The role of parental and friend's support preventing suicide among French sexual minority adolescents

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Research Article

Keywords: adolescents, friend's support, parental support, sexual minority, suicide attempt

Posted Date: January 21st, 2022

DOI: <https://doi.org/10.21203/rs.3.rs-1283600/v1>

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Abstract

Introduction: French sexual minority adolescents are at a higher risk for suicide than their heterosexual peers. However, little is known on the role of parental and friend support in French lesbian, gay and bisexual (LGB) youth. The aim of this study was to research the role of parental and friend's support in preventing suicide attempts among LGB adolescents in France.

Methods: Data was drawn from a French cross-sectional study entitled "Portrait d'Adolescents". Chi-square and multiple logistic regression analyses were used to estimate and identify associated factors of suicide attempt in the whole sample, LGB and heterosexual subgroups.

Results: An anonymous self-questionnaire was filled in by 14,265 French adolescents aged 13 to 20 in 2013. Among them, 637 (4.47%) identified as LGB. Attempted suicide was independently associated with sexual orientation (30.7% vs 10.6%; OR=2.04 [1.62-2.56]; $p<0.0001$). Both parental and friend's support appeared to be a protective function in suicide attempts among the heterosexuals (OR=0.52 [0.45-0.60] and OR=0.75 [0.61-0.93]), whereas only parental support was significant in the LGB group (OR=0.51 [0.31-0.82]), independently of other variables.

Conclusions: French LGB adolescents have a higher risk for suicide attempts than their heterosexual peers. Parental support was reconfirmed as a strong protective factor for suicide attempt among sexual minority adolescents.

Policy Implications: The prevention efforts might be achieved by identifying within-group differences among French adolescents with different sexual orientations. The supportive role of family members should be strengthened. Positive resources and healthy support systems may literally be the effective prevention of suicide attempt.

Introduction

Suicide accounted for 1.4% of all deaths worldwide, making it the 18th leading cause of death (World Health Organisation, 2016). Suicide occurred across the age range and was the second leading cause of death among 15–29-year-olds globally (World Health Organisation, 2020). The definition of suicide attempt is "Potentially self-injurious behavior with a nonfatal outcome, for which there is evidence (either implicit or explicit) that the person intended at some (nonzero) level to kill himself/herself." (Nock & Kessler, 2006) According to the European School Survey Project on Alcohol and Other Drugs (ESPAD) in France, 9.5% of high school students have made at least one lifetime suicide attempt. Almost 3% of adolescents aged 17 reported suicide attempts leading to hospitalization (Janssen et al., 2019). Moreover, the adolescents associated with sexual minority status show a higher risk of suicide attempts (Greteman, 2015; Teasdale & Bradley-Engen, 2010; Turpin et al., 2020). Adolescents who identify as

lesbian, gay, and bisexual (LGB) are at least three times more likely to have attempted suicide than their heterosexual peers (Firdion & Beck, 2015; Seil et al., 2014; Williams et al., 2021).

Faced with such a high proportion of suicide attempts among sexual minority adolescents, the identification of protective factors should be a focus. Previous studies reported that some protective factors have been identified and targeted in future interventions of suicide attempts such as family connectedness, acceptance of the mother, teacher caring, other adult caring, and school safety (Green et al., 2021; Johns et al., 2018; Padilla et al., 2010). Among these results, parental and friend's support are considered as the two most important protective factors. For example, the study of Green et al. and Mutumba et al. revealed that both family acceptance and peer friendship play crucial roles in preventing suicide attempts in LGB youth (Green et al., 2021; Mutumba & Harper, 2015). LGB adolescents with anxiety and feelings of pressure are more likely to have suicide attempts than their heterosexual peers. However, friend's support was negatively correlated with psychological distress in American sexual minority students, which means that friend's support could decrease suicide attempt indirectly (Busby et al., 2020; Hatzenbuehler & Keyes, 2013; Liu & Mustanski, 2012). Another study found that social marginalization of LGB adolescents by both peers and family may increase rates of reporting suicide attempts (Puckett et al., 2017). However, in France, we did not find the studies focus on the different roles of parental and friend's support on suicidality among LGB adolescents and their heterosexual peers.

In addition, according to the risk factors, several studies have reported different risk factors associated with suicide attempts in sexual minority adolescents, including depression (Lothwell et al., 2020; Mustanski & Liu, 2013; Whitaker et al., 2016), hopelessness (Mustanski & Liu, 2013; Walls et al., 2008), substance consumption (D'Augelli & Hershberger, 1993), and the recent suicide history of family member or close friend (Lian et al., 2015; Teasdale & Bradley-Engen, 2010). Considering that both protective and risk factors always work together (Janiri et al., 2020), the confirmed risk factors should also be considered in this study.

Based on the previous research results, two hypotheses were tested in this study: 1) The French sexual minority adolescents would experience higher rates of suicide attempts than their heterosexual peers. 2) Parental support and friend's support could reveal protective effects on suicide attempt and the difference could be found between LGB adolescents and their heterosexual peers. And the present study aims to 1) compare the prevalence of suicide attempts among LGB and heterosexual adolescents in France, and 2) confirm the role of parental and friend's support as protective factors among French LGB adolescents.

Methods

Sample and data collection

A school-based population survey, "Portraits of Adolescents: Multicentric Epidemiological Survey in Schools in 2013" was conducted in France (Jousselm et al., 2015). An anonymous questionnaire

containing 348 questions was used to collect the data. Subjects were selected from three different areas in France: Hautes-Alpes (semi-urban district), Val de Marne (urban district), and the Poitou-Charentes region (rural area). An information letter of survey was sent to adult students and parents of minor students (<18 years old). The statistical office carried out a two-level random draw to obtain a representative sample. Finally, a total of 134 schools and 730 classes participated in the survey. This study was approved by the National Commission for Information Technology and Freedom (CNIL) (saisine n°912523).

Participants

15,235 participants aged between 13-20 years old were included and divided into two groups (LGB group and heterosexual group) by sexual orientation.

Measurements

Sexual orientation

Sexual orientation was defined by the question “Who are you attracted to” which included four responses: Boys, Girls, Both, Neither. The heterosexual group is referred to students who had an attraction to those of the opposite sex. The LGB group referred to students who had an attraction to those of the same sex or both sexes. The adolescents who responded that they were not attracted by anyone were excluded from this study.

Suicide attempt

A history of previous suicide attempt (s) was evaluated by the question “During your lifetime, did you attempt suicide?” The adolescents who responded “once” or “several” times were defined as having a history of suicide attempt(s).

Support

For parental support, the question “Generally, how satisfied are you with the relationship of your father/mother?” was asked. Those who answered “very satisfied” and “satisfied” were classified as with parental support; “neither satisfied,” “neither dissatisfied,” “not very satisfied,” and “not satisfied at all” were classified as without parental support.

For friend’s support, the question “how satisfied are you with the relationship of your friends?” was asked. The adolescents who responded “very satisfied” and “satisfied” were classified as have friend’s support. “Neither satisfied,” “neither dissatisfied,” “not very satisfied,” and “not satisfied at all” were classified as without friend’s support.

Other variables

According to the previous studies, the following factors were included in the study due to their potential associations with suicide attempts (Busby et al., 2020; Mustanski & Liu, 2013; Taliaferro & Muehlenkamp,

2017). First, the demographic status was evaluated by age, self-reported biological sex, and region (urban, semi-urban or rural areas). Second, family context was explored with parents' unemployment, parental separation, and the loss of at least one parent. Third, school education was assessed with the school level, and whether they have failed to go up to the next grade. Last, we included some confirmed risk factors: substance consumptions, mental health and other activities. Substance consumptions were evaluated as follows: smoking intensively (at least ten cigarettes per day), drinking regularly (at least 10 times during last 30 days), use of cannabis regularly (consumption of 10 times during last 30 days), and use of other drugs (amphetamine, inhaler, ecstasy, lysergic acid diethylamide [LSD], crack, cocaine, heroin, hallucinogenic mushroom or methylenedioxymethamphetamine [MDMA]). Mental health and other activities were examined by: participation in dangerous games, experience any self-harm, considering adolescence as a difficult period and depression (Adolescent Depression Rating Scale) (Revah-Levy et al., 2007).

Statistical Analysis

First, descriptive analysis was performed to explore the demographic information of participants. Second, bivariate analysis (chi-square) was conducted to determine the statistical extent of differences between self-reported suicide and non-suicide attempters in the whole sample, LGB and heterosexual subgroups. Third, multivariate logistic regression was performed to examine the protective effects of parental and friend's support based on the whole data and further on the data subsets among the LGB and the heterosexual subjects. All tests were two-tailed. The significance level was set at 0.05. Statistical analyses were performed using R (Version 4.1.0).

Results

Demographic information was summarized in Table 1: A sample of 14,265 adolescents was analyzed, 52.2% were female. Among the total sample, 13,628 were heterosexuals (95.5%), and 637 were LGB youth (4.5%). 11.5% of participants reported at least one past suicide attempt. 88.7% reported that they had more than five friends. 31.6% of participants reported to have failed to go up to the next grade, 12.2% had depression, and 21.4% smoking intensively, 9.1% drinking regularly, 19.9% used cannabis regularly, 12.1% consumed other drugs. 62.2% reported having parental support, and 55.6% had friend's support.

Bivariate analyses

The reported suicide attempt was more frequent in LGB adolescents than their heterosexual peers (30.7% vs. 10.6%). The comparison of suicide attempts among LGB and heterosexuals' adolescents is reported in table 2. Gender, age, and grade of school did not show any significant difference in LGB group ($p > 0.05$); however, all of these factors had significance in heterosexual group ($p < 0.05$). The heterosexual youth showed a significantly greater likelihood of drinking regularly, while LGB youth were significantly more likely to consume cannabis regularly. All mental health factors revealed significance in both LGB and heterosexual groups. The factor "considering adolescence as a difficult period" only showed a statistical difference in the heterosexual group ($p < 0.0001$).

Multivariate analyses

Multiple logistic regression analysis was used to examine the protection effects of parental support and friend's support. As shown in Table 3, the analysis was performed in the whole sample and two subgroups (LGB group and heterosexual group).

In the whole sample, the support of parents and friends were identified as protective factors of suicide attempts. Eleven risk factors revealed significance, including gender (female), sexual orientation (LGB), age (more risks for youngers), region (rural area), failure to go up to the next grade, loss of at least one parent, parental separation, illicit drug consumption, participating in dangerous games, considering adolescence as a difficult period, and depression.

In the subgroup analysis, parental support (OR=0.51 [0.31-0.82]) was found as the only protective factor. Smoking intensively was identified as risk factor which had the highest odds ratio (OR=4.00 [1.96-8.30]). Among heterosexual adolescents, both parental support (OR=0.52 [0.45-0.60]) and friend's support (OR=0.75 [0.61-0.93]) were considered as protective factors. Depression was reported as risk factor that had the highest odds ratio (OR=3.01 [2.58-3.52]).

Discussion

This current study is a pioneer cross-sectional study in France to analyze the role of parental and friend's support on suicide attempts among LGB adolescents. Suicide attempt remained associated with sexual orientation when considering possible related variables, which is consistent with previous studies (Green et al., 2021; Williams et al., 2021). A co-twin control study in youth males showed that suicide attempts remained significantly associated with same-gender sexual orientation after adjustment for substance abuse and depressive symptoms (Herrell et al., 1999). However, the proportion of suicide attempts among LGB adolescents in our study is higher than other reported French studies, and the reason we believe is that the other studies used the biased sampling method (snow sampling) or only involved the youth who were willing to participate in the investigation, which would lead to unrepresentative samples (Firdion & Beck, 2015; Janssen et al., 2019).

Among various supports, parental support is identified as one of the most important aspects of improving sexual minority students' wellbeing by many studies (Needham & Austin, 2010; Padilla et al., 2010). Our result showed that only parental support was associated with suicide attempts in the LGB group, independent from other variables. Markham and her coauthors (Markham et al., 2010) reported that positive parenting practices could help sexual minority students to ease stress and lower the risk of maladaptive health status. More specifically, a lower percentage of suicide attempt among sexual minority youth are individuals who have more vital family connectedness and parent connectedness has more impact on attempted suicide than other protective factors (e.g., school connectedness) (Eisenberg & Resnick, 2006). On the other hand, stress from family is significantly associated with suicide attempts (Binder et al., 2018; Brunner et al., 2014; Johns et al., 2018). Sexual minority students who experienced higher rates of family rejection were more likely to report poorer health outcomes: over eight times more

likely to attempt suicide, nearly six times more likely to report to have depression, and over three times more likely to consume illegal drugs compared to their heterosexual peers with a low level of family rejection (Ryan et al., 2009). In France, some studies have reported that family discord and antagonistic relationship with parents were associated with increased suicide risk in general French adolescents (Consoli et al., 2013). Psychiatrists and psychologists confirmed that the multitude of family configurations (single-parent, recomposed, extended, etc.) or the greater family instability (increase in divorces, separations, etc.) would exacerbate this phenomenon of suicide attempts among youth. Family as a structured and reassuring “emotional niche” should allow the child and the adolescent to develop and grow confidently, with a reduced risk of suicide (Cyrlunik, 2011).

Apart from parental support, peer relationships appear important for mediating sexual minority adolescents’ mental health, as parents may have difficulties being confident in their children’s sexuality, and peers could act as an essential model (Johns et al., 2018; Teasdale & Bradley-Engen, 2010). Thoits hypothesized that the best support-givers are the people who have successfully overcome the same or similar stressful situations, and this study found that both the number of friends and friend support is lower in LGB adolescents than heterosexual peers (Thoits, 1986). The possible reason may be that sexual minority individuals are at increased risk of victimization (Mustanski et al., 2011), which will make it not easy to meet and make friends with other peers who have the same sexual orientations. Unfortunately, friend’s support was not identified as protective factor among LGB adolescents in our study. The reason may be that we have not separated the friends these adolescents met through the Internet or in real life, because online dating is the way sexual minority youth prefer to take (DeHaan et al., 2013; Ybarra et al., 2015).

Considering risk factors for suicide attempts in the LGB group, we reported a persistent association with consumption of tobacco and other drugs, as previously reported among the LGB youth (Hidaka et al., 2008; McLaughlin et al., 2012; Padilla et al., 2010). Depression was also reported as a risk factor for suicide attempts (Liu & Mustanski, 2012; Lothwell et al., 2020; Smith et al., 2016). However, after analyzing the National Longitudinal Study of Adolescent Health, Silenzio and his colleagues (2007) reported that drug use and depression were associated with adverse outcomes among heterosexual respondents but not among lesbian, gay, and bisexual respondents (Silenzio et al., 2007).

This study has brought new highlights to the policy implications, especially in France. First, it could provide positive results for the generalization of sexual minority youth health disparities although it does not cover all regions of France. Second, the prevention efforts might be achieved by identifying within-group differences among French adolescents with different sexual orientations. Third, the supportive role of family members should be strengthened. If the knowledge of coming out, sexual orientation and gender identity could be informed among family members, suicide attempt rate of their sexual minority children may decrease. For LGB youth who have unsupportive families or locate in unsupportive environment, positive resources and healthy support systems may literally be the effective prevention of suicide attempt.

This study also has some limitations. First, the suicide attempt in this study was measured only by one single item. It is not enough to answer the frequency of suicide attempts and under what circumstances these behaviors had occurred. Second, the bullying information was not included in the questionnaire, therefore we could not estimate the effect of violent victimization. It is also a meaningful factor related to the impact of parent and friend's support in preventing an attempted suicide. Third, we did not collect the data on race/ethnicity, which ethics committees in France do not recommend; it also seems to be an important factor in some studies (Consolacion et al., 2004). Finally, we did not separate the bisexual adolescents and homosexual adolescents because the sample was too few to be analyzed separately.

Conclusion

French sexual minority adolescents represent a significantly higher risk of suicide attempts than their heterosexual peers. Parental support is confirmed as an influential and effective protective factor that should be systematically researched in regard to prevent suicide attempts among LGB adolescents. Based on this study, further research should focus on the longitudinal investigation to better explain the causal relationship between suicide attempts and related factors.

Declarations

Funding

This research did not receive any specific funding.

Conflicts of interest/Competing interests

No competing financial interests exist.

Availability of data and material (data transparency)

Not applicable

Code availability (software application or custom code)

Not applicable

Consent for publication

All co-authors reviewed and approved the manuscript prior to submission

Acknowledgments

Thanks to David Gregory BARNS for proofreading the article

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Tables

Tables 1-3 are in the supplementary files section.

Supplementary Files

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