

# Exposure to Suicidal Behavior and Social Support Among Sexual- and Gender-Minority Youth

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abstract

**OBJECTIVES:** In this study, we examine reports of exposure to suicidal behavior by youth sexual and gender identity. We explore how exposure is related to depressed mood in the context of high social support while accounting for cumulative adversity.

**METHODS:** Data from a large national sample of youth aged 14 to 15 years in the United States ( $N = 3979$ ) were collected online in 2018–2019.

**RESULTS:** Sexual- and gender-minority youth were more likely to know someone close to them who attempted suicide, relative to cisgender heterosexual youth. Cisgender heterosexual youth were buffered from recent depressed mood when they endorsed having high social support in the context of exposure to suicidal behavior; less social support did not provide such a buffer. For cisgender sexual-minority male and female youth, exposure to suicidal behavior was related to recent depressed mood regardless of the level of social support. For gender-minority youth assigned female at birth, the combination of exposure and high social support was significantly associated with elevated depressed mood. Cumulative adversity accounted for some but not all of these relationships, indicating the influential role of exposure to suicidal behavior on depressed mood for some youth.

**CONCLUSIONS:** These findings illustrate the complexities of social support and raise questions about its potential to magnify stress rather than serve as a buffer for some youth. Although findings need to be replicated, suicide prevention efforts should carefully consider how to promote resilience among these suicide-exposed sexual- and gender-minority youth who may themselves be at risk for suicidal ideation and behavior.



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**WHAT'S KNOWN ON THIS SUBJECT:** Exposure to suicidal behavior may negatively impact youth in a variety of ways, including mental health. This is especially important to consider in the sexual- and gender-minority community, in which marginalized groups already experience elevated rates of trauma and adversity.

**WHAT THIS STUDY ADDS:** For sexual- and gender-minority youth, social support may not be universally protective. Suicide prevention should consider how to promote resilience among these youth who may be at risk for mental health outcomes after suicide exposure.

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Suicide, defined as injuring oneself with the intent to die,<sup>1</sup> is a significant public health issue. According to the Centers for Disease Control, in 2017, 1642 youth aged 13 to 17 years (7.85 per 100 000) died by suicide; and 87 236 (417.07 per 100 000) had a nonfatal self-harm injury.<sup>2</sup> Existing research indicates that many adolescents are exposed to suicidal behavior, including knowing someone who died by suicide or made a suicide attempt.<sup>3-7</sup> Indeed, 18% of adolescents nationally have had a friend who attempted suicide,<sup>8</sup> and 9% have had a schoolmate die by suicide<sup>9</sup> in the past 12 months. Emerging evidence also suggests that exposure to suicidal behavior may negatively impact youth, including higher risk for substance use,<sup>10,11</sup> personal suicidal ideation and attempts,<sup>10-18</sup> self-harm,<sup>17,19</sup> aggressive behavior,<sup>10,11</sup> and emotional distress.<sup>10,18,20,21</sup>

Understanding the psychosocial consequences of exposure to suicidal behavior is especially important to consider in the sexual- and gender-minority (SGM) community; lived experiences of these youth are often different from heterosexual youth because of stigma and discrimination.<sup>22</sup> Exposure to suicidal behavior may pose particular risk for such marginalized groups who already experience elevated rates of suicidal behavior<sup>23</sup> and associated risk factors, including depression,<sup>24,25</sup> substance use,<sup>24,26-28</sup> and victimization.<sup>29,30</sup> In addition, suicide prevention efforts among SGM youth have been less effective than those for heterosexual youth.<sup>31</sup>

One factor related to suicide risk among sexual-minority youth that may also be relevant to suicide exposure is social support. SGM youth have some unique stressors when it comes to social support compared to their heterosexual counterparts. Relationships with family can be disrupted for some SGM youth, particularly during the time period

around disclosure of their sexual identity.<sup>32,33</sup> This is critical because family support is an especially relevant and important source of support for this population, even when taking into account other sources of support, such as peers and significant others.<sup>34,35</sup> From a protective angle, SGM youth with social support (especially from parents) have less depressive symptoms and higher self-esteem, according to one study.<sup>36</sup> Research also suggests that peer social support can moderate negative family attitudes and anxiety, as well as the link between family victimization and depression.<sup>37</sup> Given the crucial role of social support for SGM youth,<sup>29,34,35,38-46</sup> understanding how suicide exposure impacts SGM youth and how support may moderate relationships between exposure to suicidal behavior and psychosocial functioning, including depressed mood, is a critical element to informing future effective prevention efforts for this population.

Using data from a national sample of youth aged 14 to 15 years, we examine exposure to suicidal behavior by sexual and gender identity. In this study, we also explore how exposure to suicidal behavior is related to depressed mood in the context of social support and cumulative adversity for SGM and heterosexual youth.

## METHODS

Growing up with Media is a national, longitudinal survey of youth designed to study sexual violence in adolescence.<sup>47,48</sup> In addition to the original cohort recruited in 2006, a cohort of 3979 new youth 14 to 15 years of age was recruited between October 2018 and August 2019, including an oversample of SGM youth to support subgroup analyses. Data from this new cohort comprise the analytic sample for the current article. Details of the demographic

characteristics of the analytic sample by exposure to suicidal behavior are provided in Table 1. Although not a representative sample, we compared sexual behavior for sexual-minority and cisgender youth, stratified by sex assigned at birth between this new cohort and data from the Youth Risk Behavior Survey (YRBS). In general, youth in the YRBS reported higher rates of ever having sex than youth in this analytic sample, whereas among youth who had ever had sex, more youth in the current sample reported recent sex compared to those in the YRBS sample. Thus, there was not a consistent pattern of bias. In comparison with 2019 census data, this analytic sample is similar to the child population in the United States in terms of race and ethnicity.<sup>49</sup>

Participants were recruited through study advertisements on social media, including Facebook and Instagram. Online ads encouraged youth to “have their voice heard” and “make a difference.” Survey aims were not mentioned to reduce self-selection bias based on interest in a particular topic. Those interested clicked on the online advertisement, which linked them to a secure survey Web site. The first page provided a study description and contact information for study staff. On the subsequent pages, youth were asked screening questions to determine eligibility. Those who were eligible (ie, 14–15 years of age, living in the United States, and English or Spanish speaking) were then asked to read an assent form and to indicate their willingness to participate in the survey before continuing with the main survey. We requested and were granted a waiver of parental permission for these youth, primarily because requiring parental consent could potentially place youth in situations in which their sexual experiences and/or sexual attraction could be unintentionally disclosed to their parents. In some families, this could pose physical or emotional

**TABLE 1** Characteristics of Youth by Lifetime Exposure to Suicidal Behavior

Characteristic	Subgroup, <i>n</i>	No Exposure to Suicidal Behavior, <i>n</i> = 2057, % ( <i>n</i> )	Exposure to Suicidal Behavior, <i>n</i> = 1922, % ( <i>n</i> )	$\chi^2$ <i>P</i>
<b>Gender and sexual identity</b>				
Cisgender heterosexual male	641	68.5 (439)	31.5 (202)	<.001
Cisgender sexual-minority male	805	59.0 (475)	41.0 (330) <sup>a</sup>	—
Cisgender heterosexual female	801	55.2 (442)	44.8 (359) <sup>a</sup>	—
Cisgender sexual-minority female	850	44.0 (374)	56.0 (476) <sup>a,b,c</sup>	—
Gender minority AMAB <sup>d</sup>	108	49.1 (53)	50.9 (55) <sup>a,b</sup>	—
Gender minority AFAB <sup>d</sup>	737	33.9 (250)	66.1 (487) <sup>a,b,c,e,f</sup>	—
<b>Race and ethnicity</b>				
White	2669	51.3 (1369)	48.7 (1300)	.007
African American	214	58.9 (126)	41.1 (88) <sup>g</sup>	—
Mixed racial background	547	46.3 (253)	53.7 (294) <sup>g,h</sup>	—
Other race	435	54.3 (236)	45.7 (199) <sup>i</sup>	—
Hispanic and/or Latino ethnicity (any race)	846	53.4 (452)	46.6 (394)	.26
<b>Family income</b>				
Lower than average family	931	39.1 (364)	60.9 (567)	<.001
Similar to average family	2170	53.1 (1152)	46.9 (1018) <sup>j,k</sup>	—
Higher than average family	741	60.9 (451)	39.1 (290) <sup>j,k</sup>	—
Decline to answer	137	65.7 (90)	34.3 (47) <sup>j,k</sup>	—
<b>Child age, y</b>				
14	1507	51.1 (770)	48.9 (737)	.55
15	2472	52.1 (1287)	47.9 (1185)	—

Row percentages. Numbers that do not add to column totals are due to missing demographic data. —, not applicable.

<sup>a</sup> Significantly different from cisgender heterosexual male youth.

<sup>b</sup> Significantly different from cisgender sexual-minority male youth.

<sup>c</sup> Significantly different from cisgender heterosexual female youth.

<sup>d</sup> Includes youth who identify their gender as transgender, gender queer, nonbinary, pangender, questioning, unsure, and some other identity. Gender-minority youth were not further categorized by their sexual identity because only a few (*n* = 8, 4.0%) identified as heterosexual, thereby resulting in unstable analytical cells.

<sup>e</sup> Significantly different from cisgender sexual-minority female youth.

<sup>f</sup> Significantly different from gender-minority AMAB youth.

<sup>g</sup> Significantly different from white youth.

<sup>h</sup> Significantly different from Black youth.

<sup>i</sup> Significantly different from mixed-race youth.

<sup>j</sup> Significantly different from lower than average family.

<sup>k</sup> Significantly different from similar to average family.

danger for the child. A waiver also is necessary to avoid fatal sampling bias in the SGM sample that would occur by only including those who are out to their parents.<sup>50</sup> Our protocol met the requirements for 45 Code of Federal Regulations 46 116.(f) and 45 Code of Federal Regulations 46.408(c). Appropriate mechanisms were in place to protect the youth, such as localized referrals to mental health supports. The protocol was reviewed and approved by Pearl Institutional Review Board.

Participants were given a \$15 incentive as an Amazon gift card for completing the survey. Ineligible youth were directed to a Web page that included links to general resources for youth (eg, <https://youngwomenshealth.org>). To

promote a diverse sample, demographic quotas were identified. Once the targeted number of youth in a particular group had been achieved (eg, white, non-Hispanic, cisgender girls), subsequent youth in this group who were otherwise eligible were deemed ineligible.

## Measures

### *Sexual and Gender Identity*

To measure gender identity, participants were first provided with the following question and definition: “What is your gender? Gender refers to cultural values (roles, behaviors, activities, and attributes) that a society associates with males and females. Gender also refers to how one defines oneself. For many people, there isn’t a difference between these

terms, but for some people, their gender is different from their biological sex. Biological sex is determined by our chromosomes, our hormones, and reproductive organs. Typically, we are assigned the sex of male or female at birth.” Response options were (1) male; (2) female; (3) female to male, transgender male, and trans man; (4) male to female, transgender female, and trans woman; (5) gender queer, nonbinary, and pangender; (6) other (specify); (7) I don’t understand this question; and (8) decline to answer.

Sexual identity was measured with the following question: “Below is a list of terms that people often use to describe their sexuality or sexual orientation. How would you describe your sexuality or sexual orientation?”

Please select all that apply." Response options included gay, lesbian, bisexual, straight/heterosexual, questioning, queer, pansexual, asexual, other (specify), unsure, and decline to answer. Participants were allowed to endorse multiple options.

Youth were categorized into 1 of 6 groups on the basis of their sexual and gender identities: (1) cisgender heterosexual male, (2) cisgender sexual-minority male, (3) cisgender heterosexual female, (4) cisgender sexual-minority female, (5) gender minority assigned male at birth (AMAB), and (6) gender minority assigned female at birth (AFAB). Cisgender refers to people who identify their gender as the same as the sex they were assigned at birth. Although the focus on this article is exposure to suicidal behavior among SGM youth, we include cisgender heterosexual male and female youth for comparison purposes.

#### *Exposure to Suicidal Behavior*

Youth were asked, "has someone close to you ever tried to kill him or herself on purpose (like by shooting or cutting him or herself or taking too many pills or drugs)?" Response options were yes, no, or decline to answer. Decline to answer responses (2.1%) were conservatively coded as no.

#### *Nonvictimization Adversity*

We measured nonvictimization adversity using 9 items, including lifetime exposure to nonviolent traumatic events (serious illnesses, accidents, and parental imprisonment) and chronic stressors (substance abuse by family members and homelessness).<sup>51,52</sup>

#### *Cumulative Victimization*

Following the polyvictimization literature,<sup>53</sup> cumulative victimization was assessed as a summary measure of the total number of different victimization types (of a possible 42) across 8 domains: sexual harassment

(9 items), theft (1 item), assault (2 items), peer victimization (6 items), sexual victimization (4 items), emotional dating violence (4 items), physical dating violence (7 items), and witnessing violence (9 items) (range: 0–41, mean = 5.6, SD = 7.3).

#### *Depressed Mood*

Youth were asked an item developed for the study: "In the last month, was there ever a time of two weeks or longer when you were feeling unhappy, bummed out, depressed, or down most of the day or nearly every day?" Response options were no, yes, and not sure. Not sure (8.3%) and decline to answer (1.1%) responses were conservatively recoded as symptom absent. Indicators of depressed mood have been found to be a strong indicator of clinical depression in children and adolescents.<sup>54</sup>

Social support<sup>55</sup> was measured with 8 items (eg, "I have a special person who is around when I am in need," and "I have a special person who is a real source of comfort to me."). The response options ranged from very strongly disagree (1) to very strongly agree (7). Missing data were no higher than 1.9% and were replaced with individual item means.

Reliability for the entire scale was excellent ( $\alpha = .93$ ). Items were summed and then dichotomized at 1 SD about the mean, with a positive value indicating high social support and a negative value indicating less support. This allowed for the creation of 4 groups for comparison purposes: (1) no suicidal behavior exposure + less support, (2) no suicidal behavior exposure + high support, (3) suicidal behavior exposure + less support, and (4) no suicidal behavior exposure + high support.

#### *Demographic Characteristics*

For multivariate analyses, age was included as a categorical variable given the small age range: 14 to 15 years old. Self-reported household

income comprised 3 answer choices: lower than average, about average, and higher than average. For multivariate analyses, those who indicated their family income was lower than average were compared with all other youth. Youth reported their race (coded as white versus other for multivariate analyses) and ethnicity (coded as Hispanic versus other).

#### *Data Analysis*

First, we compared youth characteristics (eg, sexual and gender identity, race, and ethnicity) by exposure to suicidal behavior using  $\chi^2$  crosstabulations, with pairwise comparisons within characteristics. Next, we examined other nonvictimization adversity experiences by exposure to suicidal behavior (see Supplemental Table 4), as well as adversity experiences and total adversity count by sexual and gender identity, using  $\chi^2$  statistics and mean comparisons (see Supplemental Table 5). Next, we compared reports of exposure to suicidal behavior, high social support, the interaction of exposure to suicidal behavior and high social support ( $2 \times 2 = 4$  groups: [1] no suicidal behavior exposure/less support, [2] no suicidal behavior exposure/high support, [3] suicidal behavior exposure/less support, and [4] suicidal behavior exposure/high support); total nonvictimization adversity count (mean and SE); total victimization count (mean and SE); and depressed mood by sexual and gender identity using  $\chi^2$  crosstabulations and mean difference tests. Post hoc pairwise comparisons across sexual and gender identity subgroups were also conducted. Finally, to better understand how exposure to suicidal behavior relates to the depressed mood of youth, for each sexual and gender identity subgroup, the association between the interaction of exposure to suicidal behavior and social support with depressed mood was examined by using logistic



regression procedures (with no suicidal behavior exposure/less support as the comparison group). In model 1, we display the associations, adjusting for age, race, ethnicity, and low income; in model 2, we display the associations, further adjusting for total adversity and cumulative victimization to understand how these experiences moderate any existing relationships.

## RESULTS

### Youth Characteristics by Exposure to Suicidal Behavior

Reports of lifetime exposure to suicidal behavior ranged from a low of 31.5% for cisgender heterosexual male youth to a high of 66.1% for gender-minority AFAB youth (Table 1). Indeed, all SGM youth were significantly more likely to have someone close to them engage in suicidal behavior than cisgender heterosexual male youth. Exposure to suicidal behavior also varied by race: more youth who identified as mixed race reported exposure to suicidal behavior (53.7%) than youth who identified as any other race. Youth who had been exposed to suicidal behavior were more likely to live in homes with a lower-than-average family income (60.9%) compared to youth living in homes with higher-than-average family incomes (39.1%) and similar-to-average family incomes (46.9%).

### Depressed Mood and Social Support by Sexual and Gender Identity

Overall, 14.3% of all youth reported having high social support, with no differences across sexual and gender identities (Table 2). Differences in high social support within the context of exposure to suicidal behavior were seen across identity however ( $P < .001$ ). Youth who reported exposure to suicidal behavior but had less social support ranged from 26.7% for cisgender heterosexual male youth to 57.5% for gender-minority AFAB

youth. Exposure to suicidal behavior by youth who had high social support ranged from 4.8% for cisgender heterosexual male youth to 13.9% for gender-minority AMAB youth.

Compared to cisgender heterosexual male youth, more youth with each of the other sexual and gender identities reported recent depressed mood (Table 2). Gender-minority AFAB youth had the highest reports of depressed mood (85.7%). Overall, the number of nonvictimization adversity experiences also significantly differed by sexual and gender identity ( $P < .001$ ), as did cumulative victimization ( $P < .001$ ), with the highest counts reported by gender-minority AFAB youth.

### The Relationship Between the Interaction of Exposure to Suicidal Behavior and Social Support With Depressed Mood

The association between the interaction of exposure to suicidal behavior and social support with depressed mood across each sexual and gender identity subgroup separately are depicted in Table 3. Youth with no exposure to suicidal behavior but with high social support did not have elevated odds of depressed mood compared with youth with no exposure and less support. This was true regardless of identity. Across all sexual and gender identity groups, exposure to suicidal behavior with less social support was associated with elevated odds of depressed mood compared to no exposure/less support. Cisgender heterosexual male and female youth with exposure to suicidal behavior and high social support did not have elevated odds of depressed mood. For cisgender sexual-minority male and female youth with this combination of exposure to suicidal behavior and high social support, we saw elevated odds of depressed mood compared to no exposure/less support youth. For gender-minority AFAB youth, we found the combination of exposure to

suicidal behavior and high social support resulted in higher odds of depressed mood (adjusted odds ratio [aOR] = 8.09;  $P = .005$ ) than that seen with suicidal exposure and less social support (aOR = 2.20;  $P = .001$ ). When we further adjusted for cumulative adversity and victimization, some groups of youth continued to have elevated odds of depressed mood: cisgender sexual-minority male youth with less support, cisgender sexual-minority female youth with less support as well as those with high support, and cisgender heterosexual male youth with less support. For gender-minority AFAB youth, those with suicide exposure and high support continued to have elevated odds of depressed mood (but not those with less support). For gender-minority AMAB youth, the power to detect effects was limited because of a small sample size.

## DISCUSSION

The current study indicates that many young teenagers have someone they are close to who has tried to kill themselves. Being exposed to suicidal behavior was related to higher levels of recent depressed mood across all groups of youth in the current study at the bivariate level. This relationship was particularly strong for SGM youth and persisted even after taking into account other adversity and victimization experiences. These findings alone suggest SGM-inclusive prevention efforts are needed, in addition to broader environmental changes, to address adversity stress burden.

When taking a deeper look at the intersection of exposure to suicidal behavior and social support, results are complex. Cisgender heterosexual youth were buffered from recent depressed mood when they perceived themselves to have high social support in the context of exposure to suicidal behavior; less social support did not provide such a buffer. For

**TABLE 2** Bivariate Relationships Between Exposure to Suicidal Behavior and Social Support by Sexual and Gender Identity

Constructs	All Youth, N = 3979	Cisgender Heterosexual Male Youth, n = 641	Cisgender Sexual-Minority Male Youth, n = 805	Cisgender Heterosexual Female Youth, n = 801	Cisgender Sexual- Minority Female Youth, n = 850	Gender- Minority AMAB <sup>a</sup> Youth, n = 108	Gender- Minority AFAB <sup>a</sup> Youth, n = 737	$\chi^2$ P
High social support, % (n)	14.3 (567)	14.3 (92)	14.0 (113)	15.5 (124)	14.0 (119)	19.4 (21)	12.9 (95)	.47
Interaction of exposure to suicidal behavior and social support, % (n)								
No exposure and less support	44.5 (1772)	59.0 (378)	51.1 (411) <sup>b</sup>	46.7 (374) <sup>b</sup>	38.0 (323) <sup>b,c,d</sup>	43.5 (47) <sup>b,c</sup>	29.6 (218) <sup>b,c,d,e,f</sup>	<.001
No exposure and high support	7.2 (285)	9.5 (61)	7.9 (64)	8.5 (68)	6.0 (51)	5.6 (6)	4.3 (32)	—
Exposure and less support	41.2 (1640)	26.7 (171)	34.9 (281)	37.8 (303)	48.0 (408)	37.0 (40)	57.5 (424)	—
Exposure and high support	7.1 (282)	4.8 (31)	6.1 (49)	7.0 (56)	8.0 (68)	13.9 (15)	8.5 (63)	—
Total adversity count, mean (SE)	3.1 (0.03)	2.4 (0.07)	2.8 (0.07) <sup>b</sup>	3.1 (0.07) <sup>b,c</sup>	3.4 (0.07) <sup>b,c,d</sup>	3.1 (0.23) <sup>b</sup>	3.8 (0.08) <sup>b,c,d,e,f</sup>	<.001
Total victimization count, mean (SE)	8.6 (0.12)	6.2 (0.21)	7.5 (0.24) <sup>b</sup>	7.9 (0.24) <sup>b</sup>	9.4 (0.26) <sup>b,c,d</sup>	9.1 (0.71) <sup>b,c</sup>	11.8 (0.32) <sup>b,c,d,e,f</sup>	<.001
Depressed mood, % (n)	70.9 (2821)	51.5 (330)	65.3 (526) <sup>b</sup>	70.3 (563) <sup>b,c</sup>	78.7 (669) <sup>b,c,d</sup>	75.0 (81) <sup>b,c</sup>	85.7 (632) <sup>b,c,d,e,f</sup>	<.001

Sexual and gender identity data not available for 37 participants. —, not applicable.

<sup>a</sup> Includes youth who identify their gender as transgender, gender queer, nonbinary, pangender, questioning, unsure, and some other identity. Gender-minority youth were not further categorized by their sexual identity because only a few (n = 8, 4.0%) identified as heterosexual, thereby resulting in unstable analytical cells.

<sup>b</sup> Significantly different from cisgender heterosexual male youth.

<sup>c</sup> Significantly different from cisgender sexual-minority male youth.

<sup>d</sup> Significantly different from cisgender heterosexual female youth.

<sup>e</sup> Significantly different from cisgender sexual-minority female youth.

<sup>f</sup> Significantly different from gender-minority AMAB youth.

cisgender sexual-minority male and female youth, exposure to suicidal behavior was related to recent depressed mood regardless of level of social support. Given the likelihood that participants who are exposed to suicidal behavior are also in environments in which they are exposed to other types of trauma, including victimization and nonvictimization adversity histories, it is possible they already have elevated negative psychosocial symptomatology, which should be taken into account to better understand any unique contribution of exposure to suicidal behavior. In the current study, relationships between exposure to suicidal behavior and depressed mood remained in the context of low support for cisgender sexual-minority male and female youth as well as cisgender heterosexual male youth even when taking into account cumulative adversity. This supports previous research which has

documented relationships between exposure to suicidal behavior and personal suicidal ideation, thoughts of self-harm, and trauma symptomatology,<sup>18</sup> but provides new data that suggests these relationships vary for different youth on the basis of sexual and gender identity. More research using longitudinal samples of SGM and heterosexual youth to further explore these complex relationships over time is necessary.

Gender-minority AFAB youth showed a different pattern when exposure to suicidal behavior was coupled with high social support. For these teenagers, exposure combined with high social support was related to a higher likelihood of recent depressed mood than was seen with gender-minority AFAB youth having less social support. Given previous work indicating transgender youth are particularly at risk for negative psychosocial outcomes,<sup>30,56,57</sup> future

research to explore these associations further seems warranted. For example, support networks may be particularly small and tight knit in the context of stigma, isolation, and adversity. Gender-minority youth may thus experience a greater burden of stress from providing intensive support to others, a point made in a systematic review of the “dark side” of social capital.<sup>58</sup> Further, although the protective nature of social integration has been emphasized,<sup>59–61</sup> such high integration may promote the diffusion of negative behaviors as well.<sup>62–65</sup> It is possible this is more pronounced in gender-minority AFAB youth. At the same time, perhaps social support is more protective but losing someone from that social support network may be more adverse. It is also possible that these findings reflect a potential dose effect, whereby these groups had the highest suicide exposure. As with the construct of polyvictimization,<sup>66,67</sup>

**TABLE 3** Associations Between Lifetime Exposure to Suicidal Behavior and Depressed Mood by Sexual and Gender Identity

Lifetime Exposure to Suicidal Behavior	Model 1: Relative Odds of Depressed Mood Given Exposure to Suicidal Behavior and Social Support		Model 2: + Cumulative Adversity	
	aOR (95% CI)	P	aOR (95% CI)	P
<b>Cisgender sexual-minority male youth, n = 805</b>				
Interaction of exposure to suicidal behavior and social support				
No exposure and less support (ref)	1.0	—	1.0	—
No exposure and high support	0.96 (0.56–1.64)	.88	0.91 (0.51–1.61)	.75
Exposure and less support	3.47 (2.41–4.99)	<.001	1.78 (1.19–2.67)	.005
Exposure and high support	3.07 (1.48–6.36)	.003	1.31 (0.59–2.89)	.51
Cumulative adversity	—	—	1.24 (1.11–1.37)	<.001
Cumulative victimization	—	—	1.14 (1.10–1.18)	<.001
<b>Cisgender sexual-minority female youth, n = 801</b>				
Interaction of exposure to suicidal behavior and social support				
No exposure and less support (ref)	1.0	—	1.0	—
No exposure and high support	0.58 (0.34–0.98)	.04	0.65 (0.37–1.13)	.13
Exposure and less support	3.38 (2.31–4.96)	<.001	2.32 (1.55–3.48)	<.001
Exposure and high support	2.29 (1.17–4.51)	.02	1.99 (0.99–4.01)	.05
Cumulative adversity	—	—	1.09 (0.99–1.21)	.09
Cumulative victimization	—	—	1.14 (1.10–1.19)	<.001
<b>Gender-minority AMAB youth,<sup>a</sup> n = 108</b>				
Interaction of exposure to suicidal behavior and social support				
No exposure and less support (ref)	1.0	—	1.0	—
No exposure and high support	0.41 (0.07–2.42)	.33	0.31 (0.05–1.99)	.22
Exposure and less support	3.78 (1.07–13.39)	.04	1.37 (0.28–6.67)	.69
Exposure and high support	0.87 (0.24–3.20)	.83	0.77 (0.16–3.71)	.75
Cumulative adversity	—	—	0.78 (0.56–1.08)	.13
Cumulative victimization	—	—	1.39 (1.16–1.67)	<.001
<b>Gender-minority AFAB youth, n = 737</b>				
Interaction of exposure to suicidal behavior and social support				
No exposure and less support (ref)	1.0	—	1.0	—
No exposure and high support	0.67 (0.29–1.58)	.36	0.76 (0.32–1.83)	.54
Exposure and less support	2.20 (1.40–3.46)	.001	1.54 (0.96–2.48)	.07
Exposure and high support	8.09 (1.90–34.52)	.005	6.50 (1.50–28.11)	.01
Cumulative adversity	—	—	1.03 (0.90–1.17)	.68
Cumulative victimization	—	—	1.10 (1.06–1.14)	<.001
<b>Cisgender heterosexual male youth, n = 641</b>				
Interaction of exposure to suicidal behavior and social support				
No exposure and less support (ref)	1.0	—	1.0	—
No exposure and high support	0.86 (0.49–1.49)	.59	0.94 (0.53–1.66)	.83
Exposure and less support	1.93 (1.31–2.82)	.001	1.52 (1.02–2.27)	.04
Exposure and high support	1.10 (0.52–2.33)	.80	0.73 (0.33–1.62)	.43
Cumulative adversity	—	—	1.22 (1.09–1.35)	<.001
Cumulative victimization	—	—	1.06 (1.03–1.10)	.001
<b>Cisgender heterosexual female youth, n = 850</b>				
Interaction of exposure to suicidal behavior and social support				
No exposure and less support (ref)	1.0	—	1.0	—
No exposure and high support	1.03 (0.53–2.02)	.92	1.03 (0.51–2.04)	.94
Exposure and less support	2.00 (1.38–2.89)	<.001	1.22 (0.82–1.82)	.32
Exposure and high support	1.21 (0.65–2.23)	.55	0.92 (0.48–1.77)	.81
Cumulative adversity	—	—	1.13 (1.01–1.25)	.03
Cumulative victimization	—	—	1.11 (1.07–1.15)	<.001

CI, confidence interval; ref, reference category; —, not applicable.

<sup>a</sup> Low power to detect significant differences. All models are adjusted for age, race and ethnicity, low income, and survey process variables (ie, taking survey in a private place and honesty in responses).

there may be a tipping point of exposure beyond which protective factors like social support become less effective because comparisons of exposure to suicide to other stressors

revealed augmented negative effects of the former.<sup>21</sup> Social support itself may need to be measured in different ways beyond

whether support is perceived to be available. For example, understanding whether an individual actually uses the supports they perceive as available may add additional

insight.<sup>68</sup> Delineating online versus in-person support will also be useful to contextualize findings. Previous work suggests that SGM youth are more likely to have online friends and to perceive them as more emotionally supportive than in-person friends.<sup>56</sup> And although some research suggests that online support can offer protective effects for SGM youth,<sup>69</sup> we know relatively little about the possible vulnerabilities introduced by such online niches. It could be that within a tight-knit online community with more support, one is more likely to disclose, and therefore others may be more likely to know when someone attempts suicide. Density and diversity of the support networks, and the balance of support provided versus support received within an individual's networks, will be important to explore in future work.

Gatekeeper training has gained considerable attention in suicide prevention.<sup>70-72</sup> Such suicide prevention programs focus on training peers and key adults as active bystanders, a model based in social support.<sup>70,71,73-75</sup> Gatekeeper training education is a strategy used within school settings to help staff identify at-risk youth and help them get the help they need.<sup>70</sup> Such programs have demonstrated positive changes in knowledge and attitudes about suicide but have had less success in changing behaviors (ie, actual use of the skills learned to help others) in real-world settings.<sup>70,71,73,76</sup> Some of this may be due, in part, to the fact that not all exposure to suicidal behavior results in bystander opportunity. Research has not yet delineated how much exposure is a result of hearing about suicide after the fact versus previous knowledge that someone is thinking about suicide. More research is needed to develop a better understanding of the factors that

promote successful suicide prevention behaviors among SGM and heterosexual youth to inform more effective bystander actions.

Few studies gather information about the effects of helping that might produce unintended negative prevention consequences, such as suicide risk<sup>11-18</sup> or psychological distress,<sup>19,21</sup> among youth bystanders. Current findings suggest that suicide prevention efforts need to pay particular attention to SGM youth not only to prevent suicide among this group but also to help cultivate resilience among SGM youth who are likely to be exposed to peer suicide attempts. We need more research to understand the lived experiences of these youth, including how they experience social support. This is particularly urgent given recent research that suggests that other evidence-based violence-prevention curricula for youth are less effective for SGM youth.<sup>77</sup>

Our measure of exposure to suicidal behavior did not identify the relationship between the participant and the person with suicidal behavior beyond knowing that they were close. Therefore, researchers in future studies should examine varying relationships separately, such as family and friends, to understand contexts in which support might mitigate or exacerbate the adverse effects of exposure to suicidal behavior on personal psychosocial outcomes. We also were not able to determine when the participant became aware of the suicidal behavior (eg, before an attempt or after). Such information is important when considering prevention opportunities. The measure for depressed mood is broad and should not be considered as a marker for clinical depression or depressive symptomatology; more research is needed that includes a more thorough

assessment of mental health indicators. The cross-sectional nature of this study limits inferences about temporal associations and direction of effects. We do not know, for example, the causal direction between exposure to suicidal behavior and depressed mood, although measuring depressed mood in the past month helped to mitigate this concern to some extent. Finally, although the sample is national, and therefore geographically diverse, it is not representative. Despite these limitations, the current study helps us better understand variability among youth in exposure to suicidal behavior and the complex role of social support as a factor that may not always help well-being.

## CONCLUSIONS

Adolescent suicide is a heightened public health concern. Findings from the current study suggest that for some youth, social support may not always be protective or always associated with well-being. Although findings need to be replicated, suicide prevention efforts should carefully consider how to promote resilience among these youth who may themselves be at risk for suicidal ideation and other mental health concerns. The current findings also highlight the heterogeneity of SGM youth experiences and psychosocial functioning. Prevention efforts need to be equally heterogeneous in their offers to ensure that a diversity of youth have access to salient programming.

## ABBREVIATIONS

AFAB: assigned female at birth  
AMAB: assigned male at birth  
aOR: adjusted odds ratio  
SGM: sexual and gender minority  
YRBS: Youth Risk Behavior Survey



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