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Drivers of Disparity: Differences in Socially-Based Risk Factors of Self-injurious and Suicidal Behaviors Among Sexual Minority College Students

John Blosnich, PhD, MPH

Center for the Study and Prevention of Suicide, Department of Psychiatry, University of Rochester, Rochester, NY

Robert Bossarte, PhD

Department of Psychiatry, University of Rochester, Rochester, New York

Abstract

Lesbian, gay, and bisexual (i.e., sexual minority) populations have increased prevalence of both self-injurious and suicidal behaviors, but reasons for these disparities are poorly understood.

Objective—To test the association between socially-based stressors (e.g., victimization, discrimination) and self-injurious behavior, suicide ideation, and suicide attempt.

Participants—A national sample of college-attending 18- to 24-year-olds.

Methods—Random or census samples from post-secondary educational institutions that administered the National College Health Assessment during the Fall 2008 and Spring 2009 semesters.

Results—Sexual minorities reported more socially-based stressors than heterosexuals. Bisexuals exhibited greatest prevalence of self-injurious and suicidal behaviors. In adjusted models, intimate partner violence was most consistently associated with self-injurious behaviors.

Conclusions—Sexual minorities' elevated risks of self-injurious and suicidal behaviors may stem from higher exposure to socially-based stressors. Within-group differences among sexual minorities offer insight to specific risk factors that may contribute to elevated self-injurious and suicidal behaviors in sexual minority populations.

Keywords

Community Health; Health Education; Mental Health

Introduction

Decades of research demonstrate that suicidal behavior is a prevalent public health problem among gay, lesbian, and bisexual (i.e. sexual minority or LGB) populations.¹ Furthermore, among the general population, emerging adulthood (ages 18–24 years) is an age group with demonstrated risk for suicidal behavior, with suicide being the third leading cause of death among members of this group,² and specifically, colleges and universities may be a unique environment regarding suicidal behavior and emerging adulthood.³ Given these overlapping

high risk characteristics, college-attending sexual minorities may be a population of concern regarding prevention of suicidal behavior.

To begin, Arnett suggests numerous characteristics and reasons substantiating emerging adulthood as distinct from adolescence and adulthood, with the main hallmarks of forging identity, developing independence, and recalibrating worldviews and perceptions.⁴ For example, given stress associated with negotiation of identity formation, it is likely that sexual minority emerging adults could face even greater pressure given societal and institutional adversities leveled at sexual minorities (e.g., heterosexism and homophobia). However, perhaps most notably, emerging adulthood represents a developmental period during which risk behavior and injury increase greatly from adolescence, including substance use,⁵ high prevalence of self-injurious behaviors,⁶ and more than twofold increases in the rates of homicide and suicide.⁷

Though seemingly straightforward, self-injurious behavior, suicidal ideation, suicide attempts, and suicide are quite complex,⁸ differentially related – yet arguably distinct – phenomena. For example, suicide ideation does not always result in attempts,⁹ and while a suicide attempt is one of the strongest predictors of actual suicide,¹⁰ the majority of people who attempt suicide do not die by suicide.^{11, 12} Additionally, Busch, Fawcett, & Douglas reviewed information on 76 inpatient suicides and found that only half had prior suicide attempts, and of the 40% who were admitted with suicidal ideation, nearly 80% of them had denied active ideation prior to their suicide.¹³ Similarly, regarding self-injurious behavior and suicide, Whitlock and Knox found that among their non-clinical sample of college students, less than half those who reported self-injurious behavior also reported suicidality (i.e., ideation or attempt), yet self-injurious behavior was significantly associated with suicidality.¹⁴

Compared to research about sexual minority adolescents and suicidal behavior,^{15–19} there are relatively fewer studies focused on suicidal behavior during the developmental period of emerging adulthood. Most of the critical early studies established an association between sexual minority status and suicidal behavior, demonstrating prevalence differences when compared to their heterosexual peers.¹ Less is empirically known about what actually drives the disparity in suicidal behavior among this minority population. A recent study by House et al. found that interpersonal trauma and discrimination were both independently and synergistically associated with self-injurious behavior and suicide attempts among a sample of sexual minority adults.²⁰ Silenzio and colleagues found that depression and drug use were associated with suicide ideation among a representative sample of young adult sexual minorities, but that these risk factors did not significantly predict attempts as they did for heterosexuals.²¹ In spite of findings among adolescents that demonstrate a relationship between victimization and suicidal behavior^{18, 19, 22}, a study of mostly sexual minority young adults recruited from gay community organizations found that victimization was not statistically significantly associated with either ideation or attempt.²³ Finally, Ryan et al. reported that young adult sexual minorities who reported high family rejection in adolescence had a greater than 8-fold increase in odds of reporting a suicide attempt.²⁴ The literature suggests that socially-based stressors experienced by sexual minorities (e.g., familial rejection, violence victimization) may be differentially associated with suicidal behavior in gay and bisexual populations, both in terms of the specific stressor and ideation and attempt.

Garnering relatively less attention in the sexual minority health literature than suicide, self-injurious behavior is a burgeoning area of research in sexual minority health risk issues. Self-injurious behavior is generally conceptualized as less a derivative of suicidal intent than it is an instrumental behavior for affect regulation,^{25, 26} however, several studies document

associations between non-suicidal self injury and suicidal behaviors among clinical^{27, 28} and nonclinical^{29, 30} samples. A developing field of research notes an association between sexual minority status and self-injurious behavior among both adolescents and young adults,^{14, 31, 32} however empirical investigations into the underlying reasons for these associations remain relatively scant.

It is of utmost importance to note that we are aware of no evidence, nor sound theoretical reasoning to suggest that there is anything inherently suicidogenic or self-injury-inducing about sexual minority status. Rather, the mechanisms conferring elevated risk of self-injurious and suicidal behavior likely stem from stressors at multiple levels – from familial strain during coming out processes to sociopolitical structures that at best ignore and at worst devalue sexual minority persons.³³ Harkening the work of Durkheim³⁴ and Goffman³⁵ among others, one theoretical framework, the Minority Stress Model, posits that hegemonic structures upholding heterosexism and homophobia create stressors (e.g., discrimination, stigma, victimization) that may result in mental distress among those with sexual minority status.³⁶ Using this rubric, many studies have shown that the excess burden of mental health problems experienced by sexual minorities can be explained by socially-based, minority stressors like discrimination and violence.³⁷ However, it is unknown if discrimination may have independent associations with self-injurious behavior, suicidal ideation or attempt in sexual minority emerging adults.

Furthermore, minority stress has been theorized to work in more insidious ways, such as potentially contributing to intimate partner violence (IPV) in same-sex couples for multiple reasons (e.g., gender stereotypes, family rejection of partner, internalized homophobia, discordant “outness” of a partner).^{38–40} Studies with probability-based samples show higher prevalence of different forms of IPV (e.g., verbal, sexual, physical) among same-sex partners compared with opposite sex couples.^{41–43} Additionally, female victims of heterosexual IPV had increased likelihood of suicidal behavior when compared with women who did not experience such victimization,^{44–46} but we are unaware of research that has explored similar associations between IPV and suicidal behavior in sexual minority emerging adults.

In addition to unclear or inconsistent associations of stressors with suicidal behavior, there is some concern about combining gay/lesbian and bisexual samples. Often with sexual minority research, gay/lesbian and bisexuals are combined to address issues with small sample sizes and statistical power. However, much research has shown that gays/lesbians and bisexuals – while conceptually similar in regard to assuming a non-heterosexual identity – exhibit different dimensions of identity, risk profiles, and health outcomes, with bisexuals often having higher prevalence of risk behaviors.^{47–49}

Given a seeming convergence of findings that demonstrate elevated prevalence of suicidal behaviors among sexual minorities when compared to their heterosexual counterparts, this project attempted to discern the association of risk factors with self-injurious behavior, suicide ideation, and suicide attempt among a large national sample of sexual minority young adults attending college. Specifically, rather than use sexual orientation as a predictor of suicidal behaviors, we examined stressors *within* sexual orientation groups and their associations with the outcome behaviors, analyzing data for gays/lesbians separately from bisexuals. Generally, we hypothesized that both gay/lesbian and bisexual groups would report significantly more socially-based stressors (i.e., family problems, intimate partner violence, physical assault, sexual assault, and discrimination) than their heterosexual counterparts. Additionally, we predicted that these stressors would be associated with self-injurious behaviors, suicide ideation, and suicide attempt among the sexual minority groups,

such that sexual minorities who report experiencing the stressors will have increased odds of suicidal behaviors compared with their sexual minority peers who do not report the stressor.

Methods

This project was a secondary analysis of data from the American College Health Association's (ACHA) National College Health Assessment (NCHA) survey periods of Fall 2008 and Spring 2009. As such, this project was considered Not Human Subjects Research by the first author's Institutional Review Board. National datasets were compiled from post-secondary institutions of higher education who elected to administer the surveys using a random or census sampling methodology and who gained approval from their respective Institutional Review Boards. Surveys are standardized and institutions can elect to use either a paper-and-pencil or web-based format or both. For the Fall 2008 dataset, the average response rate was 27% and 30% for the Spring 2009 semester.^{50, 51}

Sample

We followed multiple steps in order to construct our analytic sample. First, we merged data from the Fall 2008 (n=26,685) and Spring 2009 semesters (n=87,105), which comprise one academic year, yielding data from 157 unique institutions across five regions defined by ACHA (29.3% from the Northeast; 23.0% from the Midwest; 23.4% from the South; 19.2% from the West; 5.1% from outside the U.S.). Next, given our focus on the period of emerging adulthood, we restricted the sample to all respondents ages 18 through 24 (n=92,470). Additionally, because our research questions are predicated on persons identifying as sexual minorities, we did not include those respondents who indicated being unsure of their sexual orientation (1.7%). Finally, since our primary analyses addressed suicidal behaviors among sexual minority groups it was important to construct an analytic sample with sufficient representation for members of these groups. A preliminary examination of self-identified sexual orientation (i.e., "Which of the following best describes you? Heterosexual, gay/lesbian, bisexual, unsure") revealed that nearly 93% (n=85,710) of the 18–24-year-olds identified as heterosexual. In order to control the issue of the heterosexual analyses exhibiting too much statistical power, we drew a 5% random subsample of heterosexuals to use for all analyses. We tested demographics (i.e., sex and racial categories) to assure the heterosexual subsample was representative of the original heterosexual sample. No statistically significant differences were detected ($p=.63-.91$). Thus, our final analytic sample was determined to include a representative subsample of heterosexuals who participated in the National College Health Assessment during the 2008–2009 academic year. The final analytic sample was comprised of 11,046 participants aged 18 to 24 years.

Variables

We operationalized socially-based stressors using several measures. First, violence-related stressors included reports of experiencing physical assault, sexual assault (i.e., being sexually touched, attempted penetration (anal, oral, or vaginal), or sexually penetrated without consent), or intimate partner violence (i.e., being in an intimate relationship that was emotionally, physically, or sexually abusive) in the last 12 months. Familial strain was measured with a question that asked respondents if, in the past 12 months, they had family problems that were either traumatic or very difficult to handle. Finally, one item asked respondents whether they had experienced discrimination (e.g., racism, sexism, homophobia) in the last 12 months and whether it affected their academic performance and to what degree it affected their schooling (i.e., "In the past 12 months, have any of the following affected your academic performance"). This variable was dichotomized to reflect experiencing discrimination (Yes/No). It is important to note that questions about these

variables were asked in a general way and did not ascertain whether the respondent interpreted the victimization as due to his/her sexual minority status, which is a key factor in delineating minority stress.³⁶

The primary outcomes of interest were three, separate measures from the Mental Health section of the survey which asked about self-injurious behavior (i.e., “intentionally cut, burned, bruised, or otherwise injured yourself”), suicide ideation (i.e., “seriously considered suicide”), and suicide attempt (i.e., “attempted suicide”) in the last 12 months. Response options for each behavior included: No, never; No, not in the last 12 months; Yes, in the last 12 months; Yes, in the last 30 days; Yes, in the last 2 weeks. Answers were dichotomized into past 12 months versus not in the past 12 months.

Analysis

We conducted chi-square tests of independence to examine bivariate differences of sexual orientation by the key independent variables and the outcomes. To test the independent associations of the socially-based stressors on suicidal and self-injurious behaviors, we used multivariate logistic regression models. Model fits were assessed with Hosmer-Lemeshow statistics.⁵² All multivariate analyses were adjusted for age, sex (male as reference), race (white as reference), and self-reported high stress in the past 12 months (average stress as reference). Additionally, given the high comorbidity of suicidal behavior and mental illness, we adjusted analyses for any psychiatric diagnoses or treatments by a professional within the last 12 months by creating a dichotomous variable of no diagnoses versus one or more diagnoses of anorexia, anxiety, attention deficit and hyperactivity disorder, bipolar disorder, bulimia, depression, insomnia, other sleep disorder, obsessive compulsive disorder, panic attacks, phobia, schizophrenia, substance abuse or addiction (alcohol or other drugs), other addiction (e.g., gambling, sex), and other mental health condition. Furthermore, since sexual minorities tend to endure a disproportionate burden of mental illness,¹ we stratified models by sexual orientation group for each of the three outcomes.

We report odds ratios and 95% confidence intervals for all estimates in the multivariate models. Variance inflation factors (VIF) were used to assess any issues with multicollinearity. Missing data analyses revealed that, among the variables salient to the analysis, none were missing >5%, thus listwise deletion was incorporated.⁵³ All analyses were conducted using Stata/SE version 11.⁵⁴

Results

Demographically, our sample tended to be white (66%) and female (62%) with a mean age of 20.1 years (SD=1.6) (See Table 1). In the overall sample, before we generated the random 5% subsample of heterosexuals, the sexual orientation breakdown of the sample was heterosexual (93%), gay/lesbian (2%), bisexual (3%), and unsure (2%). After the 5% subsample of heterosexuals, the percentages changed to heterosexual (42%), gay/lesbian (17.9%), bisexual (25%), and unsure (15.2%).

As hypothesized, bivariate analyses revealed that sexual minorities reported significantly more socially-based stressors than their heterosexual counterparts (See Table 2). Of particular note is that bisexuals showed the highest prevalence of all stressors, some of which – physical assault, sexual assault, family problems, and any IPV – were significantly higher than their gay/lesbian peers. However, bisexuals did report significantly less discrimination than their gay and lesbian counterparts.

Among demographic characteristics in the multivariate models explaining suicide attempts, gender was significant only among the heterosexual group. Heterosexual males had more

than twice the odds of attempting suicide in the past 12 months when compared to heterosexual females (OR=2.29, 95% CI: 1.09–4.78). Similarly, for suicide ideation, gender was significant only for the heterosexual group, with heterosexual males having a 46% increase in odds of reporting suicidal ideation in the past 12 months when compared with heterosexual females (OR=1.46; 95% CI: 1.06–2.02). However, in the models explaining self-injurious behavior, gender was significant for bisexual and gay/lesbian respondents, such that both bisexual men (OR=.67; 95% CI: .47–.85) and gay men (OR=.31; 95% CI: .22–.43) had lower odds of self-injurious behavior when compared, respectively, with bisexual women and lesbians.

Regarding race/ethnicity, no racial/ethnic identities were significantly associated with suicidal attempt among any three sexual orientation groups. However, compared with white gay/lesbian persons, gay/lesbian Asian individuals had twice the odds of suicidal ideation (OR=2.51; 95% CI: 1.55–4.06). Heterosexual Asian individuals also had increased odds of suicidal ideation (OR=1.93; 95% CI: 1.21–3.07) and self-injurious behavior (OR=1.72; 95% CI: 1.06–2.79) than their heterosexual white counterparts. Lastly, bisexual persons of Hispanic ethnicity reported significantly lower odds of self-injurious behavior (OR=.50; 95% CI: .28–.87) and suicidal ideation (OR=.44; 95% CI: .24–.78) than their white bisexual peers. Black bisexual respondents also had lower odds of self-injurious behavior than white bisexual respondents (OR=.44; 95% CI: .23–.83).

When adjusted for sex, race, any mental health diagnosis or treatment, and high self-reported stress, all of the socially-based stressors – including discrimination – were associated with elevated odds of intentional self-harm and suicide ideation among bisexuals (see Table 3). Despite reporting the highest prevalence of discrimination, discrimination was not significantly associated with any suicidal behavior in gays/lesbians. Intimate partner violence was consistently associated with suicidal behavior among heterosexuals and bisexuals, but was only associated with suicide ideation and intentional self-harm among gays/lesbians. None of the stressors significantly associated with suicide attempts in the sample of gays/lesbians.

Model diagnostics revealed that the models explaining intentional self-harm fit the data well ($p=.34-.61$), as did the models for suicide attempts ($p=.07-.38$). Model specification was problematic for explaining suicide ideation among heterosexuals ($p=.04$) and bisexuals ($p=.03$), thus these estimates should be viewed with caution. The average variance inflation factor was 1.07, indicating no problematic collinearity among variables in the models.

Comment

To our knowledge, this is the first study to examine how violence victimization, family problems, and discrimination associate with self-injurious and suicidal behaviors among a large national sample of sexual minority college students. It is also unique in that we were able to analyze the gay/lesbian and bisexual groups separately, rather than combine them to increase statistical power. As with previous studies we found significantly higher prevalence of self-injurious behavior, suicide ideation, and suicide attempt among sexual minorities relative to their heterosexual peers.

However, unlike previous work, our analyses focused on exploring the effects of stressors on outcomes *within* sexual orientation groups, rather than compare variables between groups (namely, comparisons to heterosexuals); the intention being to offer explanation of the established higher prevalence of self-injurious and suicidal ideation and attempt among sexual minorities. For instance, among gays/lesbians, those who experienced any intimate partner violence in the past 12 months had greater than twice the odds of suicidal ideation in

the past 12 months compared with gays/lesbians who did not experience intimate partner violence. We believe these within-group comparisons are necessary to move the field forward in order to parse out what specific risk factors may drive suicidal behaviors in sexual minorities. Our results suggest that risk factors are associated differentially both based on the outcome (e.g. self-injurious behavior versus suicide ideation) and based on distinct sexual orientation groups. This invites several questions, such as whether separate suicide prevention strategies should be considered for sexual minority young adults.

Similar to other studies, we documented significantly higher prevalence of discrimination among sexual minorities,^{37, 55, 56} yet this increased burden was not significantly associated with outcomes, and in fact, for gays/lesbians, the point estimates indicated decreased risk. This could be explained by the nature of the sample being comprised exclusively of sexual minorities who made it to college. A robust research base shows that sexual minorities have increased rates of bullying and victimization in high school, which confers greater risk for truancy and drop out.^{57–59} Thus, in this regard, sexual minorities in college may represent a unique group, in that they exhibited resiliency in the face of minority stressors like adolescent bullying, or they possibly avoided victimization (e.g., passing as heterosexual). Kimmel proffered a notion of *crisis competence* among sexual minorities, in that the adversity faced in negotiating and enduring homophobic and heterosexist challenges throughout the life course enables sexual minorities to handle subsequent challenges in their lives.⁶⁰ In terms of discrimination, the gay/lesbian young adults in this sample may exhibit resiliency in the face of discrimination.

An alternate explanation could be that the college setting is one in which students have a more supportive environment for sexual minorities.⁶¹ While some research points out that sexual minority college students still face homophobia, the formation of identity, finding sexual minority communities, and the ability to interact with other sexual minority peers – for some, perhaps for the first time – may provide buffers against negative experiences such as discrimination.^{62, 63}

Conversely, bisexuals in this sample seemed to exhibit the worst risk profile of all groups, and more stressors – including discrimination – were associated with the three outcomes among this group. Zinik offered a concept of a *double closet* framework that may help in understanding elevated risk profiles among bisexuals, in that they must keep secret their homosexual activities/attractions/relationships from their heterosexual social groups, and do the converse with their homosexual social groups.⁶⁴ Other hypotheses for bisexuals' increased risk behaviors could stem from lack of a defined community or positive collective identity, potentially stemming from the aforementioned marginalization.^{65, 66} Many studies have combined bisexuals with gays/lesbians, and the current results, coupled with other recent studies of bisexuals' poorer health outcomes and risk behaviors, lend support for future work to strive for nuanced studies of the groups separately.⁶⁷

Discrimination notwithstanding, some stressors (i.e., physical assault and intimate partner violence) were associated with self-injury and suicidal ideation among gays/lesbians, but none were associated with suicide attempts in this sample. These results suggest that etiology of suicide attempt in this group may be a more nuanced constellation of risks, with stressors operating in different ways. Additionally, we controlled for any mental illness diagnosis and treatment in order to assess the independent association of stressors. Although collinearity was not a problem in the models, it is quite possible that stressors have moderating relationships with psychiatric problems, and thus are circuitously associated with suicide attempts.

Limitations

Several limitations are noted in light of these findings. First, being a cross-sectional survey, no statements of causation can be made between the variables and outcomes in this sample. Second, although random and census samples comprise the national datasets, these samples came first from a convenience sample of institutions that elected to administer the NCHA. As such, there may be selection bias in which schools opt to participate and we cannot generalize the findings to the national universe of college students. Third, our measures of victimization and discrimination were not specific to sexual minority status, that is whether the respondent thought that s/he was victimized because of his/her sexual orientation. This non specificity may account for the lack of association of stressors with suicide attempts among the gays/lesbians. Rotheram-Borus and colleagues noted that gay-related stressors, and not general stressors, were associated with attempted suicide in their sample of gay and bisexual adolescents and young adults.⁶⁸ Furthermore, the operational definition of outcomes was limited in that those who indicated no self-injurious behaviors, suicide attempt, ideation in the last 12 months could include respondents who may have engaged in the behavior but not in the last 12 months (i.e., ever engaged in the behavior). Unfortunately, the survey item did not have a response option to collect this information, which may be key to identify periods of risk. Another limitation regarding our sexual minority sample is that we adjusted for sex in our models, thus precluding our ability to assess how stressors may operate differently among gay men and lesbians and bisexual men and women.

Additionally, only one survey item was able to assess discrimination, which is unfortunate given the challenges in operationalizing discrimination even when using multi-item inventories.⁶⁹ Moreover, the measures used were singular items, which limits our ability to assess whether they reliably or validly captured potentially multidimensional variables (e.g., family problems). Finally, as noted previously, this college-attending sample of sexual minorities, despite still exhibiting significantly higher prevalence of suicidal behaviors than heterosexuals, cannot be held as generalizable to all sexual minorities. In the face of a society in which homophobia persists, these participants were resilient enough to make it to college, suggesting that our findings are likely underestimates of the true level of discrimination and victimization experienced by sexual minorities.

Conclusions

The results from this project offer insight for college health programs aimed at preventing suicide, with particular attention to underserved groups experiencing disproportionately high prevalence of risk factors. First, our results show that sexual minority status is not an independent risk factor for suicide attempts among sexual minorities, rather actual conference of risk likely comes through socially-based stressors – a finding similar to a recent study of sexual minority adults by House and colleagues.²⁰ It is clear that, given higher prevalence of suicidal behaviors, suicide prevention and outreach efforts need to be tailored and targeted to sexual minority students. However, at the same time, outreach should focus on actual, mutable risk factors for suicide that unfortunately happen to occur disproportionately more frequently among sexual minorities (e.g., physical assault). To be sure, there are unique challenges faced by sexual minorities, however it should be made clear that having a sexual minority identity is not, by itself, a risk factor associated with a higher probability of engaging in suicidal behavior.

Secondly, intimate partner violence was associated with all suicidal behaviors across all groups, save suicide attempts among gays/lesbians. In the burgeoning independence of young adulthood, many college students are also learning to forge intimate relationships within a context newly free from parental or teacher oversight (i.e., the context of many dating relationships in high school). Suicide prevention programs may need to screen for

intimate partner violence to assure that 1) the patient is not placed back into a dangerous situation, 2) an abusive partner is not mistakenly cited as a source of social support for the patient, and 3) referral to additional services can be offered to a patient.

Additionally, bisexual students seem to experience socially-based stressors at estimates even higher than their gay/lesbian counterparts. The unique problems, issues, and strengths among bisexual populations is a relatively nascent field. Given the theorized double stress that bisexuals may feel due to skepticism of their bisexuality (e.g., the belief that bisexuals are undecided about their sexual orientation, that they are sexually promiscuous or opportunistic, or they are simply afraid to admit their “true” homosexuality), bisexually identified students may be at particularly heightened risk for potentially traumatic events. Our findings lend support to this notion inasmuch as bisexuals reported more sexual assault, physical assault, and intimate partner violence than their heterosexual and gay/lesbian peers.

In closing, more research is needed to examine the heterogeneity within sexual orientation groups. We present results for gays/lesbians and bisexuals separately here, yet analyses examining risks by gender and race are needed to explore how the intersections of identities (e.g., being an African American, female bisexual) may interact positively or negatively with health risk behaviors, a concept known as intersectionality.⁷⁰ Methodologically, the urgent need continues for inclusion of sexual orientation measures on large, probability-based national samples so researchers have the data through which to explore these critical issues. Finally, while suicide is a major cause of death, it is a rare outcome that is not well understood. In Hemingway's *A Farewell to Arms*, the protagonist, Frederic Henry, muses, “The world breaks everyone and afterward many are strong at the broken places.”⁷¹(p.249) For all the resources devoted to identifying the “broken places” among populations disproportionately burdened with high rates of suicidal behavior (as this present study has done with sexual minorities), equal attention and resources should be put into identifying key points of resiliency – the strong places – among young sexual minorities.

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Table 1

Sample characteristics, by sexual orientation

	<u>Sexual Orientation</u>		
	Gay/Lesbian n(%)	Bisexual n(%)	Heterosexual n(%)
<u>Sex</u>			
Female	683 (37.9)	1,925 (76.9)	2,818 (65.9)
Male	1,117 (62.1)	578 (23.1)	1,455 (34.1)
<u>Race/Ethnicity</u>			
White (non-hispanic)	1,273 (69.8)	1,761 (69.2)	3,216 (75.1)
Black (non-hispanic)	127 (7.0)	141 (5.5)	204 (4.8)
Hispanic	160 (8.8)	168 (6.6)	243 (5.7)
Asian/Pacific Islander	158 (8.7)	206 (8.1)	437 (10.2)
Other	44 (2.4)	95 (3.7)	89 (2.1)
Age (Mean)	20.3	20.2	20.2

Note: Percentages may not add to 100% due to rounding and missing data.

Table 2

Prevalence of Victimization and Suicidal Behaviors, by Sexual Orientation

	Sexual Orientation		
	Gay/Lesbian	Bisexual	Heterosexual^I
	% (95%CI)	% (95%CI)	% (95%CI)
<u>Victimization</u>			
Physical Assault	5.5 (4.5–6.6)	8.8 (7.7–10.0) *	5.3 (4.6–6.0)
Intimate Partner Violence (IPV)	15.5 (13.8–17.2) *	19.6 (18.1–21.2) *	10.4 (9.4–11.3)
Sexual Assault	11.3 (9.9–12.8) *	16.1 (14.7–17.6) *	7.8 (7.0–8.6)
Family Problems	35.1 (32.9–37.2) *	41.8 (39.9–43.7) *	26.8 (25.5–28.1)
Discrimination	37.4 (35.2–39.6) *	19.5 (17.9–21.0) *	4.2 (3.6–4.8)
<u>Suicidal Behaviors</u>			
Intentional Self-harm	12.6 (11.0–14.1) *	20.4 (18.9–22.0) *	4.9 (4.2–5.5)
Suicide Ideation	15.0 (13.3–16.6) *	21.0 (19.4–22.6) *	5.5 (4.8–6.2)
Suicide Attempt	3.3 (2.5–4.2) *	4.6 (3.7–5.4) *	0.9 (0.6–1.2)

^I Reference category for pair-wise comparisons*
p<.05

Table 3

Adjusted Odds Ratios of Suicidal Behaviors, by Sexual Orientation

	Sexual Orientation		
	Gay/Lesbian	Bisexual	Heterosexual
	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)
<u>Intentional Self Harm</u>			
Physical Assault	2.15 (1.26–3.67) *	2.01 (1.42–2.85) *	1.51 (.90–2.51)
Intimate Partner Violence (IPV)	1.89 (1.28–2.80) *	1.46 (1.12–1.90) *	2.18 (1.49–3.18) *
Sexual Assault	1.67 (1.07–2.60) *	1.35 (1.02–1.79) *	2.07 (1.37–3.12) *
Family Problems	1.30 (.93–1.82)	1.44 (1.15–1.81) *	1.37 (.99–1.90)
Discrimination	.98 (.70–1.38)	1.37 (1.05–1.78) *	1.67 (.91–3.07)
<u>Suicide Ideation</u>			
Physical Assault	1.92 (1.15–3.22) *	1.79 (1.26–2.55) *	1.28 (.78–2.10)
Intimate Partner Violence (IPV)	1.64 (1.13–2.38) *	1.41 (1.08–1.84) *	2.38 (1.65–3.42) *
Sexual Assault	1.12 (.73–1.72)	1.55 (1.18–2.04) *	1.33 (.86–2.07)
Family Problems	2.16 (1.60–2.92) *	1.85 (1.47–2.31) *	1.86 (1.36–2.53) *
Discrimination	.93 (.68–1.26)	1.36 (1.04–1.77) *	1.29 (.70–2.38)
<u>Suicide Attempt</u>			
Physical Assault	1.50 (.59–3.79)	2.24 (1.30–3.86) *	2.07 (.84–5.12)
Intimate Partner Violence (IPV)	1.94 (.95–3.93)	1.74 (1.08–2.79) *	3.86 (1.75–8.51) *
Sexual Assault	.99 (.43–2.27)	1.23 (.75–2.04)	1.28 (.49–3.38)
Family Problems	1.09 (.59–2.01)	1.72 (1.09–2.69) *	1.32 (.62–2.82)
Discrimination	.64 (.34–1.22)	1.22 (.75–1.97)	1.56 (.46–5.27)

Note: AOR= adjusted odds ratio; CI=confidence interval

All models adjusted for age, sex, race, mental health diagnosis/treatment, and stress

*
p<.05