

# Self-Reported Conversion Efforts and Suicidality Among US LGBTQ Youths and Young Adults, 2018


Amy E. Green, PhD, Myeshia Price-Feeney, PhD, Samuel H. Dorison, MSc, LLM, and Casey J. Pick, JD

**Objectives.** To explore associations between undergoing sexual orientation or gender identity conversion efforts (SOGICE) and suicidality among young LGBTQ (lesbian, gay, bisexual, transgender, and queer or questioning) individuals.

**Methods.** Data were derived from a 2018 online cross-sectional study of young LGBTQ individuals (13–24 years of age) residing in the United States. Multivariate logistic regression was used to determine the relative odds of suicidality among young LGBTQ individuals who experienced SOGICE (in comparison with those who did not) after adjustment for age, race/ethnicity, geography, parents' use of religion to say negative things about being LGBTQ, sexual orientation, gender identity, discrimination because of sexual orientation or gender identity, and physical threats or harm because of sexual orientation or gender identity.

**Results.** Relative to young people who had not experienced SOGICE, those who reported undergoing SOGICE were more than twice as likely to report having attempted suicide and having multiple suicide attempts.

**Conclusions.** The elevated odds of suicidality observed among young LGBTQ individuals exposed to SOGICE underscore the detrimental effects of this unethical practice in a population that already experiences significantly greater risks for suicidality. (*Am J Public Health.* 2020;110:1221–1227. doi:10.2105/AJPH.2020.305701)

 See also Fish and Russell, p. 1113.

**S**exual orientation and gender identity change efforts (SOGICE), also known as “conversion therapy,” are pervasive despite a lack of credible evidence of their effectiveness.<sup>1,2</sup> SOGICE involves attempts by licensed professionals (e.g., psychologists or counselors) or practices by religious leaders to alter sexual attractions and behaviors (to make one straight or heterosexual), gender expression (to align with gender expectations for the sex assigned at birth), or gender identity (to make one cisgender).<sup>3</sup> SOGICE can include the use of aversive stimuli, individual talk therapy, group therapy, and residential programs.<sup>2,4</sup> SOGICE lacks scientific merit and has uniformly been declared dangerous by leading professional associations such as the World Psychiatric Association,<sup>5</sup> the American Medical Association,<sup>4</sup> and the American Psychological Association,<sup>6</sup> among others.<sup>7–9</sup>

A recent examination of SOGICE documented that it fit definitions of adverse childhood experiences and would be

considered abusive if it occurred outside of a treatment context.<sup>10</sup> However, SOGICE is still legal in the majority of US states.<sup>2</sup> A report by the Williams Institute estimated that approximately 700 000 lesbian, gay, bisexual, transgender, and queer or questioning (LGBTQ) adults in the US have undergone SOGICE at some point in their lives, including about 350 000 who received treatment as adolescents.<sup>2</sup> The report further estimated that 20 000 LGBTQ youths between 13 and 17 years old will receive SOGICE from a licensed health care professional before they reach the age of 18 years, a total that does not include youths who undergo SOGICE led by religious leaders not covered in new regulations. Furthermore, a

recent analysis revealed that 13.5% of transgender people in the United States reported lifetime exposure to conversion efforts.<sup>11</sup>

Concerns about the harms of SOGICE among LGBTQ youths are especially warranted as this population has been found to report suicide attempts at more than 4 times the rate of non-LGBTQ youths.<sup>12,13</sup> Emotional and physical abuse and neglect, which may occur as part of SOGICE, increase suicidality risks.<sup>10,14</sup>

Furthermore, according to the minority stress model, mental health disparities found among LGBTQ individuals (relative to those who are straight, heterosexual, or cisgender) are the result of chronic stressors stemming from the marginalized social status of these individuals rather than a function of their identity itself. Among lesbian, gay, and bisexual youths, sexuality-based discrimination and victimization have consistently been related to greater suicidality.<sup>15–17</sup> Support for the minority stress model has also been found among transgender and nonbinary individuals, with increased suicidality related to internalized transphobia and expectations of rejection.<sup>18</sup> Thus, SOGICE, which can encompass emotional and physical abuse in addition to rejection based on sexual orientation and gender identity (designed to produce internalized LGBTQ stigma), would be expected to be strongly associated with suicidality outcomes.

There is little empirical research on the effects of SOGICE on children and adolescents. A 2018 study involving 245 LGBTQ young adults (21–25 years) provided the first data on the association of sexual orientation change efforts with outcomes.<sup>19</sup> Those who

## ABOUT THE AUTHORS

The authors are with The Trevor Project, West Hollywood, CA.

Correspondence should be sent to Amy E. Green, PhD, The Trevor Project, PO Box 69232, West Hollywood, CA 90069 (e-mail: amy.green@thetrevorproject.org). Reprints can be ordered at <http://www.ajph.org> by clicking the “Reprints” link.

This article was accepted April 10, 2020.

doi: 10.2105/AJPH.2020.305701

reported both parent-initiated attempts to convince them to change and formal sexual orientation conversion efforts by others (e.g., therapists or clergy) were 5 times more likely to report suicide attempts than those who reported no sexual orientation change attempts or conversion efforts. The findings of another study, involving data from more than 27 000 transgender adults participating in the 2015 US Transgender Survey, showed that undergoing gender identity change efforts doubled the adjusted odds of a lifetime suicide attempt, with change efforts before the age of 10 years resulting in more than 4-fold adjusted odds of an attempt.<sup>1</sup>

In our study, we sought to contribute to the empirical knowledge base on SOGICE by examining its association with suicidality among LGBTQ young people (13 to 24 years) living in the United States. Specifically, we hypothesized that SOGICE would be positively and significantly related to suicidality after adjustment for other related characteristics including age, race/ethnicity, geographic region, sexual orientation, gender identity, parents' use of religion to make negative statements about being LGBTQ, discrimination because of sexual orientation or gender identity, and physical harm because of sexual orientation or gender identity.

## METHODS

Young people between the ages of 13 and 24 years were recruited for a cross-sectional online survey conducted by The Trevor Project, a suicide prevention and crisis intervention organization for LGBTQ youths younger than 25 years, between February and September 2018. Recruitment was conducted through targeted advertisements placed on 2 social media platforms: Facebook and Instagram. The advertisements targeted those who interacted with material deemed to be relevant to the LGBTQ community. No recruitment was conducted through any Trevor-branded social media channels or Web sites. Eligible participants resided in the United States, were between 13 and 24 years of age, identified as LGBTQ, and were able to read and understand English.

Respondents completed a secure, anonymous questionnaire that included a

maximum of 110 questions depending on skip logic (i.e., branching of survey questions depending on how a respondent answered a particular question). A statement was included before questions specific to youth mental health and suicidality that directed participants to call The Trevor Project's 24-hour-a-day crisis intervention lifeline if at any time they needed to talk to someone about their mental health or thoughts of suicide. Individuals who completed the survey were eligible to be entered into a drawing for a \$50 Amazon gift card by providing their e-mail address after being routed to a separate survey. All participants provide informed consent to participate in the study.

## Analytic Sample

A total of 34 808 young people consented to complete the online survey. Excluded from the analytic sample were 475 young people who lived outside of the United States and 294 who identified as both straight/heterosexual and cisgender. A filter was applied such that any young people who completed fewer than half of the survey items or reached the end of the survey within 3 minutes ( $n = 8091$ ) were eliminated. An additional 52 young people who provided highly unlikely answers (e.g., selecting all possible religious affiliations and race/ethnicity categories) or included obvious hate speech directed toward LGBTQ populations in the open-response options were also eliminated.

Finally, 105 young people were excluded who responded no to the questions asking whether someone attempted to convince them to change their gender identity and whether someone attempted to convince them to change their sexual orientation but responded yes to having undergone "conversion or reparative therapy." It was assumed that these young people may not have understood the intended meaning of conversion or reparative therapy.

## Measures

Questions aligned with practices identified by the Williams Institute were used to assess gender identity.<sup>20</sup> Young people were asked "What sex were you assigned at birth? (meaning the sex showing on your original birth certificate)," with options of male and female. Next, they were asked "What is your

gender identity? Please select all that apply," with the following options: man, woman, trans male/trans man, trans female/trans woman, gender queer/gender non-conforming, and different identity (please state). For the purposes of the current analyses, gender identity was coded as (1) transgender and nonbinary (for those whose assigned sex at birth did not fully match their current gender identity) or (0) cisgender (for those whose assigned sex at birth was consistent with their current gender identity).

Sexual orientation was assessed via a question from the National Center for Health Statistics<sup>21</sup>: "Do you think of yourself as?" with the options gay/lesbian, straight (that is, not gay or lesbian), bisexual, something else, and don't know. Young people who selected "something else" were asked a follow-up question that allowed them to respond with another sexual orientation (e.g., queer, omnisexual, pansexual, trisexual), that they did not use labels, or that they were unsure of their sexual orientation. Although a diversity of identities emerged, sexual orientation was coded as (1) gay/lesbian, (2) bisexual, and (3) something else (which also included transgender and nonbinary young people who identified as straight and those who were questioning or unsure).

To assess ethnicity, young people were asked "Do you consider yourself to be Hispanic or Latino?" Race was separately assessed by asking young people "What race or races do you consider yourself to be?" Mutually exclusive groups were created, as follows:

1. non-Hispanic White,
2. Hispanic/Latinx,
3. Black/African America,
4. Asian American/Pacific Islander,
5. American Indian/Alaska Native, and
6. 2 or more races/ethnicities.

Respondents were asked to report their age using whole numbers between 13 and 24. Response options were categorized into those who were aged 17 years or younger (1) and those who were aged 18 years or older (0). Given that legislative efforts to end "conversion therapy" focus primarily on minors, responses were dichotomized as those of minors versus those of individuals aged 18 years or older.

Young people were asked to indicate the state in which they lived. State-level data

were aggregated into 1 of 4 US Census regions: Northeast, South, Midwest, or West.

In accordance with practices commonly used in examining socioeconomic status among youth populations,<sup>22,23</sup> an assessment of free or reduced-price lunches was used as a proxy for family income. Respondents were asked either “Are you eligible for free or reduced-price lunch at school?” (if they were enrolled in school) or “Were you eligible for free or reduced-price lunch when you were in school?” (if they were not currently enrolled). A variable was created to reflect young people who were eligible for free or reduced-price lunch (1) and those who were not (0).

Negative family religious beliefs about being LGBTQ were examined as a possible characteristic related to suicidality and experiencing conversion therapy. Young people were asked to respond to a statement that read “I have heard my parents (or guardians) use religion to say negative things about being LGBTQ.” Those who responded with strongly agree or agree (1) were compared with those who responded strongly disagree, disagree, or neither agree nor disagree (0).

Respondents’ lifetime experiences with discrimination based on their sexual orientation were assessed by asking “Do you feel that you have ever been the subject of discrimination because of your sexual orientation?” A parallel question was used to assess discrimination based on gender identity. A variable was created to reflect young people who had experienced discrimination based on their sexual orientation or gender identity (1) and those who had not (0).

Young people were asked “In the past 12 months, have you felt physically threatened or been physically abused because of your sexual orientation or gender identity?” to assess their experiences with being physically threatened or harmed in the preceding 12 months. A variable was created to reflect young people who were physically threatened or harmed as a result of their sexual orientation or gender identity (1) and those who were not (0).

As a means of assessing lifetime experiences of SOGICE, young people were asked “Have you ever undergone reparative therapy or conversion therapy?” Before being asked this question, young people responded to a pair of items asking them more broadly whether anyone had ever attempted to convince them to change their sexual orientation or gender

identity. Only those who responded affirmatively that someone had attempted to convince them to change their orientation or identity were included in our analyses, which eliminated 0.4% of young people whose responses were inconsistent. A variable was created to reflect young people who reported experiencing SOGICE (1) and those who did not (0).

## Outcome Variables

An item derived from the Youth Risk Behavior Surveillance System survey was used to assess whether young people had seriously considered suicide in the preceding 12 months.<sup>12</sup> Respondents were asked “During the past 12 months, did you ever seriously consider attempting suicide?” A variable was created to reflect young people who reported seriously considering suicide (1) and those who did not (0).

An item derived from the Youth Risk Behavior Surveillance System survey was also used to assess past-year attempted suicide.<sup>12</sup> Young people who reported having considered suicide were asked “During the past 12 months, how many times did you actually attempt suicide?” Response options were as follows:

1. 0 times,
2. 1 time,
3. 2 or 3 times,
4. 4 or 5 times, and
5. 6 or more times.

Young people’s responses were dichotomized to compare those with 1 or more suicide attempts in the preceding 12 months (1) and those with no suicide attempts in the preceding 12 months (0). Those who reported that they had not seriously considered suicide (and were thus skipped out of the question) were coded as 0 (no attempt). A separate dichotomous variable was created to indicate the presence of multiple suicide attempts in the past year, with those who reported 2 or more attempts coded as 1 and those who reported 1 or no attempts coded as 0.

## Data Analysis

SPSS version 25 was used in conducting all of our analyses.<sup>24</sup> With the exception of suicidality outcome variables, we addressed

missing data using multiple imputation; the final analytic sample consisted of 22 462 respondents. The significance level of findings from analyses performed with imputed data did not differ from that of findings from analyses performed with missing data. We used the  $\chi^2$  test of independence to examine the proportion of young people reporting SOGICE by each study variable with the exception of race/ethnicity, which we examined via a Fisher’s exact test. After adjustment for related variables, multivariate logistic regression was used to determine the relative odds of suicidality among LGBTQ respondents who underwent SOGICE in comparison with those who did not.

## RESULTS

Higher proportions of Hispanic/Latinx respondents, those from low-income families, and those from the South were found among those who underwent SOGICE (Table 1). More than three quarters of young people who underwent SOGICE reported hearing their parents or caregivers use religion to say negative things about being LGBTQ, as compared with just under half of those who did not undergo SOGICE. In addition, greater proportions of young people who identified as gay or lesbian (relative to bisexual or “something else”) and who identified as transgender or nonbinary (relative to cisgender) were found among those who underwent SOGICE. Lifetime reports of discrimination because of sexual orientation or gender identity, as well as reports of having been physically threatened or harmed because of sexual orientation or gender identity in the preceding year, were also more common among LGBTQ respondents who underwent SOGICE than among those who did not.

An assessment of suicidality (Table 2) showed that more young people who underwent SOGICE than those who did not reported having seriously considered suicide in the preceding year (62.6% vs 37.6%). In addition, the percentage of young people reporting a suicide attempt was more than twice as high among those who underwent SOGICE than among those who did not (43.6% vs 17.3%). Finally, young people who underwent SOGICE were more than 3 times

**TABLE 1—Characteristics of Young LGBTQ (Lesbian, Gay, Bisexual, Transgender, and Queer or Questioning) Individuals Who Underwent Sexual Orientation and Gender Identity Change Efforts (SOGICE) and Those Who Did Not: United States, 2018**

| Characteristic  | All Respondents<br>(n = 25 791), % (No.) | Respondents Who Underwent<br>SOGICE (n = 1 088), % (No.) | Respondents Who Did Not Undergo<br>SOGICE (n = 24 703), % (No.) |
|---|--|--|---|
| <b>Age, y</b>   |  |  |   |
| 13–17   | 50.9 (13 130)                            | 62.0 (675)   | 50.4 (12 455)   |
| 18–24   | 49.1 (12 661)                            | 38.0 (413)   | 49.6 (12 248)   |
| <b>Race/ethnicity<sup>a</sup></b>   |  |  |   |
| White   | 72.2 (18 611)                            | 66.7 (726)   | 72.4 (17 865)   |
| Hispanic/Latinx   | 14.3 (3 686)                             | 20.0 (218)   | 14.0 (3 468)  |
| Black/African American  | 2.6 (681)                                | 3.1 (34)   | 2.6 (647)   |
| Asian American/Pacific Islander   | 3.1 (807)                                | 2.1 (23)   | 3.2 (784)   |
| American Indian/Alaska Native   | 0.7 (172)                                | 1.0 (11)   | 0.7 (161)   |
| Multiple  | 7.1 (1 834)                              | 7.0 (76)   | 7.1 (1 758)   |
| <b>Census region</b>  |  |  |   |
| Northeast   | 18.5 (4 781)                             | 12.3 (134)   | 18.8 (4 647)  |
| South   | 30.0 (7 739)                             | 35.4 (385)   | 29.8 (7 354)  |
| Midwest   | 27.9 (7 199)                             | 29.2 (318)   | 27.9 (6 811)  |
| West  | 23.5 (6 072)                             | 23.1 (251)   | 23.6 (5 821)  |
| <b>Family income status</b>   |  |  |   |
| Free/reduced-price lunch  | 36.7 (9 467)                             | 55.9 (608)   | 35.9 (8 859)  |
| Paid lunch  | 63.4 (16 324)                            | 44.1 (480)   | 64.1 (15 844)   |
| Family use of religion to say negative things about being LGBTQ           | 48.5 (12 506)                            | 75.5 (821)   | 47.3 (11 685)   |
| <b>Sexual orientation</b>   |  |  |   |
| Gay/lesbian   | 45.1 (11 635)                            | 48.9 (532)   | 44.9 (11 103)   |
| Bisexual  | 32.8 (8 468)                             | 27.8 (302)   | 33.1 (8 166)  |
| Straight <sup>b</sup> or something else                                   | 22.1 (5 688)                             | 23.3 (254)   | 22.0 (5 434)  |
| <b>Gender identity</b>  |  |  |   |
| Transgender/nonbinary   | 33.0 (8 521)                             | 41.5 (451)   | 32.7 (8 070)  |
| Cisgender   | 67.0 (17 270)                            | 58.5 (637)   | 67.3 (16 633)   |
| Discrimination because of sexual orientation or gender identity           | 70.9 (18 298)                            | 89.7 (976)   | 70.1 (17 322)   |
| Physical threats or harm because of sexual orientation or gender identity | 20.8 (5 352)                             | 48.0 (522)   | 18.7 (4 830)  |

Note. All analyses were significant at *P* < .001.

<sup>a</sup>Racial categories are non-Hispanic.

<sup>b</sup>All respondents who identified as straight were transgender or nonbinary.

as likely as those who did not to report multiple suicide attempts (29.0% vs 8.3%).

In adjusted models (Table 3), the strongest predictors of suicidality included younger age, parents or caregivers using religion to say negative things about being LGBTQ, self-identification as transgender or nonbinary, discrimination because of sexual orientation or gender identity, physical threats or harm because of sexual orientation or gender identity, and SOGICE. LGBTQ respondents who underwent SOGICE were significantly more likely than those who did not to report seriously considering suicide in the preceding 12 months (adjusted odds ratio [OR] = 1.76;

95% confidence interval [CI] = 1.52, 2.04; *P* < .001). In addition, LGBTQ respondents who underwent SOGICE were more than twice as likely to report having attempted suicide (adjusted OR = 2.23; 95% CI = 1.93, 2.59; *P* < .001) and having multiple suicide attempts (adjusted OR = 2.54; 95% CI = 2.16, 2.99; *P* < .001) in the preceding year.

## DISCUSSION

Young LGBTQ respondents who had undergone SOGICE experienced dramatically higher levels of suicidality than their

LGBTQ peers not exposed to such experiences. SOGICE was the strongest predictor of multiple suicide attempts, even after adjustment for other known risk factors. Young LGBTQ individuals reporting suicidality after having undergone SOGICE represent an extremely vulnerable population that would benefit from additional protections and support.

Our data also highlight characteristics among young LGBTQ individuals that relate to greater reports of experiencing SOGICE. Specifically, young people with lower family incomes, from the South, whose parents use religion to say negative things about being

**TABLE 2—Suicidality Among Young LGBTQ (Lesbian, Gay, Bisexual, Transgender, and Queer or Questioning) Individuals Who Underwent Sexual Orientation and Gender Identity Change Efforts (SOGICE) and Those Who Did Not: United States, 2018**

| Suicidality                  | All Respondents<br>(n = 22 462), % (No.) | Respondents Who<br>Underwent<br>SOGICE (n = 951), % (No.) | Respondents Who Did<br>Not Undergo<br>SOGICE (n = 21 511), % (No.) |
|------------------------------|--|---|--|
| Seriously considered suicide | 38.6 (8 681)                             | 62.6 (594)  | 37.6 (8 087)   |
| At least 1 suicide attempt   | 18.4 (4 137)                             | 43.6 (415)  | 17.3 (3 722)   |
| Multiple suicide attempts    | 9.5 (2 131)                              | 29.0 (277)  | 8.3 (1 854)  |

Note. All analyses were significant at  $P < .001$ .

LGBTQ, who are Hispanic/Latinx, and who are transgender or nonbinary were overrepresented in reports of SOGICE. Our family income findings align with previous results indicating that higher family incomes are associated with fewer parent-initiated change attempts and conversion efforts.<sup>19</sup> In addition, overrepresentation of Hispanic/Latinx young people has been observed in adult studies of gender identity change efforts.<sup>1</sup> Furthermore, our elevated reports of SOGICE among transgender or nonbinary young people extend previous findings showing that young adults who report greater gender nonconformity during adolescence are more likely to experience SOGICE.<sup>19</sup>

Previous research has also revealed that greater levels of family religiosity are associated with SOGICE, supporting our finding that three quarters of young people who underwent SOGICE reported having parents or caregivers who used religion to say negative things about being LGBTQ.<sup>19</sup> Such data highlight that young people who report undergoing SOGICE are not a homogeneous population and that efforts to address this issue must be inclusive in terms of the diversity of identities affected. Future research can advance this work by developing a deeper understanding of why these young people are more likely to experience SOGICE, including how familial and cultural beliefs around sexual and gender identity affect the risk of undergoing SOGICE.

### Limitations

Although noteworthy, our findings involve limitations that should be considered. For example, our data were cross sectional; thus, temporality cannot be determined. However, previous longitudinal research has

supported the prediction of suicidality based on prior experiences of minority stress.<sup>15</sup> The percentage of lesbian, gay, and bisexual young people who reported having attempted suicide in the preceding 12 months in the Youth Risk Behavior Surveillance System survey (24%)<sup>12</sup> and the percentage of age-matched LGBTQ respondents in our study (23%) are comparable; however, in both studies a lack of responses on sensitive topics such as suicide attempts may have underestimated the extent of the problem. In regard to age, our study focused only on young people above the age of 13 years. Although some scholars debate whether gender identity change efforts can be effective among prepubescent children, few would argue that such efforts are appropriate for youths after puberty begins,<sup>25</sup> with existing research underscoring the importance of gender-affirming care.<sup>26</sup>

Our study is also limited by the language of the item used to measure SOGICE. Many young people may have undergone experiences that would be considered SOGICE but would not endorse the words “conversion or reparative therapy.” Our additional questions examining attempts to convince young people to change their sexual orientation and gender identity were endorsed by two thirds of respondents<sup>27</sup>; however, these questions were too broad to be operationalized as formal SOGICE. Using questions that more comprehensively explain and address SOGICE will likely expand the rate at which young people report such experiences.

There is also a need to separately examine the associations of sexual orientation change efforts and gender identity change efforts with suicidality among young LGBTQ individuals. Although our question did not allow us to examine these differences, segmentation of

our adjusted logistic regression models by gender identity did not reveal any significant differences. To more clearly describe youth experiences, future studies should attempt to refine how SOGICE is measured, including how experiences differ between sexual orientation change attempts and gender identity change attempts, how age at exposure relates to outcomes, and how experiences differ according to the type of individual (e.g., licensed therapist or religious leader) conducting the efforts.

Finally, our data did not allow us to attend to the impact of parental acceptance on the relationship between conversion therapy and suicidality. In the current data set, young people were asked whether they had disclosed their sexual orientation and gender identity to a parent, and if so they were asked about whether they were accepted. Thus, acceptance data were available for less than two thirds of the sample. In this limited sample, although parental acceptance was significantly associated with reduced suicidality, our SOGICE variable was still significantly positively related to each of the suicidality outcomes (Appendix A, available as a supplement to the online version of this article at <http://www.ajph.org>).

### Public Health Implications

Our findings add empirical data to support the professional consensus that SOGICE is inappropriate and harmful. Our data can be used to inform policies related to the protection of young LGBTQ individuals, as implementation of policies that support these young people has been related to reductions in suicide attempts.<sup>28,29</sup> Currently, only a minority of US states have policies addressing SOGICE efforts targeting minors. Our findings echo those of other recent studies establishing a significant positive association between exposure to change attempts and suicidality among young people.<sup>1,19</sup> Cumulatively, the lack of evidence of SOGICE effectiveness combined with evidence of associated suicidality supports efforts to end SOGICE through policy implementation.

Our data are also valuable in providing education to parents and family members regarding how to support youths in ways that do not compound experiences of minority stress marked by victimization, rejection,

**TABLE 3—Adjusted Odds of Experiencing Suicidality Among Young LGBTQ (Lesbian, Gay, Bisexual, Transgender, and Queer or Questioning) Individuals Who Underwent Sexual Orientation and Gender Identity Change Efforts (SOGICE) and Those Who Did Not: United States, 2018**

| Variable  | Seriously Considered Suicide (n = 22 462), AOR (95% CI) | Attempted Suicide (n = 22 462), AOR (95% CI) | Multiple Suicide Attempts (n = 22 462), AOR (95% CI) |
|---|---|--|--|
| Age, y (Ref = 13–17)  | 0.58 (0.55, 0.61)                                       | 0.44 (0.41, 0.48)                            | 0.40 (0.36, 0.44)                                    |
| Race/ethnicity <sup>a</sup>   |   |  |  |
| White (Ref)   | 1   | 1  | 1  |
| Hispanic/Latinx   | 0.90 (0.82, 0.98)                                       | 1.10 (0.99, 1.22)                            | 1.15 (1.00, 1.31)                                    |
| Black/African American  | 0.82 (0.69, 0.99)                                       | 1.09 (0.87, 1.36)                            | 0.96 (0.71, 1.29)                                    |
| Asian American/Pacific Islander   | 0.88 (0.74, 1.04)                                       | 0.95 (0.78, 1.20)                            | 1.07 (0.79, 1.44)                                    |
| American Indian/Alaska Native   | 1.24 (0.87, 1.76)                                       | 1.87 (1.28, 2.74)                            | 1.87 (1.20, 2.91)                                    |
| Multiple  | 1.14 (1.02, 1.28)                                       | 1.27 (1.11, 1.45)                            | 1.31 (1.11, 1.54)                                    |
| Census region   |   |  |  |
| Northeast (Ref)   | 1   | 1  | 1  |
| South   | 1.01 (0.92, 1.10)                                       | 1.02 (0.91, 1.14)                            | 1.03 (0.88, 1.19)                                    |
| Midwest   | 1.15 (1.05, 1.26)                                       | 1.22 (1.09, 1.36)                            | 1.19 (1.03, 1.39)                                    |
| West  | 1.12 (1.03, 1.23)                                       | 1.16 (1.03, 1.30)                            | 1.06 (0.91, 1.24)                                    |
| Family use of religion to say negative things about being LGBTQ           | 1.61 (1.51, 1.70)                                       | 1.62 (1.50, 1.75)                            | 1.66 (1.50, 1.84)                                    |
| Low family income   | 1.33 (1.25, 1.42)                                       | 1.57 (1.46, 1.70)                            | 1.62 (1.47, 1.80)                                    |
| Sexual orientation  |   |  |  |
| Gay or lesbian (Ref)  | 1   | 1  | 1  |
| Bisexual  | 1.53 (1.43, 1.64)                                       | 1.37 (1.26, 1.49)                            | 1.32 (1.18, 1.48)                                    |
| Straight or something else  | 1.38 (1.27, 1.50)                                       | 1.16 (1.05, 1.28)                            | 1.21 (1.06, 1.38)                                    |
| Transgender/nonbinary   | 1.94 (1.82, 2.08)                                       | 1.87 (1.72, 2.02)                            | 1.78 (1.60, 1.97)                                    |
| Discrimination because of sexual orientation or gender identity           | 1.45 (1.36, 1.56)                                       | 1.62 (1.47, 1.79)                            | 1.55 (1.35, 1.78)                                    |
| Physical threats or harm because of sexual orientation or gender identity | 2.13 (1.98, 2.29)                                       | 2.28 (2.10, 2.47)                            | 2.19 (1.97, 2.42)                                    |
| SOGICE  | 1.76 (1.52, 2.04)                                       | 2.23 (1.93, 2.59)                            | 2.54 (2.16, 2.99)                                    |

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

<sup>a</sup>Racial categories are non-Hispanic.

and internalized stigma.<sup>30</sup> For example, the Family Acceptance Project provides psychoeducation to ethnically and religiously diverse families to help them understand how their reactions to their LGBTQ child, including rejecting and accepting behaviors, can influence their child’s well-being.<sup>31</sup> In addition, given the potential adverse experiences associated with SOGICE, including physical and psychological harm, our results highlight the need for practitioners to screen LGBTQ youths for exposure to SOGICE. Those providing care to LGBTQ youths who have undergone SOGICE should be aware of the higher rates of suicidality in

this population and should work to ensure that youths are safe and supported. To best address the risk of SOGICE among LGBTQ youths, interventions must take place at the policy, family, and provider levels. **AJPH**

**CONTRIBUTORS**

A. E. Green conceptualized the study, conducted primary analyses, and created the initial draft. M. Price-Feeney conducted additional analyses and contributed to writing and revision of the article. S. H. Dorison oversaw data collection and study design and contributed to the drafting of the article. C. J. Pick served as a content expert, drafted text related to legal implications, and contributed to writing and revision of the final article. All of the authors reviewed the final version of the article.

**ACKNOWLEDGMENTS**

A preliminary version of this study was presented at the 2019 National LGBTQ Health Conference in Atlanta, GA.

**CONFLICTS OF INTEREST**

The authors have no conflicts of interest to disclose.

**HUMAN PARTICIPANT PROTECTION**

This study was reviewed and approved by Solutions IRB, an independent institutional review board. A waiver of signed consent was obtained. All participants completed an online consent form that required them to select “yes” to a question inquiring about whether they understood the contents of the consent form and “yes” to a question asking them whether they would like to consent to complete the survey.

**REFERENCES**

1. Turban JL, Beckwith N, Reisner SL, Keuroghlian AS. Association between recalled exposure to gender identity conversion efforts and psychological distress and suicide attempts among transgender adults. *JAMA Psychiatry*. 2020;77(1):68–76.
2. Mallory C, Brown TNT, Conron KJ. *Conversion Therapy and LGBT Youth*. Los Angeles, CA: Williams Institute; 2018.
3. Morrow SL, Beckstead AL. Conversion therapies for same-sex attracted clients in religious conflict: context, predisposing factors, experiences, and implications for therapy. *Couns Psychol*. 2004;32(5):641–650.
4. American Medical Association. LGBTQ change efforts. Available at: <https://www.ama-assn.org/system/files/2019-03/transgender-conversion-issue-brief.pdf>. Accessed May 3, 2020.
5. World Psychiatric Association. WPA position statement on gender identity and same-sex orientation, attraction, and behaviors. Available at: [https://web.archive.org/web/20160417131725/http://www.wpanet.org/detail.php?section\\_id=7&content\\_id=1807](https://web.archive.org/web/20160417131725/http://www.wpanet.org/detail.php?section_id=7&content_id=1807). Accessed May 3, 2020.
6. American Psychological Association Task Force on Appropriate Therapeutic Responses to Sexual Orientation. *Report of the Task Force on Appropriate Therapeutic Responses to Sexual Orientation*. Washington, DC: American Psychological Association; 2009.
7. American Academy of Child & Adolescent Psychiatry. Policy statement on conversion therapy. Available at: [https://www.aacap.org/AACAP/Policy\\_Statements/2018/Conversion\\_Therapy.aspx](https://www.aacap.org/AACAP/Policy_Statements/2018/Conversion_Therapy.aspx). Accessed May 3, 2020.
8. American Psychiatric Association. APA reiterates strong opposition to conversion therapy. Available at: <https://www.psychiatry.org/newsroom/news-releases/apa-reiterates-strong-opposition-to-conversion-therapy>. Accessed May 3, 2020.
9. American Academy of Pediatrics Committee on Adolescence. Homosexuality and adolescence. *Pediatrics*. 1993;92(4):631–634.
10. Mercer J. Evidence of potentially harmful psychological treatments for children and adolescents. *Child Adolesc Social Work J*. 2017;34(2):107–125.
11. Turban JL, King D, Reisner SL, Keuroghlian AS. Psychological attempts to change a person’s gender identity from transgender to cisgender: estimated prevalence across US states, 2015. *Am J Public Health*. 2019; 109(10):1452–1454.

12. Kann L, McManus T, William H, et al. Youth risk behavior surveillance—United States, 2017. *MMWR Surveill Summ*. 2018;67(SS-8):1–114.
13. Johns MM, Lowry R, Andrzejewski J, et al. Transgender identity and experiences of violence victimization, substance use, suicide risk, and sexual risk behaviors among high school students—19 states and large urban school districts, 2017. *MMWR Morb Mortal Wkly Rep*. 2019;68(3):67–71.
14. Thompson M, Kingree J, Lamis D. Associations of adverse childhood experiences and suicidal behaviors in adulthood in a US nationally representative sample. *Child Care Health Dev*. 2019;45(1):121–128.
15. Burton CM, Marshal MP, Chisolm DJ, Suckato GS, Friedman MS. Sexual minority-related victimization as a mediator of mental health disparities in sexual minority youth: a longitudinal analysis. *J Youth Adolesc*. 2013;42(3):394–402.
16. Baams L, Wilson BDM, Russell ST. LGBTQ youth in unstable housing and foster care. *Pediatrics*. 2019;143(3):e20174211.
17. Bouris A, Everett BG, Heath RD, Elsaesser CE, Neilands TB. Effects of victimization and violence on suicidal ideation and behaviors among sexual minority and heterosexual adolescents. *LGBT Health*. 2016;3(2):153–161.
18. Testa RJ, Michaels MS, Bliss W, Rogers ML, Balsam KF, Joiner T. Suicidal ideation in transgender people: gender minority stress and interpersonal theory factors. *J Abnorm Psychol*. 2017;126(1):125–136.
19. Ryan C, Toomey RB, Diaz RM, Russell ST. Parent-initiated sexual orientation change efforts with LGBT adolescents: implications for young adult mental health and adjustment. *J Homosex*. 2020;67(2):159–173.
20. GenIUSS Group. *Best Practices for Asking Questions to Identify Transgender and Other Gender Minority Respondents on Population-Based Surveys*. Los Angeles, CA: Williams Institute; 2014.
21. Miller K, Ryan JM. Design, development, and testing of the NHIS sexual identity question. Available at: <https://www.impactprogram.org/wp-content/uploads/2011/11/Miller-2011-HHS-report-on-measuring-sexual-orientation.pdf>. Accessed May 3, 2020.
22. Nicholson LM, Slater SJ, Chriqui JF, Chaloupka F. Validating adolescent socioeconomic status: comparing school free or reduced price lunch with community measures. *Spat Demogr*. 2014;2(1):55–65.
23. Ensminger ME, Forrest CB, Riley AW, et al. The validity of measures of socioeconomic status of adolescents. *J Adolesc Res*. 2000;15(3):392–419.
24. *IBM SPSS Statistics for Macintosh, Version 25.0*. Armonk, NY: IBM Corp; 2017.
25. Drescher J, Byne W. Introduction to the special issue on “The treatment of gender dysphoric/gender variant children and adolescents.” *J Homosex*. 2012;59(3):295–300.
26. Kimberly LL, Folkers KM, Friesen P, et al. Ethical issues in gender-affirming care for youth. *Pediatrics*. 2018;142(6):e20181537.
27. *National Survey on LGBTQ Mental Health*. New York, NY: The Trevor Project; 2019.
28. Hatzembuehler ML, Keyes KM. Inclusive anti-bullying policies and reduced risk of suicide attempts in lesbian and gay youth. *J Adolesc Health*. 2013;53(1):S21–S26.
29. Raifman J, Moscoe E, Austin SB, McConnell M. Difference-in-differences analysis of the association between state same-sex marriage policies and adolescent suicide attempts. *JAMA Pediatr*. 2017;171(4):350–356.
30. Meyer IH. Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. *Psychol Bull*. 2003;129(5):674–697.
31. Ryan C. Engaging families to support lesbian, gay, bisexual, and transgender youth: the Family Acceptance Project. *Prev Res*. 2010;17(4):11–13.