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Bullying Perpetration and Subsequent Sexual Violence Perpetration Among Middle School Students

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ABSTRACT

Purpose: This study examines the association between bullying experiences and sexual violence (SV) perpetration among a sample of middle school students (n = 1391; males and females in grades 5–8) across five middle schools in a Midwestern state.

Methods: We include waves 1 and 2 of a larger longitudinal study that aimed to track the overlap between bullying and SV victimization and/or perpetration across a 3-year period. Wave 1 data were collected in the spring of 2008, and wave 2 data were collected in the fall of 2008. Student participants completed a series of scales in a paper and pencil survey. After missing data imputation, a total sample of 1391 students was analyzed.

Results: Using cutoff scores, 12% of males and 12% of females could be considered bully perpetrators. Thirty-two percent of the boys (22% of girls) reported making sexual comments to other students, 5% of boys (7% of girls) spread a sexual rumor, and 4% of boys (2% of girls) pulled at someone's clothing. Bullying perpetration and homophobic teasing were significant predictors of sexual harassment perpetration over time.

Conclusions: Given the overlap among bullying, homophobic teasing perpetration, and SV perpetration, future studies should address the link among these forms of aggression so that prevention programs can be enhanced to address gender-based bullying and sexual harassment.

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Youth bullying experiences and sexual violence (SV) perpetration are major public health problems, and although existing literature suggests that they may share some correlates, there is no established empirical link in the literature between bullying and co-occurring or subsequent SV perpetration during the middle school years [1]. Despite this lack of evidence, rape prevention educators have increasingly focused on implementing bullying prevention in schools because it is easier to gain access to schools with bullying prevention than with SV prevention programs. Thus, it is imperative that research be conducted on the

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overlap of bullying perpetration and SV perpetration during early adolescence.

A large U.S. study estimated that 30% of 6th through 10th grade students reported moderate-to-frequent involvement in bullying at school; 13% as bullies only and 11% as victims only [2]. Overall, "A student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more students" [3], and includes verbal, physical, and relational aspects [4]. SV encompasses a continuum of acts from unwanted noncontact exposures of a sexual nature (e.g., verbal harassment) to forcible penetration [5]. Examining completed penetration only, the 2007 Youth Risk Behavior Survey, a national survey of students in grades 9–12, found a lifetime reported prevalence of unwanted physically forced sexual intercourse of 10.5% for females and 4.5% for males [6]. Furthermore, Banyard et al [7] found that of a sample of 980 adolescents in grades 7–12, 10% of males and 2.5% of females reported perpe-

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trating sexual coercion (e.g., unwanted kissing, touching, or intercourse). Sexual harassment perpetration is common among school-aged adolescents, with one national study reporting peer harassment rates of 66% and 52% for boys and girls, respectively [8].

Homophobia is defined as negative attitudes and behaviors directed toward individuals who identify as or are perceived to be lesbian, gay, bisexual, or transgender [9]. In many ways, the behaviors that constitute homophobic teasing overlap conceptually with "bullying" or "SV," as it may include, for example, relational aggression, or sexual harassment, or assault. Rivers [10] reported that name-calling, being hit or kicked, as well as teasing, were frequent forms of bullying experienced by lesbian, gay, and bisexual students (60%, 82%, and 58%, respectively). Homophobic teasing may play an important role in the link between bullying perpetration and SV perpetration. What conceptually distinguishes homophobic teasing from bullying and SV appears to be the direct intention of homophobic teasing to express and promote masculinity for all students, not just lesbian, gay, and bisexual youth.

Only four studies have reported positive associations between bullying and SV experiences. The first study conducted by Gruber and Fineran [11] focused on bullying and sexual harassment victimization, and the other three examined bullying perpetration and sexual harassment perpetration [12-14]. These studies indicated that youth who engage in bullying also engage in sexual harassment. Although theoretical overlaps exist in the bullying and SV literature [1], the current study attempted to examine the empirical link between bullying perpetration and SV perpetration among an understudied population-young adolescents. We propose the existence of a *bully-SV pathway* in which bullying perpetration and homophobic teasing are hypothesized to be predictive of SV perpetration over time among a large sample of middle school students. We posit that bullying might be a precursor to SV perpetration. It stands to reason that the need for control and dominance that underlies bullying is transferred to increasingly escalating forms of aggression and into relationships characteristic of the developing adolescent. That is, bullying in the form of name-calling and rumor spreading has been associated with homophobic teasing [1], which creates an environment in which adolescent peer groups make fun of students who express behaviors that are not consistent with their gender. For example, boys are expected to act masculine and girls are expected to be feminine [15]. We posit that when students exchange homophobic teasing, then SV perpetration might develop. In other words, a bully perpetrator who also uses homophobic teasing may turn to SV perpetration when opposite-gender attraction develops and restricted gender expression is promoted.

This article provides prevalence estimates of bullying perpetration, homophobic teasing, and two subtypes of SV perpetration: (1) *sexual harassment*, including unwanted sexual comments, sexual rumor spreading, or groping [6], and (2) *forced sexual contact*, including unwanted nonpenetrative or penetrative forced sexual acts. We hypothesize that males would display more SV perpetration and homophobic teasing than females, but no gender differences would emerge for bullying perpetration [16]. We expect that African American and Caucasian students would report similar levels of SV and bullying perpetration, given the lack of racial differences in the theoretical or empirical literature [17]. The *bully-SV pathway* begins during early adolescence, as the content of bullying becomes more sexualized and crosssex peer interactions become more frequent. We hypothesize that bullying perpetration would be significantly associated with SV perpetration over time. This study represents the first step in building empirical support for the *bully-SV pathway* theory.

Methods

Participants

In spring and fall 2008, students completed a survey designed to collect information about their attitudes and experiences at school as part of a project being funded by the Centers for Disease Control and Prevention. The participants included 1391 students from four Midwestern middle schools (grades, 5-8). The sample included 49.8% females, and students ranged in age from 10 to 15 years (mean = 13.9; standard deviation = 1.05); 59% (n = 820) identified as African American and 41% identified as Caucasian (n = 571). Students were administered self-report surveys during free periods or health/gym classes during a 40-minute session, with groups of students ranging in size from 20 to 25 students; the students were given a highlighter and pencil as a token of appreciation.

Consent/assent procedures

Institutional review board approval to use a waiver of active consent was obtained from the University of Illinois, and a certificate of confidentiality was granted by Centers for Disease Control and Prevention. Parents were asked to sign and return the parent information letter only if they preferred that their child *not* participate in the study. Before data collection, investigators attended parent-teacher conference meetings and staff meetings, and the study was announced in school newsletters and via e-mails to parents. Parents were provided with consent forms for their child's participation, and assent was obtained from students at each wave of data collection. An informational packet was sent by mail and e-mail to parents of students in the five middle schools.

Multiple safeguards were implemented to prevent students from becoming upset by the content of the surveys. First, an assent script was read to students that emphasized that completing the task was voluntary because they could skip any question or stop participating at any point. After this script was read, students indicated their assent by signing their name on the survey coversheet. Second, an appropriately trained doctorallevel psychology student was present at every survey administration to provide immediate support for a student, if necessary, and direct him/her to appropriate resources. Third, students were given a card with researcher contact information in case more information about the study or a referral was needed. Multiple self-help resource numbers were included on the card. Fourth, students were reminded verbally about school-based resources available (e.g., guidance counselors) in the beginning and end of survey administration.

Survey measures

SV perpetration. A modified version of the American Association of University Women (AAUW) sexual harassment survey [18] was used to measure the frequency with which students perpetrated SV behaviors in the past year. Response options included *Not sure, Never, Rarely, Sometimes, and Often.* The AAUW scale

Table	1
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Factor analysis of AAUW sexual violence items wave 1

Item	Factor 1 (Sexual harassment)	Factor 2 (Forced sexual contact)	α
Made sexual comments, jokes, gestures, or looks Showed, gave, or left sexual pictures, photographs, messages, or notes Pulled their clothing off or down Wrote sexual messages/graffiti about them on bathroom walls, etc Spread sexual rumors about them Said they were gay or lesbian	.79 .75 .72 .70 .69 .68	.10 .02 .12 .24 .21 .20	
Pulled at their clothing in a sexual way Blocked their way or cornered them in a sexual way Forced them to kiss you Forced them to do something sexual, other than kissing Made them touch your private parts when they did not want to	.62 40 .39 .10 .04 .02	.03 .10 .04 .70 .67 .66	.81 .73

Factor loadings for items on their primary scale are indicated in bold.

was subjected to an exploratory factor analysis using principal axis factoring, and a two-factor solution was indicated through the scree test, Kaiser-Meyer-Olkin measure of sampling adequacy (.72), and Bartlett's test of sphericity ($\chi^2 = 2209.40$, df =105, p < .001). In the two-factor rotated solution, factor one (sexual harassment) contained nine items (e.g., making sexual comments, spreading rumors, and pulling at clothing of another student), had internal consistency ($\alpha = .81$), and accounted for 23.62% of the variance in the factor score (factor loadings ranging from .39 through .79). Factor two (forced sexual contact) contained three items (i.e., forcing someone to kiss you, forcing someone to do something sexual besides kissing, and forcing someone to touch your private parts), demonstrated internal consistency ($\alpha = .73$), and accounted for 6.05% of the variance in the factor score (with factor loadings ranging from .66 through .70; Table 1). Three items that cross-loaded or had loadings lower than .30 on their primary factor loading were deleted.

Homophobic teasing. The five-item agent scale of the Homophobic Content Agent Target scale [19] assessed homophobic teasing perpetration epithets during the previous 30 days. Students read the following sentence: Some kids call each other names *homo*, *gay*, *lesbo*, *fag*, *or dyke*. "How many times in the last 30 days did YOU say these words to . . .," and then were asked how often they said these words to a friend, someone you did not like, someone you did not know well, someone you thought was gay, and someone you did not think was gay. Response options include Never, 1 or 2 times, 3 or 4 times, 5 or 6 times, or 7 or more times. Evidence for the scale's construct validity was found through it being a distinct scale in factor analyses, and convergence and divergence validity with similar and dissimilar scales [19]. Higher scores indicate more homophobic teasing, and the scale demonstrated internal consistency ($\alpha = .80$).

Bullying perpetration. The nine-item Illinois Bully Scale [20] assessed the frequency of teasing, name-calling, social exclusion, and rumor spreading. Students were asked how often in the past 30 days they had teased other students, upset other students for the fun of it, excluded others from their group of friends, helped harass other students, and so forth. Response options include *Never, 1 or 2 times, 3 or 4 times, 5 or 6 times, or 7 or more times.* Higher scores indicate greater bullying perpetration. The construct validity of this scale has been supported via exploratory and confirmatory factor analyses, which has been previously published [20]. Also, scale scores have been strongly correlated

with peer nominations of bullying [4] and demonstrated internal consistency ($\alpha = .86$) in this study.

Data analysis plan

Only 2% to 3% of items at wave 1 and 3% to 4% of items at wave 2 were missing. A multiple imputation procedure was used to preserve the integrity of each group of respondents and create a parsimonious dataset [21]. Multivariate analyses of variance were then conducted to test differences in scale scores across gender and race. Correlational analyses were examined to determine the extent to which bullying perpetration and SV perpetration were associated with age, and the extent to which the associations between bullying and SV perpetration differed across gender and race. Two separate regression analyses were run to test the hypothesis that bullying perpetration.

Results

Prevalence of bullying, homophobic teasing, and SV perpetration subtypes by gender. Prevalence of bullying perpetration and homophobic teasing was calculated as the number of students whose scale scores were one standard deviation above the mean. Using this as a cutoff, 12% of males and 12% of females could be considered bully perpetrators. In addition, 20% of females and 34% of males reported homophobic teasing others. Given the dearth of literature on SV perpetration among middle school students, prevalence data are presented for selected items to inform future conceptualizations of SV. In relation to the sexual harassment perpetration scale, 34% of the boys (28% of girls) reported making sexual comments to other students in the past year, 5% of boys (7% of girls) spread a sexual rumor, and 4% of boys (2% of girls) pulled at someone's clothing. Forced sexual contact in the form of touching someone's private parts was reported by 1% of boys and a negligible number of girls. On the homophobic content-agent scale, 26% of boys (24% of girls) reported homophobic teasing directed at a friend.

Gender and race differences on study scales. Gender and race differences on scale measures were examined to determine whether analyses needed to be conducted separately for these groups. It was hypothesized that males would display more SV perpetration and homophobic teasing than females, but no gender differences would emerge for bullying perpetration. We hyD.L. Espelage et al. / Journal of Adolescent Health 50 (2012) 60-65

Table 2
Mean bullying, homophobic teasing, and sexual violence perpetration scale scores

	Males (n = 698)			Females ($n = 693$)				ANOVA F-statistics			
	African American		White		African American		White		Gender	Race	Gender X race
	М	SD	М	SD	М	SD	М	SD			
Sexual harassment wave 1	2.12	.26	2.12	.22	2.11	.24	2.06	.18	8.03	3.92	4.69
Forced sexual contact wave 1	2.06 1.99	.19 .07	2.08 2.00	.19 .09	2.07 1.99	.19 .06	2.06	.24 .06	.17 .01	.47 4.29	.93 .67
Forced sexual contact wave 2 Bullying perpetration wave 1	1.99 1.52	.27 .56	2.02 1.34	.26 .48	2.01 1.52	.27 .58	2.00 1.29	.18 .36	.01 .76	.25 49.89***	2.89 .55
Homophobic teasing perpetration wave 1	1.80	.83	1.64	.77	1.71	.86	1.43	.65	11.83**	25.50	2.11

** *p*<.01.

*** p<.001.

pothesized that African American and Caucasian students would be similar in self-reports of SV, homophobic teasing, and bullying perpetration. Multivariate analyses of variance were conducted to test these hypotheses, with gender and race as the independent variables, and the following as dependent variables: (a) sexual harassment perpetration at waves 1 and 2; (b) forced sexual contact perpetration waves 1 and 2; (c) bullying perpetration wave 1; and (d) homophobic teasing toward others wave 1. Given the large sample size, only significant differences with effect sizes greater than .03 (η^2) were interpreted.

For the set of dependent variables, there was a significant main effect for gender (Wilks $\lambda = .99$, p < .01, $\eta^2 = .01$); however, the effect size was too low to interpret as relevant. However, a significant race main effect was found (Wilks $\lambda = .96$, p < .001, η^2 = .04), but the interaction for gender and race did not reach significance (Wilks $\lambda = .99$, p > .05, $\eta^2 = .01$). Follow-up univariate analyses of variance are presented in Table 2 and indicated that African American students reported greater levels of bullying perpetration at wave 1 than white students (p < .001, $\eta^2 =$.04), although this effect size of .04 suggested that race explained only 4% of the differences in bullying perpetration. As hypothesized, African American and Caucasian students were similar on their reports of SV perpetration and homophobic teasing perpetration. In Table 3, correlations between age and the study measures indicate that bullying perpetration and SV perpetration did not significantly relate to age.

Correlations. Table 3 provides correlations among study variables for males and females separately. Overall, the patterns among the correlations were similar among males and females. Of particular interest was the significant correlation between

bullying perpetration and sexual harassment perpetration
within wave 1 (males: $r = .40$, females: $r = .39$), but these asso-
ciations were lower for bullying perpetration at wave 1, with
sexual harassment perpetration at wave 2 (males: $r = .24$, fe-
males: $r = .21$). Homophobic teasing directed toward others and
bullying perpetration were significantly correlated at wave
1 (males: $r = .56$, females: $r = .55$). However, bullying perpetra-
tion at wave 1 was not associated with forced sexual contact
perpetration at waves 1 or 2 for males and females (males: <i>rs</i> =
.03, .01; females: $rs = .07$). These associations did not differ when
the correlations were calculated for African American and white
students separately.

Multivariate associations. Two regression analyses were computed to examine the hypotheses further at the multivariate level and to determine the degree to which bullying and homophobic teasing toward others at wave 1 predicted SV at wave 2, adjusting for age, gender, race, and wave 1 SV rates (Table 4). For both analyses, bullying perpetration, homophobic teasing, and the two SV subtypes at wave 1 were entered as predictors. The outcome variables were wave 2 sexual harassment perpetration and wave 2 forced sexual contact perpetration.

In the first model predicting sexual harassment perpetration at wave 2, the overall model was significant (F = 15.64; p < .001; $R^2 = .06$; Table 4). The strongest predictor of sexual harassment perpetration at wave 2 was bullying perpetration at wave 1, even after controlling for sexual harassment perpetration at wave 1 ($\beta = .15$); greater bullying perpetration at wave 1 was associated with greater sexual harassment perpetration at wave 2. The second and third strongest predictors were sexual harassment perpetration at wave 1 and homophobic teasing toward others at

Table 3

Study scale correlations by gender

, ,,							
	Age	Sexual harassment wave 1	Sexual harassment wave 2	Forced sexual contact wave 1	Forced sexual contact wave 2	Bully perpetration wave 1	Homophobic teasing wave 1
Age Sexual harassment wave 1 Sexual harassment wave 2 Forced sexual contact wave 1 Forced sexual contact wave 2	- .04 03 .03 .01	.06 - .21*** .12*** .04	03 .14*** - .08*** .38**	05 .18*** .00 - .09*	.01 .04 .40*** .04	.03 .40*** .24*** .03 .01	.04 .43*** .18*** .02 02
Bullying perpetration wave 1 Homophobic teasing wave 1	.04 .03	.39*** .36***	.21*** .21***	.07 .11**	.07 .08	 .55***	.56*** —

Males top right diagonal; Females bottom left diagonal.

* *p* < .05.

** *p* < .01.

*** *p* < .001.

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Table 4

Regression analyses with bullying and homophobic teasing predicting sexual violence perpetration

	Sexual haras wave 2 as ou	sment perpetration	Forced sexua wave 2 as ou	Forced sexual contact perpetration wave 2 as outcome		
	В	SEb	β	b	SEb	β
Predictor variable						
Age	01	.01	04	01	.01	01
Gender	01	.01	02	01	.01	01
Race	01	.01	02	.01	.01	.02
Sexual harassment perpetration wave 1	.09	.03	.08**	.02	.03	.02
Forced sexual contact perpetration wave 1	.02	.09	.01	.19	.09	.06*
Bullying perpetration wave 1	.02	.02	.15***	.02	.02	.03
Homophobic teasing wave 1	.03	.01	.08**	.01	.01	.01

^{*} *p* < .05.

** *p* < .01.

*** p < .001.

wave 1 ($\beta s = .08$). Gender and race were not significant predictors in the model. Two-way interactions for gender and race with other predictors were not significant, indicating that this model seems to hold for males and females, and black and white students. These models yielded the same results as the model with all students.

A similar model was run with forced sexual contact at wave 2 as the outcome. This model was nonsignificant (F = 1.36; p > .005; $R^2 = .01$; Table 4).

Discussion

This study found support for the hypothesized bully-SV pathway theory. Similar to the previous studies [11–14], bullying during wave 1 significantly predicted sexual harassment at wave 2. These findings suggest that a pathway may exist starting in early middle school, where traditional bullying perpetration transforms into more gendered harassment and aggressive behavior in the form of homophobic teasing and sexual harassment. We suspect that, according to the bully-SV pathway, as adolescents who perpetrate traditional bullying mature, they increase their use of homophobic epithets. We hypothesized that as these bullies engage in more interactions with oppositegender peers, they are more likely to perpetrate SV. The current study is suggestive of this because it confirms a strong association between bullying perpetration and subsequent sexual harassment perpetration for both boys and girls, and confirms that homophobic teasing is also correlated with co-occurring bullying perpetration and later sexual harassment perpetration. In addition, more similarities were found between African American and Caucasian students than differences, and the bully-SV pathway was significant after controlling for race.

A secondary, yet still important goal of this article was to determine what subtypes of SV are perpetrated among middle school students, a population in which SV has not been investigated fully. Results of factor analysis supported a two-factor solution of SV perpetration—sexual harassment and forced sexual contact. As studies continue to examine the precursors of SV in later adolescence, use of these different subtypes of SV will be helpful.

Some recent discussion has emerged in the literature about whether the behaviors that are assessed by the AAUW scale [18] are measuring sexual harassment or simply assessing "potentially offensive sexual behavior," given the limited ability to determine whether the perpetration/victimization elicited negative reactions [22]. Some have argued that young adolescents might express their sexual attraction toward their same-age peers through sexual teasing or in other inappropriate ways [23]. We do agree that the intentions of the perpetrator of SV might not be malicious in all cases; however, given the dearth of literature with this population, we believe it is premature to dismiss this perpetration and simply call it "offensive behavior." It is important to note that homophobic teasing and sexual comments may be simply "offensive behavior" to some but may have wider ranging consequences for others (e.g., lesbian and gay students) if they create an unsafe school climate. We encourage scholars to continue to assess these SV perpetration behaviors.

Although we were somewhat surprised by findings that the prevalence of SV perpetration among this sample did not vary greatly overall by gender, and the bully/SV pathway model was not more predictive for males than females, we suspect this is explained by the age of the sample (10-15 years; average, 13.9 years) and the types of SV that are encompassed in the sexual harassment factor, the only significant outcome. What is clear from our results, as captured in the sexual harassment outcome, is the overwhelming prevalence of verbally based SV perpetration among this young adolescent sample. Boys and girls reported making sexual comments and calling other students gay and/or lesbian at rates of 28%-39%, with boys reporting slightly higher perpetration rates. These types of less severe SV may be more typical for young adolescents to perpetrate, but we speculate that as we follow these boys and girls through high school, we will see the gender gap widen, with boys reporting higher rates of perpetration, particularly on the items that comprise the forced sexual contact factor, including rape perpetration ("forced them to do something sexual other than kissing"). Although reporting for the three items comprising the forced sexual contact scale was extremely low in the current sample, we suspect this will increase for males as they age, based on previous studies showing that males are more likely than females to perpetrate these more severe types of SV and that SV perpetration is occurring in late adolescence and early adulthood [24,25]. This hypothesis also relates to homophobic teasing and is supported by recent studies that have indicated that homophobic perpetration is associated with hypermasculinity and heterosexist attitudes [26].

An important next step is to further elucidate this proposed model and to understand the role of homophobic teasing in the relationship between bullying perpetration and SV perpetration. Future studies should consider the gender of the perpetrator and the victim. For example, male bullies who perpetrate against female victims may be more likely to go on to perpetrate SV against girls. Qualitative work with youth would also be useful to disentangle the meanings of and connections among SV, bullying, and homophobic teasing. Finally, additional research with diverse samples is needed to test and replicate the proposed model. This study represents a first step in understanding the empirical links among bullying, homophobic teasing, and some forms of SV perpetration among a sample of young adolescents.

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