Sexual Orientation Discordance and Nonfatal Suicidal Behaviors in U.S. High School Students

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Introduction: Studies among adults have documented association between sexual orientation discordance and some suicide risk factors. However, studies examining sexual orientation discordance and nonfatal suicidal behaviors in youth are rare. This study examines the association between sexual orientation discordance and suicidal ideation/suicide attempts among a nationally representative sample of U.S. high school students.

Methods: Using sexual identity and sex of sexual contact measures from the 2015 national Youth Risk Behavior Survey (n = 6,790), a sexual orientation discordance variable was constructed describing concordance and discordance (agreement and disagreement, respectively, between sexual identity and sex of sexual contacts). Three suicide-related questions (seriously considered attempting suicide, making a plan about how they would attempt suicide, and attempting suicide) were combined to create a two-level nonfatal suicide risk variable. Analyses were restricted to students who identified as heterosexual or gay/lesbian, who had sexual contact, and who had no missing data for sex or suicide variables. The association between sexual orientation discordance and nonfatal suicide risk was assessed using logistic regression. Analyses were performed in 2017.

Results: Approximately 4.0% of students experienced sexual orientation discordance. High suicide risk was significantly more common among discordant students compared with concordant students (46.3% vs 22.4%, p < 0.0001). In adjusted models, discordant students were 70% more likely to have had suicidal ideation/suicide attempts compared with concordant students (adjusted prevalence ratio = 1.7, 95% CI = 1.4, 2.0).

Conclusions: Sexual orientation discordance was associated with increased likelihood of nonfatal suicidal behaviors. Discordant adolescents may experience unique stressors that should be considered when developing and implementing suicide prevention programs.

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INTRODUCTION

Adolescence can be a period of turbulence because of the major physical, psychological, and cognitive changes that occur. In addition to their developmental changes, sexual minority youth (e.g., those who identify as lesbian, gay, or bisexual [LGB]) are also at risk of discrimination and potential victimization because of their sexual identity. Higher prevalence of health risks including substance misuse, violence victimization, suicidality, and mental health disorders have been found among sexual minority youth compared with their heterosexual counterparts. These disparities have been linked to several complex issues affecting the LGB population, including stigma, discrimination, victimization, and social exclusion. Previous studies have...
interpreted these disparities using theoretic frameworks, such as the minority stress theory, and have demonstrated that discrimination and other forms of social intolerance that sexual minority youth experience may be associated with chronic stress and depression that may contribute to self-injurious behaviors, including suicidal ideation and suicide attempts.1,8

Several studies have documented a relationship between sexual orientation and suicidal ideation among youth.9,10 Compared with their heterosexual counterparts, sexual minority youth are at a disproportionately greater risk for suicidal ideation and suicide attempts, with some studies suggesting that the disparity may persist into adulthood.11–13 For example, Marshal et al.3 reported that the rate of suicidality among sexual minority youth was about three times higher than the rate observed among heterosexual youth. Limitations in previous research including operational definitions of sexual orientation and the suggestion that sexual minority populations are more likely to report suicide attempts or interpret self-harm behaviors as suicide attempts have made some researchers interpret these disparities with caution.14,15 However, Plöderl and colleagues16 demonstrated that even after accounting for these limitations, evidence still exists of sexual minority individuals having higher risk of suicidal behaviors. The discriminatory behaviors experienced by sexual minority youth may increase the risk for depression and suicidal ideation.14,17,18 Nonetheless, many sexual minority youth successfully transition from childhood to adulthood and become healthy and productive adults, but others do struggle because of the experience of discrimination, stigma, rejection, and sometimes physical aggression.19

Sexual orientation comprises three dimensions—sexual identity, sexual behavior, and sexual attraction.18 Each dimension may assess a unique feature of sexual orientation that may be related to the reported disparity in health risk behaviors and health outcomes.20,21 The majority of studies have used only one of these dimensions to categorize respondents by sexual orientation. Few studies have used multiple dimensions to assess sexual orientation, and in those studies discordance was noted between respondent sexual identity, behavior, and attraction.22,23 Sexual orientation discordance (termed in this study as discordance) refers to the mismatch between the various dimensions of sexual orientation.24 In this study, discordance refers to reporting sexual contact that is inconsistent with a respondent’s sexual identity.25 Discordance may occur for reasons such as homophobia, societal norms that endorse heterosexual relationships, a lack of opportunity to act on one’s sexual identity, or the fluidity of sexual identity that describes sexual experience and desires.26–28 Discrimination, stigma, prejudice, rejection, and societal norms may put pressure on sexual minorities to present a sexual identity inconsistent with their true sexual identity or to act in a manner inconsistent with their sexual identity.29,30 Similarly, anticipation of rejection from sexual minority peers or the fear of others assuming “it’s just a phase” may also cause some youth to present in a discordant manner.31

Studies examining discordance have mostly been conducted in adult populations, and these studies have found associations with some adverse health outcomes and risk behaviors for nonfatal suicidal behaviors, including depression, illicit drug and alcohol use, and risky sexual behaviors.24,25,31 To the authors’ knowledge, no study has examined the relationship between discordance and suicidal ideation or suicide attempt among high school students. Examining this relationship is important to identify the challenges and stressors that adolescents experiencing discordance may encounter and guide the development and implementation of effective suicide prevention strategies for this population. For the first time, the 2015 national Youth Risk Behavior Survey (YRBS) included two measures of sexual orientation—sexual identity and sex of sexual contacts—providing an opportunity to examine discordance and how it relates to nonfatal suicidal behaviors among a nationally representative sample of U.S. high school students. The objective of this study is to address the dearth of knowledge on discordance among adolescents by examining the relationship between sexual orientation discordance and nonfatal suicidal behaviors.

**METHODS**

**Study Population**

The Centers for Disease Control and Prevention (CDC) has administered the YRBS (a nationally representative, cross-sectional, school-based survey) biennially since 1991. The national YRBS uses a three-stage probability sampling methodology to produce a nationally representative sample of students in ninth to 12th grades who attend public and private schools. Details about the sampling strategy and psychometric properties of the 2015 YRBS has been reported elsewhere.5 In summary, the 2015 national YRBS sampling frame consisted of all regular public and private schools with students in at least one of ninth to 12th grades in the 50 states and the District of Columbia.5 Participation of students in the YRBS is voluntary and anonymous and conducted in accordance with local procedures for parental permission. Students completed a self-administered 99-item questionnaire during a regular class period and recorded their responses on an answer sheet or a computer-scannable booklet. The data were weighted to adjust for school and student nonresponse, as well as the oversampling of black and Hispanic students and are representative of all public and private school students in ninth to 12th grades in the U.S.