



Published in final edited form as:

J Adolesc. 2023 October ; 95(7): 1409–1419. doi:10.1002/jad.12214.

Gender equitable attitudes as a significant mediator of bystander intentions among sexual minority adolescents

Gabriela López¹, Prachi H. Bhuptani^{2,3}, Lindsay M. Orchowski^{2,3}

¹Department of Behavioral and Social Sciences, Center for Alcohol and Addiction Studies, Brown University, Providence, Rhode Island, USA

²Department of Psychiatry and Behavioral Health, Rhode Island Hospital, Providence, Rhode Island, USA

³Department of Psychiatry and Human Behavior, The Warren Alpert Medical School of Brown University, Providence, Rhode Island, USA

Abstract

Introduction: Bystander intervention is a promising approach for prevention of sexual violence. Assessing factors that may promote or hinder bystander intervention among sexual minority adolescents (i.e., lesbian, gay, bisexual, queer) is essential, given high rates of violence among sexual minority youth. Prior research examining barriers and facilitators of bystander intervention intentions does not consider how factors may vary by sexual identity. As such, the current study aimed to (1) examine how barriers and facilitators of bystander intentions, bystander intentions, and bystander behavior vary between heterosexual and sexual minority high school adolescents and (2) explore mediators of the association between sexual identity and bystander intervention intentions. We proposed that students' level of school connectedness, gender equitable attitudes, and anticipated positive consequences of bystander intervention (e.g., having a moral desire to help) would promote bystander intervention intentions, whereas binge drinking, and students anticipated negative consequences of bystander intervention (e.g., fear for one's own safety) would tend to weaken bystander intervention intentions.

Methods: Participants included 2,645 10th grade students ($M_{age} = 15.37$, $SD = 0.61$) recruited from high schools in the Northeast United States.

Results: Sexual minority youth reported higher bystander intentions, bystander behavior, anticipated positive consequences of bystander intervention, gender equitable attitudes, and binge drinking relative to heterosexual youth. Sexual minority youth had lower school connectedness than heterosexual youth. Anticipated negative consequences of bystander intervention did not vary by group. Parallel linear regression analyses found that only anticipated positive consequences

Correspondence Gabriela López, Department of Behavioral and Social Sciences, Brown University, Box G-S121-4, Providence, RI 02912, USA. Gaby_Lopez@brown.edu.

CONFLICT OF INTEREST STATEMENT
The authors declare no conflicts of interest.

ETHICS STATEMENT
All study procedures were approved by the local Institutional Review Board.

of bystander intervention and gender equitable attitudes fully mediated the relationships between sexual identity and bystander intentions.

Conclusions: Bystander intervention programs may benefit from attending to specific facilitators of bystander intervention among sexual minority youth, such as gender equitable attitudes.

Keywords

bystander intentions; gender equitable attitudes; heterosexual adolescents; sexual minority adolescents

1 | INTRODUCTION

Sexual violence is a significant public health concern that emerges early in the lifespan (Kaukinen & DeMaris, 2005). Rates of sexual violence are significantly higher among sexual minority adolescents (i.e., lesbian, gay, bisexual, queer) relative to their heterosexual peers (Norris & Orchowski, 2020; Ray et al., 2022). For example, data from the 2013 New Hampshire Adolescents Risk Behavior Survey found that 26% of sexual minority adolescents have experienced sexual assault relative to 9% of heterosexual adolescents (Edwards, 2018). Additionally, the study found that sexual minority adolescents were 3.60 times more likely to experience sexual violence relative to their heterosexual counterparts (Edwards, 2018). Understanding factors that can be leveraged in several assault prevention approaches for sexual minority adolescents is, therefore, of high importance.

Bystander intervention is a promising approach for preventing sexual violence that engages all members of a community in taking action to notice the risk for harm, and proactively intervene (Orchowski et al., 2020). Whereas several studies have identified correlates of bystander intervention (Mainwaring et al., 2022; Mujal et al., 2021) among high school adolescents (Storer et al., 2016) research examining factors associated with bystander intervention among sexual minority adolescents is limited. One of the reasons this area of research is so limited may be because a recent review highlighted that about 68% of bystander intervention programs do not describe/asses for sexual identity in their research (Kirk-Provencher et al., 2023). One of the few bystander programs that did effectively assess for sexual identity found that the program was effective in reducing sexual violence among sexual majority adolescents, but it was significantly less effective in reducing sexual violence among sexual minority adolescents (Coker et al., 2020). Whereas reduction in sexual violence is related to whether the bystander program was effective in reducing sexual violence (Coker et al., 2020) it also begs the question of whether the program was equally effective in engaging sexual minority adolescents in bystander intervention.

Assessing factors that may both promote sexual minority adolescents' intentions to intervene to decrease rates of sexual violence is of utmost importance in developing more effective violence prevention efforts. Sexual minority students' positionality within a school is likely to influence their intentions to intervene. Current work suggests that individuals are less likely to help other individuals when they do not share similar identities (Levine et al., 2005) which may explain why some students who identify as sexual minorities are less likely to

receive help from bystanders who do not identify as sexual minorities (Wernick et al., 2013). This lends itself to the possibility of sexual minority students not wanting to intervene in sexual violence situations that concern heterosexual students because they do not share similar identities or overall do not feel connected to them as group.

Notably, several prior studies suggest that school connectedness is associated with adolescents' likelihood to intervene to address interpersonal violence, including intervening to address bullying (Ahmed, 2008) and seeking help for students who are excluded (Mulvey et al., 2021). Accordingly, adolescents' connection to their high school community could be a pivotal factor in terms of their intentions to intervene should a sexual violence situation arise. For example, given that carrying a sexual minority identity lends itself to the possibility of the fear of rejection or fear of judgment from others (Riley, 2010), sexual minority students might feel less connected to their schools and students in their schools, and as such may be less likely to intervene in a sexual violence situation.

Prior research also documents an association between gender equitable attitudes and bystander intervention intentions (Martini & De Piccoli, 2020). Gender *inequitable* attitudes are associated with violence perpetration and as such the inverse construct, gender equitable attitudes, are viewed as a protective factor against adolescent relationship abuse (Hill et al., 2021). Studies indicate that individuals who identify as a sexual minority have lower levels of perpetrating gender stereotypes such as sexism (Cowie et al., 2019) and rape norms (Glance & Kaufman, 2020). There are several factors that likely contribute to high gender equitable attitudes among sexual minority youth. Being a part of a minoritized group can bring awareness to other forms of oppression (Meyer, 2003) such as the oppression of gender minorities (i.e., women, gender-queer, gender nonbinary, transgender people) and as such sexual minority adolescents might develop more equitable views towards gender.

Alcohol use is also recognized as a factor that influences bystander intervention behavior (Orchowski et al., 2016). Binge drinking has been identified as a barrier to intervening among bystanders in situations where sexual violence may occur, especially among men (Fleming & Wiersma-Mosley, 2015; Leone et al., 2018). This is very important to understanding bystander intentions among sexual minority adolescents as they are 34% more likely to engage in heavy alcohol use relative to their heterosexual counterparts (Marshall et al., 2008). Given the high rates of alcohol use among sexual minority adolescents, it follows that alcohol use may serve as a specific barrier to bystander intervention intentions among this group of youth.

Apart from school connectedness, beliefs about gender, and alcohol use, research documents several other facilitators and barriers to bystander intervention. According to Bennett et al. (2014) facilitators of helping include factors such as identifying a situation as appropriate for intervention, taking responsibility for helping, having a moral desire to help, feeling safe to step in, the presence of others, and knowing what to do. As further discussed by Bennett et al. (2014), common barriers to helping include a fear of missing a situation, the belief that intervening might further harm a potential victim, and a fear for one's own safety. Sexual minority adolescents fear for their own safety might be more amplified since they are members of a minoritized group (Meyer, 2003). Research which examines

whether facilitators and barriers to bystander intervention vary between sexual minority and heterosexual adolescents is warranted and can help to ensure that bystander intervention tailor programs meet the needs of sexual minority youth.

1.2 | The current study

Given the lack of attention to sexual minorities in the bystander intervention literature (Kirk-Provencher et al., 2023), the current study sought to address two aims: (1) examine how barriers and facilitators of bystander intentions, bystander intentions, and bystander behavior vary between heterosexual and sexual minority high school adolescents; and (2) explore mediators of the association between sexual identity and bystander intentions. For aim 1, we hypothesized that sexual minority adolescents would report both more barriers to bystander intentions (i.e., greater binge drinking, greater anticipated negative consequences of bystander intervention, less school connectedness) and simultaneously more facilitators to bystander intentions (i.e., more gender equitable attitudes, greater anticipated positive consequences of bystander intervention) relative to heterosexual adolescents. For aim 2, we hypothesized that the indirect effect of sexual minority adolescents on bystander intentions would be significant via school connectedness, binge drinking, anticipated negative consequences of bystander intervention, gender equitable attitudes, and anticipated positive consequences of bystander intervention. Specifically, we hypothesized sexual minority identity would be associated with feeling less connected to school (i.e., school connectedness), would report more binge drinking, have more anticipated negative consequences of bystander intervention, have more gender equitable attitudes, and have more anticipated positive consequences of bystander intervention, which all in turn would be associated with bystander intentions to intervene.

2 | METHODS

2.1 | Participants

Participants included 2788 10th grade students ($M_{age} = 15.39$, $SD = 0.63$) recruited from high schools in the Northeast United States. Participants were excluded from the research if they did not provide data on their sexual identity, resulting in an analytic sample of 2645 adolescents ($M_{age} = 15.37$, $SD = 0.61$). The final analytic sample included 51.0% girls, 46.5% boys, and 0.9% students who identified as transgender. The final analytic sample included 11.1% ($n = 293$) sexual minority students and 88.9% ($n = 2,352$) heterosexual students. Given the sensitive nature of data collected within the study, the survey was anonymous in nature. However, state regulatory agencies deemed that it was not feasible to collect information regarding race and ethnicity without the risk of being able to link a survey to a specific student in one of the smaller schools within the study, where racial and ethnic identity was limited. As such, race and ethnicity were not assessed in the study questionnaire. Based on publicly available data from the schools that enrolled in the research, it is estimated that the sample consisted of roughly one-third of adolescents who would identify as a racial and ethnic minority.

2.2 | Procedure

Data were collected in the context of a larger study of sexual assault prevention among high school adolescents. Research procedures were approved by the local Institutional Review Board as well as the local Department of Education. Permission to administer the questionnaire in the schools was granted by the School Board or Head of School at each study site. All data for the current study was collected at baseline, in the fall academic semester, prior to the implementation of other study activities. Parents provided informed consent for child participation in the research via an opt-out procedure. Parents were informed about the research via mail, as well as through videos and meetings hosted by the research team at the school. All adolescents whose parents did not opt them out of the research were provided with a description of the study and provided adolescent assent to participate. In cases where parental consent or adolescent assent for study participation were not granted, adolescents were given alternative activities to complete during questionnaire administration periods. All surveys were anonymous, and participants were informed that the study was voluntary, and they could skip any item that they did not feel comfortable answering. Surveys were administered by trained research staff in health classes, physical education periods, homeroom classes, or other class times designated by the school administration. The survey took approximately 45–60 minutes to complete and was administered via a pencil and paper questionnaire. In some schools, students completed the questionnaire on a laptop computer. Students were compensated with a \$10 gift card for completing the survey. All participants were provided with the contact information for local agencies designed to support victims of trauma and abuse, as well as information about counseling services.

2.3 | Measures

2.3.1 | Demographics—Participants' gender was assessed by asking “What is your gender?” Adolescents reported their gender identity as boy, girl, transgender, prefer not to answer. Participants sexual identity was assessed by asking “Would you describe yourself as:” and the response options included straight, heterosexual, gay/lesbian, queer, bisexual, and prefer not to answer. The study's final sample did not include participants reporting “prefer not to answer” to the sexual identity item.

2.3.2 | Bystander behaviors—Participants' engagement in prosocial bystander behavior over the past 6 months was assessed using seven items drawn from previous work by Cook-Craig et al. (2014). Each item inquired about whether the participant had acted to intervene against a form of sexual violence/relationship abuse or help a victim of these forms of abuse (e.g., “...get help for a friend because they had been forced to have sex or were physically hurt by a boyfriend/girlfriend?”). Participants responded on a 6-point Likert scale that was scored as follows: Not applicable due to no opportunity to intervene (“I didn't have the chance to do this in the past 6 months”), 0 (“I could have done this but didn't”), 1 (“1–2 times”), 2 (“3–5 times”), 3 (“6–9 times”), and 4 (“10+ times”). Items for which participants reported having no opportunity to intervene were treated as missing data. Items for which participants responded “0” to “4” were summed to create total scores for bystander intervention. Higher scores reflected greater engagement in proactive bystander intervention behavior. Internal consistency reliability was calculated at 0.94.

2.3.3 | Bystander intentions—An eight-item scale (Miller et al., 2008, 2012) was used to measure participants' intention to intervene with peers for a number of problem behaviors. Participants were asked how likely they would be to try and stop a peer or friend when they were doing various behaviors (ex: “Making rude or disrespectful comments about a girl's body, clothing, or makeup,” or “Shoving, grabbing, or otherwise physically hurting a girl”). Items were scored on a 5-point Likert scale of 0 (*very unlikely*) to 4 (*very likely*). A summed score was computed—higher scores represent greater likelihood to intervene. Internal consistency reliability was calculated at 0.97.

2.3.4 | Anticipated negative consequences of bystander intervention—Perceptions of social barriers to bystander intervention were assessed using a subset of six items selected from the Pros and Cons of Bystander Behavior Scale (Edwards et al., 2019). Each item asked participants to indicate how much they believed they would receive a particular negative social reaction from peers if they intervened against sexual violence (ex: “Helping to prevent sexual violence could make people mad at me or “People will think I am trying to get involved with drama if I help to prevent sexual violence). Items were scores on a 5-point Likert scale of 0 (*very unlikely*) to 4 (*very likely*). This scale has been used in prior research (Mulla et al., 2022). Internal consistency reliability was calculated at 0.81.

2.3.5 | Anticipated positive consequences of bystander intervention—Perceptions of facilitators to bystander intervention were assessed using a subset of four items selected from the Pros and Cons of Bystander Behavior Scale (Edwards et al., 2019). These items were “If I try to do something when I see risk for sexual violence, I can keep someone from being hurt,” “It is important for all students at my school to be part of keeping everyone safe,” “Students at my school will think I am cool if I help to prevent sexual violence,” and “Even if I don't know the person, I can still help to stop sexual violence.” Participants responded on a scale of 0 (*very unlikely*) to 4 (*very likely*). Internal consistency reliability was calculated at 0.78.

2.3.6 | School connectedness—School connectedness was measured via seven items. Items were drawn from various subscales in the California Healthy Kids Survey (CHKS) and the California School Climate Survey (CSCS), both part of the *California School Climate, Health, and Learning Surveys* (Cal-SCHLS; Austin et al., 2014). Items were also adapted from the National Longitudinal Study of Adolescent Health (McNeely et al., 2002). Questions were adapted to reflect the student's perspective, rather than the perception of a staff member or teacher. Participants were asked to rate how they felt about a variety of statements regarding school connectedness. Example items included “I feel close to people at my school,” or “This school is a safe place for students.” Participants responded on a scale of 0 (*strongly disagree*) to 4 (*strongly agree*). Items were summed to create a single score, such that higher scores indicated higher levels of school connectedness. Internal reliability was measured at 0.93.

2.3.7 | Gender equitable attitudes—Attitudes about masculine norms and gender equity were measured with 12 items adapted from Barker's Gender Equitable Norms Scale (Pulerwitz & Barker, 2008), previously used by Miller and colleagues (Miller et al., 2012).

Participants were asked to report how much they agreed with statements such as “In a good dating relationship, the guy gets his way most of the time” and “A guy never needs to hit another guy to get respect.” Participants responded on a scale of 0 (*strongly disagree*) to 3 (*strongly agree*). A mean score was computed from the 12 items. Higher scores indicated more gender equitable attitudes (i.e., less rigid attitudes about masculinity). Internal reliability was calculated at 0.78.

2.3.8 | Binge drinking—One item from the Youth Risk Behavior Survey (Centers for Disease Control and Prevention, 2019) was used to assess binge drinking. Participants responded to a one-item question, “During the past MONTH (30 days), on how many days did you have 4 or more (*if you are female*) or 5 or more (*if you are male*) drinks of alcohol in a row, within a couple of hours? A drink of alcohol is a 12-ounce beer, a 5-ounce glass of wine, or a 1.5 ounce of liquor.” Response options included: I have never drank alcohol; 0 days; 1 or 2 days; 3 to 9 days; 10 to 19 days; 20 to 31 days.

2.4 | Data analysis plan

To explore Aim 1, t-tests were conducted with sexual identity as the independent variable and each of the study variables (i.e., bystander behavior, bystander intentions, anticipated positive consequences of bystander intervention, anticipated negative consequences of bystander intervention, school connectedness, gender equitable attitudes, and binge drinking) as the dependent variables. Since there were 7 t-tests we adjusted the alpha value for a family-wise error ($0.05/7 = 0.007$). T-Tests needed to be significant at the $p = .007$ significance level to be considered statistically significant for the results below. To explore aim 2, the “PROCESS” macro, model 4, v4.1 (Hayes, 2015) in SPSS version 27 with bias-corrected 95% confidence intervals ($n = 5000$) was used to test the significance of the indirect (i.e., mediated) effects on bystander intentions. Because nonsignificant univariate findings may at times be significant in multivariate analysis (Lo et al., 1995), all study variables were included in analyses for Aims 1 and 2 regardless of significance of Aim 1 results.

3 | RESULTS

3.1 | Aim 1: Examine how barriers and facilitators of bystander intentions, bystander intentions, and bystander behavior vary between heterosexual and sexual minority high school adolescents

Means and standard deviations for all study variables are provided in Table 1. Overall, statistically significant differences existed between groups across all study variables except for *anticipated negative consequences of bystander intervention* among sexual minority and heterosexual students. Specifically, a t-test was conducted with sexual identity as the independent variable and bystander behaviors as the dependent variable. The t-test was significant $t(2,381) = -6.91, p < .001$ indicating that sexual minority students had significantly higher bystander behavior ($M = 4.81, SD = 5.20$) than heterosexual students ($M = 2.99, SD = 3.92$). A second t-test was conducted with sexual identity as the independent variable and bystander intentions as the dependent variable. The t-test was significant $t(2,296) = -4.69, p = .001$ indicating that sexual minority students had significantly higher

bystander intentions ($M = 23.14$, $SD = 9.76$) than heterosexual students ($M = 20.02$, $SD = 10.04$).

The t-test for anticipated positive consequences of bystander intervention was significant ($t(2090) = -3.93$, $p < .001$) indicating that sexual minority students had significantly higher anticipated positive consequences of bystander intervention ($M = 2.15$, $SD = 0.53$) than heterosexual students ($M = 2.00$, $SD = 0.58$). The t-test for anticipated negative consequences of bystander intervention barriers was not significant ($t(2191) = -1.40$, $p = .161$) indicating that students did not differ on anticipated negative consequences of bystander intervention based on their sexual identity. The t-test for school connectedness was significant ($t(2195) = 5.09$, $p < .001$) indicating that sexual minority students had significantly lower school connectedness ($M = 2.12$, $SD = 1.01$) than heterosexual students ($M = 2.44$, $SD = 0.92$). The t-test for gender equitable attitudes was significant ($t(2400) = -9.35$, $p < .001$) indicating that sexual minority students had significantly higher gender equitable attitudes ($M = 2.50$, $SD = 0.44$) than heterosexual students ($M = 2.23$, $SD = 0.45$). Last, independent samples t-test for binge drinking was significant ($t(2618) = -3.82$, $p < .001$) indicating that sexual minority students had significantly higher rates of binge drinking ($M = 0.79$, $SD = 1.04$) than heterosexual students ($M = 0.58$, $SD = 0.86$).

3.2 | Aim 2. Explore mediators of the association between sexual identity and bystander intentions

A parallel mediation analysis was conducted to explore significant mediators of bystander intentions (dependent variable) and sexual identity (independent variable). The mediation analyses included the following mediators: (1) anticipated positive consequences of bystander intervention, (2) anticipated negative consequences of bystander intervention, (3) school connectedness, (4) gender equitable attitudes, and (5) binge drinking (see Figure 1).

3.2.1 | Independent variable to mediators—Sexual identity was significantly associated with anticipated positive consequences of bystander intervention ($b = 0.14$, $t = 3.46$, $p = .0005$), school connectedness ($b = -0.32$, $t = -4.83$, $p < .001$), gender equitable attitudes ($b = 0.28$, $t = 8.64$, $p < .001$), and binge drinking ($b = 0.23$, $t = 3.61$, $p < .001$). However, sexual identity was not significantly associated with anticipated negative consequences of bystander intervention ($b = 0.04$, $t = 0.85$, $p = .393$) (Table 2).

3.2.2 | Mediators to bystander intentions—The following mediators were significantly associated with bystander intentions: anticipated positive consequences of bystander intervention ($b = 5.26$, $t = 12.83$, $p < .001$), gender equitable attitudes ($b = 5.65$, $t = 11.12$, $p < .001$). Further, anticipated negative consequences of bystander intervention ($b = -0.32$, $t = -0.89$, $p = .371$), school connectedness ($b = -0.14$, $t = -0.61$, $p = .544$), and binge drinking ($b = -0.18$, $t = -0.77$, $p = .441$) were not significantly associated with *bystander intentions*.

3.2.3 | Overall model—Without the mediators in the model, sexual identity was significantly associated with bystander intentions (c path) ($b = 3.11$, $t = 4.60$, $p < .001$). Whereas the total effect of sexual identity on bystander intentions was significant ($b = 3.40$,

$t = 4.79, p < .001$), the direct effect, i.e., the effect of sexual identity in the presence of the mediators, was not significant ($b = 1.08, t = 1.68, p = .094$). The indirect effect of sexual identity on bystander intentions was significant via anticipated positive consequences of bystander intervention ($b = 0.75, SE = 0.22, 95\% CI = 0.32-1.20$) and gender equitable attitudes ($b = 1.57, SE = 0.24, 95\% CI = 1.12-2.07$). The indirect effect of sexual identity on bystander intentions was not significant via the remaining mediators, i.e., anticipated negative consequences of bystander intervention ($b = -0.01, SE = 0.02, 95\% CI = -0.07 - 0.03$), school connectedness ($b = 0.04, SE = 0.08, 95\% CI = -0.12 - 0.21$), and binge drinking ($b = -0.04, SE = 0.06, 95\% CI = -0.18 - 0.08$).

4 | DISCUSSION

The current study investigated how barriers and facilitators of bystander intentions varied between heterosexual and sexual minority high school adolescents. As hypothesized, findings suggest that sexual minority students reported significantly higher bystander behavior, higher bystander intentions, more anticipated positive consequences of bystander intervention, and higher gender equitable attitudes compared to their heterosexual peers. Further, the study also identified gender equitable attitudes and anticipated positive consequences of bystander intervention as factors that promote greater bystander intervention intentions among sexual minorities, which was consistent with our hypotheses.

Nationwide, schools are implementing bystander intervention programs which posit that *all* members of the community have the responsibility in preventing violence (Coker et al., 2017). By shifting responsibility for preventing violence to members of a community, bystander intervention programs consider all students as potential witnesses to harm, and allies in creating safer schools. Such an approach moves beyond traditional violence prevention philosophy that views participants as either potential victims or perpetrators. Identifying strategies to promote bystander intervention among sexual minority adolescents is especially important in light of data suggesting that sexual minority youth report greater peer victimization of all kinds (e.g., sexual harassment, dating violence, sexual assault, bullying) (Norris & Orchowski, 2020). Further, one of the few bystander programs that assessed for sexual identity found the project was less effective in reducing sexual violence among sexual minority adolescents relative to sexual majority adolescents (Coker et al., 2020). The need for additional research attending to sexual minority adolescents in bystander intervention is further underscored by Kirk-Provencher's et al. (2023) review of bystander intervention programs, which found that bystander intervention programs for youth often fail to include content relevant to sexual identity in the curriculum, and rarely describe participants sexual identity. No studies in Kirk-Provencher and colleagues (2023) review reported outcomes specific to sexual minorities.

Consistent with our hypothesis, sexual minority adolescents in the current study engaged in higher levels of bystander intervention compared to their heterosexual peers, and also reported higher levels of intentions to intervene, compared to their heterosexual peers. To our knowledge, this is the first study to examine differences in engagement of bystander intervention by sexual identity among high school students. One nation-wide study ($N = 474,395$ undergraduate students) found similar patterns of results among college students

(Hoxmeier et al., 2022) where sexual minority college students reported engaging in more bystander behaviors compared to their heterosexual peers. Further research is needed to replicate these findings. Qualitative research is especially needed to understand what motivates sexual minority students to step in.

Gender-equitable norms—understood as socially prescribed definitions of masculinity and power distribution in sexual relationships—have been globally recognized as critical components of violence prevention (Krug et al., 2002). As expected, sexual minority youth in the current sample reported greater endorsement of gender equitable attitudes compared to their heterosexual peers. Prior research suggests that sexual minority individuals report lower levels of various types of gender-related attitudes such as rape supportive norms (Glance & Kaufman, 2020), gendered sexual scripts (Fournier et al., 2022), sexist attitudes (Cowie et al., 2019) compared to their heterosexual counterparts. Previous research also highlights the role of gender equitable attitudes in bystander intervention behavior (McCauley et al., 2013).

Becoming an effective bystander includes engaging in different behaviors including identifying a situation as appropriate for intervention, taking responsibility for helping, having a moral desire to help, feeling safe to step in, the presence of others, and knowing what to do (Bennett et al., 2014). Findings suggest that, in line with our hypothesis, sexual minority adolescents endorsed greater anticipated positive consequences of bystander intervention compared to heterosexual peers. Surprisingly, sexual minority adolescents and their heterosexual peers did not differ on anticipated negative consequences of bystander intervention. These findings highlight that more scholarship is required to identify anticipated negative consequences of bystander intervention that may be unique to sexual minority adolescents. Banyard's (2015) model of bystander intervention suggests that the decision to engage in bystander intervention is influenced by a complex combination of information and feedback based on a person's unique social positionality and accompanied power. In the case of sexual minority adolescents, there may be additional anticipated negative consequences of bystander intervention based on unique fears stemming from minority stressors.

As expected, sexual minority adolescents in this study reported higher binge drinking rates. Pattern of results are consistent with previous findings that reported elevated substance use (Johns et al., 2018), particularly binge drinking (Fish et al., 2019; Schuler & Collins, 2020). Given the higher prevalence rates of alcohol use and binge drinking among sexual minorities and that alcohol use is a factor that influences bystander intervention behavior (Orchowski et al., 2016) it is still important to incorporate alcohol use considerations into the development of future bystander interventions specific to sexual minorities. For example, bystander intervention programs can include information to participants on how alcohol use might impact both their ability to perceive a risky situation as well as intervene as an active bystander. Bystander interventions programs could consider equipping participants with tools despite participants being under the influence of alcohol use when coming across a risky situation.

Regarding school connectedness, sexual minority adolescents endorsed lower levels of school connectedness. A positive bivariate correlation between school connectedness and bystander behavior among sexual minority adolescents was also revealed. Similar patterns of associations were obtained for binge drinking and bystander behavior and intentions, such that consistent with prior research, higher levels of binge drinking (Jozkowski et al., 2021; Orchowski et al., 2016) and lower levels school connectedness (Ahmed, 2008; Knox et al., 2021) were associated with reduced engagement in bystander behavior and intentions among both sexual minorities and heterosexual adolescents.

Data also indicated that gender equitable attitudes and anticipated positive consequences of bystander intervention explained higher endorsement of bystander intentions among sexual minority adolescents, compared to their heterosexual counterparts. These findings have implications for sexual assault prevention programs, which to date, have paid little attention to the ways in which mechanisms of bystander intervention intentions may vary by sexual identity (Kirk-Provencher et al., 2023). Although additional research is needed to expand upon and replicate the current findings, it is possible that culturally responsive bystander intervention training programs can be tailored to include a discussion around gender equitable norms (e.g., using nongendered sexual scripts, dismantling gender stereotypes such as sexism, and discussing rape norms).

Contrary to our hypothesis, school connectedness, binge drinking, and anticipated negative consequences of bystander intervention did not mediate the relationship between bystander intentions among sexual minority adolescents and their heterosexual counterparts. Despite sexual minority individuals reporting lower levels of school connectedness and higher levels of binge drinking, these two factors were not associated with intention to engage in bystander behavior. One reason that may explain these results is that the association of school connectedness on intention to intervene is washed out by sexual minority's gender equitable attitudes and responsibility to intervene. Further, whereas binge drinking may not be associated with intentions to intervene, it may restrict the actual bystander behavior (Leone et al., 2018; Leone & Parrott, 2019). Given that sexual minority individuals did not differ from their heterosexual counterparts on anticipated negative consequences of bystander intervention, it was not surprising that this construct did not emerge as significant mediator.

4.1 | Limitations and future directions

The results of the current study should be interpreted in the context of limitations. All variables included in the study were self-reported; the validity of our findings remains dependent on the accuracy of students' self-reports. Given the negative view toward not intervening in a situation potentially involving violence, some individuals may have felt a response bias or pressure to respond in a socially acceptable way. Further, while we focus on one sociodemographic variable, future research should aim to investigate bystander intervention through an intersectionality (e.g., race/ethnicity, gender) lens to develop a comprehensive understanding of how social positionality influences bystander intentions and intervention. This program of research should build off the burgeoning evidence that has examined race (Burns et al., 2019) and gender (Hoxmeier et al., 2020) in relation

to bystander intervention. Mediation analyses in this study also focused on bystander intentions as the primary outcome. Intentions do not always map on to behaviors and as such future work should consider looking at mechanisms of bystander behavior among sexual minorities. Lastly, the cross-sectional design of the study precludes any conclusions regarding the casual nature of the correlates examined in the study. Future research should adopt longitudinal designs to examine whether these correlates predict bystander behaviors and intentions over time.

Equitable sexual assault prevention efforts require that intervention strategies recognize the intersectional identities of program participants, and the ways in which identity may influence engagement in violence prevention strategies. The current study adds to the literature by examining ways in which facilitators and barriers to bystander intervention vary among adolescents as a function of sexual identity. Continued work is needed to understand the ways in which sexual assault prevention programs in general, and bystander intervention training programs more specifically, are meeting the needs of sexual minority youth.

ACKNOWLEDGMENTS

The authors would like to thank the high school students for their participation in this study. This research was supported through the following funding: U01CE002531 (PI: Orchowski), and training support was provided to Dr. Gabriela Lopez (T32 AA007459, PI Monti; K99 AA030079, PI López).

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

REFERENCES

- Ahmed E (2008). 'Stop it, that's enough': Bystander intervention and its relationship to school connectedness and shame management. *Vulnerable Children and Youth Studies*, 3(3), 203–213.
- Austin G, Bates S, & Duerr M (2014). In Administration I, Ed. Guidebook for the California Healthy Kids Survey part. West. Retrieved from http://chks.wested.org/resources/chks_guidebook_1_admin.pdf
- Banyard VL (2015). *Toward the next generation of bystander prevention of sexual and relationship violence: Action coils to engage communities*. Springer.
- Bennett S, Banyard VL, & Garnhart L (2014). To act or not to act, that is the question? Barriers and facilitators of bystander intervention. *Journal of Interpersonal Violence*, 29(3), 476–496. [PubMed: 24097909]
- Burns VL, Eaton AA, Long H, & Zapp D (2019). Exploring the role of race and gender on perceived bystander ability and intent: Findings before and after exposure to an online training program to prevent sexual assault on campus. *Violence Against Women*, 25(8), 999–1017. [PubMed: 30449266]
- Centers for Disease Control and Prevention. Available at: www.cdc.gov/yrbps. (2019). Accessed on Youth Risk Behavior Survey Questionnaire July 24, 2019.
- Coker AL, Bush HM, Clear ER, Brancato CJ, & McCauley HL (2020). Bystander program effectiveness to reduce violence and violence acceptance within sexual minority male and female high school students using a cluster RCT. *Prevention Science*, 21(3), 434–444. [PubMed: 31907755]
- Coker AL, Bush HM, Cook-Craig PG, DeGue SA, Clear ER, Brancato CJ, Fisher BS, & Recktenwald EA (2017). RCT testing bystander effectiveness to reduce violence. *American Journal of Preventive Medicine*, 52(5), 566–578. [PubMed: 28279546]

- Cook-Craig PG, Coker AL, Clear ER, Garcia LS, Bush HM, Brancato CJ, Williams CM, & Fisher BS (2014). Challenge and opportunity in evaluating a diffusion-based active bystander prevention program: Green dot in high schools. *Violence against women*, 20(10), 1179–1202. [PubMed: 25255794]
- Cowie LJ, Greaves LM, & Sibley CG (2019). Sexuality and sexism: Differences in ambivalent sexism across gender and sexual identity. *Personality and Individual Differences*, 148, 85–89. 10.1016/j.paid.2019.05.023
- Edwards KM (2018). Incidence and outcomes of dating violence victimization among high school youth: The role of gender and sexual orientation. *Journal of Interpersonal Violence*, 33(9), 1472–1490. [PubMed: 26668180]
- Edwards KM, Banyard VL, Sessarego SN, Waterman EA, Mitchell KJ, & Chang H (2019). Evaluation of a bystander-focused interpersonal violence prevention program with high school students. *Prevention Science*, 20(4), 488–498. [PubMed: 30762156]
- Fish JN, Schulenberg JE, & Russell ST (2019). Sexual minority youth report high-intensity binge drinking: The critical role of school victimization. *Journal of Adolescent Health*, 64(2), 186–193.
- Fleming WM, & Wiersma-Mosley JD (2015). The role of alcohol consumption patterns and prosocial bystander interventions in contexts of gender violence. *Violence Against Women*, 21(10), 1259–1283. [PubMed: 26175516]
- Fournier LF, Pathak N, Hoffmann AM, & Verona E (2022). A comparison of sexual minority and heterosexual college students on gendered sexual scripts and sexual coercion perpetration. *Journal of Interpersonal Violence*, 38(7–8), 6167–6194. 10.1177/08862605221130389 [PubMed: 36305550]
- Glance AM, & Kaufman KL (2020). Sexual consent attitudes and rape-supportive norms among gender and sexual minority students. *Analyses of Social Issues and Public Policy*, 20(1), 657–675.
- Hayes AF (2015). An index and test of linear moderated mediation. *Multivariate Behavioral Research*, 50(1), 1–22. [PubMed: 26609740]
- Hill AL, Miller E, Switzer GE, Abebe KZ, Chang JC, Pulerwitz J, Brush LD, & Hill AV (2021). Gender equitable attitudes among adolescents: A validation study and associations with sexual health behaviors. *Adolescent Research Review*, 7, 523–536.
- Hoxmeier JC, Acock AC, & Flay BR (2020). Students as prosocial bystanders to sexual assault: Demographic correlates of intervention norms, intentions, and missed opportunities. *Journal of Interpersonal Violence*, 35(3–4), 731–754. 10.1177/0886260517689888 [PubMed: 29294634]
- Hoxmeier JC, Mennicke A, & McMahon S (2022). Bystander intervention opportunities and prosocial behaviors among gender and sexual minority college students. *Journal of Interpersonal Violence*, 37(9–10), NP6439–NP6465. [PubMed: 33084481]
- Johns MM, Lowry R, Raspberry CN, Dunville R, Robin L, Pampati S, Stone DM, & Mercer Kollar LM (2018). Violence victimization, substance use, and suicide risk among sexual minority high school students - United States, 2015-2017. *MMWR. Morbidity and Mortality Weekly Report*, 67(43), 1211–1215. 10.15585/mmwr.mm6743a4 [PubMed: 30383738]
- Jozkowski KN, Willis M, Hurd LE, Ham LS, Bridges AJ, & Wiersma-Mosley JD (2021). The interaction of rape myth acceptance and alcohol intoxication on bystander intervention. *Journal of Interpersonal Violence*, 36(17–18), NP10066–NP10076. [PubMed: 31315505]
- Kaukinen C, & DeMaris A (2005). Age at first sexual assault and current substance use and depression. *Journal of Interpersonal Violence*, 20(10), 1244–1270. [PubMed: 16162488]
- Kirk-Provencher KT, Spillane NS, Schick MR, Chalmers SJ, Hawes C, & Orchowski LM (2023). Sexual and gender minority inclusivity in bystander intervention programs to prevent violence on college campuses: A critical review. *Trauma, Violence & Abuse*, 24(1), 110–124.
- Knox J, Gibson S, Gönülta S, & Mulvey KL (2021). School connectedness and bystander intervention: The moderating role of perceived exclusion and privilege among African American students. *School Psychology Review*, 50(2–3), 316–329.
- Krug EG, Mercy JA, Dahlberg LL, & Zwi AB (2002). The world report on violence and health. *The Lancet*, 360(9339), 1083–1088.

- Leone RM, Haikalis M, Parrott DJ, & DiLillo D (2018). Bystander intervention to prevent sexual violence: The overlooked role of bystander alcohol intoxication. *Psychology of Violence*, 8(5), 639–647. [PubMed: 30505616]
- Leone RM, & Parrott DJ (2019). Acute alcohol intoxication inhibits bystander intervention behavior for sexual aggression among men with high intent to help. *Alcoholism: Clinical and Experimental Research*, 43(1), 170–179. [PubMed: 30500086]
- Levine M, Prosser A, Evans D, & Reicher S (2005). Identity and emergency intervention: How social group membership and inclusiveness of group boundaries shape helping behavior. *Personality and Social Psychology Bulletin*, 31(4), 443–453. [PubMed: 15743980]
- Lo SK, Li IT, Tsou TS, & See L (1995). [Non-significant in univariate but significant in multivariate analysis: A discussion with examples]. *Changgeng Yi Xue Za Zhi*, 18(2), 95–101. [PubMed: 7641117]
- Mainwaring C, Gabbert F, & Scott AJ (2022). A systematic review exploring variables related to bystander intervention in sexual violence contexts. *Trauma, Violence & Abuse*, 24(3), 1727–1742.
- Marshal MP, Friedman MS, Stall R, King KM, Miles J, Gold MA, Bukstein OG, & Morse JQ (2008). Sexual orientation and adolescent substance use: A meta-analysis and methodological review. *Addiction*, 103(4), 546–556. [PubMed: 18339100]
- Martini M, & De Piccoli N (2020). Predicting bystander intention to intervene: The role of gender-specific system justification and rape myth acceptance for men and women. *Frontiers in Psychology*, 11, 326. [PubMed: 32231611]
- McCauley HL, Tancredi DJ, Silverman JG, Decker MR, Austin SB, McCormick MC, Virata MC, & Miller E (2013). Gender-equitable attitudes, bystander behavior, and recent abuse perpetration against heterosexual dating partners of Male high school athletes. *American Journal of Public Health*, 103(10), 1882–1887. 10.2105/ajph.2013.301443 [PubMed: 23947324]
- McNeely CA, Nonnemaker JM, & Blum RW (2002). Promoting school connectedness: Evidence from the national longitudinal study of adolescent health. *Journal of School Health*, 72(4), 138–146. [PubMed: 12029810]
- Meyer IH (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 129(5), 674–697. [PubMed: 12956539]
- Miller E, Heisterkamp A, & Moideen F (2008). Coaching boys into men”: Training coaches to influence young male athletes to prevent violence against women and girls. Poster Presented at American Public Health Association.
- Miller E, Tancredi DJ, McCauley HL, Decker MR, Virata MCD, Anderson HA, Stetkevich N, Brown EW, Moideen F, & Silverman JG (2012). “Coaching boys into men”: A cluster-randomized controlled trial of a dating violence prevention program. *Journal of Adolescent Health*, 51(5), 431–438.
- Mujal GN, Taylor ME, Fry JL, Gochez-Kerr TH, & Weaver NL (2021). A systematic review of bystander interventions for the prevention of sexual violence. *Trauma, Violence & Abuse*, 22(2), 381–396.
- Mulla MM, Haikalis M, Orchowski LM, & Berkowitz AD (2022). The prospective influence of perceived social norms on bystander actions against sexual violence and relationship abuse: a multiple mediation model. *Journal of Interpersonal Violence*, 37(3–4), NP2313–NP2337. [PubMed: 32618213]
- Mulvey KL, Gönülta S, Irdam G, Carlson RG, DiStefano C, & Irvin MJ (2021). School and teacher factors that promote adolescents' bystander responses to social exclusion. *Frontiers in Psychology*, 11, 581089. [PubMed: 33505333]
- Norris AL, & Orchowski LM (2020). Peer victimization of sexual minority and transgender youth: A cross-sectional study of high school students. *Psychology of Violence*, 10(2), 201–211. [PubMed: 35979532]
- Orchowski LM, Berkowitz A, Boggis J, & Oesterle D (2016). Bystander intervention among college men: The role of alcohol and correlates of sexual aggression. *Journal of Interpersonal Violence*, 31(17), 2824–2846. [PubMed: 25944836]

- Orchowski LM, Edwards KM, Hollander JA, Banyard VL, Senn CY, & Gidycz CA (2020). Integrating sexual assault resistance, bystander, and men's social norms strategies to prevent sexual violence on college campuses: A call to action. *Trauma, Violence & Abuse, 21*(4), 811–827.
- Pulerwitz J, & Barker G (2008). Measuring attitudes toward gender norms among young men in Brazil: Development and psychometric evaluation of the GEM scale. *Men and Masculinities, 10*(3), 322–338.
- Ray CM, Norris AL, Liu GS, Bogen KW, Pearlman DN, Reidy DE, Estefan LF, & Orchowski LM (2022). Interpersonal violence victimization experiences of middle school youth: An exploration by gender and sexual/romantic attraction. *Journal of Homosexuality, 10.1080/00918369.2022.2082907*
- Riley BH (2010). GLB adolescent's "coming out": GLB adolescent's "coming out". *Journal of Child and Adolescent Psychiatric Nursing, 23*(1), 3–10. [PubMed: 20122082]
- Schuler MS, & Collins RL (2020). Sexual minority substance use disparities: bisexual women at elevated risk relative to other sexual minority groups. *Drug and Alcohol Dependence, 206*, 107755. [PubMed: 31810051]
- Storer HL, Casey E, & Herrenkohl T (2016). Efficacy of bystander programs to prevent dating abuse among youth and young adults: A review of the literature. *Trauma, Violence & Abuse, 17*(3), 256–269.
- Wernick LJ, Kulick A, & Inglehart MH (2013). Factors predicting student intervention when witnessing anti-LGBTQ harassment: The influence of peers, teachers, and climate. *Children and Youth Services Review, 35*(2), 296–301.

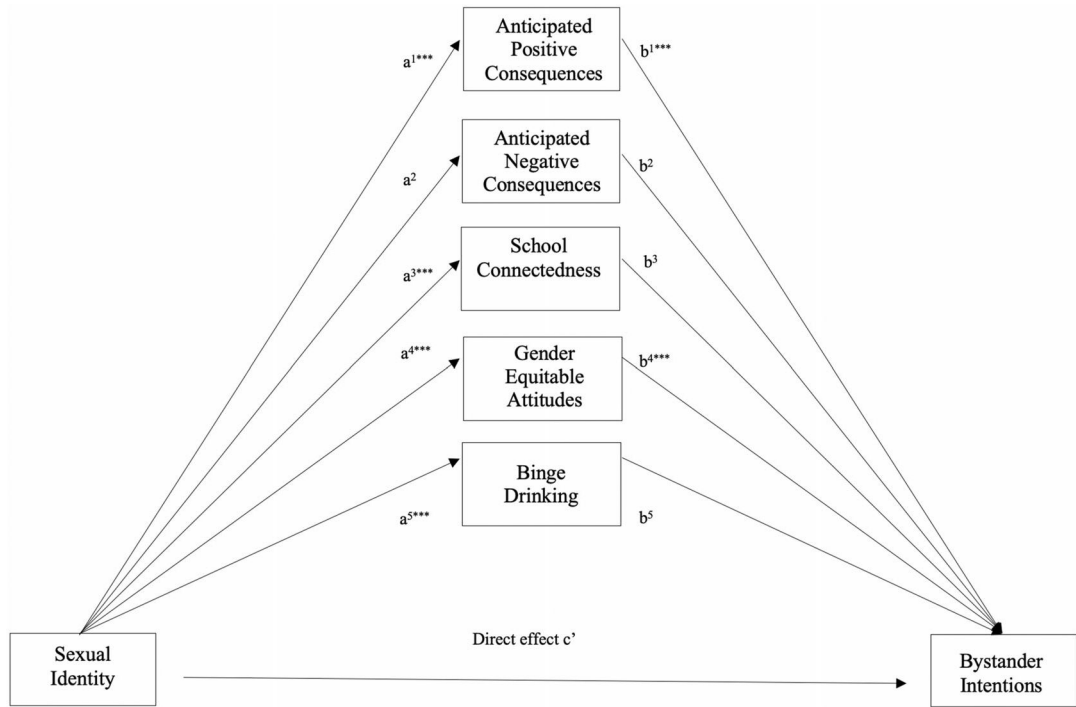


FIGURE 1. Parallel mediation model of sexual identity and bystander intentions. *** means significant at the $p < .001$ level.

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

TABLE 1

Means, standard deviations, and t-tests among heterosexual and sexual minority students.

Study variable	Heterosexual students		Sexual minority students		Total		t-Test		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>T statistic</i>	<i>p value</i>
Bystander behavior	2.99	3.92	4.81	5.20	3.17	4.13	2381	-6.91	.001
Bystander intentions	20.02	10.04	23.14	9.76	20.27	10.17	2296	-4.69	.001
Anticipated positive consequences	2.00	0.58	2.15	0.53	2.01	0.58	2090	3.93	.001
Anticipated negative consequences	1.32	0.59	1.37	0.60	1.32	0.60	2191	-1.40	.161
School connectedness	2.44	0.92	2.12	1.01	2.40	0.94	2195	5.09	.001
Gender equitable Aattitudes	2.23	0.44	2.50	0.43	2.26	0.46	2400	-9.35	.001
Binge drinking	0.58	0.86	0.79	1.04	0.59	0.88	2618	-3.82	.001

Note: Anticipated positive consequences = anticipated positive consequences of bystander intervention; Anticipated negative consequences = anticipated negative consequences of bystander intervention.

TABLE 2

Mediation model for bystander intentions (Aim 2).

Study variable	a path b (SE)	Mediator	b path b (SE)	c path b (SE)	c' b (SE)	Indirect effect ab (95% CI)
Sexual identity						
Bystander intentions	0.14 (0.04) ***	Anticipated Positive Consequences	5.26 (0.41) ***	3.11 (0.67) ***	1.08 (0.65)	0.75 (0.32–1.20)
	0.04 (0.04)	Anticipated Negative Consequences	–0.32 (0.35)			
	–0.32 (0.07) ***	School connectedness	–0.14 (0.23)			
	0.28 (0.03) ***	Gender Equitable Attitudes	5.65 (0.51) ***			1.57 (1.12–2.07)
	0.23 (0.06) ***	Binge Drinking	–0.18 (0.23)			

Note: * $p < .05$, ** $p < .01$, and *** $p < .001$. Unstarred coefficients are nonsignificant paths, unstandardized coefficients and standard errors are presented. Only significant indirect effects are reported. Positive Consequences = anticipated positive consequences of bystander intervention; Negative Consequences = anticipated negative consequences of bystander intervention.

Abbreviation: CI, confidence interval.