Published in final edited form as:

Suicide Life Threat Behav. 2019 April ; 49(2): 547–560. doi:10.1111/sltb.12458.

Minority Stress and Relational Mechanisms of Suicide among Sexual Minorities: Subgroup Differences in the Associations Between Heterosexist Victimization, Shame, Rejection Sensitivity, and Suicide Risk

Ethan H. Mereish, Ph.D.,

Department of Health Studies, American University, Washington, DC

Jessica R. Peters, Ph.D., and

Department of Psychiatry and Human Behavior, Alpert Medical School, Brown University; Rhode Island Hospital, Providence, Rhode Island

Shirley Yen, Ph.D.

Department of Psychiatry and Human Behavior, Alpert Medical School, Brown University, Providence, Rhode Island

Abstract

Despite sexual orientation disparities in suicide, there is limited research examining factors associated with suicide risk among sexual minorities while considering subgroup differences within this group. This study identified differences between sexual minorities at risk for suicide and those not at risk. The study also examined heterosexist victimization, as one form of minority stress, and two relational mechanisms (i.e., shame and rejection sensitivity) as risk factors for suicidality. We examined a moderated-mediation model, in which we tested gender and sexual orientation differences in the mediating effects of the relational mechanisms on the association between heterosexist victimization and suicide risk. Participants were recruited online and completed an online survey. The sample included 719 sexual minority adults. Of the sample, 27.7% were at risk for suicide. Suicide risk varied by age, gender, sexual orientation, income, education, and relationship status. Heterosexist victimization, shame, and rejection sensitivity were significant risk factors for suicide. Shame and rejection sensitivity were mediators of the association between heterosexist victimization and suicide risk for subgroups of sexual minorities, mostly lesbian and gay individuals and to some extent bisexual individuals. The findings underscore minority stress, shame, and rejection sensitivity as key intervention points.

Keywords

sexual minorities; homophobic victimization; minority stress; shame; rejection sensitivity; suicide

Sexual minorities are at greater risk than heterosexuals for suicidal thoughts and behaviors (Haas et al., 2010; Hottes, Bogaert, Rhodes, Brennan, & Gesink, 2016; King et al., 2008; Plöderl & Tremblay, 2015). Meta-analytic research indicates that sexual minorities are twice as likely as heterosexuals to report suicidal ideation (King et al., 2008); they are also twice to four times as likely as heterosexuals to attempt suicide (Hottes et al., 2016). Given the disproportionate prevalence of suicidality among sexual minorities, research to address this problem is urgently needed and is a public health priority (Institute of Medicine, 2011).

There is some evidence, albeit mixed, that risk for suicide may further vary between and within subgroups of sexual minorities. For instance, a systematic review of sexual orientation disparities in suicide attempts found that the majority, but not all, of the literature reviewed documented that bisexual individuals have greater risk for suicide attempts than gay and lesbian individuals (Plöderl & Tremblay, 2015). Furthermore, some research points to gender effects differing between sexual minority men and women (Almazan, Roettger, & Acosta, 2014; Plöderl & Tremblay, 2015). For example, a systematic review found that most, but not all, of the literature documented higher suicide attempt risk for sexual minority men compared to sexual minority women (Plöderl & Tremblay, 2015). In terms of mortality risk, sexual minority women demonstrate elevated suicide mortality risk compared to heterosexual women, whereas no differences emerging between sexual minority and heterosexual men (Cochran & Mays, 2014). Therefore, there is a need to examine factors that contribute to suicide risk while considering subgroup differences among sexual minorities (Haas et al., 2010).

Theoretical Models Explaining Suicide Risk among Sexual Minorities

The minority stress model has been widely used to explain sexual orientation disparities in suicide. The model posits that, in addition to general stressors, sexual minorities experience chronic social stressors uniquely related to their stigmatized identity (e.g., discrimination), which put them at greater risk for poor mental health, including suicide (Meyer, 2003). In fact, sexual minority-specific victimization is associated with suicidality among sexual minority adults (Mereish, O’Cleirigh, & Bradford, 2014; Plöderl et al., 2014) and prospectively predicts suicidal behavior among sexual minority youth (Mustanski & Liu, 2013).

Building on the minority stress model, the psychological mediation framework posits that there are general psychological (i.e., cognitive, affective, and interpersonal factors) and sexual minority group-specific (e.g., internalized heterosexism) pathways by which minority stress and stigma are associated with poor mental health (Hatzenbuehler, 2009). However, limited research has examined mediators of the association between minority stress and suicide risk. Interpersonal mechanisms may be strong candidates given their role in both the relationship between minority stress and health (Mereish, Katz-Wise, & Woulfe, 2017; Mereish & Poteat, 2015) and in driving suicide risk (Van Orden et al., 2010). Thus, this study examined two relational mechanisms that might explain these associations that have not yet been tested in the literature: shame and rejection sensitivity.

Shame and Rejection Sensitivity as Potential Relational Processes Underlying Suicide Risk

Experiencing oppression, sexual minority stigma, heterosexism, and minority stress may increase suicide risk through increased feelings of shame. Shame may be produced through the process of sexual identity development as well as through navigating heteronormative social norms and cultural and familial pressures (Cover, 2016; McDermott & Roen, 2016). Minority stress is also positively associated with shame (Allen & Oleson, 1999; Mereish & Poteat, 2015). Shame is associated with feelings of burdensomeness, which, according to the interpersonal theory of suicide, is a major risk factor for suicide among the general population (Van Orden et al., 2010) and sexual minorities (Hill & Pettit, 2012; Plöderl et al., 2014; Woodward, Wingate, Gray, & Pantalone, 2014). Within the broader literature, shame is associated with suicidality (Lester, 1998; Wiklander et al., 2012). Although shame is strongly associated with psychological distress among sexual minorities (Mereish & Poteat, 2015), there is a dearth of literature examining the association between shame and suicide risk among sexual minorities. One study found that shame was one of the key factors associated with completed suicide among sexual minorities (Skerrett, Kölves, & De Leo, 2016), and a qualitative study found that self-destructive behaviors, including suicidality, functioned as a method to avoid shame related to homophobic experiences (McDermott, Roen, & Scourfield, 2008). These studies underscore the possibility of shame as a mechanism through which minority stress may increase suicide risk; however, the mediating effects of shame on these associations have yet to be tested.

Due to frequent experiences of minority stress across the lifespan (e.g., parental rejection, victimization), sexual minorities can become vigilant to these threatening experiences as a way of defensive coping (Meyer, 2003). This fear of negative evaluation can lead sexual minorities to anticipate, expect, or be sensitive to potential disregard from others (i.e., rejection sensitivity; Meyer, 2003). Although expectations of rejection might serve as protective factors (i.e., being vigilant of future stressors to protect one's self), this prolonged and chronic sense of vigilance can be psychologically draining. Rejection sensitivity also leads to social isolation and may be a key factor in individuals' perceived belongingness (Downey & Feldman, 1996), which, according to the interpersonal theory of suicide, is a documented risk factor for suicide and sexual minorities (Cramer, Stroud, Fraser, & Graham, 2014; Hill & Pettit, 2012; Plöderl et al., 2014). Rejection sensitivity is associated with greater suicidality in clinical samples (i.e., individuals with borderline personality disorder; Soloff, 2008). Among sexual minorities, rejection sensitivity is related to low self-esteem and poor mental health (Hatzenbuehler, Nolen-Hoeksema, & Erickson, 2008; Pachankis, Goldfried, & Ramrattan, 2008). Although these studies provide support for the relationship between rejection sensitivity and distress, none have examined rejection sensitivity's effects on suicidality among sexual minorities.

Purpose of Current Study

The proposed study aimed to address limitations in the extant literature of suicidality among sexual minorities. To better understand nuances between subgroups of sexual minorities, we

examined sociodemographic differences among a large sample of sexual minority adults between those at risk for suicide and those not at risk. We then examined one form of minority stress (i.e., verbal and physical victimization due to being lesbian, gay, or bisexual [LGB]) as a risk factor for suicidality, and tested shame and rejection sensitivity as relational mediating mechanisms on the association between minority stress and suicide risk among a large sample of sexual minority adults. As demonstrated in Figure 1, we hypothesized that LGB-based victimization will be associated with higher risk for suicide (Path C). We also hypothesize that LGB-based victimization will be associated with more shame and rejection sensitivity (Path A) and these factors would be associated with higher suicide risk (Path B). Moreover, due to documented gender and sexual orientation differences in experiences of minority stress and suicide risk, we examined a moderated-mediation model, in which we tested gender and sexual orientation differences in the mediating effects of the relational mechanisms on the association between LGB-based victimization and suicide risk.

Method

Procedures

The study utilized an online sample of sexual minorities, recruited by contacting LGBT-specific listservs (e.g., social groups, sports groups) and an online panel of research participants. Internet recruitment is a successful and common method for reaching sexual minority populations (Meyer & Wilson, 2009). Inclusion criteria were being 18 years of age or older and identifying as a sexual minority. All potential participants provided consent, completed an online survey, and received monetary incentives for participating. At the end of the survey, all participants were presented with a list of online resources providing LGBTQ-specific mental health support and services. More detailed information on recruitment procedures are described elsewhere (author citation).

Participants

Participants were 719 adults ages 18 to 76 years ($M = 42.07$, $SD = 14.98$). Participants identified as male (54.8%), female (42.3%), and transgender (2.9%). Participants were gay (45.1%), bisexual (25.3%), lesbian (21.6%), queer (5.3%), and other (2.8%; e.g., unsure/questioning or other). Participants were White (76.6%), Black/African American (6.4%), Hispanic/Latino/a (6.1%), Asian American or Pacific Islander (3.8%), Biracial or Multiracial (3.4%), Native American (1.4%), and other (2%). Many participants 62.9% had an income of \$25,000 or higher. They reported their education level as: high school degree or GED equivalent or less (29%), college degree at the associate or bachelor's level (49.5%), or master's degree or higher (25.1%). Participants reported their relationship status as: single and not dating (35.5%), dating (12.4%), partnered (31.7%; 23.5% living with partner and 8.2% not living with their partner), married (17.6%), or divorced or widowed (2.7%). Participants lived in the following U.S. regions: Northeast (30.6%), West (19.4%), Midwest (18.4%), South (15.6%), Southwest (8.9%), Northwest (5%), or other regions in the U.S. territories or abroad (1.9%).

Measures

LGB-Based Victimization

A 7-item measure was used to assess frequency of sexual minority-based prejudice events (Lehavot & Simoni, 2011), which is an adapted version of a measure of verbal and physical victimization experiences (D'Augelli et al., 2005). Participants rated the frequency they experienced several heterosexist events over the past year (e.g., “verbal abuse or harassment” and “objects being thrown”) due to their lesbian, gay, or bisexual identity. Response options were on a 4-point frequency scale, ranging from 0 (*never*) to 3 (*three or more times*). This measure demonstrated good internal consistency in the present sample ($\alpha = .84$).

Shame

Feelings of shame were measured with the shame subscale of the Personal Feelings Questionnaire-2 (PFQ2-Shame; Harder & Zalma, 1990). Participants rated 10 shame feelings (e.g., “embarrassed,” “feeling ridiculous,”) and response options were on a 4-point scale ranging from 0 (*never experience the feeling*) to 4 (*experience the feeling continuously or almost continuously*). The PFQ2-Shame demonstrated high internal consistency in the present sample ($\alpha = .91$).

Rejection sensitivity

The 12-item Brief Fear of Negative Evaluation Scale (BFNE; Leary, 1983), an abbreviated version of the 30-item Fear of Negative Evaluation Scale (Watson & Friend, 1969), was used to assess rejection sensitivity. The BFNE measures participants' anxiety and apprehension toward perceived and expected negative evaluations by others (e.g., “I am frequently afraid of other people noticing my shortcomings”). Response options were on a 5-point Likert scale from 1 (*not all characteristic of me*) to 5 (*extremely characteristic of me*). The BFNE demonstrated high internal consistency in the present study ($\alpha = .92$).

Suicide risk

The 4-item Suicidal Behaviors Questionnaire-Revised (SBQ-R; Osman et al., 2001) assessed suicide risk. The SBQ-R assessed suicidal thoughts and behaviors with the following items: “Have you ever thought about or attempted to kill yourself?”; “How often have you thought about killing yourself in the past year?”; “Have you ever told someone that you were going to commit suicide, or that you might do it?”; and “How likely is it that you will attempt suicide someday?” Each item has its own response scale, with higher scores indicating greater suicidality; for example, participants are asked to indicate their frequency of having suicidal ideation in the past year over a 5-point frequency scale ranging from 1 (*never*) to 5 (*very often*). The SBQ-R can be used to identify clinically significant suicide risk among clinical and non-clinical samples (Osman et al., 2001). We used a continuous sum score of all items to indicate greater suicidality. Using cutoff scores of seven with nonclinical samples and eight with clinical samples have been validated to determine clinically significant levels of suicide risk (Osman et al., 2001). The present study used a cutoff score of eight to be more stringent with suicide risk and given the tendency of participants to

report more suicidality in online studies (Harris, McLean, & Sheffield, 2009). The SBQ-R demonstrated good internal consistency ($\alpha = .80$).

Results

Prevalence of and Sociodemographic Group Differences in Suicide Risk

Most of the participants were nonsuicidal (72.3%; i.e., scored below eight on the SBQ-R) whereas 27.7% were at risk for suicide (i.e., scored eight or higher on the SBQ-R). Group comparisons between nonsuicidal and suicidal participants indicated some sociodemographic differences (see Table 1 for descriptives and analyses). Suicidal participants were about six years younger than nonsuicidal participants. Results from univariate analyses indicated that participants who identified as transgender were more likely than participants who identified as female or male to be at risk for suicide, and participants who identified as female were more likely than participants who identified as male. Participants who identified as bisexual, queer, or other were more likely to be at risk for suicide than participants who identified as lesbian or gay. Additionally, participants with lower incomes and those with lower levels of education (high school or less) were at greater risk for suicide. Participants who were widowed or divorced were at high suicide risk, followed by those who are single and not dating. There were no statistically significant racial or geographic location differences in suicide risk.

Results of a MANOVA indicated that participants who were at risk for suicide reported more LGB-victimization ($p < .001$, $\eta_p^2 = .04$) than nonsuicidal participants; these results were across all types of victimization with varying effect sizes. Participants who were at risk for suicide reported more shame ($p < .001$, $\eta_p^2 = .12$) and rejection sensitivity ($p < .001$, $\eta_p^2 = .08$) compared to nonsuicidal participants; effect sizes were medium to large.

Correlations among Study's Variables by Gender and Sexual Orientation Subgroups

We conducted correlations among all the variables for the total sample and separately by gender and sexual orientation groups (see Table 2). Due to the small sample of participants who identified as transgender, queer, or “other” for sexual orientation, they were not included in correlational analyses. We used the continuous measure of suicide risk for these analyses. For all groups, both shame and rejection sensitivity were significantly associated with each other and with greater suicidality. Among participants who identified as men, women, lesbian, or gay, LGB-based victimization was positively associated with more shame, rejection sensitivity, and suicidality; shame, rejection sensitivity, and suicidality were all positively associated with each other. Among bisexuals, LGB-based victimization was only associated with more shame but was not significantly associated with rejection sensitivity and suicidality. Effect sizes for significant correlations ranged from small to large.

Moderated-Mediation Analyses

We used the PROCESS Macro v2.13 in SPSS 22 to test for potential moderated-mediation effects of shame and rejection sensitivity as mediators of the relationship between LGB-based victimization and suicide risk, with gender and sexual orientation subgroups as

moderators on the A paths (LGB-victimization effects on mediators) and C paths (LGB-victimization effects on suicide risk). For gender comparisons, we compared men and women; we did not include transgender individuals due to a small sample size. For sexual orientation comparisons, we compared lesbian and gay individuals to bisexual individuals. Due to the small sample size of queer or “other” participants, we did not include them in these comparisons.

While accounting for sociodemographic variables, the PROCESS macro procedure conducted three regression analyses that tested the: 1) moderating effects of gender/sexual orientation on the relationship between LGB-victimization and shame; 2) moderating effects of gender/sexual orientation on the relationship between LGB-victimization and rejection sensitivity; 3) moderating effects of gender/sexual orientation on the relationship between LGB-victimization and suicide risk. The macro also conducted a bias-corrected bootstrapping procedure with 1,000 samples and 95% Confidence Interval (CI) (Hayes, 2012; Preacher & Hayes, 2008). This procedure provides at the levels of the moderators the conditional indirect effects of LGB-victimization on suicide risk through shame and rejection sensitivity.

As presented in Table 3 and while accounting for sociodemographics, LGB-based victimization was associated with greater shame ($B = .54 - .58$), rejection sensitivity ($B = .26 - .33$), and odds of suicide risk (Adjusted Odds Ratios [AORs] = 2.08 – 2.77). Shame and rejection sensitivity were associated with greater odds of suicide risk (shame: AORs = 1.73 – 2.27; rejection sensitivity: AORs = 1.50 – 1.54).

The moderated-mediation analyses indicated that gender was not a significant moderator of the mediators on the association between LGB-victimization and suicide risk. Specifically, the conditional indirect effects of LGB-based victimization on suicide risk were significant for both men and women through shame (men: $B = .37$, $SE = .12$; 95% CI: .158, .643; women: $B = .31$, $SE = .11$; 95% CI: .135, .551) and rejection sensitivity (men: $B = .15$, $SE = .09$; 95% CI: .023, .384; women: $B = .08$, $SE = .05$; 95% CI: .004, .214).

The moderated-mediation analyses indicated that sexual orientation was a significant moderator of the mediators on the association between LGB-victimization and suicide risk, with the moderated-mediation was significant for rejection sensitivity but not shame. Specifically, the conditional indirect effects of LGB-based victimization on suicide risk were significant for lesbian, gay, and bisexual individuals through shame (lesbian/gay: $B = .36$, $SE = .13$; 95% CI: .090, .605; bisexual: $B = .24$, $SE = .12$; 95% CI: .058, .537) but were significant only for lesbian and gay individuals for rejection sensitivity ($B = .16$, $SE = .07$; 95% CI: .050, .343) and not for bisexual individuals ($B = -.02$, $SE = .08$; 95% CI: -.200, .128).

Discussion

Despite documented sexual orientation disparities in suicide (Haas et al., 2010), more research is needed to examine factors associated with suicide risk among sexual minorities. In addition to documenting differences in suicide risk among subgroups of sexual minorities,

our findings provide support for components of minority stress theory. Moreover, our findings underscore two unique relational processes (i.e., shame and rejection sensitivity) by which victimization might be associated with suicide risk for some subgroups of sexual minorities.

Among our online sample of sexual minorities, we found high prevalence of suicide risk (27.7%). Our study also documents unique differences in suicide risk among subgroups of sexual minorities. Specifically, we found that suicide risk varied by age, gender, sexual orientation, income, education, and relationship status. In addition, we found that participants who were at risk for suicide reported more LGB-victimization, shame, and rejection sensitivity than participants who were nonsuicidal. Given the broad diversity within the sexual minority community, these factors may be utilized to help assess and identify sexual minorities who may be at greatest risk for suicide.

Sexual minority-based victimization, specifically related to lesbian, gay, or bisexual identity, was associated with higher suicide risk in our sample. This finding is consistent with the minority stress model (Meyer, 2003) and prior research that documents the association between minority stress and increased suicide risk (Mereish et al., 2017; Mereish et al., 2014; Plöderl et al., 2014). Our finding extends this literature to document the associations between verbal and physical attacks related to one's marginalized sexual identity and higher suicide risk.

Relational Risk Mechanisms for Suicidality: Shame and Rejection Sensitivity

Our study identified two relational risk factors that are associated with greater suicide risk among all subgroups of sexual minorities in our sample. Building on the limited literature base (McDermott et al., 2008; Skerret et al., 2016), we found that shame is one risk factor associated with greater suicide risk. This finding supports social constructionists framing of suicidality among sexual minorities, which focuses on the pressures and tensions of heterosexism and heteronormativity in identity development and wellbeing among sexual minorities (Cover, 2016; McDermott & Roen, 2016). To our knowledge, this is the first study to document that rejection sensitivity is another risk factor associated with greater suicide risk among sexual minorities.

Shame and rejection sensitivity are two constructs that are parallel to the interpersonal theory of suicide's focus on perceived burdensomeness and thwarted belonging (Van Orden et al., 2010). Although several studies have documented support for perceived burdensomeness and thwarted belonging as risk factors for suicide among sexual minorities (Cramer et al., 2014; Hill & Pettit, 2012; Plöderl et al., 2014; Woodward et al., 2014), our study extends this work by identifying two additional and nuanced interpersonal factors that are associated with suicide risk. Future work would benefit from testing these relational factors directly with interpersonal theory's factors (e.g., burdensomeness and thwarted belonging).

Integrating a relational framing of the minority stress model and informed by the interpersonal theory of suicide (Mereish & Poteat, 2014; Van Orden et al., 2010), our study also highlights unique pathways by which LGB-victimization is associated with suicide risk

for some subgroups of sexual minorities. Our findings indicated that experiencing LGB-victimization was associated with more shame for lesbian, gay, and bisexual individuals and with more rejection sensitivity for lesbian and gay individuals; consequently, feelings of shame and rejection sensitivity were associated with greater suicide risk. Moreover, these pathways were similar across sexual minorities who identified as men and women. Consistent with prior work among young adults, suicide may be one destructive pathway to escape feelings of shame and that may be instigated by victimization and homophobia (McDermott et al., 2008). In addition, lesbian and gay individuals may develop rejection sensitivity as a way to protect themselves from future homophobic victimization; however, this may cause difficulties relating with others and isolation, and in turn increased suicide risk. As such, shame and rejection sensitivity should be considered as two potential intervention points with sexual minorities. For example, rejection sensitivity is one of the targeted mechanisms of a preliminary empirically-supported treatment approach for sexual minority men (Pachankis, 2015). Future work is also needed to examine these factors in conjunction with other mechanisms that may explain the effects of victimization on suicide (e.g., depression or anxiety).

Although rejection sensitivity is a significant risk factor for suicide among all subgroups of sexual minorities in our sample, the relationship between homophobic victimization and rejection sensitivity was not consistent across sexual orientation subgroups. Specifically, homophobic victimization was associated with rejection sensitivity for lesbian and gay individuals, but this association was not documented for bisexual individuals. It is plausible that when bisexual individuals are targets of homophobic victimization, they might be misperceived as lesbian and gay but not as bisexual. For example, a bisexual person may have endorsed being verbally or physical harassed for being perceived as lesbian or gay when they were holding hands with a partner of the same gender, and, although this experience is distressing, a bisexual person may not necessarily develop rejection sensitivity to the same extent as a lesbian or gay person because their personal identity was not a direct target of this harassment. However, to properly understand these findings, more research is needed to clearly delineate how sexual identification and attributions related to victimization and other forms of minority stress might be internalized or processed for varying groups of sexual minorities. Moreover, it is also plausible that we were not able to document associations between LGB-victimization and rejection sensitivity for bisexual individuals due to limitations of the victimization measure used in this study. Future research is needed to develop culturally nuanced measures that incorporate unique experiences of bisexual individuals (e.g., biphobia) and associated attributions, and to examine the effects of other types of minority stress (e.g., discrimination) on shame and rejection sensitivity and consequently suicide risk.

Limitations and Future Directions

We note limitations in our study's cross-sectional design, sample characteristics, and measurement. Despite our models being based in multiple theories related to sexual minorities and suicide, the cross-sectional design of the study as well as the temporal differences in our measures limit the implications of our mediation models and overall directionality and effects of the variables in our models. Longitudinal research is needed to

test the effects of sexual minority-based victimization on suicidality and the mediating pathways of shame and rejection sensitivity over time to better understand how these processes develop and become risk factors for suicide. Although we examined gender and sexual orientation differences in our models, we were not able to include transgender participants in our tests for gender differences and queer participants for sexual orientation comparisons. Similarly, our sample was mostly comprised of participants who identified as White, which limits the generalizability of the results to sexual minorities who identify as racial/ethnic minorities. Future research should test our models with more diverse samples of sexual and gender minorities and examine more specific factors related to the experiences of these groups (e.g., transgender- and/or gender nonconformity-based victimization, race-based victimization, and victimization related to the intersection of these and other identities). Despite accounting for age in our mediation analyses, our sample had a wide age range of participants; as such, future research should examine developmental differences in these models across the lifespan.

Moreover, our measure of minority stress was limited because we only assessed one type of minority stress (i.e., victimization). As such, we did not comprehensively test the minority stress model; more research is needed to examine other minority stressors that are not as overt as verbal or physical victimization, such as discrimination or microaggressions, as well as internalized minority stressors, such as internalized heterosexism and sexual orientation concealment. Furthermore, we used a global measure of rejection sensitivity; future research should consider examining sexual orientation-specific rejection sensitivity (e.g., Pachankis et al., 2008) and other sexual minority-specific mechanisms and how they may relate to suicide risk. Finally, our assessment of suicidality combined lifetime, current, and future suicidality, which is a strength in capturing suicidality more globally but it is a weakness because we cannot discern temporal specificity of suicidality and forms of suicidality (i.e., thoughts versus behaviors).

Conclusion

Suicidality among sexual minorities is an important public health problem that warrants further research (Haas et al., 2010). Our study shows that both shame and rejection sensitivity are significant risk factors for suicide among sexual minorities. Moreover, our study is the first to identify shame and rejection sensitivity as pathways of the association between one type of minority stress and suicide risk among subgroups of sexual minorities, mostly lesbian and gay individuals and to some extent bisexual individuals. By integrating components of minority stress and suicide frameworks to better understand suicide risk among sexual minorities, future research and clinical work may help better advance the health and wellbeing of sexual minorities.

Acknowledgments

Dr. Mereish (K08AA025011) and Dr. Peters (T32MH019927) were supported in part by grants from the National Institutes of Health.

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Figure 1.

Table 1

Sample demographics and by suicide risk.

	Nonsuicidal (72.3%; <i>n</i> = 520)	Suicidal Risk (27.7%; <i>n</i> = 199)	Test Statistic
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>t</i> (<i>df</i>)
Age	43.85 (15.02)	37.41 (13.85)	<i>t</i> (716)=5.25, <i>p</i> <.001
	% (<i>n</i>)	% (<i>n</i>)	χ^2 (<i>df</i>)
Gender			χ^2 (2) = 16.75
Male	78.2 (308)	21.8 (86)	<i>p</i> < .001
Female	66.1 (201)	33.9 (103)	
Transgender	52.4 (11)	47.6 (10)	
Sexual Orientation			χ^2 (4) = 26.46
Bisexual	63.2 (115)	36.8 (67)	<i>p</i> < .001
Gay	79.0 (256)	21.0 (68)	
Lesbian	76.1 (118)	23.9 (37)	
Queer	55.3 (21)	44.7 (17)	
Other	50.0 (10)	50.0 (10)	
Race			χ^2 (6) = 8.29
Asian American/Pacific Islander	77.8 (21)	22.2 (6)	<i>p</i> = .22
Black/African American	76.1 (35)	23.9 (11)	
Biracial/Multiracial	62.5 (15)	37.5 (9)	
Hispanic/Latinx	72.7 (32)	27.3 (12)	
Native American	70.0 (7)	30.0 (3)	
White	73.3 (404)	26.7 (147)	
Other	42.9 (6)	57.1 (8)	
Income			χ^2 (1) = 11.72
\$24,999	65.0 (171)	35.0 (92)	<i>p</i> < .01
\$25,000	76.9 (343)	23.1 (103)	
Education			χ^2 (2) = 14.27
High School/GED	62.3 (129)	37.7 (78)	<i>p</i> < .01
College Degree	75.3 (247)	24.7 (81)	
Master's	77.7 (139)	22.3 (40)	
Relationship Status			χ^2 (5) = 25.62
Single (Not Dating)	65.4 (166)	34.6 (88)	<i>p</i> < .001
Dating	76.4 (68)	23.6 (21)	
Partnered (Not living together)	62.7 (37)	37.3 (22)	
Partnered (Living together)	83.9 (141)	16.1 (27)	
Married	76.2 (96)	23.8 (30)	
Divorced or Widowed	52.6 (10)	47.4 (9)	
Geographic Location			χ^2 (6) = 8.73
Midwestern US	68.2 (90)	31.8 (42)	<i>p</i> = .19
Northeastern US	79.5 (174)	20.5 (45)	

	Nonsuicidal (72.3%; <i>n</i> = 520)	Suicidal Risk (27.7%; <i>n</i> = 199)	Test Statistic
Northwestern US	72.2 (26)	27.8 (10)	
Southern US	69.6 (78)	30.4 (34)	
Southwestern US	70.3 (45)	29.7 (19)	
Western US	67.6 (94)	32.4 (45)	
Other regions	71.4 (10)	28.6 (4)	
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	F (df)
			F (9, 709) = 13.50 Wilks's Λ = .85 $p < .001$; $\eta_p^2 = .15$
LGB-Based Victimization	1.15 (.32)	1.34 (.58)	$p < .001$; $\eta_p^2 = .04$
1. Verbal harassment	1.59 (.96)	1.99 (1.20)	$p < .001$; $\eta_p^2 = .03$
2. Threats of physical attack	1.11 (.43)	1.36 (.80)	$p < .001$; $\eta_p^2 = .04$
3. Objects thrown at you	1.06 (.29)	1.21 (.62)	$p < .001$; $\eta_p^2 = .03$
4. Punched or hit, kicked, or beaten	1.05 (.29)	1.17 (.57)	$p < .01$; $\eta_p^2 = .02$
5. Threats with weapons	1.05 (.29)	1.15 (.54)	$p < .01$; $\eta_p^2 = .01$
6. Raped or sexually assaulted	1.04 (.26)	1.20 (.60)	$p < .001$; $\eta_p^2 = .03$
7. Being chased, followed, or stalked	1.12 (.45)	1.28 (.68)	$p < .001$; $\eta_p^2 = .02$
Rejection Sensitivity	2.68 (.92)	3.28 (.91)	$p < .001$; $\eta_p^2 = .08$
Shame	1.73 (.60)	2.25 (.69)	$p < .001$; $\eta_p^2 = .12$

Table 2

Sample descriptive and correlations among variables by gender and sexual orientation groups.

Group	LGB-Victimization	Shame	Rejection Sensitivity	Suicidality
Full Sample ($N = 719$); $M(SD)$	1.20 (.41)	1.87 (.67)	2.85 (.96)	6.16 (3.21)
LGB-Victimization	---			
Shame	.37**	---		
Rejection Sensitivity	.15**	.63**	---	
Suicidality	.22**	.41**	.35**	---
Gender				
Women ($N = 304$); $M(SD)$	1.22 (.45)	1.96 (.72)	2.87 (.98)	6.63 (3.45)
LGB-Victimization	---			
Shame	.35**	---		
Rejection Sensitivity	.12*	.68**	---	
Suicidality	.16**	.40**	.37**	---
Men ($N = 394$); $M(SD)$	1.17 (.35)	1.80 (.62)	2.82 (.94)	5.70 (2.89)
LGB-Victimization	---			
Shame	.38**	---		
Rejection Sensitivity	.18*	.59**	---	
Suicidality	.27**	.40**	.34**	---
Sexual Orientation				
Bisexual ($n = 182$); $M(SD)$	1.21 (.41)	2.03 (.75)	2.99 (1.0)	6.99 (3.49)
LGB-Victimization	---			
Shame	.28**	---		
Rejection Sensitivity	.01	.67**	---	
Suicidality	.09	.39**	.44**	---
Gay ($n = 324$); $M(SD)$	1.18 (.38)	1.79 (.62)	2.79 (.93)	5.55 (2.76)
LGB-Victimization	---			
Shame	.42**	---		
Rejection Sensitivity	.20**	.57**	---	
Suicidality	.30**	.37**	.29**	---
Lesbian ($n = 155$); $M(SD)$	1.20 (.43)	1.79 (.67)	2.68 (.95)	5.81 (2.97)
LGB-Victimization	---			
Shame	.52**	---		

Group	LGB-Victimization	Shame	Rejection Sensitivity	Suicidality
Rejection Sensitivity	.25 ^{**}	.65 ^{**}	---	
Suicidality	.22 ^{**}	.35 ^{**}	.24 ^{**}	---

*
 $p < .05$;

**
 $p < .01$

Results of the moderated-mediation regression models.

Outcomes						
Variables	Shame		Rejection Sensitivity		Suicide	
	B (SE)	β	B (SE)	β	B (SE)	AOR (95% CI)
Step 2						
Gender (Female)	.07 (.05)	0.05	−.06 (.08)	−.03	.53 (.20)**	1.69 (1.15, 2.50)
LGB-Based Victimization	.54 (.06)	.32***	.26 (.09)	.11**	.73 (.22)***	2.08 (1.35, 3.20)
Step 3						
Gender (Female)	.17 (.15)	0.13	.14 (.23)	.07	.86 (.59)	2.37 (0.74, 7.54)
LGB-Based Victimization	.59 (.09)	.35***	.35 (.14)	.15*	.52 (.36)	1.67 (0.82, 3.41)
Victimization × Gender	−.09 (.12)	−.09	−.17 (.18)	−.95	−.27 (.45)	0.76 (0.32, 1.84)
Shame					.62 (.19)**	1.86 (1.29, 2.70)
Rejection Sensitivity					.43 (.13)**	1.54 (1.19, 1.99)
Step 2						
Sexual Orientation (LG vs B)	.19 (.06)	.12**	.27 (.09)	.13**	.60 (.22)	1.82 (1.17, 2.80)
LGB-Based Victimization	.58 (.06)	.35***	.26 (.09)	.11**	.81 (.23)***	2.24 (1.44, 3.50)
Step 3						
Sexual Orientation (LG vs B)	.44 (.17)	.29**	.80 (.25)	.38**	.94 (.64)	2.56 (0.73, 8.95)
LGB-Based Victimization	.65 (.07)	.36***	.39 (.11)	.16***	.57 (.30)	1.77 (0.99, 3.18)
Victimization × LGvsB	−.21 (.13)	−.18	−.44 (.20)	−.27*	−.42 (.49)	0.66 (0.25, 1.71)
Shame					.55 (.20)**	1.73 (1.18, 2.55)
Rejection Sensitivity					.41 (.14)**	1.50 (1.15, 1.97)

Notes. The results for Step 1 are not presented; Step 1 included the control variables. Gender model accounts for age, sexual orientation, race, income, education, relationship status, and location. Sexual orientation model accounts for age, gender, race, income, education, relationship status, and location. LGB = lesbian, gay, bisexual; B = bisexual; B = bisexual; B = bisexual; B = bisexual; B = bisexual; AOR = adjusted odds ratio; CI = confidence interval.

$$*p < .05$$

100' > d

10' > d
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