Suicidality among sexual minority and transgender adolescents: a nationally representative population-based study of youth in Canada

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Abstract

Background: Very little research has described risk of suicidal ideation and suicide attempt among transgender youth using high-quality, nationally representative data. We aimed to assess risk of suicidality among transgender and sexual minority adolescents in Canada.

Methods: We analyzed a subsample of adolescents aged 15–17 years from the 2019 Canadian Health Survey on Children and Youth, a nationally representative, cross-sectional survey. We defined participants' transgender identity (self-reported gender different from sex assigned at birth) and sexual minority status (self-reported attraction to people of the same gender) as exposures, and their self-reported previous-year suicidal ideation and lifetime suicide attempt as outcomes.

Results: We included 6800 adolescents aged 15–17 years, including 1130 (16.5%) who indicated some degree of same-gender attraction, 265 (4.3%) who were unsure of their attraction and 50 (0.6%) who reported a transgender identity. Compared with cisgender, heterosexual adolescents, transgender adolescents showed 5 times the risk of suicidal ideation (95% confidence interval [CI] 3.63 to 6.75; 58% v. 10%) and 7.6 times the risk of suicide attempt (95% CI 4.76 to 12.10; 40% v. 5%). Among cisgender adolescents, girls attracted to girls had 3.6 times the risk of previous-year suicidal ideation (95% CI 2.59 to 5.08) and 3.3 times the risk of having ever attempted suicide (95% CI 1.81 to 6.06), compared with their heterosexual peers. Adolescents attracted to multiple genders had 2.5 times the risk of suicidal ideation (95% CI 2.12 to 2.98) and 2.8 times the risk of suicide attempt (95% CI 2.18 to 3.68). Youth questioning their sexual orientation had twice the risk of having attempted suicide in their lifetime (95% CI 1.23 to 3.36).

Interpretation: We observed that transgender and sexual minority adolescents were at increased risk of suicidal ideation and attempt compared with their cisgender and heterosexual peers. These findings highlight the need for inclusive prevention approaches to address suicidality among Canada's diverse youth population.

Suicide is the second leading cause of death among adolescents and young adults aged 15–24 years in Canada.[1,2] Suicidal ideation and suicide attempt are common among adolescents[3] and are risk factors for death by suicide.[4] Sexual minority youth (i.e., youth who are attracted to the same gender or multiple genders, or who identify as lesbian, gay, bisexual or queer)[5] are known to be at increased risk of poor mental health,[6–8] including suicidal ideation and attempt.[5–10] Over the previous 2 decades, stigma around identifying as a sexual minority has reduced;[7] however, the risk of poor mental health and of suicidality remains high among sexual minority youth.[7,11] This population is still more likely to experience bullying and peer victimization,[9,12,13] which is associated with suicidality among sexual minority adolescents.[5]

Transgender youth are those whose gender identity does not match their sex assigned at birth.[14] Among other terms, gender-nonconforming, nonbinary, genderqueer and genderfluid are used to describe the gender identity of a subset of young people who identify outside the gender binary (i.e., as neither male nor female) or who experience fluidity between genders.[9] Suicidality among transgender and gender-nonconforming adolescents is not as well studied. In a Canadian survey of transgender and gender-nonconforming youth aged 14–25 years, 64% of participants reported that they had seriously considered suicide in the previous

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12 months.[15] Transgender and gender-nonconforming youth seem to have a higher probability of many risk factors for suicidality, including peer victimization,[8,16] family dysfunction[7,17] and barriers to accessing mental health care.[18] However, the epidemiology of suicidality among transgender and gender-nonconforming youth remains understudied in population-based samples; most research on the mental health of transgender youth comes from small community samples of help-seeking youth or targeted surveys of transgender adolescents.[5,19,20] Two population-based studies from California[21] and New Zealand[22] suggested that transgender youth are at increased risk of suicidal ideation and suicide attempt. However, only the New Zealand study[22] used the gold-standard measure of gender identity, contrasting adolescents' sex assigned at birth with their self-identified gender.[23]

Further epidemiological research employing large, representative samples and adequate measures of gender identity is needed to understand the burden of suicidality among lesbian, gay, bisexual, transgender and queer youth. We sought to build on existing evidence to assess risk of suicidal ideation and attempt among transgender and sexual minority adolescents in Canada, as compared with their cisgender and heterosexual peers, as well as to explore the relation between suicidality and experience of bullying.

Methods

We conducted a population-based study of adolescents aged 15–17 years who participated in the 2019 Canadian Health Survey on Children and Youth, a national survey of the physical and mental health of children in Canada.

Data source

The 2019 Canadian Health Survey on Children and Youth is administered by Statistics Canada. The sampling frame was all beneficiaries of the Canada Child Benefit, namely children aged 1–17 years as of Jan. 31, 2019, whose guardians filed taxes, excluding those living in institutions or on reserves.[24] To produce representative estimates for specific age groups, the sampling frame was stratified by age (1–4 yr, 5–11 yr, 12–17 yr); children were randomly selected within each stratum. We considered data from adolescents who completed self-report questionnaires on sexual attraction and suicidality, which were asked only of those aged 15–17 years. Additional demographic information was provided by the person most knowledgeable about the child (in 96.2% of cases, this was a birth parent; hereafter referred to as parent). Adolescents and their parents were sent separate invitation letters, which included individual secure access codes and instructions to complete questionnaires online, should they consent to do so. Data were collected from February to August 2019; respondents who did not complete the questionnaire by Mar. 31, 2019, were contacted by telephone and invited to respond either online or by telephone interview. The specific response rate among adolescents aged 15–17 years is not available; however, the response rate for those aged 12–17 years was 41.3%. Further information about sampling and representativeness is reported elsewhere.[24]

Box 1: Questions on suicidality, sexual attraction and bullying from the 2019 Canadian Health Survey on Children and Youth

Suicidality

Suicidal thought: "In the past 12 months, did you ever seriously consider attempting suicide or taking your own life?"

Suicide attempt: "Have you ever attempted suicide or tried taking your own life?"

Sexual attraction

"People are different in their sexual attraction to other people. Which best describes your feelings?"

- "Only attracted to males"
- "Mostly attracted to males"
- "Equally attracted to females and males"
- "Mostly attracted to females"
- "Only attracted to females"
- "Not sure"

Bullying

"Sometimes people tease, hurt or upset another person on purpose. During the past 12 months, how often did the following things happen to you?"

- "Someone made fun of you, called you names, or insulted you"
- "Someone spread rumours about you"
- "Someone threatened you with harm"
- "Someone pushed you, shoved you, tripped you, or spit on you"
- "Someone tried to make you do things you did not want to do"
- "Someone excluded you from activities on purpose"
- "Someone destroyed your property on purpose"

Cyberbullying

"Sometimes people tease, hurt or upset another person on purpose. During the past 12 months, how often did the following things happen to you?"

- "Someone posted hurtful information about you on the internet"
- "Someone threatened or insulted you through email, instant messaging, text messaging, or an online game"
- "Someone purposefully excluded you in an online community"

Measures

Adolescents reported on their previous-year suicidal ideation (yes or no), and lifetime suicide attempt (yes or no) (Box 1). These questions align closely with the suicidal ideation and attempt modules of the Self-Injurious Thoughts and Behaviors Interview,[25] a gold-standard instrument for assessing suicidality.

We determined participant sexual minority status using their self-reported gender (male, female, other) and sexual attraction using an instrument recommended by the Sexual Minority Assessment Research Team (Box 1).[26] We constructed the following sexual minority categories: heterosexual (only opposite gender attraction), boys who were only or mostly attracted to boys, girls who were only or mostly attracted to girls, those attracted to more than 1 gender (equally attracted to females and males or mostly attracted to opposite gender) and unsure. In a sensitivity analysis, we restricted the category

of adolescents attracted to multiple genders to those who identified as equally attracted to males and females and expanded the heterosexual category to include those who were mostly attracted to the opposite gender. We considered adolescents whose self-reported gender did not match their self-reported sex assigned at birth (male, female) or who reported their own gender as other than male or female to be transgender. This 2-step consideration of gender identity has been described as the current gold standard.[23]

We used parent-reported postal codes to classify residence as rural or urban based on population density and proximity to core areas, as defined by Statistics Canada.[27] We derived visible minority status from the parent-reported population group of their child (white, South Asian, Chinese, Black, Filipino, Arab, Latin American, Southeast Asian, West Asian, Korean, Japanese, other). A separate question asked whether the adolescent was an Indigenous person. We considered adolescents to belong to a visible minority if parents reported a group other than white or that the adolescent was an Indigenous person. We considered parent-reported family incomes below Can$40 000, before taxes and deductions, as low income, reflecting Canada's average official poverty line based on a family of 2 adults and 2 children.[28]

Further, we considered adolescent experiences of bullying and cyberbullying. Adolescents were asked about their experiences of bullying and cyberbullying in the previous 12 months (Box 1). Response options for each item ranged from 1 (never) to 5 (daily), and were summed to create total scores.

Statistical analysis

We used modified Poisson regression with sandwich error variance estimation to estimate risk of suicidal ideation and suicide attempt for sexual minority and transgender adolescents compared with their cisgender and heterosexual peers, adjusting for sociodemographic factors. A secondary analysis explored the mediating role of bullying and cyberbullying in these associations (Appendix 1, Supplemental Figure S1, available at www.cmaj.ca/lookup/doi/10.1503/cmaj.212054/tab-related-content). Finally, as suicidality risk is known to be higher among adolescents assigned female at birth, we stratified regression models by sex assigned at birth.

To ensure representativeness, we weighted all descriptive and regression analyses using both survey weights (based on inverse probability of selection and adjusted to account for survey nonresponse) and bootstrap weights with 1000 resamples (which accounts for the complex survey design), using Stata 15.1 (StataCorp LLC). Weighting procedures are described in detail elsewhere.[23] We conducted mediation analyses using the PROCESS macro in SAS 9.4 (SAS Institute Inc.), and could not incorporate survey weights because of program limitations.[29] Cases with missing data (< 3%) were analysis-wise deleted, resulting in different sample sizes in models predicting suicidal ideation and suicide attempt. In accordance with Statistics Canada policy, cell sizes less than 5 (unweighted) are not releasable to protect participant privacy, and frequency counts are rounded to the nearest 5.

Ethics approval

Research ethics board approval by the study-specific educational institution was not required in accordance with Article 2.2 of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS-2).

Results

Our total sample included 6800 adolescents, most of whom were cisgender (99.4%); 50 (0.6%) were transgender (Table 1). Most respondents were classified as heterosexual (*n* = 5360, 78.6%). The largest sexual minority category identified was of adolescents attracted to multiple genders (*n* = 990, 14.7%), followed by those unsure of their attraction (*n* = 265, 4.3%), girls attracted to girls (*n* = 90, 1.0%) and boys attracted to boys (*n* = 50, 0.8%). Overall, 980 (14.0%) adolescents experienced previous-year suicidal ideation, and 480 (6.8%) had attempted suicide in their life.

The model of suicidal ideation included 6800 adolescents (980 events) and the model of suicide attempt included 6795 adolescents (480 events). Compared with their heterosexual peers, sexual minority adolescents were more likely to report suicidal ideation and attempted suicide (Table 2). These associations were robust across different sexual minority groups, though were not always statistically significant (i.e., for boys attracted to boys), given wide confidence intervals. Transgender adolescents were also at increased risk of suicidality, with 5 times the risk of suicidal ideation (95% confidence interval [CI] 3.63 to 6.75), and 7.6 times the risk of ever having attempted suicide (95% CI 4.76 to 12.10). The pattern of results for the sensitivity analysis (Appendix 1, Table S1) was very similar to the primary models, as were results stratified by sex assigned at birth (Appendix 1, Table S2) and unadjusted for birth sex (Appendix 1, Table S3).

Results of mediation analysis suggested that, for transgender adolescents and those expressing attraction to multiple genders, associations between sexual or gender minority status and suicidality were partially mediated by the experience of bullying and cyberbullying (Table 3).

Interpretation

We found that transgender and gender-nonconforming adolescents were at markedly higher risk of both suicidal ideation and suicide attempt than their cisgender peers. Our findings aligned with the only other nationally representative study of adolescent gender identity and mental health, which reported fivefold higher odds of suicide attempt among transgender adolescents in New Zealand.[23]

Minority stress describes the pressures faced by members of historically stigmatized minority groups, which can affect physical and mental health.[30,31] Transgender and gender-nonconforming adolescents are likely to experience minority stress, and are at greater risk of experiencing peer victimization and negative school climate.[32] These social and societal stressors may place transgender youth at risk of poorer mental

Table 1: Characteristics of respondents (aged 15–17 yr) of the 2019 Canadian Health Survey on Children and Youth

Characteristic	No. (%) of respondents*†		
	Total *n* = 6800	Suicidal ideation in previous year‡ *n* = 980	Suicide attempt in lifetime‡ *n* = 480
Sex assigned at birth			
Male	3360 (51.0)	335 (10.0)	140 (4.5)
Female	3440 (49.0)	645 (18.2)	325 (9.1)
Self-reported gender			
Male	3360 (51.0)	340 (10.0)	145 (4.6)
Female	3400 (48.6)	620 (17.7)	310 (8.9)
Other	30 (0.3)	25 (77.6)	15 (42.8)
Sexual or gender minority status			
Heterosexual	5360 (78.6)	555 (10.4)	250 (4.6)
Boys attracted to boys	50 (0.8)	10 (17.8)	5 (13.6)
Girls attracted to girls	90 (1.0)	30 (46.7)	15 (20.6)
Attracted to > 1 gender	990 (14.7)	310 (28.8)	155 (14.3)
Transgender	50 (0.6)	35 (58.4)	20 (39.9)
Not sure sexual attraction	265 (4.3)	40 (14.6)	20 (9.9)
Low income (< $40 000)			
No	5815 (83.8)	845 (14.3)	395 (6.7)
Yes	990 (16.2)	140 (12. 4)	75 (6.9)
Rural residence			
No	5170 (82.6)	780 (14.4)	355 (6.7)
Yes	1635 (17.4)	205 (11.8)	110 (6.9)
Visible minority			
No	4640 (63.6)	645 (13.8)	310 (6.5)
Yes	2162 (36.4)	340 (14.7)	165 (7.2)
Age, yr			
15	2385 (35.6)	325 (13.3)	150 (5.4)
16	2310 (33.9)	345 (15.0)	155 (7.4)
17	2105 (30.5)	310 (13.6)	160 (7.7)
Bullying, mean ± SE	2.75 ± 0.05	5.15 ± 0.21	6.18 ± 0.35
Cyberbullying, mean ± SE	0.59 ± 0.02	1.37 ± 0.09	1.69 ± 0.14

Note: SE = standard error.
*Unless indicated otherwise.
†In accordance with Statistics Canada release policy, unweighted counts are rounded to the nearest 5; percentages are based on weighted frequencies (not shown).
‡The percent frequencies are row percentages (i.e., the frequency within each demographic category with ideation or attempt).

health, which may manifest as suicidal thoughts and behaviours. Importantly, a recent twin study found that sexual minority identity was associated with self-harm and suicide attempt even after controlling for shared genetics and environment, suggesting that environmental inputs that are specifically related to identifying as a sexual minority (i.e., discrimination) contribute to increased risk of suicidality.[33] Indeed, results of our mediation analysis suggested that the effects of transgender identity on suicidality may be partially mediated by experiences of bullying and cyberbullying.

Gender-affirming health care includes both medical and psychosocial support for transgender and gender-diverse youth and their families, and may include the use of hormones to delay or arrest puberty.[34] Gender-affirming care has been shown to improve mental health among transgender youth — in a Dutch study, rates of suicidal ideation among

Research

Table 2: Multivariable Poisson regression models of suicidal ideation and suicide attempt by sexual minority status and sociodemographic variables

Characteristic	Suicidal ideation in previous year* RR (95% CI)	Suicide attempt in lifetime† RR (95% CI)
Sexual minority status		
Heterosexual	Ref.	Ref.
Boys attracted to boys	2.08 (0.89 to 4.87)	3.79 (0.56 to 25.8)
Girls attracted to girls	3.63 (2.59 to 5.08)	3.31 (1.81 to 6.06)
Attracted to > 1 gender	2.51 (2.12 to 2.98)	2.83 (2.18 to 3.68)
Transgender	4.95 (3.63 to 6.75)	7.60 (4.76 to 12.1)
Not sure	1.37 (0.96 to 1.97)	2.03 (1.23 to 3.36)
Sex at birth (female v. male)	1.52 (1.28 to 1.81)	1.70 (1.31 to 2.21)
Low family income‡	0.85 (0.67 to 1.07)	1.00 (0.70 to 1.43)
Rural residence§	0.85 (0.70 to 1.04)	1.10 (0.82 to 1.47)
Visible minority member¶	1.09 (0.92 to 1.29)	1.14 (0.89 to 1.47)
Age, yr		
15	Ref.	Ref.
16	1.09 (0.90 to 1.31)	1.32 (1.00 to 1.74)
17	1.00 (0.82 to 1.21)	1.40 (1.05 to 1.86)

Note: CI = confidence interval, Ref. = reference category, RR = relative risk.
*n = 6800, 980 events.
†n = 6795, 480 events.
‡Low family income defined as parent-reported family incomes below Can$40 000, before taxes and deductions.
§Defined by Statistics Canada based on population density and proximity to core areas.
¶A child was considered a visible minority member when the parent identified a population group other than white, or the child was an Indigenous person.

transgender adolescents receiving gender-affirming care were similar to those among their cisgender peers, whereas rates among transgender adolescents on the waiting list remained elevated.[35]

We observed that a relatively high proportion of adolescents in our sample expressed at least some degree of same-gender attraction, with 1.8% expressing only same-gender attraction, and 14.6% expressing attraction to more than 1 gender. This estimate is substantially higher than population estimates of bisexuality in Canada from 2015–2018, namely 1.8% overall and 4.5% among people aged 15–24 years.[36] Our findings suggest that stigma surrounding bisexuality may have decreased over time, resulting in more young people embracing this identity.

We found that adolescents attracted to more than 1 gender were at increased risk of suicidality, consistent with previous studies of bisexual young people.[37,38] Youth attracted to multiple genders are likely to experience a substantial amount of minority stress. Some scholars have argued that bisexual people face additional forms of stigma and discrimination, above and beyond those experienced by individuals with monosexual identities (e.g., lesbian, gay), from both heterosexual and homosexual peers.[37,39,40] For example, despite changing attitudes toward sexual minority individuals in general, several misconceptions and stereotypes about bisexuality persist — for example, that bisexuality is just a phase or an identity adopted by those who are not ready to come out as homosexual, and that bisexual individuals are more likely to be promiscuous or unfaithful to their partners.[40] Moreover, research suggests that sexual minority youth, including those attracted to multiple genders, still face considerable stigma and victimization.[7,41] Targeted victimization has been associated with suicidality among sexual minority youth.[12] Results of mediation analysis supported this pathway, showing significant indirect effects of attraction to multiple genders on suicidality, mediated through experiences of bullying and cyberbullying.

A substantial proportion (4.3%) of adolescents in our sample also indicated that they were not sure of their sexual attraction. In the literature, questioning individuals are those who are unsure of or exploring their sexual orientation. Given that the exploration of romantic and sexual relationships is a major developmental task of adolescence,[42] it is perhaps unsurprising that many adolescents begin to question their sexual orientation during this time. Our estimate is similar to those in other population-based studies of questioning youth. For example, results from a national survey in the United States showed that 3.2% of students in grades 9–12 were unsure of their sexual orientation.[43]

Youth who are exploring their sexual identities may have anxiety both about the reactions of their peers and families, as well as their own sense of self,[44] and have been found to be at increased risk of poor mental health,[45] including depression and anxiety.[39] Our study extends these findings in a nationally representative sample, suggesting that questioning adolescents are at elevated risk of suicide attempt, compared with those who report being heterosexual.

Limitations

The survey instrument assessed adolescents' attraction to males and females, rather than sexual identity (e.g., bisexual, lesbian) or behaviour (i.e., sexual contact with partners of the same or different gender). These constructs, though related, do not always overlap; for example, youth who identify as heterosexual may still have sexual contact with same-gender partners.[46] Increasingly, some young people are rejecting rigid categories of sexual orientation and are embracing more fluid identities.[47] Though categorization can be useful to examine differences between groups, researchers should recognize the great diversity in human sexuality and identity. Nonetheless, the results of our sensitivity analyses lend credence to our conclusions.

Though the use of a population-based sample is a major strength of our study, the small base rates of both suicidality and transgender or gender-nonconforming identity resulted in a lack of power to explore interactions of interest, such as between transgender identity and sexual minority status. Researchers may also wish to explore the way gender and sexual

Table 3: Conditional process mediation models of association between sexual minority status and suicidality through experiences of bullying and cyberbullying

Model*	Direct effect† Coeff. (95% CI)	Indirect effect Coeff. (95% CI)
Sexual minority status and suicidal ideation through experience of bullying		
Heterosexual	Ref.	Ref.
Boys attracted to boys	1.00 (0.24 to 1.76)	0.08 (–0.07 to 0.24)
Girls attracted to girls	1.43 (0.96 to 1.89)	0.01 (–0.11 to 0.15)
Attracted to > 1 gender	1.16 (0.99 to 1.34)	0.17 (0.12 to 0.22)
Transgender	2.82 (2.17 to 3.46)	0.32 (0.10 to 0.57)
Not sure	0.40 (0.02 to 0.77)	–0.05 (–0.14 to 0.03)
Sexual minority status and suicidal ideation through experience of cyberbullying		
Heterosexual	Ref.	Ref.
Boys attracted to boys	1.08 (0.36 to 1.80)	0 (–0.11 to 0.14)
Girls attracted to girls	1.33 (0.87 to 1.79)	0.04 (–0.05 to 0.14)
Attracted to > 1 gender	1.22 (1.05 to 1.38)	0.11 (0.07 to 0.15)
Transgender	2.78 (2.15 to 3.41)	0.23 (0.07 to 0.42)
Not sure	0.35 (–0.02 to 0.72)	0.01 (–0.05 to 0.09)
Sexual minority status and suicide attempt through experience of bullying		
Heterosexual	Ref.	Ref.
Boys attracted to boys	1.02 (–0.04 to 2.08)	0.08 (–0.07 to 0.23)
Girls attracted to girls	1.33 (0.75 to 1.90)	0.01 (–0.11 to 0.14)
Attracted to > 1 gender	1.05 (0.82 to 1.28)	0.17 (0.12 to 0.22)
Transgender	2.28 (1.64 to 2.91)	0.32 (0.10 to 0.55)
Not sure	0.57 (0.08 to 1.06)	–0.05 (–0.14 to 0.03)
Sexual minority status and suicide attempt through experience of cyberbullying		
Heterosexual	Ref.	Ref.
Boys attracted to boys	1.17 (0.21 to 2.14)	0 (–0.11 to 0.15)
Girls attracted to girls	1.25 (0.69 to 1.82)	0.04 (–0.06 to 0.14)
Attracted to > 1 gender	1.10 (0.88 to 1.33)	0.11 (0.07 to 0.15)
Transgender	2.28 (1.68 to 2.90)	0.23 (0.07 to 0.43)
Not sure	0.52 (0.04 to 1.00)	0.02 (–0.05 to 0.09)

Note: CI = confidence interval, Coeff. = coefficient, Ref. = reference group.
*Models adjusted for age, sex at birth, low income, rural residence and visible minority status. Models do not include survey weights given software limitations.
†Direct effect between exposure (identifying as sexual minority) and suicidal ideation in previous year or suicide attempt in lifetime.
‡Indirect effect between exposure (identifying as sexual minority) and suicidal ideation in previous year or suicide attempt in lifetime, mediated by experience of bullying or cyberbullying.

minority status interact with other dimensions of marginalization, such as race. Limited research suggests that survey response rates may be lower among those who experience suicidality and may be marginally higher among sexual minorities.[48,49] However, such research has not been conducted in adolescent populations or among gender minorities. Consequently, it is unclear what effect survey nonresponse may have had on our findings, though the impact of nonresponse bias was reduced by the use of survey weights. Although our study included a measure of visible minority status, we were unable to take a more nuanced approach to racial differences given sample size limitations. Research taking an intersectional approach is necessary to ensure historically marginalized voices are amplified. Adolescents who die by suicide cannot be sampled, and are therefore not represented in this research; it is therefore possible that our study underestimates the risk of suicidality among sexual minority and transgender adolescents.

Given the cross-sectional nature of the study, results of mediation analysis should not be interpreted as causal. For example, it is plausible that youth with poorer mental health may be more likely to recall experiences of bullying by their peers.

Conclusion

Gender and sexual minority adolescents, particularly those who identify as transgender and gender-nonconforming, appear to be at greater risk of suicidal ideation and suicide attempt than their cisgender and heterosexual peers. Suicide prevention programs specifically targeted to transgender, gender-nonconforming and sexual minority adolescents, as well as gender-affirming care for transgender adolescents, may help reduce the burden of suicidality among this group. Given that these associations were partially mediated through the experience of bullying, systemic change in the form of primary prevention programs aimed at public awareness may lead to a reduction of the experience of minority stress among sexual minority and transgender youth, reducing their risk of poor mental health and suicidality.

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