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Differences in Adolescent Experiences of Polyvictimization and Suicide Risk by Sexual Minority Status

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Abstract

Sexual minority adolescents (SMA) report more suicide risk behaviors than heterosexual adolescents. Polyvictimization (co-occurrence of multiple types of victimization) may be an important, underresearched correlate of this disparity. With the 2017 national Youth Risk Behavior Survey ($N = 13,179$), national estimates of polyvictimization and suicide risk were assessed among high school students by sexual minority status (SM vs. heterosexual), and multivariate relationships between sexual minority status, polyvictimization, and suicide risk were tested. Additionally, risk profiles of those who experienced polyvictimization (2 + types of victimization; $n = 1,932$) were compared across sexual minority status. Results confirm that SMA are more likely to experience polyvictimization than heterosexual adolescents (31.8% v. 12.9%, respectively); however, also indicate that polyvictimization does not fully explain elevated suicide risk among SMA.

INTRODUCTION

Suicide is the second leading cause of death among adolescents (NCHS, 2017). The risk of suicide is even higher for sexual minority adolescents (e.g., youth who identify as lesbian, gay, bisexual, or another nonheterosexual identity; SMA), who report more suicide risk behaviors than heterosexual adolescents (CDC DASH, 2018; Russell, 2003): 47.7% of lesbian, gay, or bisexual (LGB) adolescents report seriously considering suicide in the last year, compared to 13.3% among heterosexual adolescents, and LGB adolescents are also

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more likely than heterosexual adolescents to report a suicide attempt resulting in injury, poisoning, or overdose that was treated by a doctor or nurse (CDC DASH, 2018). These differences have largely been attributed to minority stress, or the effect sexual stigma directed toward sexual minorities takes on physical and mental health (Burton et al., 2013; Frost, Lehavot, & Meyer, 2015; Herek, 2009; Meyer & Frost, 2013; Zaza et al., 2016). Sexual stigma presents as external stressors (i.e., violence, discrimination, harassment) and internal stressors (i.e., concealment, internalized homophobia/biphobia) (Frost et al., 2015; Meyer & Frost, 2013). One dimension of minority stress believed to be a key contributor to suicide risk among SMA is violence victimization (Kaufman et al., 2019).

The link between violence, psychological distress, and suicide risk for adolescents is well documented. Experiences of victimization are one of the most significant predictors of suicide risk during this developmental period (Kim & Leventhal, 2008; Klomek et al., 2010). Violence, abuse, and neglect in childhood and adolescence can lead to severe psychological distress which in turn can increase the likelihood of suicidal ideation (Boden et al., 2007; Brent, Baugher, Bridge, Chen, & Chiappetta, 1999; Chiu et al., 2013; Ports et al., 2016; Thompson et al., 2015). This link between violence victimization and suicide risk has been demonstrated among SMA: both cross-sectional and longitudinal research suggest violence victimization contributes to psychological distress and suicide risk among sexual minority youth (Bouris et al., 2016; Burton et al., 2013).

Adolescence can be a challenging period for youth who are out as or perceived to be sexual minorities. SMA report more violence victimization at the hands of parents, peers, and intimate partners than their heterosexual counterparts (CDC DASH, 2018; Kaufman et al., 2019). Furthermore, adolescents typically experience a reduction in peer bullying as they transition from childhood into adolescence; however, bullying related to sexual orientation appears to increase during mid- to late adolescence (Sterzing et al., 2018). This increase in bullying directed toward SMA during mid- to late adolescence may in part be due to the process of sexual identity development—many youth first experience and explore sexual attractions during this time period, which may include attractions to same and other sex partners (Diamond & Savin-Williams, 2009; Tolman & McClelland, 2011). As youth navigate expressing and exploring same sex attraction, they may face homophobic and biphobic backlash. In the 2017 National School Climate Survey, a national sample of LGBTQ youth, 70% of youth reported having been verbally harassed for their sexual orientation and 29% physically harassed for their sexual orientation (Kosciw et al., 2018).

Certainly, in comparison with heterosexual adolescents, SMA endure more victimization on nearly every measurable form of violence (Dank et al., 2014; Kann et al., 2016; Olsen et al., 2014; Perry et al., 2001; Zaza et al., 2016). National data indicate that 33.0% of LGB adolescents experience bullying at school, and 27.1% experienced electronic bullying in the past year, compared to 17.1% and 13.3% of heterosexual students, respectively (CDC DASH, 2018). With regard to dating violence, national estimates report that among LGB youth, 17.2% reported physical dating violence and 15.8% report sexual dating violence, compared to 6.4% and 5.5% of heterosexual youth, respectively (CDC DASH, 2018). Other school-based studies find that 23.2% of LGB adolescents report experiencing sexual coercion, compared to 12.3% of heterosexual adolescents (Dank et al., 2014). National

estimates also show that among LGB adolescents, 9.4% were threatened or injured with a weapon in the last year, and 21.9% were forced to engage in sexual intercourse, compared to 5.4% and 5.4% of heterosexual adolescents (Kann et al., 2016). In this context, evaluating the potential effects of *multiple* forms of violence on the psychological well-being of SMA is warranted, and yet, few studying minority stress processes have assessed the effects of concurrent experiences of victimization on suicide risk.

Polyvictimization (i.e., experiencing victimization across multiple domains, such as verbal, physical, and sexual) is a common frame used to understand the implications of enduring concurrent forms of violence (Finkelhor et al., 2007; Finkelhor et al., 2014), and arguably one that is underused when assessing experiences of victimization among SMA. Different types of victimization experiences share common upstream risk factors such as social stigma (e.g., homophobia, racism), family instability (e.g., parental maltreatment), and neighborhood disorder (e.g., high incidence of crime) (Herek, 2009; Perry et al., 2001; Turner et al., 2013). Subsequently, individuals at risk for one type of violence are often at risk for multiple types of violence (Finkelhor et al., 2014). Research that focuses on a single form of victimization can overemphasize its consequences by not accounting for other abuse or neglect experiences (Finkelhor et al., 2007). SMA, who contend with sexual identity related risk factors, such as sexual stigma and minority stress, are thus at risk for experiencing multiple types of victimization.

To date, polyvictimization is an underutilized framework for understanding how violence victimization presents among SMA. The few studies that do assess polyvictimization experiences with SMA provide information its prevalence, as well as its upstream risk factors (Schwab-Reese et al., 2018; Sterzing et al., 2019; Sterzing et al., 2017). An assessment of ADDHealth data found the prevalence of polyvictimization among sexual minority adolescents and young adults to be higher than their heterosexual peers (Schwab-Reese et al., 2018); however, the ADDHealth sample was in high school in the mid-1990s, and contemporary youth may be experiencing a different climate. An analysis of recent online survey data from 14- to 19-year-old sexual and gender minority adolescents found a lifetime polyvictimization prevalence of 41%, as well as some differences by gender within the sample, as transgender, genderqueer, and cisgender females reported a higher prevalence of polyvictimization than cisgender males (Sterzing et al., 2019). Another analysis from the same online dataset assessed upstream risk factors for polyvictimization among sexual and gender minority adolescents, finding genderqueer identity, family microaggressions, and peer aggression predicted elevated rates of polyvictimization (Sterzing et al., 2017). This nascent literature indicates that polyvictimization may be fruitful for understanding victimization within SMA; however, at this time, work comparing SMA's experiences with polyvictimization to their heterosexual peers has yet to be adequately explored in contemporary representative samples, nor has work been done to evaluate potential downstream consequences of polyvictimization for SMA, such as suicide risk. Furthermore, exploring how these relationships between sexual minority status, polyvictimization, and sexual identity may function differently for male and female youth has yet to be assessed.

As such, there remains a need to examine the prevalence of polyvictimization in SMA in comparison with heterosexual adolescents using current, representative data, and assess its

relationship to the elevated suicide risk of SMA. Such efforts may help shed light on the drivers of elevated suicide risk reported by this population (Kann et al., 2016; Russell, 2003)—polyvictimization may be an important, understudied contributor given the evidence that those who experience polyvictimization report more trauma and depression than those who experience one type of victimization (Ford, Elhai, Connor, & Frueh, 2010; Sabina & Straus, 2008). Additionally, this line of inquiry would enhance understanding of the mechanisms underlying the minority stress process (Frost et al., 2015; Meyer & Frost, 2013), underscoring that the health of SMA erodes through chronic victimization, not simply one time events. Using a nationally representative sample of adolescents in the United States in 2017, this analysis aims to (a) assess national prevalence estimates of polyvictimization among SMA as compared to heterosexual adolescents, (b) evaluate sexual minority status and cumulative victimization experiences as predictors of suicide risk in adolescence, (c) assess whether cumulative victimization experiences modify (i.e., amplifies) the relationship between sexual minority status and elevated suicide risk in adolescence, and (d) among those youth who experience polyvictimization, evaluate whether SMA and heterosexual adolescents experience different types of victimization and indicators of suicide risk.

METHODS

Study Design

The 2017 national Youth Risk Behavior Survey (YRBS) collected cross-sectional data on sexual orientation and health risk behaviors from a nationally representative sample of public and private high school students in grades nine through 12. The survey used a three-stage probability sampling methodology that has been previously described (Centers for Disease Control and Prevention, 2013). A weighting factor was applied to each student record to adjust for the varying probabilities of selection at each stage of sampling, student nonresponse, and oversampling of black and Hispanic students. The questionnaire was administered in the classroom during a regular class period by trained data collectors. Responses were recorded directly on computer-scannable questionnaire booklets or answer sheets. Student participation in the survey was anonymous and voluntary, and local procedures were used to obtain parental consent. The national YRBS received IRB approval from the Centers for Disease Control and Prevention.

Participants

The final analytic sample includes 13,179 students (see Table 1). 51.3% of the sample was female. 52.3% of the sample reported their race/ethnicity as White, 12.9% as Black, 24.1% as Hispanic or Latino, and 10.7% as another race. Consistent with other reports of YRBS data, youth of another race are included in all models, but not showcased in Table 1 due to the challenges of meaning making for such a heterogeneous group (Johns et al., 2017). The mean age of the sample was 16 years. 89.1% of the students identified as heterosexual, and 10.9% identified as sexual minorities (i.e., lesbian, gay, or bisexual).

Measures

Students were asked: “Which of the following best describes you?” Response options were the following: “heterosexual (straight), “gay or lesbian,” “bisexual,” and “not sure.” For

these analyses, heterosexual students were compared to sexual minority students (i.e., lesbian, gay, bisexual). Students who responded “not sure” were excluded from analyses ($n = 602$), as it remains unclear whether those responding “not sure” are unsure of their sexual identity or the question’s meaning. An attrition analysis demonstrated that not sure students were more likely to be female than the analytic sample ($\chi^2 = 22.94, p < 0.001$) but did not differ by age or race/ethnicity from students in the analytic sample.

Students were asked about six types of victimization: in the last 12 months, being threatened or injured with a weapon, physical dating violence, sexual dating violence, bullying at school, electronic bullying, and ever having experienced forced sex. Bivariate indicators (1 or more times vs. 0 times; yes vs. no) were created for each type of victimization. These indicators were summed together to create continuous *cumulative types of victimization* variable that indicated the total number of victimization items to which each participant reported “yes” (Range: 0–6). Then, a three-level categorical *polyvictimization* variable was created: *no victimization* (0 types), *single victimization* (1 type), and *polyvictimization* (2 + types).

Students were asked four questions about suicide risk, each for the last 12 months: persistent feelings of sadness/hopelessness, considered suicide, made a suicide plan, and attempted suicide. Responses to these questions were dichotomized as yes (1 or more times) vs. no (0 times). Consistent with other examinations of suicide risk, these outcomes were evaluated individually, as they reflect a scale of severity of suicidal ideation (Raifman et al., 2020; Turban et al., 2020).

Sex, age, and race/ethnicity were included as covariates in these analyses. Fifty-one percent of the sample was female, and 49% were male. The mean age of participants in this analysis was 16. Students were grouped into four racial/ethnic categories: White, non-Hispanic; Black, non-Hispanic; Hispanic or Latino (of any race); and other or multiple race/ethnicity. Fifty-two percent of participants identified their race/ethnicity as White, 13% as Black, and 24% as Hispanic or Latino. Students in the other or multiple race/ethnicity group were too few and heterogeneous for meaningful analysis; therefore, results for this group were not presented.

Statistical Analysis

The 2017 national YRBS had a school response rate of 75% and a student response rate of 81%, resulting in an overall response rate of 60% and a sample size of 14,765 students. The final complete-case analytic sample included 13,179 students. Analyses were done on weighted data to account for the surveys complex sampling design using STATA15. In addition to calculating overall prevalence estimates and 95% confidence intervals (CIs) for demographic characteristics and other study variables, bivariate analyses by SM status were calculated. Differences in prevalence estimates were tested using either chi-square or *t*-test statistics (Table 1). Odds ratios (ORs) for indicators of suicide risk were estimated using separate logistic regression models for SM status and cumulative types of victimization experiences and did not control for demographics. Adjusted odds ratios (aORs) were calculated using logistic regression models that included both SM status and types of victimization, controlling for demographic variables. In addition, models were tested for

interactions to see whether associations between indicators of suicide risk and types of victimization varied by SM status. Models were adjusted for age (continuous), sex (male, female), and race/ethnicity (white, non-Hispanic; black, non-Hispanic; Hispanic; other) (Table 2). Finally, logistic regression models were used to assess the differences between heterosexual and SMA for all suicide risk and victimization variables among those who reported polyvictimization ($n = 1,932$; Table 3). Both ORs and aORs are presented, with adjusted models controlling for age, sex, and race/ethnicity. Analyses were considered statistically significant if $p < .05$ or the 95% CI did not include 1.0. All models were done using complete-case analysis.

RESULTS

Sexual minority (SM) students on average reported experiencing more types of victimization than heterosexual students (1.1 experiences vs. 0.5)—this pattern held true among females (1.2 vs. 0.6) and males (1.0 vs. 0.4; Table 1). Additionally, SM students were more likely to report polyvictimization (2 + types of victimization) than heterosexual students (31.8% vs. 12.9%, respectively). This difference appeared among both females (32.4% vs. 17.2%) and males (30.0% vs. 9.1%).

The ORs for SM status and types of victimization were significantly associated with greater odds of all four suicide risk measures (i.e., persistent feelings of sadness/hopelessness, seriously considered attempting suicide, made a suicide plan, made a suicide attempt) (Table 2). In adjusted models, both SM status and types of victimization were independently associated with all four suicide risk measures. In adjusted models, the effect size of SM status on suicide risk appeared partially attenuated (i.e., a reduction in effect size), while types of victimization ORs appeared relatively unaffected. All patterns held true in the sex-stratified analyses (i.e., trends in statistical significance remained for both males and females).

There were two significant interactions between SM status and victimization experiences: seriously considered attempting suicide (aOR = 0.94) and made a suicide plan (aOR = 0.94). These aORs were less than 1.00, indicating that the relationship between victimization and these suicide risk behaviors was weaker for SM students than heterosexual students. In sex-stratified analyses, there were two significant interactions between SM status and victimization experiences for males (i.e., persistent feelings of sadness/hopelessness, aOR = 0.87; seriously considered attempting suicide, aOR = 0.79), and none for females, thus demonstrating the relationship between victimization and these suicide risk behaviors was weaker for SM males than for heterosexual males.

Among those who reported polyvictimization ($n = 1,932$), a few notable differences in the types of victimization reported by SM and heterosexual students emerged (Table 3). SM students had greater odds of experiencing forced sex than heterosexual students (aOR = 2.42)—a finding that was consistent for both males and females in sex-stratified analyses. Additionally, SM students were more likely to report experiencing physical dating violence (aOR = 1.42) but less likely to report experiencing electronic bullying (aOR = 0.68), than heterosexual students. In adjusted sex-stratified models, these differences were not detected.

With regard to suicide risk, SM students who experienced polyvictimization had higher odds of all four suicide risk behaviors than heterosexual students. In sex-stratified models, this pattern held true for almost every outcome, except for seriously considering attempting suicide where the aOR for SM status was statistically nonsignificant among males.

DISCUSSION

This analysis explored polyvictimization and suicide risk behaviors by sexual minority status in a national cohort of high school students. The results indicate that sexual minority students experience more types of victimization than heterosexual students, are more likely to experience polyvictimization than heterosexual students and that these patterns hold regardless of sex. These findings align with what is known about high rates of victimization among SMA (CDC DASH, 2018; Kann et al., 2016; Kosciw et al., 2018; Schwab-Reese et al., 2018) and the well-documented clustering of experiences of violence (Finkelhor et al., 2007, 2014). In demonstrating the disparate rates of polyvictimization among SMA in a contemporary nationally representative sample of high school students, these findings emphasize that polyvictimization among SMA is a problem that is both current and severe. SMA are not only more likely to experience particular *types* of violence than heterosexual adolescents (CDC DASH, 2018), but are more likely to experience concurrent or cumulative violence. This reality has serious implications for the health and well-being of SMA, as polyvictimization and cumulative victimization experiences are associated with psychological distress in the form of emotional dysregulation, panic attacks, anxiety, and depression (Anda et al., 2006; Cloitre et al., 2009). Furthermore, the discovery of disparate rates of polyvictimization among SMA supports the utility of framing research on victimization for this population not as multiple unique experiences of violence with individual effects, but rather as multiple types of concurrent victimization cumulatively contributing to negative outcomes (Finkelhor et al., 2007, 2014; Sterzing et al., 2017, 2019). Understanding victimization experiences concurrently can provide a more complete portrait of how victimization relates to suicide risk among SMA and may have implications for the structure of violence and suicide prevention interventions.

Both cumulative victimization experiences and sexual minority status were associated with elevated suicide risk in this sample. The relationship between victimization and suicide in the full sample is unsurprising, given its consistency with what is known about the role of victimization experiences as detrimental to adolescent mental health broadly (Ford et al., 2010; Sabina & Straus, 2008). The relationship between sexual minority status and suicide risk is similarly expected, as elevated rates of suicidality among SMA have been well documented (Kann et al., 2016; Raifman et al., 2020). Most notably for understanding the role of polyvictimization in SMA suicide risk, cumulative types of victimization experiences do appear to partially attenuate (i.e., account for) the relationship between sexual minority status and suicide risk among adolescents in the sample. This pattern of attenuation was consistent among both female and male students, and its presence across the sample lends further support to the minority stress hypothesis, which specifies that elevated suicide risk in sexual minority populations may be associated with stigma-related stressors such as violence and discrimination (Frost et al., 2015; Meyer & Frost, 2013).

Of course, cumulative victimization experiences did not fully attenuate the relationship between sexual minority status and suicide risk in this analysis. There are a few plausible explanations for this finding that are important to highlight. In the minority stress hypothesis, other stigma-related stressors not accounted for in this analysis are associated with SM populations' mental health (Meyer, 2003; Meyer & Frost, 2013). Internal stressors, such as needing to conceal one's sexual identity as part of managing safety concerns, or harboring negative feelings about one's sexual identity (e.g., internalized homophobia, biphobia), also appear to have demonstrable effects on the psychological distress levels of adolescents (Igartua et al., 2009; Meyer, 2003; Newcomb & Mustanski, 2010). Additionally, protective factors such as peer support, family acceptance, and antibullying policies each have a role to play in improving the well-being of SMA (Johns et al., 2018). Notably, the mental health of SMA may suffer when these relationships and structures are missing (Hatzenbuehler & Keyes, 2013; Ryan, Russell et al., 2010).

With regard to the few moderation effects of sexual minority status and cumulative types of victimization on suicide risk, the observed relationships again appeared to indicate that the strength of the association between victimization and suicide risk behaviors was weaker for SM high school students, particularly SM males, than for heterosexual high school students. This finding lends further support to the premise that unmeasured risk and protective factors specific to the experiences of SMA may shape the disparity in suicide risk by sexual minority status. While cumulative victimization experiences are a significant driver of suicide risk for heterosexual and sexual minority adolescents alike, victimization may be a more salient predictor of suicide risk for heterosexuals. Given that the interaction between sexual minority status and polyvictimization was significant for SM males but not for SM females in sex-stratified models, there may be reason to believe that suicide risk factors other than victimization experiences play a stronger role in the suicide risk of SM male adolescents than SM female adolescents. Future research would benefit from exploring these sex differences, which may illuminate sex-specific drivers for suicide among SM male and female adolescents, and thus enable suicide prevention programming to be better tailored to these differences.

The analyses that focused only on those students who experienced polyvictimization (i.e., 2 + forms of violence) revealed that the types of violence that sexual minority and heterosexual polyvictims experienced were similar, with two notable exceptions: sexual minority polyvictims reported more experiences of forced sex and experiences of physical dating violence than heterosexual polyvictims. Among this subsample of students experiencing polyvictimization, SMA did demonstrate a greater degree of suicide risk than heterosexual adolescents across all indicators, despite reporting exposure to similar types of violence. In sex-stratified models, this held true for female youth for every suicide risk indicator, and for male youth for three of the four indicators. These results continue to support our primary finding: For adolescents, SM status may have a relationship to suicide risk beyond what can be explained through polyvictimization alone or polyvictimization may be experienced differently for SMA and heterosexual adolescents. Certainly, the fact that sexual minority polyvictims experienced more forced sex, which is significantly related to mental distress and suicide (Dworkin et al., 2020), likely plays a substantial role in the elevated rates of suicide risk of SMA. Additionally, the polyvictimization that SMA

experience may qualitatively differ from that experienced by heterosexual adolescents, whether due to frequency, severity, or content (e.g., electronic bullying related to SM identity) (Russell, 2003). These differences may influence the degree of suicide risk among SMA in ways unaccounted for in this analysis. This distinction is critical, as it reinforces that polyvictimization may not be the only or most important risk factor for suicide among SMA. Researchers and practitioners working with SMA would benefit from thinking expansively about potential risk and protective factors that relate to suicide risk behaviors in SMA.

This study has a few limitations. First, YRBS data are cross-sectional. As such, causation between key predictors and outcomes cannot be inferred. Second, the measure of polyvictimization assessed whether students had experienced six different *types* of victimization but did not account for the frequency or severity of each instance of violence. Furthermore, types of victimization were given equal weight in the cumulative measure of polyvictimization. While this approach is consistent with others researching this topic (Finkelhor et al., 2014), it may mask the differential influence of particular types of violence on the individual (e.g., SV vs bullying). Additionally, the YRBS focuses on individual experiences and does not measure every form of victimization, particularly those happening in family systems or neighborhood environments (Ports et al., 2017). ACEs not measured in by YRBS may warrant consideration in future work on the link between polyvictimization and suicide risk among SMA. Finally, these data apply only to adolescents who attend school. SMA may be more likely to drop out or be absent from school; thus, estimates of polyvictimization and suicide risk may be conservative for SMA, as those most affected by these experiences may have left school.

These findings have important implications for addressing the high rates of victimization and suicide risk behaviors among SMA. For example, violence prevention programs seeking to reduce victimization of SMA may benefit from working to prevent multiple forms of violence early and simultaneously rather than approaching violence in a piecemeal fashion (e.g., solely antibullying, solely dating violence). Further, development of programs to build protective factors within families may prevent violence and adverse childhood experiences, as well as facilitate safe, stable, nurturing relationships and environments where all adolescents can thrive (Fortson et al., 2016). Additionally, teaching all adolescents social and emotional skills, such as communication, problem-solving, conflict resolution, and bystander skills, can reduce the risk of violence perpetration and could be used to improve environments for sexual minority youth (Basile et al., 2016; David-Ferdon et al., 2016; Niolon et al., 2017).

Violence prevention programs designed for adolescents broadly likely need adaptation to meet the specific needs of SMA. For example, antibullying and harassment policies may benefit from explicit articulation of a zero-tolerance policy for bullying and harassment directed toward sexual minority youth (Johns et al., 2019). Parenting programs designed to enhance parenting skills and promote healthy child development could be enhanced by incorporating elements that increase parental acceptance of SMA and reduce potential victimization in the family unit (Mills-Koonce et al., 2018; Ryan et al., 2010; SAMHSA, 2014). Programs to reduce peer victimization could be strengthened by inclusion of content

designed to create a welcoming space for sexual minority youth (Johns et al., 2019). Further work to ensure these types of multipronged violence prevention approaches are relevant to the lived experiences of SMA may help prevent their experiencing polyvictimization.

Undoubtedly, violence prevention is an important part of suicide prevention for SMA; however, our results suggest that violence prevention alone is likely inadequate for ensuring the mental health of SMA. Alongside efforts to reduce violence directed at SMA and increase the inclusivity of the environments SMA occupy, comprehensive evidence-based suicide prevention delivered directly to SMA is needed (Ports et al., 2017; Stone et al., 2017). Importantly, such efforts need tailoring to speak to the lived experiences of SMA. For example, programs that teach coping and problem-solving skills as one critical suicide prevention strategy (Stone et al., 2017) might benefit from building in content related to coping with minority stress for SMA (Meyer & Frost, 2013). Activities that promote connectedness to peers, support adolescents in talking with trusted adults, and encourage help-seeking build protective factors are known to reduce suicide risk (Stone et al., 2017)—thus, encouraging SMA to engage in supportive prosocial activities like Genders and Sexualities Alliances (GSAs) (Davis et al., 2014; Hatzenbuehler et al., 2014) or training adults in schools to better support LGBTQ adolescents (American Psychological Association, 2016) may in turn have benefits for suicide risk reduction for SMA. Expanding the evidence base of empirically supported approaches to violence victimization and suicide prevention for SMA will be critical for ending these disparities in polyvictimization and suicide risk among adolescents.

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TABLE 1

Bivariate Distribution of Victimization, Suicide Risk, and Demographics by Sex and Sexual Minority Status Among High School Students—National Youth Risk Behavior Survey, 2017^a

	Total Sample (n = 13,179)			Females (n = 6,759)			Males (n = 6,420)		
	Hetero (n = 11,745)	Sexual Minority (n = 1,434)	p Value	Hetero (n = 5,670)	Sexual Minority (n = 1,089)	p Value	Hetero (n = 6,075)	Sexual Minority (n = 345)	p Value
Race/ Ethnicity, %									
White, non-Hispanic	52.3%	49.6%	.001**	52.8%	48.6%	.001**	51.9%	52.6%	.809
Black, non-Hispanic	12.9%	18.5%		12.6%	19.7%		13.3%	15.1%	
Hispanic or Latino	24.1%	21.1%		23.5%	20.7%		24.6%	22.4%	
Age, mean	16.0	16.0	.80	16.0	16.0	.86	16.1	16.0	.60
Victimization Experiences, %									
Threatened or Injured with a Weapon ^b	5.3%	9.2%	.000***	3.6%	7.4%	.000***	6.8%	14.5%	.001**
Forced Sex ^c	5.4%	21.7%	.000***	8.9%	23.7%	.000***	2.4%	15.6%	.000***
Dating Violence—Physical ^d	4.4%	12.2%	.000***	5.0%	12.8%	.000***	4.0%	10.0%	.001**
Dating Violence—Sexual ^e	3.8%	11.1%	.000***	6.5%	12.2%	.000***	1.4%	7.8%	.000***
Bullying—School Property ^f	17.1%	32.9%	.000***	20.5%	32.2%	.000***	14.2%	35.0%	.000***
Bullying—Electronic ^g	13.4%	26.9%	.000***	18.6%	28.4%	.000***	8.8%	22.4%	.000***
Cumulative Types of Victimization, mean	0.5	1.1	.000***	0.6	1.2	.000***	0.4	1.0	.000***
Victimization Level, %									
No Victimization	70.5%	42.9%	.000***	64.3%	42.0%	.000***	76.0%	45.5%	.000***
Singular Victimization ^h	16.7%	25.3%		18.6%	25.6%		15.0%	24.5%	
Polyvictimization ⁱ	12.9%	31.8%		17.2%	32.4%		9.1%	30.0%	
Suicide Risk, %									
Persistent Feelings of Sadness/ Hopelessness ^j	27.4%	62.9%	.000***	36.7%	68.8%	.000***	19.4%	45.5%	.000***
Seriously Considered Attempting Suicide ^k	13.3%	47.4%	.000***	16.9%	50.9%	.000***	10.1%	36.9%	.000***
Made a Suicide Plan ^l	10.3%	37.9%	.000***	12.8%	40.9%	.000***	8.2%	28.7%	.000***

TABLE 2

Logistic regression of sexual minority status and cumulative types of victimization on suicide risk behaviors among high school students—National Youth Risk Behavior Survey, 2017^a

	Total Sample n = 13,179			Females n = 6,759			Males n = 6,420		
	Unadjusted ^b OR (95% CI)	Model 1 ^c aOR (95% CI)	Model 2 ^d aOR (95% CI)	Unadjusted OR (95% CI)	Model 1 ^c aOR (95% CI)	Model 2 ^d aOR (95% CI)	Unadjusted OR (95% CI)	Model 1 ^c aOR (95% CI)	Model 2 ^d aOR (95% CI)
Persistent Feelings of Sadness/Hopelessness									
Sexual Minority	4.49 ^{****} (3.79, 5.33)	2.94 ^{****} (2.49, 3.47)	2.98 ^{****} (2.51, 3.55)	3.80 ^{****} (3.21, 4.50)	3.18 ^{****} (2.67, 3.79)	3.17 ^{****} (2.65, 3.78)	3.48 ^{****} (2.54, 4.76)	2.41 ^{****} (1.71, 3.41)	2.69 ^{****} (1.91, 3.79)
Cumulative Types of Victimization	2.29 ^{****} (2.11, 2.49)	2.13 ^{****} (1.96, 2.31)	2.15 ^{****} (1.97, 2.36)	2.23 ^{****} (2.02, 2.47)	2.17 ^{****} (1.96, 2.39)	2.15 ^{****} (1.92, 2.40)	2.15 ^{****} (1.95, 2.38)	2.09 ^{****} (1.90, 2.31)	2.17 ^{****} (1.95, 2.41)
Interaction ^e			0.96 (0.90, 1.03)			1.02 (0.94, 1.12)			0.87 [*] (0.77, 0.99)
Seriously Considered Attempting Suicide									
Sexual Minority	5.88 ^{****} (4.88, 7.09)	4.24 ^{****} (3.55, 5.06)	4.48 ^{****} (3.75, 5.35)	5.09 ^{****} (4.14, 6.25)	4.37 ^{****} (3.60, 5.32)	4.27 ^{****} (3.47, 5.26)	5.22 ^{****} (4.02, 6.77)	3.68 ^{****} (2.50, 5.41)	4.69 ^{****} (3.53, 6.24)
Cumulative Types of Victimization	2.18 ^{****} (2.02, 2.34)	2.00 ^{****} (1.88, 2.14)	2.05 ^{****} (1.92, 2.19)	2.01 ^{****} (1.85, 2.18)	1.92 ^{****} (1.77, 2.08)	1.90 ^{****} (1.73, 2.08)	2.28 ^{****} (2.06, 2.53)	2.20 ^{****} (2.00, 2.43)	2.37 ^{****} (2.14, 2.62)
Interaction			0.94 [*] (0.90, 0.99)			1.03 (0.95, 1.10)			0.79 ^{****} (0.71, 0.87)
Made a Suicide Plan									
Sexual Minority	5.29 ^{****} (4.37, 6.42)	3.75 ^{****} (3.05, 4.61)	4.03 ^{****} (3.34, 4.87)	4.73 ^{****} (3.76, 5.95)	3.94 ^{****} (3.12, 4.98)	4.09 ^{****} (3.26, 5.13)	4.52 ^{****} (3.24, 6.32)	3.15 ^{****} (2.05, 4.82)	3.62 ^{****} (2.44, 5.37)
Cumulative Types of Victimization	2.02 ^{****} (1.87, 2.17)	1.87 ^{****} (1.75, 2.00)	1.92 ^{****} (1.79, 2.06)	1.89 ^{****} (1.75, 2.03)	1.81 ^{****} (1.67, 1.95)	1.84 ^{****} (1.67, 2.01)	2.10 ^{****} (1.87, 2.35)	2.03 ^{****} (1.82, 2.27)	2.10 ^{****} (1.88, 2.35)
Interaction			0.94 [*] (0.90, 0.99)			0.97 (0.91, 1.03)			0.90 (0.79, 1.02)
Made a Suicide Attempt									
Sexual Minority	5.07 ^{****} (3.80, 6.76)	3.10 ^{****} (2.35, 4.10)	3.27 ^{****} (2.26, 4.72)	4.19 ^{****} (3.21, 5.48)	3.10 ^{****} (2.36, 4.07)	3.27 ^{****} (2.29, 4.67)	5.36 ^{****} (3.14, 9.14)	2.98 ^{****} (1.93, 4.60)	2.76 ^{****} (1.52, 5.03)
Cumulative Types of Victimization	2.26 ^{****} (2.09, 2.45)	2.13 ^{****} (1.98, 2.29)	2.16 ^{****} (1.95, 2.38)	2.07 ^{****} (1.89, 2.26)	2.02 ^{****} (1.85, 2.22)	2.06 ^{****} (1.83, 2.31)	2.54 ^{****} (2.22, 2.91)	2.43 ^{****} (2.13, 2.77)	2.40 ^{****} (2.11, 2.73)

	Total Sample n = 13,179		Females n = 6,759		Males n = 6,420	
	Unadjusted ^b OR (95% CI)	Model 1 ^c aOR (95% CI)	Model 2 ^d aOR (95% CI)	Model 1 ^c aOR (95% CI)	Model 2 ^d aOR (95% CI)	Model 1 ^c aOR (95% CI)
Interaction		0.98 (0.90, 1.06)	0.98 (0.89, 1.07)			1.04 (0.88, 1.22)

^a All continuous variables are standardized in models.

^b Unadjusted odds ratios are calculated using separate models for sexual minority status and cumulative victimization experiences and do not control for demographic variables.

^c Model 1 includes sexual minority status and cumulative types of victimization, along with sex, age, and race/ ethnicity.

^d Model 2 includes sexual minority status and cumulative victimization experiences, along with their interaction term, sex, age, and race/ ethnicity.

^e Interaction term in model refers to the sexual minority status by cumulative types of victimization.

* $p < .05$,

** $p < .01$,

*** $p < .001$.

TABLE 3

Logistic regression of sexual minority status on violence victimization and suicide risk behaviors among high school students experiencing polyvictimization (2 + types of victimization)—National Youth Risk Behavior Survey, 2017^a

	Total Sample n = 1,932		Females n = 1,267		Males n = 665	
	Unadjusted OR ^b (95% CI)	aOR ^c (95% CI)	Unadjusted OR (95% CI)	aOR (95% CI)	Unadjusted OR (95% CI)	aOR (95% CI)
<i>Violence Victimization</i>						
Threatened or Injured with a Weapon ^d						
Sexual Minority (<i>ref Het</i>)	0.91 (0.61, 1.34)	1.07 (0.72, 1.57)	1.27 (0.80, 2.01)	1.25 (0.78, 2.00)	0.86 (0.46, 1.60)	0.81 (0.46, 1.43)
Forced Sex ^e						
Sexual Minority (<i>ref Het</i>)	2.57 ^{***} (2.05, 3.21)	2.42 ^{***} (1.87, 3.14)	2.23 ^{***} (1.71, 2.92)	2.23 ^{***} (1.66, 3.00)	2.87 ^{**} (1.63, 5.07)	3.05 ^{***} (1.69, 5.49)
Dating Violence—Physical ^f						
Sexual Minority (<i>ref Het</i>)	1.40 [*] (1.03, 1.89)	1.42 [*] (1.03, 1.97)	1.46 (0.97, 2.18)	1.41 (0.92, 2.14)	1.32 (0.74, 2.38)	1.49 (0.80, 2.77)
Dating Violence—Sexual ^g						
Sexual Minority (<i>ref Het</i>)	1.48 (0.99, 2.21)	1.34 (0.88, 2.03)	1.17 (0.79, 1.72)	1.19 (0.79, 1.77)	2.23 (0.89, 5.56)	2.35 (0.86, 6.42)
Bullying—School Property ^h						
Sexual Minority (<i>ref Het</i>)	0.77 (0.54, 1.10)	0.77 (0.54, 1.11)	0.79 (0.55, 1.14)	0.80 (0.55, 1.18)	0.78 (0.36, 1.71)	0.70 (0.32, 1.52)
Bullying—Electronic ⁱ						
Sexual Minority (<i>ref Het</i>)	0.75 (0.55, 1.02)	0.68 [*] (0.49, 0.94)	0.68 [*] (0.48, 0.98)	0.70 (0.46, 1.05)	0.71 (0.36, 1.43)	0.67 (0.35, 1.29)
<i>Suicide Risk Behaviors</i>						
Persistent Feelings of Sadness or Hopelessness ^j						
Sexual Minority (<i>ref Het</i>)	3.62 ^{***} (2.42, 5.41)	3.36 ^{***} (2.34, 4.82)	4.48 ^{***} (2.82, 7.12)	4.48 ^{***} (2.80, 7.16)	2.07 [*] (1.08, 3.96)	2.29 ^{**} (1.25, 4.20)
Seriously Considered Attempting Suicide ^k						
Sexual Minority (<i>ref Het</i>)	3.81 ^{***} (2.82, 5.15)	3.69 ^{***} (2.75, 4.96)	5.05 ^{***} (3.60, 7.08)	5.08 ^{***} (3.61, 7.16)	1.65 (0.86, 3.19)	1.80 (0.93, 3.47)
Made a Suicide Plan ^l						
Sexual Minority (<i>ref Het</i>)	3.56 ^{***} (2.53, 5.02)	3.50 ^{***} (2.48, 4.93)	4.02 ^{***} (2.88, 5.60)	4.06 ^{***} (2.94, 5.61)	2.20 (0.99, 4.89)	2.43 [*] (1.12, 5.29)
Made a Suicide Attempt ^m						

	Total Sample n = 1,932		Females n = 1,267		Males n = 665	
	Unadjusted OR^b (95% CI)	aOR^c (95% CI)	Unadjusted OR (95% CI)	aOR (95% CI)	Unadjusted OR (95% CI)	aOR (95% CI)
Sexual Minority (ref/Her)	3.37 *** (2.40, 4.74)	3.44 *** (2.39, 4.94)	3.14 *** (2.24, 4.41)	3.29 *** (2.33, 4.64)	3.98 *** (2.11, 7.53)	4.47 *** (2.30, 8.71)

^a Statistically significant relationships designated by bold text. All continuous variables are standardized.

^b For OR, sexual minority status is regressed on outcome variable.

^c aOR adjusts for sex, age, and race/ethnicity.

^d Item reads, "During the past 12 months, how many times has someone threatened or injured you with a weapon such as a gun, knife, or club on school property?"

^e Item reads, "Have you ever been physically forced to have sexual intercourse when you did not want to?"

^f Item reads, "During the past 12 months, how many times did someone you were dating or going out with physically hurt you on purpose? (Count such things as being hit, slammed into something, or injured with an object or weapon.)"

^g Item reads, "During the past 12 months, how many times did someone you were dating or going out with force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse.)"

^h Item reads, "During the past 12 months, have you ever been bullied on school property?"

ⁱ Item reads, "During the past 12 months, have you ever been electronically bullied? (Count being bullied through texting, Instagram, Facebook, or other social media.)"

^j Item reads, "During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?"

^k Item reads "During the past 12 months, did you ever seriously consider attempting suicide?"

^l Item reads "During the past 12 months, did you make a plan about how you would attempt suicide?"

^m Item reads "During the past 12 months, how many times did you actually attempt suicide?"

* $p < .05$,

** $p < .01$,

*** $p < .001$