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## School bullying perpetration and other childhood risk factors as predictors of adult intimate partner violence perpetration

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### Abstract

**Objective**—School bullying perpetration and intimate partner violence perpetration are both thought to stem from desire for power and control over others. The current study seeks to assess the relationship between bullying peers as a child and adult intimate partner violence perpetration in a clinic-based sample of adult men.

**Design**—A cross-sectional survey was conducted between January 2005 and December 2006.

**Setting**—Three urban community health centers in Boston, MA.

**Participants**—Men aged 18–35 years (N=1,491) seeking services at participating community health centers.

**Main Exposure**—School bullying perpetration

**Outcome Measure**—Past year physical or sexual violence (IPV) perpetration against a female partner.

**Results**—Two-fifths of men reported perpetrating school bullying as a child (N=610; 40.9%). Men that rarely bullied in school were 1.53 times more likely to perpetrate past-year IPV (95%CI: 1.02, 2.29) as compared to men that did not bully; this risk was elevated to 3.82 times more likely to perpetrate any past-year IPV (95%CI: 2.55, 5.73) for those men who bullied peers frequently.

**Conclusions**—The present study indicates that bullying peers in school as a child, especially frequent bullying perpetration, is associated with increased risk for men's perpetration of IPV as an adult. The effect remains strong after controlling for common prior risk factors for both bullying and IPV perpetration. Future research is needed to discern the mechanisms and underlying root causes of abusive behavior, such as power and control, as a means to prevent violence perpetration across settings and life stages.

### Introduction

Approximately one in four women will experience violence by an intimate partner (IPV) in her lifetime. <sup>1</sup> Evidence indicates that IPV victimization is associated with major physical

and mental health concerns, including increased risk for STI/HIV, depression, and substance abuse, making IPV a serious public health concern.<sup>2, 3</sup> As the vast majority of perpetrators of IPV are men and the health consequences of such victimization are more pronounced for women,<sup>4, 5</sup> a critical step in preventing and mitigating the effects of IPV is to identify and address risk factors for IPV perpetration among men.

Previous research drawing on samples from community-based health clinics has estimated that between 20–40% of adult males have ever perpetrated intimate partner violence<sup>6–8</sup> and a recent study estimated a 4% prevalence of past-year IPV perpetration in a national sample of men.<sup>9</sup> There is clear and consistent evidence that adverse childhood experiences may increase risk for adult IPV perpetration; exposure to community violence, exposure to parental IPV and physical or sexual child abuse during these crucial developmental years have been associated with later adult perpetration of IPV.<sup>9–13</sup> Limited evidence suggests participation in youth delinquency is also related to adult IPV, although distinctions between non-violent and violent youth delinquency are lacking in the literature.<sup>14, 15</sup>

Within the literature concerning childhood experiences as factors in adult IPV perpetration, surprisingly little is known about the role of school bullying perpetration. School bullying has sparked recent public health and media attention, and is defined as the use of physical or psychological aggression repeatedly directed towards another student perceived as weaker and inflicted by a more powerful and stronger student.<sup>16</sup> Like IPV perpetration, it is fueled by desire for power and control over other individuals, leading to concern that it may be a precursor to relationship violence.<sup>17</sup> In particular, a recent theoretical paper proposed that “sexual bullying”, or unwanted sexual teasing, harassment, or threats, overlaps dating violence in young adolescents.<sup>17</sup> Other work, guided by a social-ecological framework, extending this hypothesis has asserted that there is significant overlap between sexual harassment and bullying behaviors in students such that youth may participate in multiple forms of abuse and aggression concurrently.<sup>18</sup> One previous study documented bullies to have less positive and equitable attitudes towards their dating partners, including more reports of aggression.<sup>19</sup> However, no study, to our knowledge, has examined the association of bullying to other forms of physical or sexual intimate partner violence in adulthood.<sup>18</sup>

Beyond the conceptual basis for such investigation, recent evidence strongly indicates that bullying peers in school may share common prior causes with IPV perpetration. Specifically, exposure to community violence<sup>20</sup>, witnessing parental IPV,<sup>16, 21, 22</sup> delinquent behavior,<sup>23, 24</sup> and childhood physical or sexual abuse<sup>25</sup> have all been found to be relevant to both IPV perpetration and bullying perpetration in separate studies. Evidence also indicates that bullying others in school may be an important predictor of other types of adult criminal behavior.<sup>23, 26, 27</sup>

Although bullying and IPV share a common framework and common developmental factors, to date, there has been no empirical quantitative investigation of the relationship of these concerns. To address this gap in knowledge, the current study seeks to assess the relationship between history of school bullying perpetration and recent adult IPV perpetration among men, and whether exposure to other developmental risks effect this relationship.

## Methods

The current study utilizes cross-sectional data from the Men's Ecological Systems, Development, and Abuse Study that took place between January 2005 and December 2006. IRB approval was granted through the Harvard Human Subjects Committee. The study employed a convenience sample of young men recruited from three urban community health centers (CHCs) in Boston, Massachusetts. Participants were required to be aged 18–35 years and fluent in English, Portuguese, or Spanish. Trained research staff recruited all men attending the clinic during designated recruitment hours, by asking them if they would like to participate in a brief survey; men indicating interest were screened for eligibility in a semi-private area. Staff obtained verbal informed consent from eligible and willing participants. After informed consent procedures, participants completed a 30 minute confidential health survey via an Audio Computer-Assisted Survey Instrument (ACASI), in which questions and answer choices were read aloud through headphones in the participant's language of choice. ACASI has been shown to reduce literacy barriers and minimize the under-reporting of sensitive behaviors, rendering it particularly useful for violence research.<sup>28–33</sup> Upon completion of the interview, participants were given a \$20 gift card to compensate them for their time, and a list of local community resources for violence prevention and health promotion services. Of the 3,430 men approached for the study, 2,229 (65%) agreed to participate; 75 participants were excluded due to extensive missing data yielding a final effective sample size of 2,154. The current sample was restricted to those that reported ever having sexual intercourse and that provided complete data on the outcome (past year IPV perpetration) and predictors of interest, which yielded a final sample size of 1,491.

## Measures

Demographic assessments for age, race, ethnicity, and educational attainment were modified from the National Behavioral Risk Factor Surveillance System.<sup>34</sup> Past-year IPV perpetration was assessed using modified physical assault, sexual assault, and injury subscales from the Conflict Tactics Scale 2 (CTS-2).<sup>35</sup> A dichotomous summary variable of past year IPV perpetration was then created. Past-year IPV perpetration was selected as the outcome of interest (rather than lifetime perpetration) to ensure that school bullying and other childhood predictors preceded IPV perpetration. School bullying perpetration was obtained by a single survey item, "How often did you take part in bullying other students?" Results were coded as never, rarely (once or twice), or frequently (once a month or more). Childhood risk-factors, including bullying victimization, exposure to parental IPV, exposure to community violence, experiencing physical or sexual child abuse, and participating in non-violent or violent delinquency were also assessed. Adolescent non-violent delinquency was defined as ever participating in graffiti, vandalism, or stealing property between 12–18 years. Adolescent violent delinquency was defined as ever participating in physical fighting; pulling a gun or knife on a non-dating/sexual partner, or stabbing or shooting a person they were not in a dating or sexual relationship with or participation in gang fighting between 12–18 years. All delinquency items were drawn from the National Longitudinal Study of Adolescent Health.<sup>36</sup> Both non-violent and violent delinquency were coded as dichotomous

summary variables such that any affirmative response to the items was coded as positive for either non-violent or violent delinquency, respectively.

## Analysis

Descriptive statistics for prevalence of past year IPV perpetration, frequency of bullying in childhood, demographics, and exposure childhood risk factors were generated. Chi-square analyses assessed for differences in predictors based on past year IPV perpetration ( $p < 0.05$ ). A logistic regression model was then constructed to assess the relationship between recent past year IPV perpetration to school bullying in childhood, controlling for potential risk factors (e.g. bullying victimization, exposure to parental IPV, exposure to community violence, experiencing physical or sexual child abuse, and participating in non-violent or violent delinquency) and demographics.

## Results

### Demographics and Childhood Predictors

Demographics are presented in Table 1. Almost half (46.2%) of participants were between ages 18–24 with a mean age of 25.7 years old. 48.6% of the sample was Non-Hispanic Black while almost one third (31.2%) identified as Hispanic. A smaller portion (8.4%) of the sample identified as Non-Hispanic White; 11.8% of the sample were self-classified as “other.” Approximately 27% of participants had less than a high school education.

Frequent and rare school bullying perpetration was reported by 16.3% ( $N=243$ ) and 24.6% ( $N=367$ ) of participants, respectively. Over one-quarter (27.9%) of participants were exposed to parental IPV during childhood, while 43.6% experienced physical child abuse and 20.5% experienced sexual child abuse. Frequent exposure to community violence was reported by 14.1% of the sample; over half the sample (56.1%) reported occasional exposure to community violence. Roughly one-quarter reported taking part in non-violent youth delinquency (27.7%), with slightly more reporting violent youth delinquency (30.6%). One in 10 (10.4%) respondents reported frequent bullying victimization at school.

Approximately 16% ( $N=241$ ) of men reported perpetrating physical or sexual IPV in the past year. Of these men, almost 40% bullied other students frequently. Slightly less than 20% of men that reported perpetrating bullying rarely went on to perpetrate IPV. Less than 10% of men that did not report bullying other students perpetrated past year IPV. The main predictor, school bullying, and each of the childhood risk factors was statistically significantly associated with IPV perpetration in the Chi-square analyses.

### Association between History of Bullying Students and Recent Intimate Partner Violence Perpetration

Those that reported frequent bullying of other students were 5.63 times more likely to report perpetrating past year IPV (95%CI: 4.00, 7.93); those that rarely bullied peers were almost twice more likely to report perpetrating past year IPV (OR: 1.92; 95%CI: 1.35, 2.72), compared to those that never reported school bullying perpetration in the unadjusted model. After the inclusion of childhood risk factors and demographics, frequent bullying remained

strongly associated with perpetration of any past-year IPV (AOR: 3.82; 95%CI: 2.55, 5.73). The effect of rarely bullying other students was slightly attenuated, such that those men were 1.5 times more likely to perpetrate past year IPV (AOR: 1.53; 95%CI: 1.02, 2.29), compared to those that never reported bullying others.

## Discussion

Men who reported bullying their childhood peers in school were found to be significantly more likely to physically or sexually abuse their female partners as adults. Over two-fifths of men reported perpetrating any bullying of students, indicating the importance of addressing bullying peers as a potential risk marker for future IPV perpetration.

Consistent with previous evidence, sexual and physical child abuse, exposure to parental IPV, and participation in non-violent or violent delinquency were also strong independent predictors of adult IPV perpetration. However, even after accounting for these other childhood risk factors, frequently bullying peers was the strongest predictor of past-year IPV perpetration. Bullying victimization or exposure to community violence was not found to be associated with past-year IPV perpetration in the final adjusted model.

Critically, this analysis demonstrates that those reporting school bullying are significantly more likely to perpetrate physical or sexual intimate partner violence, even after adjusting for potential confounders. This relationship was stronger for those that reported frequent bullying compared to those that reported rare school bullying. Bullying others at school and perpetration of IPV are both defined by concepts of power and control over others.<sup>15,18</sup> Thus, this finding was not surprising and provides empirical data to support the previously hypothesized links between bullying and IPV perpetration such that those who perpetrate school bullying by asserting power and control over classmates may also attempt to assert power and control over intimate partners as adults. Further research is needed to assess specific mechanisms, including the investigation if bullying peers serves as a risk marker due to the convergence of risk factors for both bullying and recent, adult IPV perpetration.<sup>18</sup>

These findings must be interpreted in light of several limitations. Although our analysis uses a large sample size, participants were recruited using a convenience sampling method which may limit the generalizeability of results to the larger population. Further, only 65% responded and we were unable to collect demographic information about those that chose not to participate, limiting our ability to understand any potential biases. Bullying perpetration was assessed via a single item, limiting our ability to understand the extent to which various aspects of bullying may be most relevant to IPV perpetration. In addition, bullying has been previously defined as one student having power and control over another student.<sup>17</sup> However, our measure was self-defined by the participant which may lead to a discrepancy between our conceptualization of school bullying and the participant's own definition. Although the frequency of bullying others in school was captured, we do not have data on the timing during the participant's schooling, severity, or specific forms of covert or overt forms of bullying which may have implications for potential programs to effectively and efficiently reduce bullying peers in school. Due to the cross-sectional design of the survey, we cannot discern whether other childhood factors temporally preceded

school bullying thereby confounding the relationship of school bullying and IPV perpetration. Childhood exposures were assessed retrospectively and are subject to potential errors and biases in recall, thus causality cannot be ensured.

The present study indicates that bullying peers in school as a child, especially frequent bullying perpetration, is associated with increased risk for men's perpetration of IPV as an adult. The effect remains strong after controlling for common prior risk factors for both bullying and IPV perpetration. These findings suggest that individuals who are likely to perpetrate abusive behaviors against others may do so across childhood and into adulthood. Further, these abusive behaviors - bullying peers in school and perpetrating violence against an intimate partner - may co-occur within individuals. Future research is needed to discern the mechanisms and underlying root causes of abusive behavior, such as power and control, as well as specific forms and timing of bullying peers in school. Potential programs that may seek to reduce bullying peers during school may also be effective avenues to reduce future violence perpetration within intimate partner relationships, by focusing on the reduction of abusive behaviors and the promotion of equitable attitudes across settings, life stages, and relationships.

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*Data collection:* Decker, Gupta, and Silverman

*Analysis and interpretation of data:* Falb, McCauley, Decker, Gupta, Raj, and Silverman

*Drafting of the manuscript:* Falb, McCauley, Decker, Gupta, Raj, and Silverman

Dr. Silverman had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

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**Table 1**

Characteristics of the study sample, by past year physical or sexual IPV perpetration

	No. (%) <sup>*</sup>	Prevalence among past year IPV perpetration (%) <sup>**</sup>	Prevalence among those not reporting past-year IPV perpetration (%) <sup>**</sup>	P
Overall	1491 (100)	241 (16.2)	1250 (83.8)	
Bullying Perpetration				
Never	881 (59.1)	86 (35.7)	795 (63.6)	<0.0001
Rarely	367 (24.6)	63 (26.1)	304 (24.3)	
Frequently	243 (16.3)	92 (38.2)	151 (12.1)	
Age				
18–24	689 (46.2)	101 (14.7)	588 (85.3)	0.18
25–29	345 (23.1)	66 (19.1)	279 (80.9)	
30–35	457 (30.6)	74 (16.2)	383 (83.8)	
Race				
Non-Hispanic White	125 (8.4)	16 (6.6)	109 (8.72)	0.26
Non-Hispanic Black	725 (48.6)	128 (53.1)	597 (47.8)	
Hispanic	465 (31.2)	75 (31.1)	390 (31.2)	
Other	176 (11.8)	22 (9.1)	154 (12.3)	
Educational Attainment				
Less than high school	406 (27.2)	69 (28.6)	337 (26.9)	0.28
High school grad/GED	663 (44.5)	114 (47.3)	549 (43.9)	
Some college/tech	422 (28.3)	58 (24.1)	264 (29.1)	
Exposure to Parental IPV	416 (27.9)	126 (52.3)	290 (23.2)	<0.0001
Physical Child Abuse (Victim)	650 (43.6)	169 (70.1)	481 (38.5)	<0.0001
Sexual Child Abuse (Victim)	306 (20.5)	101 (41.9)	205 (16.4)	<0.0001
Exposure to Community Violence				
Never	445 (29.8)	41 (17.0)	404 (32.3)	<0.0001

	No. (%) *	Prevalence among past year IPV perpetration (%) **	Prevalence among those not reporting past-year IPV perpetration (%) **	P
Rarely	836 (56.1)	139 (57.7)	697 (55.8)	
Frequently	210 (14.1)	61 (25.3)	149 (11.9)	
Bullying Victim				
Never	864 (57.9)	116 (48.1)	748 (59.8)	
Rarely	472 (31.7)	81 (33.6)	391 (31.3)	
Frequently	155 (10.4)	44 (18.3)	111 (8.9)	<0.0001
Non-Violent Youth Delinquency	413 (27.7)	104 (43.2)	309 (24.7)	<0.0001
Violent Youth Delinquency	456 (30.6)	115 (47.7)	341 (27.3)	<0.0001

\* Column percent

\*\* Row percent

**Table 2**  
Crude and adjusted regression models of bullying and IPV perpetration (N=1,491).

	Past-Year IPV Perpetration	
	Unadjusted OR (95% CI)	Adjusted OR <sup>a</sup> (95% CI)
Bullying		
Never	1.00	1.00
Rarely	1.92 (1.35–2.72)	1.53 (1.02–2.29)
Frequent	5.63 (4.00–7.93)	3.82 (2.55–5.73)
Exposure to Parental IPV	3.63 (2.73–4.82)	1.86 (1.33–2.59)
Physical Child Abuse	3.75 (2.78–5.06)	1.84 (1.27–2.68)
Sexual Child Abuse	3.68 (2.73–4.95)	1.99 (1.39–2.86)
Community Violence		
Never	1.00	1.00
Rarely	1.97 (1.36–2.84)	0.80 (0.52–1.24)
Frequently	4.03 (2.60–6.25)	1.38 (0.83–2.29)
Bullying Victim		
Never	1.00	1.00
Rarely	1.34 (0.98–1.82)	0.75 (0.52–1.10)
Frequently	2.56 (1.71–3.81)	0.84 (0.51–1.39)
Non-violent Delinquency	2.31 (1.74–3.08)	1.44 (1.03–2.00)
Violent Delinquency	2.43 (1.84–3.23)	2.08 (1.50–2.88)

<sup>a</sup> Adjusted for age, race, and educational attainment