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Understanding Bullying and Victimization During Childhood and Adolescence: A Mixed Methods Study

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In the present study, quantitative and qualitative data are presented to examine individual and contextual predictors of bullying and victimization and how they vary by age and gender. Two waves of survey data were collected from 2,678 elementary, middle, and high school youth attending 59 schools. In addition, 14 focus groups were conducted with 115 youth who did not participate in the survey. Changes in both bullying and victimization were predicted across gender and age by low self-esteem and negative school climate, with normative beliefs supporting bullying predicting increases in bullying only. Focus group comments provided insights into the dynamics of bullying, highlighting its connection to emergent sexuality and social identity during adolescence. Findings are discussed in terms of their implications for preventive antibullying interventions in schools.

Childhood aggression has long been considered a significant social problem with potentially serious consequences for aggressors and victims (Guerra & Leidy, 2008; Tolan, Guerra, & Kendall, 1995). Because children spend much of their time interacting with peers at school, considerable efforts have been directed toward the development and implementation of school-based programs to address this problem. As educators try to make informed decisions with a clear directive to utilize evidencebased practices, they have forged valuable partnerships with the academic community, a cornerstone of translational research in child development. This has resulted in an expansive literature designed to provide a theoretical and empirical grounding for interventions by examining specific causes and correlates of aggression across childhood and adolescence (Dodge, Coie, & Lynam, 2006; Guerra & Leidy, 2008). These partnerships also have led to rigorous efficacy and effectiveness trials of schoolbased programs relevant to policy and practice (for a meta-analysis of school-based programs to prevent aggression, see Wilson, Lipsey, & Derzon, 2003).

In recent years, the focus of aggression prevention efforts in schools has shifted somewhat from a more general emphasis on aggression to a more specific concern with *bullying* (Cornell, 2006). Bullying is defined as a distinct type of proactive

aggression characterized by a power imbalance between the perpetrator and victim that typically involves repetition (Olweus, 1999; Solberg & Olweus, 2003). An emphasis on bullying is particularly noteworthy in both research and practice since the year 2000. Consider that during the 20-year span between 1980 and 2000 there were fewer than 200 peer-reviewed articles published on bullying compared with over 600 articles published between 2000 and 2007 (Cook, Williams, Guerra, Kim, & Sadek, 2009). There also has been a parallel trend in school-based prevention, with the educational agenda moving from aggression prevention programs emphasizing conflict resolution and peer mediation to programs specifically focused on bullying prevention (Rigby, Smith, & Pepler, 2004). Legislative responses in the United States have mirrored this concern, with both federal and state mandates holding schools accountable to develop active antibullying policies and programs (U.S. Department of Education, 2008). In response, many school districts have embraced universal, schoolwide efforts such as the Olweus Bullying Prevention Program (Olweus, 1993), although the majority of antibullying programs have produced nonsignificant or weak effects (Bauer, Lozano, & Rivara, 2007; Jenson & Dieterich, 2007; Smith, Schneider, Smith, & Ananiadou, 2004). These weak effects suggest a need for further research into the complex dynamics of bullying and victimization among children across the school years.

The overarching goal of the present study was to examine specific individual and contextual predictors of bullying and victimization in elementary, middle, and high school that also can serve as viable targets for universal preventive interventions. We employed a triangulation mixed methods design, utilizing both survey data and qualitative findings from focus groups collected as part of a large-scale 3-year bullying prevention initiative in the state of Colorado. The purpose of this design is to take advantage of different but complementary data that address the same research problem (Creswell & Plano Clark, 2007). In particular, the reason for collecting both quantitative and qualitative data was to corroborate and expand quantitative results with qualitative findings that incorporate youth's own understanding of bullying and victimization as it unfolds within youth culture. As Yoshikawa, Weisner, Kalil, and Way (2008) comment regarding the value of mixing quantitative-qualitative methods in developmental science, "integrating these approaches can bring us closer to understanding a developmental process than either set of methods can on its own" (p. 345).

The quick rise in popularity of bullying prevention as a topic of school-based programming, legislation, and public concern both reflects and gives rise to a general perception that bullying is ubiquitous at school. However, empirical investigations of prevalence actually reveal considerable variability, particularly across countries—from low estimates under 10% to estimates surpassing 70% (Nansel et al., 2001). A problem with comparing estimates of prevalence across studies is that the designation of a "bully" group based on self-reported surveys of frequency can vary greatly. Some studies dichotomize bullies into those who report "never" bullying versus those who report bullying even one time.

When any level of bullying is considered (or any level of victimization), frequency reports typically are high (Olweus, 1993; Smith & Sharp, 1994). For example, Kochenderfer-Ladd and Wardrop (2001) reported that 60% of primary-school-aged children self identified as having been a victim of bullying at some time. When more persistent bullying is measured, reflected by endorsement of responses indicating moderate or frequent involvement in bullying at school, prevalence estimates tend to hover around 10% (Nansel et al., 2001; Pepler, Craig, Jiang, & Connolly, 2008), although some studies have reported rates of frequent

bullying as high as 25% in the late elementary and middle school years (Olweus & Limber, 2002). Overall, these findings suggest that many children bully others on an occasional basis, but a smaller number of youth are more regularly involved as bullies.

Given the regularity of bullying behaviors among children and youth, coupled with the limited number of evidence-based programs for bullying prevention (as well as concerns about their applicability across settings and for different age and gender groups; see Brown, Chesney-Lind, & Stein, 2007), it is important to continue to examine carefully the correlates and predictors of bullying and victimization for boys and girls and at different ages. Although there have been numerous studies emphasizing selected individual and contextual factors that differentiate bullies, victims, and bullyvictims, with some exceptions (e.g., Pepler et al., 2008), most of these studies are based on crosssectional research with children and preadolescents with limited research on bullying among older

Further, the bulk of bullying research has been limited to quantitative analyses of survey data, with few qualitative studies to complement these findings and identify new areas for investigation. Because bullying is a complex behavior embedded in a social context, mixed methods studies that include both quantitative and qualitative components can enhance our understanding of the dynamics of bullying and how it varies across different developmental stages and in different school settings. This type of integrative approach provides for validation of individual patterns derived from surveys and simultaneously allows for identification of previously unstudied or emergent patterns grounded in the daily lives of youth (Sullivan, 1998).

Correlates of Bullying and Victimization by Gender and Age

As noted previously, the design of effective bullying prevention programs hinges on the identification of robust and modifiable correlates and predictors of bullying and victimization that are sensitive to gender and age. An important concern is whether patterns of relations vary between boys and girls or among youth in different school contexts. However, to date, most studies that have highlighted the role of gender and age in bullying and victimization have treated them as main effects rather than moderators.

Indeed, studies that have included large samples from multiple age groups typically examine prevalence rates by age. In general, bullying tends to increase somewhat during childhood, peak during early adolescence, and decline slightly during the late adolescent years (Nansel et al., 2001). A downward trend in victimization has also been reported that may be linked to a parallel finding that older children often bully younger children (Olweus, 1994; Olweus & Limber, 2002). These findings suggest that prevention programs are particularly important during elementary and middle school years but do not provide specific direction.

In contrast, studies that have examined gender and bullying (drawing from research on gender and aggression) often emphasize main effects by gender for distinct types of bullying. One of the more robust findings is that boys engage in more physical aggression and bullying than girls and that these differences in physical aggression are evident from an early age (Brown et al., 2007; Olweus, 1993; Stanger, Achenbach, & Verhulst, 1997). However, there is considerable variation in how best to capture different types of nonphysical bullying vis-à-vis documenting gender differences in behavior. Results of studies that have examined gender differences in verbal bullying and aggression (i.e., using words in direct confrontations or indirectly behind someone's back) have been inconclusive (Dodge et al., 2006; Knight, Guthrie, Page, & Fabes, 2002). Some studies have focused exclusively on indirect verbal behaviors such as spreading rumors and gossip or social exclusion (labeled indirect, social, or relational bullying) with a general tendency for girls to be somewhat higher in these behaviors than boys (Bjorkqvist, Lagerspetz, & Kaukiainen, 1992). Still, documenting different types of bullying behaviors suggests that harm has many forms but does not address whether different types of harm share common predictors that can be impacted by prevention programs. From a translational perspective, it is impractical for schools to provide antibullying programs focused on one type of bullying or for only one gender.

Another challenge for prevention programming is that research on bullying and victimization has evolved in two somewhat separate strands of investigation, with relatively few studies examining common correlates of bullying and victimization that can be targeted by universal interventions. Even though bullies often are portrayed as menacing and aggressive and victims characterized as weak and passive, both bullies and victims may share certain characteristics that can be addressed

through schoolwide, psychoeducational prevention programs. In the present study we examine three plausible common predictors of bullying and victimization: (a) self-esteem, (b) normative beliefs supporting bullying, and (c) school climate.

Low self-esteem has been linked with peer victimization. The picture of the typical victim of peer bullying is a nonassertive social isolate with low self-esteem who is an easy target and does not stand up to bullies (Craig, 1998; Nation, Vieno, Perkins, & Santinello, 2008). On the other hand, high self-esteem has been shown to protect preadolescents from peer victimization, presumably because they stick up for themselves and stand up to bullies (Egan & Perry, 1998). However, with respect to bullying, these relations are less evident. It is unclear whether bullies have low self-esteem, with some studies finding an empirical relation (O'Moore, 2000) and other studies finding no relation (Olweus, 1993). Relevant work by Baumeister and colleagues examining the role of self-esteem in aggression suggests that bullies actually may be low or high in self-esteem, with high but insecure self-esteem increasing the likelihood of aggression and bullying in response to ego threats (Baumeister, Smart, & Boden, 1996).

There is a robust and consistent literature examining the role of normative beliefs endorsing aggressive behavior in the etiology of aggression. Aggressive children have been found to increase normative beliefs supporting aggression and these beliefs, in turn, have been linked to increases in aggressive behavior beginning in childhood (Huesmann & Guerra, 1997). Studies also have found that bullying is associated with higher normative endorsement and positive attitudes about bullying (Endresen & Olweus, 2001; Salmivalli & Voeten, 2004). In contrast, few studies have examined whether normative beliefs supporting aggression and bullying also predict peer victimization. Yet, if victims believe that bullying is normative and unlikely to be sanctioned by peers or adults, they may be less likely to report being bullied, increasing the likelihood that they will be repeatedly targeted (Unnever & Cornell, 2004).

In addition, both bullying and victimization have been associated with characteristics of the school setting. Studies have linked bullying to poor school performance (Nansel, Haynie, & Simons-Morton, 2003) and negative school climate (Kasen, Berenson, Cohen, & Johnson, 2004; Olweus, 1993). Within a school setting, victims have also been characterized as being disengaged from positive school interactions, including being less socially adept (Schwartz,

2000), and more isolated from peer networks (Nansel et al., 2001). Presumably, schools characterized by low levels of support for academic progress, distrust among students and teachers, and fewer opportunities for prosocial and positive engagement would be more susceptible to negative bully–victim interactions. This should extend to student perceptions of school climate, i.e., students who perceive their schools to be unfriendly and unfair may be less likely to play by the rules and expect others to follow suit, leading to increases in both bullying and victimization.

The Present Study

In the present study we utilized quantitative survey data to assess the relations between self-esteem, normative beliefs about bullying, and perceived school climate and both bullying and victimization from fall to spring of the school year for boys and girls in Grade 5 (elementary school), Grade 8 (middle school), and Grade 11 (high school). We predicted that for boys and girls at each grade level both bullying and victimization would be predicted by low self-esteem, normative beliefs supporting bullying, and negative perceptions of school climate.

At the same time, these predictors (and other individual and contextual factors that emerged) were explored in focus groups with youth from similar grade levels not participating in the quantitative component of the study. A unique feature of the present study is the addition of this qualitative component to further corroborate, contextualize, and expand findings from the surveys. Focus groups were conducted with a different sample of students from the same grades using a semistructured interview format. Questions were phrased more generally, with probes used to tap the constructs from the survey. This allowed us to determine students' perspectives about the constructs measured in the survey as well as to detect emergent patterns and themes as expressed by youth and how these varied by age and gender.

Method

Overview

The data utilized in the present study were collected between 2005 and 2008 as part of a 3-year bullying prevention initiative in the state of Colorado funded by The Colorado Trust, a private grant-making foundation. The present study

reports on survey data collected in 59 schools across the state that agreed to participate in this assessment during the 1st year of the study, prior to full-scale implementation of antibullying programs. This included 21 elementary schools, 30 middle schools, and 8 high schools. Based on findings that bullying is more prevalent among older age groups within school settings (Olweus, 1994; Olweus & Limber, 2002), and given limitations in resources for data collection, surveys were conducted with the older age groups at each school level, specifically children in Grade 5 (elementary school), Grade 8 (middle school), and Grade 11 (high school). At each school, all children in all classrooms for that grade level were invited to participate. Data collection was conducted in compliance with the protocol approved by the human review board, including informed parental consent and youth assent. Permission rates were reasonably high, with an average consent rate of 83%. Moreover, all survey instruments developed to collect data from youth were piloted in the summer of 2005 before this study began.

The focus groups were conducted during the 2nd and 3rd years of the project at three elementary schools, two middle schools, and two high schools (where survey data were also collected). Participating schools were identified based on strong administrative leadership for bullying prevention and willingness to participate in this process. The intent of these groups was to involve youth as "informants" or "experts" about youth culture rather than to identify bullies or victims to describe their own experiences. Youth in the focus groups did not participate in the survey from Year 1.

Student Surveys

Participants. Year 1 surveys were collected from 2,678 elementary, middle, and high school students (859 elementary, 1,288 middle school, and 531 high school) in the fall of 2005 and from 2,261 of these youth (738 elementary, 1,102 middle school, and 428 high school) in the spring of 2006, representing 84% of the pretest sample. This is a relatively low attrition rate (16%). Elementary children were in Grade 5, middle school children were in Grade 8, and high school students were in Grade 11. However, a small number of high school students from 10th (n = 72) and 12th (n = 25) grades were included when surveys were conducted in mixed-grade classrooms, so the high school sample reflects a slightly wider age range.

Participants were from urban, suburban, and rural schools, approximately equally divided between males and females, and from diverse ethnic backgrounds (65% non-Latino White, 28% Latino, 5% African American, 2% Native American). In previous research with this data set, bullying prevalence and correlates did not vary systematically by ethnicity or geographic location (Guerra & Williams, in press).

Measures. The survey included scales to measure bullying perpetration, victimization, self-esteem, normative beliefs about bullying, and perceptions of school climate. Alpha coefficients are reported from Time 1 assessments.

Bullying perpetration was measured with an eight-item scale adapted from Espelage, Holt, and Henkel (2003). Because we were concerned about bullying behavior cast broadly, the eight-item measure included four items that included direct physical bullying and negative bystander behavior and four items that measured direct verbal (e.g., say mean things to someone's face) and indirect verbal bullying (e.g., say mean things behind someone's back) and negative bystander behavior. In all items, reference was made to bullying specifically by noting that the behavior was repeated and that the target was either "identified" or weaker. An example of a physical bullying item was "I pushed, shoved, tripped, or picked fights with students I know are weaker than me." An example of a direct verbal bullying item was "I teased or said mean things to certain students to their face," and an example of an indirect verbal bullying item was "I spread rumors about some students behind their back." Negative bystander items emphasized active participation that included encouraging, cheering, or joining in with physical or verbal bullying perpetration. For pretest items in Year 1, students were asked to "mark how often these things have happened in the previous year." For posttest items in Year 1, they were asked to "mark how often these things have happened since the beginning of the school year." Response options included never, one or two times, several times, and a lot. Because the physical bullying, verbal bullying, and negative bystander items loaded on a single factor and were internally consistent (alpha = .89), the combined score was used for predictor analyses.

Victimization was measured with a four-item scale adapted from Espelage et al. (2003), designed to tap both physical and verbal victimization. Items, time referent, and response categories were similar to the bullying perpetration measure. A sample

physical victimization item was "a particular kid or group of kids pushed, shoved, or tripped me." The alpha coefficient was .81.

Self-esteem was measured with the 10-item Rosenberg Self-Esteem scale (Rosenberg, 1965). This is a valid and reliable measure of self-esteem that has been used in multiple studies across several decades. Respondents indicate agreement on a 4-point scale ranging from strongly agree to strongly disagree with items such as "I feel that I have a number of good qualities." Some of the items were reverse coded. The alpha coefficient was .75.

Normative beliefs about bullying was measured with a six-item scale adapted from the Normative Beliefs About Aggression Scale (Huesmann & Guerra, 1997). Students were asked to indicate how "wrong" or "OK" bullying behaviors were on a 4-point scale ranging from really wrong to perfectly ok. The alpha coefficient was .92.

School climate was measured with a nine-item scale tapping student perceptions of school climate that was adapted from Furlong et al. (2005). Students were asked to indicate on a 4-point scale how strongly they agreed or disagreed with items such as "this is a pretty close-knit school where everyone looks out for each other" and "teachers in my school are fair." The alpha coefficient was .85.

Procedure. The survey was administered in English or Spanish as needed, using standard backtranslation methods. Data were collected by trained assistants in schools using a wireless response pad in classrooms or in computer labs. The data collectors explained the study, assisted youth in logging on to the password-protected questionnaire or using the wireless response pad, read the questions aloud, and were available for help during survey administration. A small percentage of makeup administrations (less than 2%) were conducted using paper-and-pencil measures. No difficulties in administration for any formats were noted.

Focus Groups

Participants. Fourteen focus groups were conducted with approximately equal numbers of participants from elementary school (three schools, six groups, n = 42), middle school (two schools, four groups, n = 35), and high school (two schools, four groups, n = 38). Of the total sample of 115 youth, there were 56 males and 59 females. The ethnic composition of the groups was primarily non-Latino White (39%) and Latino (45%), with a smaller percentage of African American students

(16%). Students were identified and invited to participate by the school counselor or bullying prevention coordinator at each site. The counselors were asked to invite a broad range of students from Grades 5, 8, and 11 who could provide insight into bullying and victimization at their school. They were asked to select a diverse group of youth who had varying degrees of experience with bullying and victimization, and were told explicitly not to select extreme bullies or victims. A letter explaining the purpose of the study and containing parental consent and student assent forms were sent home; 96% of students who received the letters returned them and participated in the focus groups. There were 6–9 participants in each of the focus groups.

Semistructured interview. Open-ended questions were used to generate discussion about bullying and specific factors that contribute to bullying and victimization among boys and girls. These questions were designed not only to reflect the survey items but also to allow for open-ended discussion of the dynamics of bullying not captured by the survey. For example, participants were asked to describe "the typical bully" and to "the typical victim." They were also asked "Why do you think bullies act this way, and are reasons different for girls and for boys?" and "Why do you some kids get picked, and are reasons different for girls and for boys?" Probes focused on whether students bullied or were picked on because they felt bad about themselves (low self-esteem), they thought it was OK for students to bully (normative beliefs) and they just did not like being at school and did not feel welcome there (perceptions of school climate).

Procedure. All of the focus groups were conducted by the senior author at the individual school sites. A cofacilitator managed the recording equipment and took additional notes. The purpose of the study was explained and several warm-up questions were used, particularly with the elementary school children. The group leader emphasized that there were no right or wrong answers, that all opinions were appreciated, and that all responses would be confidential. Participants were told that they were the "experts" at understanding bullying and victimization in their school and that their views were important to develop effective prevention programs. They were instructed to help the leader understand bullying and victimization based on what they saw around them growing up, which could include their own experiences but certainly was not limited to this experience. The same format and series of open-ended questions were used in each of the focus groups. The focus groups lasted approximately 1 hr and were conducted during lunch time or after school on different days (lunch or snacks were provided). All groups were conducted in private rooms. Comments were audiotape recorded and transcribed verbatim.

Results

Overview

A primary goal of this study was to determine whether self-esteem, normative beliefs about bullying, and perceptions of school climate predict bullying and victimization and whether this varies by gender and age. We were also interested in the complex dynamics of bullying within youth culture that may help understand perplexing findings, for instance, how high self-esteem and low self-esteem can both be related to bullying. To address these questions, we report analyses of survey data followed by results of the focus group study. Because the focus group study was designed to complement survey data, we present findings that directly bear on survey results, as well as new themes that emerged. To examine the representativeness of bullying in this sample compared to previous studies, we first calculated Time 1 prevalence rates for any self-reported bullying (50%, 71%, and 72%, respectively, in elementary, middle, and high school) and moderate to high frequency self-reported bullying (8%, 15%, and 12%, respectively). These figures are quite similar to previously reported estimates (e.g., Kochenderfer-Ladd & Wardrop, 2001; Nansel et al., 2001).

Results From Student Surveys

Predictors of bullying and victimization by gender and age. The relations between change in bullying perpetration or victimization and change in the three key predictors from Time 1 (pretesting) to Time 2 (posttesting) were empirically estimated using hierarchical linear modeling (HLM) with the multilevel modeling routine in Stata/SE 10.1. This estimation procedure was used because the data are hierarchical in structure, with students nested in schools. All individual predictors were entered at Level 1. To control for differences across different schools, school was entered at Level 2. No additional school characteristics were entered at Level 2.

Change in bullying or victimization was estimated by specifying the Time 1 measure of bullying or victimization as a predictor of the Time 2 measures of these behavioral outcomes. Change in the three key predictors was measured by calculating residualized change scores and including them in the equations estimated. The calculation involves regressing the Time 2 measures on the Time 1 measures of these variables and saving the residuals. This procedure removes the stability between the two points in time and leaves an estimate of change relative to the initial scoring of participants on each measure at pretesting. Hence, the measures indicate change at Time 2 relative to where youth started at Time 1.

Interaction terms were added to the equations to determine whether the estimated effects of changes in the three predictors on changes in bullying perpetration or victimization were moderated by gender or school grade level. The interaction terms represent the cross-product between the residualized change scores for each of the predictors and different dummy variables: (0 = females, 1 = males), middle school <math>(0 = other,1 = middle school), and high school (0 = other, $1 = high \ school$). Separate equations were estimated for gender interactions and school grade level interactions. Estimation for moderating influences of school grade level used elementary schools as the excluded comparison group.

The results of estimating interaction effects showed that behavioral stability appeared to be slightly greater in high school compared to elementary and middle school, as indicated by the significant estimated effect of Time 1 perpetration or victimization on Time 2 measures of these behavioral outcomes by school grade level. Also, the estimated effects of changes in perceived school climate on changes in bullying were slightly greater for males compared to females. Moreover, changes in self-esteem appeared to have a significantly higher estimated effect on changes in victimization in elementary and middle school compared to high school, and changes in self-esteem had a significantly greater estimated effect on changes in victimization for males compared to females. However, these significant interaction effects were weak in magnitude. No other evidence was found of statistically significant interaction effects by gender or school grade level. The percent of variance explained for the equations with the interaction terms included was virtually identical to that for the equations excluding those terms. Given these findings, only the HLM results for the independent effects of the three predictors, Time 1 behavioral measures, gender, and school grade level are reported below.

Apart from the 16% sample attrition rate from Time 1 to Time 2, the variables analyzed here have a substantial amount of missing data because of nonresponse on some items in the composite indices. To address this issue, we used multiple imputation with five iterations and reestimated the equations with the imputed data. This procedure was conducted with the "ice" command in Stata/ SE 10.1 (see Carlin, Galati, & Royston, 2008; Royston, 2004, for descriptions). The measures were aggregated across the five imputed data sets, and the equations were reestimated with these aggregated and imputed data, with the full sample size being 2,678. The pattern of the results was virtually identical to those without compensating for missing data, with the exception of the estimated effect of changes in self-esteem on changes in bullying. As shown below, that effect was negative and statistically significant in the analysis using the imputed data but insignificant in the analysis without compensating for missing data. However, the estimated effect in both analyses was weak in magnitude. Given these findings, we report the analytical results of the imputed data below.

Table 1 shows the correlations among all Time 1 and Time 2 variables used in this analysis, along with the means and standard deviations. That table shows the correlations between the predictors and the measures of bullying perpetration and victimization are in the expected direction, and all coefficients are statistically significant ($p \le .01$), with the exception of the correlation between prenormative beliefs and postvictimization, which is not significant.

What predicts changes in bullying perpetration or victimization? The HLM results for estimating the bullying perpetration equation are presented in Table 2. Observe the estimated effect of bullying perpetration at Time 1 on Time 2 is statistically significant and moderately strong, indicating a fair amount of behavioral stability between these two points in Time. However, behavioral changes between Time 1 and Time 2 appear to be strongly and positively related to changes in normative beliefs approving bullying but more weakly and negatively related to changes in self-esteem and school climate. These estimated effects are statistically significant and in the direction expected; that is, increases in bullying are predicted by increases in normative beliefs approving bullying, decreases in self-esteem, and decreases in positive perceptions of school climate.

Table 2 also presents the HLM results of estimating the victimization equation. Like bullying

Table 1 Correlations of Time 1 (Pretest) and Time 2 (Posttest) Variables

Variables	1	2	3	4	5	6	7	8	9	10
1. Prebullying										
2. Previctimization	.40									
3. Prenormative beliefs	.69	.25								
4. Pre-self-esteem	10	27	14							
5. Preschool climate	28	11	24	.27						
6. Postbullying	.44	.11	.26	13	38					
7. Postvictimization	.12	.51	.02	24	13	.25				
8. Postnormative beliefs	.25	.05	.26	11	32	.60	.08			
9. Post-self-esteem	09	19	07	.60	.20	20	31	18		
10. Postschool climate	23	11	18	.17	.69	46	23	42	.31	
Mean	1.47	1.82	1.41	3.06	2.86	1.48	1.76	1.38	3.09	2.78
SD	0.60	0.76	0.68	0.50	0.56	0.47	0.66	0.52	0.50	0.54

Table 2
Hierarchical Linear Modeling Results for Bullying and Victimization (N = 2,678 Students in 59 Schools)

Time 1 variables		Time 2 bullying		,	Time 2 victimization	on
	В	t value	p value	В	t value	p value
Bullying	.361	28.687	.000	_	_	
Victimization	_	_	_	.456	31.342	.000
Normative beliefs	.459	32.099	.000	.023	0.969	.333
Self-esteem	036	-2.194	.028	253	-9.258	.000
School climate	104	-5.915	.000	187	-6.351	.000
Gender ^a	.032	2.492	.013	-0.007	-0.351	.726
Middle school ^b	.014	0.518	.604	049	-1.214	.225
High school ^c	011	-0.266	.791	187	-3.348	.001
Constant	.933	32.521	.000	1.007	31.342	.000
Variance components						
Between schools	.014			.019		
Within schools	.101			.285		
% of variance explained	.487			.318		

 $^{^{}a}0 = female$, 1 = male. $^{b}0 = other$, 1 = middle school. $^{c}0 = other$, 1 = high school.

perpetration, the estimated effect of Time 1 on Time 2 victimization indicates substantial behavioral stability. Moreover, the negative and statistically significant estimated effect of changes in perceived school climate and changes in victimization is comparable in magnitude to the estimated effect in the bullying perpetration equation. Unlike the bullying perpetration equation, however, the estimated effect of changes in normative beliefs on changes in victimization is weak in magnitude and becomes statistically nonsignificant. Additionally, the estimated effect of changes in self-esteem is substantially greater than the estimated effect in the bullying perpetration equation, suggesting that

decreases in self-esteem are particularly related to increases in victimization.

Results From Focus Groups

Focus group transcripts were analyzed for emergent themes as follows. Responses to the focus group questions and discussion were coded by the first and third authors to identify emergent themes and develop a preliminary set of coding categories. Regular discussions were held to compare and discuss the evolving thematic categories. The complete data set was then coded by the third author using the NVIVO Version 7.0 (QSR International, 2008)

qualitative data analysis software program. This program facilitates the organization of transcripts for consistent themes and emerging patterns both within and between the focus groups. Analysis related to predictors of bullying and victimization addressed in the current study revealed 11 major categories and numerous subthemes within each category. Table 3 lists these categories and subthemes as well as the number of focus groups at each school level where each theme was mentioned (to assess differences by age groups). We present these as related to the main issues addressed in this paper.

Correlates of bullying. The survey data suggested that bullying is associated with low self-esteem, normative endorsement of bullying, and negative school climate for both genders during the upper elementary, middle, and high school years. In general, the results of the focus groups support these findings. They can also shed light on the complex relation between self-esteem and bullying. Indeed, in more than half of the focus groups, across all youth mentioned emotional problems (including low self-esteem/feeling bad about self, prior victimization) as an important cause of bullying (Table 3, Theme A). As one middle school youth noted, "Bullying comes from low selfesteem, you think you should spread it to other people so they should feel as bad as you do." Feeling bad about oneself was also linked to prior victimization and its role in bullying. Across all ages, focus group participants mentioned that kids are picked on by other kids and older youth, including older siblings. They noted how students are picked on both at school and at home. Many comments were along the lines of "they have been bullied before in their life, either at home or in school, so they want to bully back." This was seen as equally likely to happen to girls and boys, although the specific forms of victimization (e.g., physical vs. emotional) might be different, with boys generally seen as more involved in physical bullying and victimization.

However, participants were clear that feeling bad about yourself or being bullied by others does not always lead to bullying *and* that some bullies can have pretty high self-esteem and think they are better than everyone else. Consistent with the notion of normative beliefs, many students said that bullying was just part of what kids do—everyone bullies and anyone can be a bully (Table 3, Theme B). Several participants across all ages mentioned that youth sometimes have to engage in bullying if everyone else is (particularly their friends

or social group) just so they do not get bullied for not partaking in bullying. Again, this was seen as equally likely for boys and girls, with the main difference being the type of bullying.

The belief that bullying is a normal part of school routines also bears on the role of perceived school climate. When asked whether students bullied other students because they did not like their school, did not trust their teachers, and related constructs, participants sometimes made negative comments about specific adults in their school but generally did not say that mistrust or dislike of school were related to bullying. They seemed to shift to a discussion of the fact that in some schools there is just more bullying, suggesting that an important characteristic is whether students believe that bullying is frequent and tolerated at their school.

Again, participants noted that low levels of bullying were just part of everyday life, but it was only bad when it gets out of hand. As one middle school girl said, "There is a little bit of bully in everyone." As another middle school participant noted, "Anyone can be a bully if the situation is right." The general consensus was that bullying often starts out as teasing that gets out of hand, particularly in the younger grades. For example, an elementary school boy said "I think if you are having fun it is not bullying, but if you are actually mean it is bullying if it hurts another person." Or, as another elementary student participant said, "It is when a joke is not funny any more." In some sense, bullying was seen as a next step in the continuum after teasing, somewhat normative at low levels but problematic when really hurtful. But participants in the different focus groups were also aware of whether or not their school was supportive in preventing bullying (e.g., teachers took action, class meetings about bullying were held) and believed that these actions created a more positive school climate that worked to decrease bullying, particularly in elementary school.

Several reasons for bullying not addressed in the survey were noted by participants.

Across all ages, both boys and girls mentioned "fun" as an important motivator for bullying, even when bullying turned into more serious fighting among older youth (Table 3, Theme C). High school youth often considered bullying as entertainment, particularly when there was nothing much to do. One boy noted, "It is interesting to watch a fight, you hear kids talking before the fight, so you want to see the action." A high school girl echoed these sentiments when describing her own actions:

Table 3
Themes Identified in Focus Groups by Research Question

		Number of focus groups by school level where mentioned			
Major categories	Subthemes within category	Elem. $(n = 6)$	Middle $(n = 4)$	High (n = 4)	
Correlates of bullying by theme					
A. Bullies have emotional	Anger and/or sadness	4	3	3	
problems (self-esteem),	Problems at home	2	3	3	
and/or were victimized	Problems at school	2	3	1	
	Something bad in their life	2	0	1	
	Low self-esteem/feel bad	2	2	2	
	Want attention	2	3	1	
	Picked on by other kids	3	3	4	
	Picked on by older siblings	4	1	3	
	Strike first	0	2	2	
B. Bullying is part of youth	Anyone can be a bully	5	4	4	
culture (normative	Everyone teases; it turns into bullying	4	3	2	
beliefs,school climate)	if they are mean or hurtful				
	Some kids bully a lot	4	4	3	
	Groups bully groups	0	3	2	
C. Because it's fun	Bullying is entertaining	2	4	4	
	Bullies think it is funny	3	3	3	
	Kids are bored	0	1	3	
	There's nothing to do	0	1	2	
D. Bullies have or want power	Bullies wreck your things	3	0	0	
1	Bullies are bigger, stronger	4	2	1	
	Friends give you power	2	4	3	
	Gangs give you power	0	0	2	
E. Bullies are jealous	Jealous of victims	1	4	0	
,	Girls are jealous of girls	0	3	2	
	Jealous of "perfect" kids	1	3	3	
F. Bullies can be popular or	Sometimes bullies are popular—equals power	2	3	2	
not; can bully to get popular	Some bullies think they are better	2	1	1	
or be cool	than other people				
	Kids no one likes	1	1	0	
	Bullies befriend other bullies	1	2	0	
	Bullies want to show that they are cool.	4	4	2	
Correlates of victimization by theme	•				
G. Victims are weak or	Smaller, little kid	3	2	0	
vulnerable	The shy ones	2	1	0	
	The weak get picked on	4	2	2	
	Low self-esteem	1	1	0	
H. Victims are annoying	Do or say dumb things	1	1	2	
, 0	Not respected	0	2	3	
	Do not stand up for self	1	2	2	
I. Victims are different or	Weird kids, kids who stick out	4	3	4	
stand out from others	Different, even in a good way	1	4	3	
	Kids who look strange	3	1	0	
	Pretty girls or popular	2	3	2	
J. Girls get bullied more	Boys bully boys and girls	4	2	2	
	Boys bully girls if they like them	3	3	2	
	Girls bully girls	2	4	4	
	Girls bully boys sometimes	1	1	0	
	Girls fight about guys	0	2	3	

In the Spanish class, one girl was picking on another girl and then they just started getting into it. And I just picked the best one and just sat there and watched her. I watched the one that was tougher, more likely to win. And I cheered her on, like "fight, fight, fight."

Power, jealousy, and status frequently were discussed as intertwined correlates and causes of bullying, particularly during middle and high school (Table 3, Themes D and E). A typical comment from elementary school focus groups was "They wreck things that you make. And they kick you. And they take your stuff." In contrast, middle school and high school youth focused more on getting and keeping power and not letting "perfect" kids get too full of themselves. Jealousy of more perfect kids and particularly between girls was seen as important. As a middle school girl noted:

If you're jealous of someone, and you're telling one of your girlfriends like "Oh I hate her she's so perfect" and then you say something like "Oh I bet she's done all this stuff," and then the next thing you know you think only your girlfriend heard it, and then, the people behind you heard it, and then everyone is like "she did what?"

Participants also noted that some kids bully because they are popular, some kids bully because they want to be popular ("wannabes"), and some kids bully because they are unpopular (Table 3, Theme F). There was a prevailing perception that being popular was one way to get power, and that power was important to be a bully. Because girls generally were seen as weaker and less likely to get power from physical strength, popularity was considered a reasonably important source of power for them. However, participants listed many different sources of power, including being bigger, stronger, prettier, having money, parents in positions of authority, older siblings with a reputation, as well as power in numbers (friends give you power, groups give you power, gangs give you power).

Correlates of victimization. The survey data suggested that low self-esteem was the most robust predictor of victimization, with negative school climate also making a smaller but significant contribution. In the focus groups, only a few students mentioned low self-esteem as a cause of being victimized, although when probed, they noted that being victimized could contribute to low self-esteem over time because students would feel bad about themselves. However, there was a general

sentiment that victims often displayed psychological characteristics associated with low self-esteem, including being weak, timid, vulnerable, and socially isolated (Table 3, Theme G).

Size was mentioned as a sign of weakness most frequently by elementary students; that is, smaller, little kids were seen as more likely targets by bigger, stronger bullies. As one elementary school student noted, "Victims are weaker, smaller, younger kids than bullies because they think that they'll be too scared to tell anybody about it." A frequent comment among elementary and middle school youth was "the weak get picked on." Targeting the weak was considered a good strategy. As an elementary school boy said, "If the bully knows that the person is bigger or stronger they do not bully them." Stated otherwise, youth who were vulnerable, either because of physical size, age, or psychological characteristics were frequently identified as viable targets. Weakness for boys was noted in terms of physical characteristics, whereas weakness for girls was often considered as being meek and socially isolated.

In contrast, school climate and other characteristics of schools were not seen as important contributors to victimization. Rather, focus group participants provided elaborate detail on other specific characteristics of victims that led to being victimized by peers. In addition to being weak and vulnerable, victims were seen as being either annoying or simply different from others.

Being "annoying" was mentioned by youth of all ages and seemed equally important for boys and girls, but was particularly discussed among middle and high school youth (Table 3, Theme H). At the elementary level, being annoying usually involved strange or bothersome habits (talking too loud, chewing food with one's mouth open), whereas for older youth this more frequently involved social behavior (saying the wrong thing, not standing up for oneself). As a high school participant stated:

One main victim just started saying stupid stuff, thinking they were bad, talking a lot and saying the wrong things. Preaching all kinds of stuff about what they think, people do not like preaching, you just have to know when to shut up.

The most frequently mentioned characteristic of victims across all age groups was being different or standing out relative to others (Table 3, Theme I). This was seen as relevant for boys and girls of all ages. This included a broad range of characteristics.

A typical comment was "if you look funny or different, if you stand out in some way you will get picked on." This included any deviation from the norm whether good or bad, with being "too perfect" or different in a good way increasingly mentioned by older youth. A compilation of comments from high school youth sums up the variety of factors linked to victimization and being different:

You can get bullied because you are weak or annoying or because you are different. Kids with big ears get bullied. Dorks get bullied. You can also get bullied because you think too much of yourself and try to show off. Teacher's pet gets bullied. If you say the right answer too many times in class you can get bullied. There are lots of popular groups who bully each other and other groups, but you can get bullied within your group, too. If you do not want to get bullied you have to stay under the radar, but then you might feel sad because no one pays attention to you.

Finally, there was relatively high consensus across groups that girls are more likely than boys to be victims of bullying by both boys and girls (Table 3, Theme J). In further discussions, participants often explained that girls get bullied more than boys because both boys and girls bully girls, whereas boys typically are victimized most often by boys (and not girls). This differential victimization by gender is linked, in part, to sexuality and competition for romantic partners and increases with age. This seems to begin in elementary school when boys pick on girls because they like them. As a middle school girl said, "Usually what I've seen from a young age is that when boys like a girl they just pick on her." This escalates considerably in high school, with sexual slurs and graffiti noted as common occurrences. Another middle school girl noted, "Two girls just fight over a boy and they call each other sluts and stuff like that, sometimes then they throw fists and start fighting." A high school girl said, "If you see someone with juicy (clothing) and their boobs are all hanging out, it is like look at that slut." The girls in the high school focus groups also complained that boys and girls would frequently make untrue sexual claims about them and others through bathroom graffiti or on the Internet. Many of the girls considered this sexual harassment, but lacking specific programs to address harassment, labeled it under the more general rubric of bullying.

Discussion

Drawing on results from both surveys and focus groups, it is clear that bullying across childhood and adolescence is a complex behavior embedded in a changing social context.

Survey findings revealed that over the course of a school year, changes in both bullying and victimization were predicted by declines in self-esteem and increases in negative perceptions of school climate across ages and gender, whereas increased endorsement of normative beliefs approving of bullying only predicted increases in bullying. Indeed, for bullying, an increase in normative beliefs supporting bullying was the strongest predictor of an increase in bullying behavior; for victimization, a decrease in self-esteem was the strongest predictor of an increase in victimization. However, as the focus group findings reveal, how these characteristics contribute to bullying and victimization can vary for different youth and in different developmental contexts.

We first discuss the observed relations between self-esteem, normative beliefs, and school climate and bullying and victimization, building on findings from the focus groups to provide a more nuanced understanding and identify gaps in research. Next, we discuss emergent themes from the qualitative study, and how these can be integrated into future research. We also address the limitations of the current research. Finally, we consider implications for bullying prevention programs across the school years.

As predicted, decreases in self-esteem were related to an increase in bullying and victimization over a single school year. Comments from focus group participants supported the role of low selfesteem in both bullying and victimization. For youth who were more regularly involved in bullying, it was noted that they might use this behavior to feel better about themselves. In other words, although bullying is defined as repeated harm by a powerful perpetrator against a weaker victim, it can also provide a means to achieve power or status in a social context, even if this is only because other children come to fear the bully. On the other hand, it also was noted that bullies could have "normal" self-esteem or even high self-esteem, particularly if they were already powerful within the peer context and used this power to dominate others.

In contrast, focus group participants regularly stated that victims were weak and vulnerable, with low self-esteem often being part of this

vulnerability. The central issue from the focus groups was "vulnerability," which may be linked to low self-esteem but not necessarily. However, because the youngest participants in the present study were already in the upper elementary grades, it is possible that a cycle of victimization begins much earlier, with weaker children who are less self-confident and more vulnerable being victimized by their peers, leading to further decreases in self-esteem, leading to subsequent increases in vulnerability and continued or increasing victimization. For some children who gain power through size, strength, or other assets, low self-esteem and peer victimization may, in turn, result in bullying behaviors as payback or prevention. Participants in the focus groups frequently mentioned that children who are picked on by other kids or older siblings often strike back and become bullies themselves. This highlights the need to conduct longitudinal studies of bullying and victimization beginning early in development and spanning a much longer time period.

Consistent with the findings that normative beliefs supporting aggression predict future aggression (e.g., Huesmann & Guerra, 1997), increases in normative beliefs supporting bullying were the strongest predictor of increases in bullying over the school year in elementary, middle, and high school. As children learn that bullying is acceptable and internalize these standards, they are more likely to engage in this behavior. Although the focus group participants did not mention that children bullied because they thought it was acceptable, there was a general consensus that some amount of "bullying" was just part of peer interactions, whereas a smaller group of "bullies" regularly engaged in this behavior. These comments are consistent with prevalence data from previous studies (e.g., Nansel et al., 2001) and our own findings.

Although we did not address this in the current study, an interesting issue is whether increasing normalization of bullying within a specific setting translates into increasing acceptability of the behavior. In other words, if "everyone does it," does it then become accepted behavior? In addition, to the extent that this behavior at low levels is normative across the school years, it is also important for future research to examine the functions of bullying in the peer and school context. Indeed, most research on the etiology of bullying and victimization has viewed it as an individual problem linked to specific deficits of bullies rather than a social phenomenon embedded in a broader developmental and social context.

For example, bullying may serve to delimit peer group boundaries as issues of identity development become increasingly salient during adolescence. In this fashion, an individual's emergent identity evolves, in part, from the peer groups to which he or she belongs, with bullying behavior potentially used to enhance the status of the in-group at the expense of the out-group (Jones, Haslam, York, & Ryan, 2008). Such behavior can also occur within a group as members jockey for in-group status through bully-victim exchanges. In addition to defining social group boundaries and hierarchies within groups, bullying individuals who are "different" can serve to delimit the boundaries of youth culture, that is, standards of appearance, behavior, and beliefs.

In the present study we focused more narrowly on school climate as a potential contextual influence on bullying. Survey data revealed that positive school climate was negatively associated with bullying and victimization. Positive school climate was defined in terms of individual perceptions that school was a good place to be-where students and teachers could be trusted, students were treated with respect, and rules were fair. Although we found a significant relation with both bullying and victimization, the mechanisms of influence at the individual level were not addressed in this study and were not brought up in the focus group discussions. It could be that support embedded in a positive school climate prevents bullying by providing needed resources for positive youth development and encouraging youth to play by the rules and treat others fairly, while at the same time providing a context where victims feel they can stand up to and report this behavior in a trusting environment. Future research should examine the mechanisms by which perceptions of school climate influence bullying and victimization across the school years.

In addition to providing additional insights into the complex relations between self-esteem, normative beliefs, school climate and bullying and victimization, new themes not regularly considered in developmental studies of bullying and victimization emerged from the focus groups. Two issues were mentioned repeatedly, particularly among the adolescent groups: (a) bullying is fun and entertaining and (b) bullying is related to sexuality.

Because developmental studies of aggression and bullying tend to pathologize this behavior and emphasize the identification of risk factors that increase its likelihood, very little research has examined any of its potential adaptive functions for children—including that it may be seen as enjoyable. This also is true for other problem behaviors, including substance use and high-risk sexual behavior. In other words, although adults who conduct research studies assume that these problem or risk behaviors emerge from individual or contextual shortcomings, youth may understand this behavior from a somewhat different vantage point that highlights the positive consequences of these behaviors. For the younger focus group participants in elementary school, bullying was often described as part of a continuum that began with teasing, escalated into making fun of someone, and continued into more serious bullying. These lines were somewhat blurred, however, and children often had some difficulty distinguishing between playful and harmless teasing that might be funny, and more serious and harmful bullying. For the older youth, bullying was seen not only as fun but as entertainment—several youth mentioned that they liked to participate in or watch a good fight at school or find out about a big drama on the Internet because it was exciting.

In all of the middle school and high school focus groups, bullying was linked to both popularity and sexuality, albeit in somewhat different ways for boys and girls. Boys were seen as dominating and elevating their status as desirable mates through demonstrations of physical force against other males, and by lowering the status of girls "they like" by labeling them as "sluts" and posting lewd messages about their sexual conquests in public places (particularly bathrooms), cell phones, and the Internet. For girls, bullying was seen as a way to enhance their physical and sexual appeal—by limiting competition through rumors, gossip, and exclusion, also in public places, cell phones, and the Internet. It may be that girls are more likely to bully indirectly by harming relationships, but our focus group findings suggest that a primary goal for girls during adolescence is to enhance one's sexual status and access to the most desirable males. Gaining social power by elevating one's status as a sex object is consistent with recent gendered theories of teenage bullying and violence (e.g., Brown et al., 2007). Coupled with our lack of findings for gender differences in the relations between identified predictors and bullying or victimization, our results suggest that the etiology of bullying and victimization may be relatively comparable between boys and girls although the specific form (type of bullying) and function may differ.

Before we consider the implications of these findings for school-based prevention and antibullying programs, it is important to discuss the limitations of the present research. Clearly, our longitudinal analyses were conducted over a short time frame (one school year) that does not allow for more careful exploration of developmental patterns across the school years. In addition, our sample was selected from the older grades at each school level and is not representative of all grades, masking developmental shifts during the elementary, middle, and high school years.

Soliciting youth perspectives through focus groups is an efficient method of qualitative data collection, but it also carries some risks. Youth participants are both reporters on their own experiences and observers of others' experiences. To what extent are their perceptions biased by their own experiences, particularly as victims or bullies? Although efforts were made to encourage youth to act as experts in observing these behaviors and providing objective assessments, this clearly was easier for older youth who were more adept at abstract thinking and reflection. The elementary school participants frequently talked about something that had happened to them or to their friend or to a specific child. There may also be concerns about social desirability and group think that could potentially undermine the validity of the data. However, in the present study, this concern was minimized because the senior author conducted all of the focus groups and reviewed findings with both teachers and students to ensure that they were an accurate reflection of their experiences (see Creswell & Miller, 2000, for a discussion of this approach to establishing validity in qualitative studies).

Mixed methods research also is relatively new in developmental science and is not without challenges (Yoshikawa et al., 2008). Although quantitative and qualitative research can complementary story about a particular problem or phenomenon, these traditions often reflect different worldviews (e.g., post-positivist ideologies that draw on empirical observation and theory testing vs. constructivist approaches that build on participant observations as a mechanism for building theory), and different methodologies, standards of evidence, and mechanisms for communicating findings. Qualitative findings can both clarify issues raised in quantitative studies and suggest new directions for research. However, providing a clear integration of findings from disparate frameworks presents difficulties beyond what is linked to each methodology alone. In the present research, we tried to integrate these components, although some of the new themes that were identified in the qualitative study did not relate directly to the survey findings.

Our overall intent was to blend these data in order to tell a more compelling story about the dynamics of bullying and victimization during the school years, although the story is far from complete.

Raising Healthy Children: Implications for Policy and Practice

Still, there are some potential directions for school-based prevention programs that are consistent with our findings. Creating a positive school climate based on fairness and trust, promoting normative beliefs that sanction rather than endorse bullying, and building healthy self-esteem by providing opportunities for success can create a backdrop not only for bullying prevention but for positive youth development. These can be addressed by classroom and schoolwide programs that encourage the development of antibullying social cognitions, promote achievement, and encourage positive student-teacher interactions. The finding that bullying is commonplace, consistent with previous research, suggests that universal programs are warranted. Further, our findings suggest that these (and other) efforts do not require gender-specific programming. There were few distinctions in the relations between predictors and outcomes by gender although the specific forms of bullying may be different, for instance, girls are more likely to use indirect bullying behinds others' backs and boys are more likely to engage in face-to-face behaviors.

In terms of age differences, our findings suggest that bullying is related to getting or maintaining power, and victimization is related to vulnerability, weakness, and being different across all ages. The exclusion of children who are different suggests a possible connection between diversity training and bullying prevention; that is, encouraging children to accept those who are different may have a positive impact on antibullying efforts. However, the qualitative findings suggest some new directions for adolescents, where bullying is linked to power that becomes embedded in status hierarchies and sexuality. However, the sexualized nature of bullying, particularly during adolescence, is rarely addressed in prevention efforts. Programs for adolescents may benefit from consideration of the role of both identity development and emergent sexuality and how they can become intertwined with bullying behaviors. Further, some behaviors reported in the middle school and high school focus groups were clear examples of sexual harassment. Downgrading these to incidents of bullying may actually interfere with appropriate and responsible action by schools.

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