. (1991). The reasons for living inventory and a college population: adolescent suicidal behaviors, beliefs, and coping skills. *J. Clin. Psychol.* 47, 485–489. doi: 10.1002/1097-4679(199107)47:4<485::AID-JCLP2270470403>3.0.CO;2-8
- Drescher, J. (2015). Out of DSM: Depathologizing homosexuality. *Behav. Sci.* 5, 565–575. doi: 10.3390/bs5040565
- Edelstein, B. A., Heisel, M. J., McKee, D. R., Martin, R. R., Koven, L. P., Duberstein, P. R., et al. (2009). Development and psychometric evaluation of the reasons for living—older adults scale: a suicide risk assessment inventory. *The Gerontologist* 49, 736–745. doi: 10.1093/geront/gnp052
- Figueiredo, A. R., and Abreu, T. (2015). Suicide among LGBT individuals. *Eur. Psychiatry* 30, 1815–1811. doi: 10.1016/S0924-9338(15)31398-5
- Fulginiti, A., Goldbach, J. T., Mamey, M. R., Rusow, J., Srivastava, A., Rhoades, H., et al. (2020). Integrating minority stress theory and the interpersonal theory of suicide among sexual minority youth who engage crisis services. *Suicide Life Threat. Behav.* 50, 601–616. doi: 10.1111/sltb.12623
- Funahashi, T., Ibuki, Y., Doman, Y., Nishimura, T., Akehashi, D., and Sugiura, H. (2000). A clinical study on suicide among schizophrenics. *Psychiatry Clin. Neurosci.* 54, 173–179. doi: 10.1046/j.1440-1819.2000.00655.x
- Garrett, K. M., Waehler, C. A., and Rogers, J. A. (2012). A protocol analysis of the reasons for living scale items with a sample of gay, lesbian, and bisexual adults. *Suicidol. Online* 1, 72–82.
- Garza, M. J., and Cramer, R. J. (2011). The Spanish reasons for living inventory (SRFL-I): factor structure and association with suicide risk among Spanish speaking Hispanics. *Arch. Suicide Res.* 15, 354–371. doi: 10.1080/13811118.2011.615704
- Gattis, M. N., Woodford, M. R., and Han, Y. (2014). Perceived interpersonal discrimination and depressive symptoms among sexual minority youth: is religious affiliation a protective factor? *Arch. Sex. Behav.* 43, 1589–1599. doi: 10.1007/s10508-014-0342-y
- Gorse, M. (2022). Risk and protective factors to LGBTQ+ youth suicide: a review of the literature. *Child Adolesc. Soc. Work J.* 39, 17–28. doi: 10.1007/s10560-020-00710-3
- Gutierrez, P. M., Osman, A., Barrios, F. X., Kopper, B. A., Baker, M. T., and Haraburda, C. M. (2002). Development of the reasons for living inventory for young adults. *J. Clin. Psychol.* 58, 339–357. doi: 10.1002/jclp.1147
- Gutierrez, P. M., Osman, A., Kopper, B. A., and Barrios, F. X. (2000). Why young people do not kill themselves: the reasons for living inventory for adolescents. *J. Clin. Child Psychol.* 29, 177–187. doi: 10.1207/S15374424jccp2902\_4
- Hamaker, E. L., Nesselroade, J. R., and Molenaar, P. C. M. (2007). The integrated trait–state model. *J. Res. Pers.* 41, 295–315. doi: 10.1016/j.jrp.2006.04.003
- Hamilton, S. V. (2001). *Affectional orientation, sex roles, and reasons for living*. Tennessee: East Tennessee State University.
- Hatzenbuehler, M. L. (2009). How does sexual minority stigma “get under the skin”? A psychological mediation framework. *Psychol. Bull.* 135, 707–730. doi: 10.1037/a0016441
- Hatzenbuehler, M. L., Birkett, M., Van Wagenen, A., and Meyer, I. H. (2014). Protective school climates and reduced risk for suicide ideation in sexual minority youths. *Am. J. Public Health* 104, 279–286. doi: 10.2105/AJPH.2013.301508
- Hirsch, J. K., and Ellis, J. B. (1998). Reasons for living in homosexual and heterosexual young adults. *Arch. Suicide Res.* 4, 243–248. doi: 10.1080/13811119808258299
- Innamorati, M., Pompili, M., Ferrari, V., Cavedon, G., Soccorsi, R., Aiello, S., et al. (2006). Psychometric properties of the reasons for living inventory in Italian university students. *Individ. Differ. Res.* 4, 51–56.
- Johnson, J., Wood, A. M., Gooding, P., Taylor, P. J., and Tarrier, N. (2011). Resilience to suicidality: the buffering hypothesis. *Clin. Psychol. Rev.* 31, 563–591. doi: 10.1016/j.cpr.2010.12.007
- Joiner, T. E. (2005). *Why people die by suicide*. Cambridge, MA: Harvard University Press.
- Kissane, M., and McLaren, S. (2006). Sense of belonging as a predictor of reasons for living in older adults. *Death Stud.* 30, 243–258. doi: 10.1080/07481180500493401
- Koenig, L. B., McGue, M., and Iacono, W. G. (2008). Stability and change in religiousness during emerging adulthood. *Dev. Psychol.* 44, 532–543. doi: 10.1037/0012-1649.44.2.532
- Kuldass, S., and Foody, M. (2022). Neither resiliency-trait nor resilience-state: transactional resiliency/e. *Youth Soc.* 54, 1352–1376. doi: 10.1177/0044118X211029309
- Kuper, L. E., Nussbaum, R., and Mustanski, B. (2012). Exploring the diversity of gender and sexual orientation identities in an online sample of transgender individuals. *J. Sex Res.* 49, 244–254. doi: 10.1080/00224499.2011.596954
- Kwon, P. (2013). Resilience in lesbian, gay, and bisexual individuals. *Personal. Soc. Psychol. Rev.* 17, 371–383. doi: 10.1177/1088868313490248
- Labelle, R., Breton, J.-J., Berthiaume, C., Royer, C., Raymond, S., Cournoyer, M., et al. (2015). Psychometric properties of three measures of protective factors for depression and suicidal behaviour among adolescents. *Can. J. Psychiatry* 60, S16–S26
- Lefevor, G. T., Boyd-Rogers, C. C., Sprague, B. M., and Janis, R. A. (2019). Health disparities between genderqueer, transgender, and cisgender individuals: an extension of minority stress theory. *J. Couns. Psychol.* 66, 385–395. doi: 10.1037/cou0000339
- Linehan, M. M., Goodstein, J. L., Nielsen, S. L., and Chiles, J. A. (1983). Reasons for staying alive when you are thinking of killing yourself: the reasons for living inventory. *J. Consult. Clin. Psychol.* 51, 276–286. doi: 10.1037/0022-006X.51.2.276
- Linehan, M. M., and Nielsen, S. L. (1981). *Suicidal behaviors questionnaire*. University of Washington, Seattle, Washington: Unpublished Inventory.
- Madeira, A. R., Janeiro, L. d. B., Carmo, C. I. G., and Brás, M. S. V. (2022). Reasons for living inventory for young adults: psychometric properties among Portuguese sample. *OMEGA J. Death Dying* 85, 887–903. doi: 10.1177/0030222820959940
- Mak, J., Shires, D. A., Zhang, Q., Prieto, L. R., Ahmedani, B. K., Kattari, L., et al. (2020). Suicide attempts among a cohort of transgender and gender diverse people. *Am. J. Prev. Med.* 59, 570–577. doi: 10.1016/j.amepre.2020.03.026
- McBee-Strayer, S. M., and Rogers, J. R. (2002). Lesbian, gay, and bisexual suicidal behavior: testing a constructivist model. *Suicide Life Threat. Behav.* 32, 272–283. doi: 10.1521/suli.32.3.272.22171
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. *Psychol. Bull.* 129, 674–697. doi: 10.1037/0033-2909.129.5.674
- Meyer, I. H. (2015). Resilience in the study of minority stress and health of sexual and gender minorities. *Psychol. Sex. Orientat. Gen. Divers.* 2, 209–213. doi: 10.1037/sgd0000132
- Meyer, I. H., Russell, S. T., Hammack, P. L., Frost, D. M., and Wilson, B. D. M. (2021). Minority stress, distress, and suicide attempts in three cohorts of sexual minority adults: a US probability sample. *PLoS One* 16:e0246827. doi: 10.1371/journal.pone.0246827
- Moody, C., and Smith, N. G. (2013). Suicide protective factors among trans adults. *Arch. Sex. Behav.* 42, 739–752. doi: 10.1007/s10508-013-0099-8
- Oquendo, M. A., Cia, E. B.-G., Graver, R., Mora, M., Montalvan, V., and John Mann, J. (2000). Spanish adaptation of the reasons for living inventory. *Hisp. J. Behav. Sci.* 22, 369–381. doi: 10.1177/0739986300223006
- Oquendo, M. A., Dragatsi, D., Harkavy-Friedman, J., Dervic, K., Currier, D., Burke, A. K., et al. (2005). Protective factors against suicidal behavior in Latinos. *J. Nerv. Ment. Dis.* 193, 438–443. doi: 10.1097/01.nmd.0000168262.06163.31
- Osman, A., Gifford, J., Jones, T., Lickiss, L., Osman, J., and Wenzel, R. (1993). Psychometric evaluation of the reasons for living inventory. *Psychol. Assess.* 5, 154–158. doi: 10.1037/1040-3590.5.2.154
- Osman, A., Gutierrez, P. M., Muehlenkamp, J. J., Dix-Richardson, F., Barrios, F. X., and Kopper, B. A. (2004). Suicide resilience inventory–25: development and preliminary psychometric properties. *Psychol. Rep.* 94, 1349–1360. doi: 10.2466/pr.94.3c.1349-1360
- Pachankis, J. E., Harkness, A., Jackson, S., and Safren, S. A. (2022). *Transdiagnostic LGBTQ-affirmative cognitive-behavioral therapy: Therapist guide*. Oxford: Oxford University Press.

- Parmenter, J. G., Galliher, R. V., and Maughan, A. D. A. (2020). An exploration of LGBTQ+ community members' positive perceptions of LGBTQ+ culture. *Couns. Psychol.* 48, 1016–1047. doi: 10.1177/0011000020933188
- Peters, D. K., and Range, L. M. (1995). Childhood sexual abuse and current suicidality in college women and men. *Child Abuse Negl.* 19, 335–341. doi: 10.1016/S0145-2134(94)00133-2
- Pirani, S., Kulhanek, C., Wainwright, K., and Osman, A. (2021). The reasons for living inventory for young adults (RFL-YA-II). *Assessment* 28, 942–954. doi: 10.1177/1073191119900242
- Plöderl, M., Sellmeier, M., Fartacek, C., Pichler, E.-M., Fartacek, R., and Kralovec, K. (2014). Explaining the suicide risk of sexual minority individuals by contrasting the minority stress model with suicide models. *Arch. Sex. Behav.* 43, 1559–1570. doi: 10.1007/s10508-014-0268-4
- Riggle, E. D. B., Mohr, J. J., Rostosky, S. S., Fingerhut, A. W., and Balsam, K. F. (2014). A multifactor lesbian, gay, and bisexual positive identity measure (LGB-PIM). *Psychol. Sex. Orientat. Gend. Divers.* 1, 398–411. doi: 10.1037/sgd0000057
- Ronconi, L., Testoni, I., and Zamperini, A. (2009). "Validation of the Italian version of the reasons for living inventory". *TPM.* 151–159.
- Rosati, F., Pistella, J., Nappa, M. R., and Baiocco, R. (2020). The coming-out process in family, social, and religious contexts among young, middle, and older Italian LGBTQ+ adults. *Front. Psychol.* 11:617217. doi: 10.3389/fpsyg.2020.617217
- Rutter, P. A. (2008). Suicide protective and risk factors for sexual minority youth: applying the cumulative factor model. *J. LGBT Issues Couns.* 2, 81–92. doi: 10.1080/15538600802077681
- Schuck, K. D., and Liddle, B. J. (2001). Religious conflicts experienced by lesbian, gay, and bisexual individuals. *J. Gay Lesbian Psychother.* 5, 63–82. doi: 10.1300/J236v05n02\_07
- Segal, D. L., Marty, M. A., Meyer, W. J., and Coolidge, F. L. (2012). Personality, suicidal ideation, and reasons for living among older adults. *J. Gerontol. B Psychol. Sci. Soc. Sci.* 67, 159–166. doi: 10.1093/geronb/gbr080
- Simon, M., McLaren, S., McLachlan, A. J., and Jenkins, M. (2015). "Sense of belonging to specific communities and depressive symptoms among Australian gay men". *J. Homosex.* 62, 804–820.
- Tabachnick, B. G., Fidell, L. S., and Ullman, J. B. (2013). *Using multivariate statistics*, vol. 6. Boston, MA: Pearson.
- Thompson, C. G., Kim, R. S., Aloe, A. M., and Becker, B. J. (2017). Extracting the variance inflation factor and other multicollinearity diagnostics from typical regression results. *Basic Appl. Soc. Psychol.* 39, 81–90. doi: 10.1080/01973533.2016.1277529
- Villalobos-Galvis, F. H., Ojeda, C. A., and Rivera, F. D. R. (2012). Adaptación del Inventario de Resiliencia ante el Suicidio (SRI-25) en adolescentes y jóvenes de Colombia. *Rev. Panam. Salud Publica* 31, 233–239. doi: 10.1590/S1020-49892012000300008
- Wadhwa, S., and Heisel, M. J. (2020). Enhancing the assessment of resiliency to suicide ideation among older adults: the development and initial validation of the reasons for living-suicide resiliency scale (RFL-SR). *Clin. Gerontol.* 43, 61–75. doi: 10.1080/07317115.2019.1675840
- Westefeld, J. S., Scheel, K., and Maples, M. R. (1998). Psychometric analyses of the college student reasons for living inventory using a clinical population. *Meas. Eval. Couns. Dev.* 31, 86–94. doi: 10.1080/07481756.1998.12068955
- Williams, D. Y., Hall, W. J., Dawes, H. C., Rizo, C. F., and Goldbach, J. T. (2022). An integrated conceptual model to understand suicidality among queer youth to inform suicide prevention. *Societies* 12:170. doi: 10.3390/soc12060170
- Woodford, M. R., Genevieve Weber, Z., Nicolazzo, R. H., Kulick, A., Coleman, T., Coulombe, S., et al. (2018). Depression and attempted suicide among LGBTQ college students: fostering resilience to the effects of heterosexism and cisgenderism on campus. *J. Coll. Stud. Dev.* 59, 421–438. doi: 10.1353/csd.2018.0040
- Yurgil, K. A., Barkauskas, D. A., and Baker, D. G. (2021). Deployment and psychological correlates of suicide ideation: a prospective, longitudinal study of risk and resilience among combat veterans. *Mil. Med.* 186, e58–e66. doi: 10.1093/milmed/usaa450