


7-2008

## Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents

James Gruber PhD  
*University of Michigan - Dearborn*

Susan Fineran PhD, LICSW  
*University of Southern Maine, [sfineran@maine.edu](mailto:sfineran@maine.edu)*

Follow this and additional works at: <https://digitalcommons.usm.maine.edu/swo>

 Part of the [Gender and Sexuality Commons](#), [Social Psychology and Interaction Commons](#), and the [Social Work Commons](#)

---

### Recommended Citation

Gruber, J., & Fineran, S. (2008). Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents. *Sex Roles*, 59(1/2), 1-13.

This Article is brought to you for free and open access by the College of Management and Human Service at USM Digital Commons. It has been accepted for inclusion in School of Social Work by an authorized administrator of USM Digital Commons. For more information, please contact [jessica.c.hovey@maine.edu](mailto:jessica.c.hovey@maine.edu).

Gruber, J.E , & Fineran, S. (2008). Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents  
*Sex Roles*, 59, (1-2), 1-13.

Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents

James Gruber

Susan Fineran

James E. Gruber, Ph.D. is Professor, University of Michigan at Dearborn, Sociology Department. Susan Fineran, Ph.D. is Associate Professor, University of Southern Maine School of Social Work. Address correspondence to James E. Gruber, Ph.D., University of Michigan - Dearborn, Behavioral Sciences Dept., 4012 CASL Building, 4901 Evergreen Road, Dearborn, MI 48128. Telephone: 313-593-5611 [e-mail: [jegruber@umich.edu](mailto:jegruber@umich.edu)]

Header: ADOLESCENT SEXUAL HARASSMENT AND BULLYING

### Abstract

A sample of 522 middle and high school students from a school district in a northeastern state in the U.S. was used to address two questions about bullying and sexual harassment: Is one more frequent than the other, and are there gender or sexual orientation differences in this regard? And, does one have greater adverse health effects than the other, and, if so, for whom? Bullying occurred more frequently than sexual harassment for both girls and boys but not among sexual minorities. Girls were bullied or harassed as frequently as boys, but sexual minorities experienced higher levels of both. Compared to bullying, sexual harassment had adverse effects on more health outcomes. These adverse effects were especially notable among girls and sexual minorities.

**Keywords:** Sexual harassment; bullying; adolescents; health; gender differences

This paper draws comparisons between school bullying and sexual harassment on two fronts. First, we study the incidence of each in a sample of over five hundred American middle and high school students. We ask: Which (bullying or harassment) is the more common experience? And, does one occur more frequently for some students (e.g., boys) than for others (e.g., girls and sexual minorities)? Second, we contrast the *impact* of each type of victimization on five health outcomes (self esteem, mental and physical health, trauma symptoms, and substance abuse). We ask: Is one type of victimization more harmful than the other? And, do the negative health outcomes of bullying and sexual harassment differ among boys, girls, and sexual minorities? At first glance, these analyses might seem straightforward and unremarkable given the large volume of research on school bullying and sexual harassment that has been published in the United States and Europe over the last decade. In reality, such comparisons have been and remain problematic for reasons both theoretical and methodological. And the need for a study of this kind has become more urgent because of the scholarly and public popularity of one topic over the other. Not only is attention to school sexual harassment waning but it is in danger of being subsumed under the rubric of bullying, namely, “sexual bullying,” thereby obscuring the pernicious effects of gender and sexual stereotypes. As we will show later, our paper is unique in two respects. First, we directly compare bullying and sexual harassment. Only a handful of studies include measures of both types of victimization. Second,

our measures of bullying and sexual harassment use the same formats (i.e., structure of questions and response categories, time frames), which, to the best of our knowledge, is without precedent.

School bullying and sexual harassment prevention programs have been competing for resources and media attention for more than a decade. In the aftermath of Columbine-type school shootings, many educators have embraced zero tolerance policies to stem school violence (Stein, 2003). Identifying school violence and safety as primary concerns has contributed to the creation of a link between safe schools and bullying prevention, which, unfortunately, has diminished attention to the harms of sexual harassment. The growing emphasis on bullying is best illustrated by an online literature search which reveals that the volume of studies, papers and prevention programs addressing bullying far exceeds that on sexual harassment. Moreover, sexual harassment is currently viewed by some researchers as a subset or variation of bullying rather than as a distinct phenomenon *sui generis*. As a result, educators and social researchers today are in the difficult position of trying to understand two frequently occurring problems in school without being able to accurately compare the incidence and impact of each. Different avenues of research—one on bullying, the other on sexual harassment—*suggest* that they may share some similar impacts: anxiety, depression, low self esteem, loneliness, and feeling afraid (e.g., Nansel, Overpeck, Pilla, Ruan, Scheidt, & Simons-Morton, 2001; American Association of University Women [AAUW], 1993, 2001). In actuality, it is difficult to compare them directly.

### **Background of Two Paradigms**

Studies of bullying and sexual harassment have two different historical and theoretical roots. The problem of bullying was brought to international attention most prominently by Olweus, a Norwegian researcher in the 1970's. Nansel et al. (2001) have recently defined

bullying in a manner that reflects the perspective developed and subsequently modified over the years by Olweus: “a specific type of aggression in which (1) the behavior is intended to harm or disturb, (2) the behavior occurs repeatedly over time, and (3) there is an imbalance of power, with a more powerful person or group attacking a less powerful one. This asymmetry of power may be physical or psychological, and the aggressive behavior may be verbal (e.g. name calling, threats), physical (e.g. hitting), or psychological (e.g. rumors, shunning/exclusion)" (p.2094). School bullies have been described as children who use physical or relational aggression in a systematic and calculated way with a group of weaker peers (Crick, 1996; Olweus, 1993; Pellegrini, 2001; Schwartz, Dodge, Pettit, & Bates, 1997).

Theories and definitions of sexual harassment originated in the United States in the 1970's beginning with the work of MacKinnon, who defined it as a form of sex discrimination used by men to subordinate women (1979). While bullying has often been characterized as inappropriate or aggressive interpersonal behavior (between individuals or between a group and an individual ('mobbing'), sexual harassment was originally formulated as behavior by males who used organizational power or cultural privilege to coerce sexual favors from women (*quid quo pro*). This initial formulation has expanded both theoretically and legally over the decades to include gender- or sexually-focused behaviors by men that make it exceedingly difficult for women to work (*hostile environment*), and more recently, same-sex harassment involving the use of sexual threats, taunts, or attacks (e.g., *Oncale v. Sundowners*, 1998). The definition of sexual harassment by the U.S Department of Education parallels that of other state and local governments and government agencies insofar as it includes both unwelcome interpersonal

behavior (e.g., date pressures, sexual contact) “that is sufficiently severe, persistent, or pervasive...” and hostile environment (U.S. Department of Education 1997, p. 12038).

The primary distinction between bullying and sexual harassment is not simply that the latter is about gender and sexuality. Rather, sexual harassment is more directly and clearly related to hegemonic masculinity and therefore taps into potent structural and culturally-sanctioned roles and meanings (masculine-feminine, heterosexual-homosexual) that are central components of social stratification. In contrast, research and theory on bullying tends to focus on the personal or psychological characteristics of bullies (e.g., severe adjustment problems), situational factors that prompt bullying or the reciprocity of bullying behaviors (a number of adolescents are characterized as “bully/victims”). One of the strengths of sexual harassment theory is that it prioritizes gender- and sexually-based experiences as key factors in stabilizing differences in power and privilege. Specifically, some people (females and sexual minorities) experience greater victimization and more harm (physical, psychological, and emotional) than others because of gender and sexual stereotypes. The term "sexual bullying" has surfaced recently and has muddled the definition of both sexual harassment and bullying. Some researchers (Craig et al., 2001; Pellegrini, 2001) view school sexual harassment as an adolescent form of bullying. This is an unfortunate development for two reasons. First of all, bullying is not illegal but sexual harassment is. Consequently, many students and their parents who perceive sexual harassment as a form of bullying may not exercise their rights to have schools address the issue as they are *legally* mandated to do. Also, when sexually-based experiences are viewed as bullying and not identified specifically as sexual harassment, problems of victimization that stem from gender or sexuality may be interpreted as private or interpersonal troubles experienced

by unfortunate students who are caught up in difficult situations. The fact that most bullies are male, that girls experience more harm than boys from sexual harassment, and that homophobic comments are used routinely (mostly by boys) to humiliate and control others (primarily other boys) loses its critical edge (AAUW, 2001; McGuffey & Rich, 1999; Kimmel & Mahler, 2003). Two recent studies by Jessie Klein (2006a, 2006b) have highlighted the role that gender and sexual stereotyping played in school shootings—a fact that has escaped public scrutiny because of a focus on “bullying”: Most of the school shooters targeted girls primarily; and, the shooters, who fell well outside the range of acceptable masculine body types, had weathered attacks on their masculinity, including homophobic taunts, for months—and in some cases, years.

### **Bullying and Sexual Harassment Incidence**

To date, there have been two national studies of bullying and two of sexual harassment that provide the broadest statistics regarding these behaviors in U.S. schools. The United States Department of Education School Crime Supplement to the National Crime Victimization Survey (2003) reported that in 2001 8% of middle and high school students were bullied (9% males, 7% females) up 3% from 1999. An earlier study on bullying, conducted by the 1998 National Institute of Child Health and Human Development (Nansel et al, 2001) found that one third of children in grades 6 through 10 were directly involved in bullying, with 10 % as bullies, 13% as victims and 6% as both. Two national studies on sexual harassment conducted in 1993 and 2001 by The American Association of University Women (AAUW) found similar results for both years: 81% of students experienced some form of sexual harassment during their school years. Fifty-nine percent of students were harassed occasionally and 27% were targeted often (AAUW, 2001). In addition, 54% of students said they sexually harassed someone during their school



years. In a fashion similar to bullying, grade level makes a difference in sexual harassment frequency; but in contrast to bullying, it increases with grade level: 55 % of 8-9<sup>th</sup> graders and 61 % of 10-11<sup>th</sup> graders reported that they had been physically sexually harassed at school (Hand & Sanchez, 2000).

When the results of these four national studies are compared it is striking that over eighty percent of students said they had experienced sexual harassment while less than 1 of 6 reported being bullied. Also, more than half of students said they perpetrated sexual harassment while only 10% reported bullying others. Students who reported being both harasser and harassed constituted 55% (AAUW, 1993) while those who were bullied or who bullied others were about a quarter of that figure (NICHHD: Nansel et al, 2001). These differences result most likely not from students' differential experiences (i.e., that sexual harassment is much more common than bullying), but rather from substantial differences in measurement. It is difficult to understand which behaviors are more common in schools—and which have more adverse effects—because researchers use different measures of bullying and sexual harassment and construct different time frames. For example, the AAUW studies of sexual harassment used a 14-item scale that asked students to indicate the frequency of each experience. In contrast, research based on Olweus (1993) uses a single questionnaire item which contains the word “bullying” along with a definition (e.g., Elsea, Memesini, Moore, & Morita, 2003; Nansel et al., 2001; Williams, Connolly, Pepler, & Craig, 2005). It is likely that this procedure—asking a single question that refers to “bullying”—underestimates the number of respondents who have been victims of aggressive behavior from their peers. Lessons from sexual harassment research are instructive in this regard. By the mid-1980's the protocol for survey development was to use multiple survey

items to tap different dimensions of sexual harassment (e.g., Fitzgerald and her colleagues identified three forms of sexual harassment—gender harassment, unwanted sexual attention, and sexual coercion) and to not use the words “sexual harassment” because doing so lead to significantly lower estimates of experiences that could otherwise be deemed “sexual harassment” according to theoretical or legal definitions (Fitzgerald & Shullman, 1993; Gruber, 1990). Consequently, most harassment surveys over the last two decades have asked respondents if they experienced “uninvited and unwanted sexual attention” (e.g., United States Merit System Protection Board [USMSPB], 1988, 1995). In this regard, the AAUW surveys ask adolescents “How often has anyone done the following things to you when you did not want them to?” Additionally, the time frames presented to respondents so that they could determine whether or not they were harassed or bullied vary from study to study. While the AAUW studies asked students if they had ever had one or more sexual harassment experiences “during your school years,” the National Crime Victimization Survey asked about bullying experiences that occurred “during the last 6 months.” Different time frames are used in victimization studies even when both phenomena are studied together. DeSouza and Ribiero (2005) used “last 30 days” for bullying and “last 12 months” for sexual harassment. Similarly, Williams et al. (2005) framed bullying as experiences that occurred “during the last 2 months” and sexual harassment as “during the last 6 months.” Holt and Espelage (2007), using AAUW (2001) questions with a one-year time frame (“during the last twelve months”) along with their own bullying scale items and time frame (“last 30 days”) found that 70% of the students had been harassed while a little more than half (54%) had been bullied. So, it is not surprising, then, that sexual harassment

seems to be rampant in schools compared to bullying when the question and response formats and the times frames differ substantially.

### **Bullying and Sexual Harassment Victimization: Mental and Physical Health Outcomes**

A perusal of the separate research veins on bullying and sexual harassment seems to indicate that there are adverse health outcomes common to both. Research conducted by the National Institute of Child Health and Human Development (1998) found that bullied students experienced greater difficulty making friends, had poorer relationships with classmates, and were lonelier. Other studies of bullying have found consistently that "youth who are bullied generally show higher levels of insecurity, anxiety, depression, loneliness, unhappiness, physical and mental symptoms, and low self esteem" (Nansel et al., 2001, p.2095). Espelage and Holt (2001) found that 20% of middle school victims scored within the clinical range on a standard depression and anxiety measure. Similarly, Hawker and Boulton (2000) showed that bullied kids were five times more likely to be depressed than non-bullied children. According to Hazler, Hoover and Oliver (1992) and Kochenderfer and Ladd (1996) bullying affects academic behavior as well: The former found that 90% of bullied students experienced a drop in school grades, while the latter reported that victimization was related to school absenteeism and attrition.

Some of these adverse effects appear in sexual harassment studies as well. According to the AAUW studies (1993, 2001), students who experienced sexual harassment reported negative psychosocial effects such as depression, loss of appetite, nightmares or disturbed sleep, low self esteem and feelings of being sad, afraid, scared, or embarrassed (Hand & Sanchez, 2000; Lee, Cronnager, Linn, & Chen, 1996). Students also reported a loss of interest in regular activities and

isolation from friends and family. In addition, school performance difficulties included absenteeism, decreased quality of schoolwork, skipping or dropping classes, poor grades, tardiness, and truancy (AAUW, 1993, 2001; Corbett, Gentry, & Pearson, 1993; Hand & Sanchez, 2000; Lee et al., 1996)

### **Bullying and Sexual Harassment: Gender and Sexual Orientation**

Research suggests that girls are sexually harassed more frequently than boys (e.g., AAUW, 1993, 2001; Fineran & Bennett, 1999), but boys are bullied more often than girls (Nansel et al. 2001). Boys are the primary perpetrators of both sexual harassment and bullying (AAUW, 1993, 2001; Fineran & Bennett, 1999; Hand & Sanchez, 2000; Lee et al., 1996; McMaster, Connolly, Pepler & Craig, 2002). According to Nansel et al. (2001) and others the forms of bullying vary by sex: Girls are bullied more frequently than boys through the use of rumors and sexual comments (sexual harassment?) while boys more often report being hit, slapped or pushed. These gender differences also point to a difference in impact. Apparently, victimization has greater impact on girls. Girls experience more negative psychological effects from sexual harassment than boys—feeling afraid, self conscious, or embarrassed (Duffy, Wareham & Walsh, 2004). And, based on a meta-analysis (Hawker and Boulton, 2000) of peer victimization research published over a 20 year time period , bullied girls reported more severe health problems (e.g., suicidal behavior) than boys.

There is limited research on sexual orientation but it is compelling. The Massachusetts Youth Risk Behavior Survey (Massachusetts Department of Education, 2007) compared gay, lesbian and bisexual students to their peers and found that sexual minority students had higher suicidality, were more apt to skip school because they felt unsafe, had been threatened with or

injured by a weapon at school, and experienced more dating violence and non-consensual sex. A study of 712 high school students conducted by Fineran (2002) found that sexual minority students were physically assaulted and sexually harassed more frequently than heterosexual students and they and heterosexual girls reported being significantly more upset and threatened by peer sexual harassment than their heterosexual male peers. According to Williams et al. (2005), gay and lesbian students also experienced *both* bullying and sexual harassment at higher levels than their heterosexual counterparts; and, according to Poteat and Espelage (2007) being the target of homophobic victimization had significant psychological and social consequences for students. A recent report (2005) by the Gay, Lesbian and Straight Education Network (GLSEN) on Michigan schools revealed that two-thirds of students in their sample were harassed because they were, or appeared to be gay or lesbian. More than 80% of these students reported hearing derogatory homophobic comments. According to Thurlow (2001), however, most adolescents rate homophobic slurs as both more common and less serious than racial slurs. It appears, then, that homophobia may be a “normalized” means of categorizing and victimizing peers during adolescence that has devastating consequences for some teens, in particular, sexual minorities.

### **Purpose of the Study**

This study addresses the need for school sexual harassment and bullying to be studied together in the same research project. Specifically, we addressed the “How much?” and “With what impact?” questions by using survey items that had the *same* format for both bullying and sexual harassment items--e.g., asking students if they have experienced a particular form of behavior (without using the words bullying or harassment) “Never,” “A few times” or “Many

times”)--and the *same* time frame (“Since the beginning of the school year”). We also utilized standardized measures of health outcomes evident in most child and adolescent research that are often missing from current sexual harassment and bullying research.

### **Research Issues for this Study**

- 1) The research literature suggests that sexual harassment is more common than bullying. This assumption has not been tested meaningfully because of the use of different measures and time frames. Since bullying involves both sexes as targets and as perpetrators more frequently than sexual harassment does, we expect to find a higher incidence of bullying than sexual harassment. Also, a perusal of the research suggests that bullying is a common experience for boys while girls and sexual minority students are more frequently targets of sexual harassment. The fact that sexual harassment is substantially higher among working women and sexual minorities is clearly documented (e.g., USMSPB, 1995; Fitzgerald et al., 1999) leads us to expect similar results in our sample of students.
- 2) We argued earlier that sexual harassment is more closely linked than bullying is to cultural constructions of gender and sexuality, and to subsequent differences in power and privilege. Therefore, we expect that sexual harassment will be a stronger predictor than bullying of a greater number of health outcomes. In particular, we predict that the adverse health outcomes of sexual harassment will be especially acute for girls and sexual minorities. Testing this hypothesis involves three steps. First, we study whether there are health outcome differences that vary by gender and sexual orientation. This will provide general information on the health and well-being of the students in the sample.

Second, we compare health outcomes separately for bullying and sexual harassment to determine the degree of impact that each has. This step is unique since our study uses measures of bullying and sexual harassment that are more comparable to each other than previous studies have. Finally, we take a final step of doing a “head—to-head” comparison of both forms of victimization by including them *together* in the same regression equations. This is the first study to conduct such a comparison. In order to isolate the effects of bullying and sexual harassment on health outcomes we employ control variables that capture some of the aspects of adolescent life that adversely affect health, namely stressful life events and school stress.

## **Method**

### **Sample**

Data were drawn from American students at a middle school and a high school in a suburban New England community who completed paper and pencil surveys during classes that drew a wide range of students (health or English). Parental consent forms were sent home with the students. The parents were told that the survey covered a range of topics including bullying and sexual harassment, attitudes toward school, and health and well-being. Students who received parental consent were given an assent form along with the survey during class. Both parental consent and student assent forms followed Institutional Review Board procedures which specified that the survey was voluntary and that information given by the students was

confidential. The final sample consisted of 154 girls and 142 boys in middle school (grades 7-9), and 70 girls and 156 boys in high school (grades 10-12). The middle school response rate (53%) was higher than that of the high school students (48%). The demographic characteristics of the samples were quite similar to the student body at each school. For example, non-whites represented 11% of middle school and 15% of high school students. Our sample consisted of 12% and 16%, respectively.

## Measures

*Predictor variables.* Gender and sexual orientation were dichotomous variables coded 0 and 1. The latter value was assigned to girls or to self-identified sexual minorities (gay, lesbian, bisexual) as well as questioning students. Girls comprised approximately forty-three percent of the sample. Ninety-one percent of the students described themselves as heterosexual. We included questioning students (i.e., students who indicated that they were not sure about their sexual orientation) in the sexual minorities category based on research by Williams et al. (2005). They found that questioning students had similar victimization experiences, social support, and psychological adjustment problems as those who self-identified as gay, lesbian, or bisexual.

*Bullying and Sexual Harassment.* Ten survey items developed by Espelage and Holt (2001) and fourteen items from the AAUW survey (2001) were used to measure bullying and sexual harassment, respectively. Students were asked how often they had experienced each behavior (Never, A few times, Many times) during the school year, who the perpetrators were, and their reaction (See Appendix for survey items). The individual items were summed to create the respective scales. Each scale had high reliability: Bullying (Cronbach's  $\alpha=.89$ ); sexual harassment ( $\alpha=.92$ ). In order to conform to formal and literal definitions of these behaviors



we operationalized “bullying” or “sexual harassment” as repeated behavior. Additionally, we considered the complexity of these experiences—i.e., that different forms of verbal behavior (teasing as well as threatening) or a combination of physical and verbal behavior are typically aspects of bullying or harassment experiences. Consequently, we defined a student as being bullied or harassed if he/she had three or more different experiences at least “A few times” (e.g., a student was “bullied” if he/she was teased, was pushed or shoved, and was excluded from friends). This operationalization both acknowledges and extends the study of bullying published by Peskin and her colleagues who defined a victim of bullying as a person who has experienced at least one type of bullying behavior at least three times in the last 30 days (Peskin, Tortolero, & Markham, 2006).

Based on our operationalizations, a little more than half (52.3%) of our sample had been bullied, while slightly more than a third (35.3%) were sexually harassed. Our measures of bullying and sexual harassment are correlated ( $r=.56$ ,  $p<.01$ ) indicating that both experiences were common to a number of students. Specifically, 32% of students had been both bullied and harassed; 28% had experienced one but not both; and 40% had experienced neither.

*Health Outcomes.* Five outcome variables were used in this analysis that tapped different dimensions of overall health and well being. (See Appendix for survey items). *Self Esteem* was measured by four items from Bowen and Richman (1995) for use with adolescents. The items were summed to produce a scale with a range of 4-12 where  $M=6.26$ ,  $SD=2.2$  ( $\alpha=.90$ ). We also used items from Bowen and Richman to measure mental and physical health. The *Mental Health* scale ( $\alpha=.81$ ) consisted of six items which tapped evaluations such as feeling successful, being pleased with self, or feeling lonely or fearful during the last week.. A scale was

created by combining these items (range=1-11; M=5.61; SD=2.7). A *Physical Health* scale was developed from a factor analysis of twelve items. Seven items that formed a factor ( $\alpha=.83$ ) were used to create a scale (range=1-12; M=5.81; SD=3.4). These items asked students how often they had experienced such problems as trouble going to sleep, upset stomach/stomach ache, headache, or dizziness in the last seven days. *Impact of Events Scale (Trauma Symptoms)* was based on eight items ( $\alpha=.91$ ) developed by Dyregrov and Yule (1995) to use with children. The respondents were asked how frequently each item applied to them regarding their most upsetting bullying or sexual harassment experience (e.g., I thought about it when I didn't mean to, I had waves of strong feelings about it). The combined items resulted in a scale with 1-10 range where M=5.19 and SD=3.2. *Substance Abuse* was based on a single item from Hanisch and Hulin (1991) where "Drank alcohol or used drugs because of things that happened at school" was one of several responses to the query "During this school year did you do any of these things to deal with stress at school?" where the response categories ranged from 1 (Never) to 4 (Many times). Sixty-one percent (61%) of students responded "Never" to this survey item.

*Control Variables.* As we discussed earlier, a considerable range of health outcomes are associated with bullying and sexual harassment. However, this victimization is part of a larger social context that includes positive, health-affirming events as well as other negative experiences. Relationships with parents and siblings, academic performance, interactions with teachers and other adults are all part of this context, and they all have implications for students' health and well-being. Parental divorce, residential upheaval, and conflict with parents are significantly related to a number of health outcomes, including depression, physical ailments, and social adjustment (Newman et al., 2007; Waaktaar et al. 2004; Windle & Mason, 2004).

Similarly, students' connectedness to school and teachers, as well as academic achievement are related to health and well-being (Prelow, Bowman, & Weaver, 2007; Filozof et al., 1998; Needham, Crosnoe, & Muller, 2004). In order to more clearly isolate the effects of bullying and sexual harassment on health outcomes we chose two control variables for our regression analyses that focused on either social or family life or school or academic life: Stressful Life Events Scale for Adolescents (SLESA: Newcomb, Huba, & Bentley, 1981) and School Stress (Bowen & Richman, 1995). SLESA asks respondents to gauge the impact (from extremely positive to extremely negative) of events that may have occurred in the last year (e.g., parents divorced, they changed schools, broke up with boyfriend/girlfriend). The items were added and then converted to a 1-10 scale ( $\alpha=.90$ ) where 1=Very positive impact, 5=No Impact, and 10=Very negative impact. School Stress ( $\alpha=.81$ ) is based on 6 items that asked students "What is school like for you most of the time?" with 5-point Likert scales ("Not at all like me" to "Very much like me"). Items included "I find school hectic" and "I find school exciting." (See Appendix for survey items). The items were combined and converted to a 1-10 scale where  $M=5.27$  and  $SD=2.5$ . All health outcomes were significantly correlated with Stressful Life Events and School Stress with correlations ranging from  $r=.125$  ( $p<.05$ ) for Substance Abuse and Stressful Life Events to  $r=.386$  ( $p<.01$ ) for School Stress and Physical Health. We opted not to use either age or grade level (middle or high school) as control variables since correlational analyses revealed that neither was significantly related to bullying or sexual harassment. For example, Pearson's  $r$  for age and bullying was  $.024$  ( $p=.51$ ), and  $.072$  ( $p=.10$ ) for age and sexual harassment. Furthermore, the correlations with age were not significant for either girls or boys. A higher

incidence of both bullying (55% versus 50%) and sexual harassment (38% versus 33%) occurred in high school compared to middle school, but these differences were not statistically significant.

## Results

Our first research question addresses the issue of *frequency*. Which is more frequent—bullying or sexual harassment? And, are there gender and sexual orientation differences in bullying and sexual harassment? Answers can be found in Table I. Using the same time frame and the same benchmark for determining whether or not victimization has occurred, bullying is revealed as a much more common experience than sexual harassment. More than half (52%) of students had experienced bullying during the current school year while approximately one-third (34%) were sexually harassed. There were no significant gender differences in this regard: Boys experienced slightly more bullying than girls (53% vs. 51%), and girls were harassed a little more often than boys (36% vs. 34%). Large differences were found, however, for sexual orientation. GLBQ students experienced more bullying (79 vs. 50%) and sexual harassment

---

Table I about here

---

(71% vs. 32%), and the corresponding regression coefficients were significant for both ( $b=.217$  and  $b=.280$ , respectively). GLBQ students were bullied more often than were harassed (79% vs 71%) but this difference was not statistically significant.

The second research issue we explore in this paper is the *impact* of bullying and sexual harassment on health outcomes. We begin first by analyzing differences in health outcomes between the subgroups that are the focus of this paper—girls and boys, and GLBQ and

heterosexuals. The research cited earlier found that girls and sexual minorities generally have poorer health functioning than other students. We determine the extent to which this is true for the students in our sample and proceed with the next matter of the impact of bullying and sexual harassment on health. The results of t-tests show that girls have significantly poorer

---

Table II about here

---

health than boys for four outcomes: The former have poorer self esteem, mental and physical health, more trauma symptoms but similar levels of substance abuse.. Except for substance abuse, GLBQ students have poorer health outcomes than their heterosexual peers. Heterosexuals report greater use of substances than GLBQ students.

Given the poorer health outcomes among girls and GLBQ students, the next task is to determine the impact of bullying and sexual harassment *individually* on each outcome by t-tests and through regression analyses which include Life Events and School Stress as control variables. The analyses reveal significant relationships between health outcomes and both bullying and sexual harassment. All five t-tests and regression equations for bullying as well as those for sexual harassment are statistically significant. Bullying and sexual harassment have

---

Table III about here

---

particularly large effects on physical health ( $b=.296$  and  $b=.335$ , respectively) and trauma symptoms ( $b=.269$  and  $b=.389$ ). In contrast, the effects of bullying and harassment are smaller

on self esteem ( $b=.148$  and  $b=.146$ ) and substance abuse ( $b=.135$  and  $b=.127$ ). A perusal of the coefficient sizes suggests that comparable measures of bullying and sexual harassment individually predict health outcomes in fairly similar ways. However, since the predictors are correlated, the relative impact of each on the outcomes is not demonstrated by these comparisons.

The third and final step of the analyses of health outcomes is comparing the predictive strength of bullying and sexual harassment simultaneously on each outcome. Specifically, bullying and sexual harassment were entered *together* into each regression equation using the control variables that we described earlier. Separate analyses were conducted for girls, boys, and GLBQ students. Since bullying and sexual harassment were correlated ( $r=.56$ ,  $p<.01$ ) collinearity diagnostics that are available on SPSS 14.0 were conducted for each outcome and each group. An examination of Tolerance and Condition Index figures for the twenty regression equations revealed that multicollinearity was not a problem since the lowest levels of the former were .65 and, figures for the latter did not exceed 11.0. Tolerance levels that are less than .10 (Norusis, 2003) or Condition Index levels over 30 (Belsley, Kuh, & Welsch, 1980) indicate significant multicollinearity problems. The results for the entire sample of students (1<sup>st</sup> column)

---

Table IV about here

---

show that the regression coefficient for sexual harassment is larger than the corresponding one for bullying for all five outcomes. Also, while all five outcome-harassment coefficients are significant, two for bullying (trauma symptoms and substance abuse) are not. As we saw earlier

(Table III), bullying predicted each outcome, as did sexual harassment. It is only when they are placed in the same equation for each outcome that their differences in predictive power emerge. These results lend support to our hypothesis that sexual harassment has more adverse impact than bullying because of the former's stronger basis in cultural stereotypes about gender and sexuality.

The pattern of differences between bullying and sexual harassment and the outcomes extends to sub-group analyses with a few exceptions. For girls, eight of a possible ten relationships (5 bully-outcome and 5 harassment-outcome relationships) are significant. All five harassment-outcome coefficients are significant and three bullying-outcome coefficients are (self esteem, mental health, and physical health) are. The harassment coefficient is larger than the one for bullying for four outcomes. For physical health, the coefficient for bullying is larger ( $b=.300$  versus  $b=.204$ ). Only four of a possible ten coefficients are significant among boys. Neither bullying nor sexual harassment predicts boys' self esteem or substance abuse. Among the four significant relationships, three are with sexual harassment—mental health ( $b=.227$ ), physical health ( $b=.286$ ), and trauma symptoms ( $b=.355$ ). The lone significant coefficient for bullying is with mental health ( $b=.191$ ). Based on the number of significant coefficients, it is apparent that girls experience a broader range of adverse health effects from bullying and sexual harassment than boys do. For both sexes, however, sexual harassment causes more harm than bullying.

Among GLBQ students, four of ten coefficients are significant, and all four involve sexual harassment. Sexual harassment predicts mental health ( $b=.393$ ), physical health ( $b=.606$ ), trauma symptoms ( $b=.403$ ), and substance abuse ( $b=.372$ ). The strength of sexual harassment over bullying on health outcomes follows a similar pattern as found for girls and boys.

## **Discussion.**

This study provides new insight on sexual harassment and bullying victimization in school. Both types of victimization were measured in similar ways with the same time format. And this lead to the finding that bullying was a more common experience than sexual harassment. This was expected since bullying behavior is more reciprocal (i.e., a significant number of students in other research are described as “bully/victims”) and involves same-sex as well as opposite-sex behaviors. There were no significant gender differences with regard to either; but GLBQ students experience significantly higher rates than other students. Research on adults, by contrast, has found very marked differences in the harassment rates of female and male workers (e.g., USMSPB, 1995). As research has shown for both groups—adolescents and adults—males are much more likely to be perpetrators than females. It appears, then, that adolescence is a key point in male development when issues of male dominance and privilege are played out, not only in terms of boy-girl relationships but also in terms of boy-boy hierarchies as well.

We found that life during middle and high school takes a heavier toll on the health and well-being of girls and GLBQ students than on boys (Table II). At the same, we showed that bullying and sexual harassment have pervasive effects on health (Table III): Each was significantly related (t-tests as well as regression coefficients) to all five outcomes. These results suggested two interpretations: The pervasiveness of the impacts on health meant that bullying and sexual harassment affected a large number of students, including boys; but, the adverse outcomes were especially felt by girls and sexual minority students. Our subsequent analysis (Table IV) confirmed these arguments.



We expected that boys would be more negatively impacted by bullying while girls and sexual minorities would suffer more from sexual harassment. We were partially correct in that sexual harassment was linked to poor health outcomes for girls and GLBQ students. However, we found that boys, too, were more affected by sexual harassment than by bullying.

Our study, the first of its kind to compare bullying and sexual harassment victimization using equivalent measurements and time frames has found that the less frequent form of victimization (sexual harassment) plays a greater role in poor health outcomes than the more pervasive one (bullying). These results demonstrate the power of sexuality and sexual stereotypes in drawing the “gender transgression zone”(McGuffey & Rich, 1999). While name-calling, teasing, and physical aggression (bullying) negatively impact adolescents as this study and a host of other studies have shown, this paper revealed the harm that is done when words and deeds have a sexual element to them. While sexual harassment is typically a cross-sex phenomenon, research on adolescents reveals that same-sex harassment is harmful as well. When asked to describe how upsetting specific bullying or harassment experiences were (see Appendix), girls cited sexual rumors and boys listed being called gay as the most upsetting of all items. And they listed members of their own sex as the perpetrators.

The impact of sexual harassment compared to bullying is also notable among sexual minorities. Their mean scores on health outcomes were higher (poorer) than girls or boys on four health outcomes (Table 2). Subsequent analyses (Table 4) revealed that sexual harassment had a stronger role than bullying in creating adverse health outcomes. Also, GLBQ sexual harassment coefficients were considerably larger than those for either boys or girls for the same outcomes. These results suggest that adolescents whose sexual identity is marginalized (gay or

lesbian) or in a flux (questioning) are particularly harmed by words and deeds that are frequently used in adolescent culture to draw gender and sexual boundaries. As others have suggested, the adverse effects of harassment can be exacerbated by a lack of social support from peers and adults (Williams et al., 2005), or as a result of bystander harassment where they witness others being disparaged by the use of homophobic language (Poteat & Espelage, 2007). Not only is the development of support systems at school important to safeguard the well-being of gay, lesbian, and questioning adolescents, it is also crucial to develop or reinforce policies to control the use of sexually derogatory language. In general, our analysis should alert educators, parents, and researchers about the role that sexual harassment plays vis-à-vis bullying, and that the current trend of focusing on the latter problem, or else subsuming harassment under bullying, draws attention away from a significant health risk.

### **Limitations**

Our study has several limitations. First, our sample consists mostly of white students that were drawn from one school district. A more racially and ethnically diverse sample may have produced somewhat different results because of differences in perceptions of, and reactions to bullying or sexual harassment (Buchanan, 2005; Shupe et al., 2002). Also, because we had a small number of sexual minority students we were not able to compare differences in experiences and health outcomes between girls and boys. Given the stigma of being labeled gay in male culture, it would have been interesting to see if gay boys have significantly poorer health than lesbian girls as a result of victimization. Because of our operationalizations a number of students who had a small number of bullying and sexual harassment experiences were not defined as having been “bullied” or “sexually harassed.” Since even low levels of sexual

harassment—at least among adults—adversely affects health outcomes (Schneider, Swan & Fitzgerald, 1998), it is possible that we underestimated the harm resulting from bullying or sexual harassment among the adolescents in our study. Finally, it is possible that some of the adolescents in our study were bullied or harassed *because* of significant health deficits. Our analysis assumed that adverse health outcomes were the *result* of victimization. A recent study by Fekkes et al. (2006) found that depressed and anxious children had a higher probability of being bullied than did their peers; and these experiences further compromised their mental health. The cross-sectional design of our survey did not allow us to explore this issue.

## **Conclusion**

A significant amount of time and energy has been dedicated to bullying prevention with the assumption that this will create a safer environment for students. This study raises the question as to whether victimization at school can be addressed successfully by focusing on only one of the two significant problems in this regard. We are not suggesting that bullying prevention programs be curtailed; rather, we would argue that sexual harassment prevention receive attention as a distinct focus. All students need to benefit from a safe school environment and the mental and physical health implications from sexual harassment and bullying behaviors need to be considered. Keeping schools safe in the 21<sup>st</sup> century is a worthy goal but continuing to focus on boys' behavior and bullying violence in schools, rather than on all students' negative experiences with sexual harassment detracts from our ability to provide a healthy environment for all children.

Gruber, J.E , & Fineran, S. (2008). Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents  
*Sex Roles*, 59, (1-2), 1-13.

### Bibliography

- American Association of University Women Educational Foundation. (2001). *Hostile hallways: Bullying, teasing and sexual harassment in school*. Washington, D.C.: Author.
- American Association of University Women Educational Foundation. (1993). *Hostile hallways: The AAUW survey on sexual harassment in American schools* (Research Rep. No. 923012). Washington, D.C.: Harris/Scholastic Research.
- Belsey, D., Kuh, E., & Welsch, R. (1980). *Regression diagnostics: Identifying influential data and sources of collinearity*. Cambridge, Mass.: MIT Press.
- Boulton, M., & Hawker, D. (2000). Twenty years' research on peer victimization and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 41, 441-55.
- Bowen, G., & Richman, J. (1995). *The school success profile*. Chapel Hill, NC.: University of North Carolina.

Gruber, J.E , & Fineran, S. (2008). Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents *Sex Roles*, 59, (1-2), 1-13.

- Buchanan, N. (2005). The nexus of race and gender domination: Racialized sexual harassment of African American women. In J. Gruber, and P. Morgan, (Eds.), *In the company of men: Male dominance and sexual harassment*, 294-320. Boston: Northeastern University Press.
- Chen, X., Croninger, R., Lee, V., & Linn, E. (1996). The culture of sexual harassment in secondary schools. *American Educational Research Journal*, 33, 383-417.
- Connolly, J., Craig, W., Henderson, K., & Pepler, D. (2002). My friends made me do it: Peer influence on alcohol and substance use in adolescence. In A. Wall, and C. Wekerle, (Eds.) *The violence and addiction equation: Theoretical and clinical issues in substance abuse and relationship violence*. Philadelphia: Brunner/Mazel.
- Connolly, J., Craig, W., McMaster, L., & Pepler, D. (2002). Peer to peer sexual harassment in early adolescence: A developmental perspective. *Development and Psychopathology*, 14, 91-105.
- Corbett, K., Gentry, C., & Pearson, W. (1993). Sexual harassment in high school. *Youth & Society*, 25, 93-103.
- Crick, N. (1996). The role of overt, relational aggression, and prosocial behavior in the prediction of children's future social adjustment. *Child Development*, 67, 2317-27.
- DeSouza, E., & Ribeiros, J. (2005). Bullying and sexual harassment among Brazilian high school students. *Journal of Interpersonal Violence*, 20, 1018-38.
- Dyregrov, A., & Yule, W. (1995). *Screening measures: The development of the UNICEF screening battery*. Presented at the annual meeting of the International Society of Traumatic Stress Studies, Boston, Massachusetts.

Gruber, J.E , & Fineran, S. (2008). Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents *Sex Roles*, 59, (1-2), 1-13.

Duffy, J., Walsh, M., & S. Wareham, S. (2004). Psychological consequences for high school students of having been sexually harassed. *Sex Roles*, 50, 811-21.

Eslea, M., Menesini, M., Moore, A., & Morita, Y. (2004). Friendship and loneliness among bullies and victims: data from seven countries. *Aggressive Behavior*, 30, 71-83.

Espelage, D., & Holt, M. (2001). Bullying and victimization during early adolescence: Peer influences and psychosocial correlates. In R. Geffner, and M. Loring, (Eds.), *Bullying Behavior: Current Issues, Research, and Interventions*. Binghamton, N.Y.: Haworth Press Inc.

Fekkes, M., Pijpers, F., Fredriks, T., Vogels, T., & Verloove-Vanhorick, S. (2006). Do bullied children get ill, or do ill children get bullied? A prospective cohort study on the relationship between bullying and health-related symptoms. *Pediatrics*, 117, 1568-1575.

Fineran, S. (2002). Sexual minority students and peer sexual harassment in high school. *Journal of School Social Work*, 11, 50-69.

Fineran, S., & Bennett, L. (1999). Gender and power issues of peer sexual harassment among teenagers. *Journal of Interpersonal Violence*, 14, 626-641.

Fitzgerald, L., & Shullman, S. (1993). Sexual harassment: A research analysis and agenda for the 1990's. *Journal of Vocational Behavior*, 42, 5-27.

Fitzgerald, L., Magley, V., Drasgow, F., & Waldo, C. (1999). Measuring sexual harassment in the military: The Sexual Experiences Questionnaire. *Military Psychology*, 11, 243-263.

Filozof, E., Albertin, H., Jones, C., & Steme, S. (1998). Relationship of adolescent self-esteem to selected academic variables. *The Journal of School Health*, 68, 68-72.

Gruber, J.E , & Fineran, S. (2008). Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents  
*Sex Roles*, 59, (1-2), 1-13.

Gruber, J. (1990). Methodological problems and policy implications in sexual harassment research. *Population Research and Policy Review*, 9, 235-254.

Hand, J., & Sanchez, L. (2000). Badgering or bantering? Gender differences in experience of, and reactions to, sexual harassment among U.S. high school students. *Gender & Society*, 14, 718-46.

Hanisch, K., & Hulin, C. (1991). General attitudes and organizational withdrawal: An evaluation of a causal model. *Journal of Vocational Behavior*, 39, 110-28.

Kimmel, M., & Mahler, M. (2003). Adolescent masculinity, homophobia, and violence: Random school shootings, 1982-2000. *American Behavioral Scientist*, 46, 1439-1458.

Klein, J. (2006a). An invisible problem: Everyday violence against girls in schools. *Theoretical Criminology*, 10, 147-177.

Klein, J. (2006b). Sexuality and school shootings: What role does teasing play in school massacres? *Journal of Homosexuality*, 51, 39-62.

Lee, V., Croninger, R., Linn, E., & Chen, X. (1996). The culture of sexual harassment in secondary schools. *American Educational Research Journal*, 33, 383-417.

MacKinnon, C. (1979). *Sexual harassment of working women*. New Haven, CT: Yale University Press.

McGuffey, C., & Rich, M. (1999). Playing in the gender transgression zone: race, class, and hegemonic masculinity in middle school. *Gender & Society*, 13, 608-627.

McMaster, L., Connolly, J., Pepler D., & Craig, W. (2002). Peer to peer sexual harassment in early adolescence: A developmental perspective. *Development and Psychopathology*, 14, 91-105.

Gruber, J.E , & Fineran, S. (2008). Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents *Sex Roles*, 59, (1-2), 1-13.

Markham, C., Peskin, M., & Tortolero, S. (2006). Bullying and victimization among black and Hispanic adolescents. *Adolescence* 41, 467-84.

Massachusetts Department of Education. (2007). *2005 Youth risk behavior survey*. Malden, MA: Author.

Massachusetts Department of Education. (1998). *1998 Massachusetts youth risk behavior survey results*. Boston, author.

Nansel, T., Overpeck, R., Pilla, W., Ruan, P., Scheidt, K., & Simons-Morton, B. (2001). Bullying behaviors among US youth: Prevalence and association with psychological adjustment. *Journal of the American Medical Association*, 285, 2094-2100.

Needham, B., Crosnoe, R., & Muller, C. (2004). Academic failure in secondary school: The inter-related role of health problems and educational context. *Social Problems*, 51, 569-586

Newcomb, M.D., Huba, G., & Bentley, P.M. (1981). A multidimensional Assessment of stressful life events among adolescents: Derivation and correlates. *Journal of Health and Social Behavior*, 22, 400-415.

Norusis, M. (2004). *SPSS 13.0 Advanced statistical procedures companion*. Upper Saddle River, NJ: Prentice Hall.

Olweus, D. (1978). *Aggression in the school: Bullies and whipping boys*. Chichester, U.K: Wiley.

Olweus, D. (1993). *Bullying at school*. Oxford, U.K: Basil Blackwell.

Oncale v. Sundowner Offshore Services, Inc. (1998). 523 U.S. 75.

Pellegrini, A. (2001). A longitudinal study of heterosexual relationships, aggression and sexual



Gruber, J.E , & Fineran, S. (2008). Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents *Sex Roles*, 59, (1-2), 1-13.

harassment during transition from primary school through middle school. *Applied Developmental Psychology* 22, 119-33.

Permanent Commission (CT) on the Status of Women. (1995). *In our own backyard: Sexual harassment in Connecticut's public high schools*. Hartford, CT: Author.

Peskin, M., Tortolero, S., & Markham, C. (2006). Bullying and victimization among black and Hispanic adolescents. *Adolescence*, 41, 467-484.

Poteat, V., & Espelage, D. (2007). Predicting psychosocial consequences of homophobic victimization in middle school students. *Journal of Early Adolescence*, 27, 175-191.

Prelow, H., Bowman, G., & Weaver, S. (2007). Predictors of psychosocial well-being in urban African American and European American youth: The role of ecological factors. *Journal of Youth and Adolescence*, 36, 543-553

Schneider, K., Swan, S., & Fitzgerald, L. (1998). Job-related and psychological effects of sexual harassment in the workplace. *Journal of Applied Psychology*, 82, 401-15.

Stein, N. (2003). Bullying or sexual harassment? The missing discourse of rights in an era of zero tolerance. *The Arizona Law Review*, 45, 783-799.

Shupe, E., Cortina, L., Ramos, A., Fitzgerald, L., & Salisbury, J. (2002). The incidence and outcomes of sexual harassment among Hispanic and non-Hispanic white women: A comparison across levels of cultural affiliation. *Psychology of Women Quarterly*, 26, 298-308.

Schwartz, D., Dodge, K., Pettit, G., & Bates, J. (1997). The early socialization of aggressive victims of bullying. *Child Development*, 68, 665-675.

Gruber, J.E , & Fineran, S. (2008). Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents  
*Sex Roles*, 59, (1-2), 1-13.

Thurlow, C. (2004). Naming the ‘outsider within’: homophobic pejoratives and the verbal abuse of lesbian, gay and bisexual high-school students. *Journal of Adolescence*, 24, 25-38.

United States Department of Education, Office for Civil Rights. (1997). Sexual harassment guidance: Harassment of students by school employees, other students, or third parties. *Federal Register* 62, 12034-51.

United States Department of Education, Office for Civil Rights. (2003). *School crime supplement to the National Crime Victimization Survey*. Washington: Author.

United States Merit Systems Protection Board (USMSPB). (1995). *Sexual harassment in the Federal workplace: Trends, progress, and continuing challenges*. Washington, D.C.: U.S. Government Printing Office.

United States Merit Systems Protection Board. (1988). *Sexual harassment in the Federal workplace: An update*. Washington, D.C.: U.S. Government Printing Office.

Waaktaar, T., Borge, A., Fundingsrud, H., Johnsen, H., & Torgersen, S. (2004). The role of stressful life events in the development of depressive symptoms in adolescence--A longitudinal community study. *Journal of Adolescence*, 27, 153-166.

Wilburn, V., & Smith, D. (2005). Stress, self-esteem, and suicidal ideation in late adolescents. *Adolescence*, 40, 33-4.

Williams, T., Connolly, J., Pepler, D., & Craig, W. (2005). Peer victimization, social support, and psychosocial adjustment of sexual minority adolescents. *Journal of Youth and Adolescence*, 34, 471-482.

Gruber, J.E , & Fineran, S. (2008). Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents  
*Sex Roles*, 59, (1-2), 1-13.

**Table I.** Predictors of Bullying and Sexual Harassment

	(n=)	% Bullied <sup>a</sup> (rounded)	Beta <sup>b</sup>	% Sexually Harassed (rounded)	Beta	Difference: Bully vs. SH <sup>c</sup>
Overall		52%		35%		<.01
Gender					.016 (.024)	
Boys	(298)	53	.021	34		<.01
Girls	(224)	51	(.26)	36		<.01

Gruber, J.E , & Fineran, S. (2008). Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents *Sex Roles*, 59, (1-2), 1-13.

Sexual Orientation					.280 (.43) **	
Hetero	(470)	50 **	.217 **	32 **		<.01
GLBQ	( 46)	79	(.47)	71		NS

<sup>a</sup> Percentages are derived from cross-tabulation. Students who had three or more experiences were considered either bullied or sexually harassed. Significance levels are based on chi square.

<sup>b</sup> This is the only analyses where bullying and sexual harassment are dependent variables. Rather than dichotomous variables (see *Predictor variables* above) we used scales with the full range of values (0-20 and 0-24 for bullying and sexual harassment, respectively). Betas are standardized regression coefficients. Standard errors are presented in parentheses.

<sup>c</sup> Differences of proportions tests were conducted to compare the percentage of bullying and sexual harassment for each category (e.g., percentage of boys bullied compared to percentage of boys sexually harassed).

\* p<.05 \*\* p<.01

**Table II.** Gender, Sexual Orientation, and Health Outcomes

*Health Outcomes* <sup>a</sup>

	<u>Gender</u>		<u>Scale Range</u>
	Girls Mean/SD	Boys Mean/SD <sup>b</sup>	
Self Esteem	6.65 (2.3)	5.98 (2.1) **	4-12
Mental Health	6.46 (2.6)	5.01 (2.5) **	1-11

Gruber, J.E , & Fineran, S. (2008). Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents *Sex Roles*, 59, (1-2), 1-13.

Physical Health	6.52 (3.4)	5.32 (3.3) **	1-12
Trauma Symptoms	5.94 (3.1)	4.61 (3.2) **	1-10
Substance Abuse	1.40 (.87)	1.52 (1.1)	1-4

Sexual Orientation

	GLBQ	Heterosexuals	
Self Esteem	7.32 (2.5)	6.18 (2.1) **	4-12
Mental Health	7.76 (2.5)	5.44 (2.6) **	1-11
Physical Health	7.08 (3.3)	5.76 (3.4) **	1-12
Trauma Symptoms	6.68 (2.8)	5.06 (3.2) **	1-10
Substance Abuse	1.41 (.98)	1.98 (1.2) **	1-4

<sup>a</sup> Higher scores are associated with poorer outcomes: lower self esteem, poorer health, more trauma symptoms, and greater substance abuse.

<sup>b</sup> Significance levels are based on t-tests.

\* p<.05    \*\*p<.01

**Table III.** Bullying, Sexual Harassment, and Health Outcomes

*Health Outcomes* <sup>a</sup>

<u>Bullying</u>	
Bullied	Not Bullied

Gruber, J.E , & Fineran, S. (2008). Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents *Sex Roles*, 59, (1-2), 1-13.

	Mean/SD	Mean/SD <sup>b</sup>	Beta/SD <sup>c</sup>
Self Esteem	6.65 (2.2)	5.79 (2.1) **	.148 (.20) **
Mental Health	6.33 (2.7)	4.77 (2.5) **	.214 (.23) **
Physical Health	6.87 (3.3)	4.67 (3.2) **	.296 (.27) **
Trauma Symptoms	5.94 (3.2)	4.21 (3.0) **	.269 (.24) **
Substance Abuse	1.59 (1.1)	1.26 (.78) **	.135 (.09) *

Sexual Harassment

	Harassed	Not Harassed	
Self Esteem	6.71 (2.3)	5.84 (2.1) **	.146 (.20) **
Mental Health	6.59 (2.6)	4.76 (2.5) **	.262 (.23) **
Physical Health	7.17 (3.2)	4.63 (3.1) **	.335 (.30) **
Trauma Symptoms	6.53 (2.9)	3.94 (2.9) **	.389 (.27) **
Substance Abuse	1.73 (1.1)	1.28 (.86) **	.127 (.09) *

<sup>a</sup> Higher scores are associated with poorer outcomes: lower self esteem, poorer health, more trauma symptoms, and greater substance abuse.

<sup>b</sup> Significance levels are based on t-tests.

<sup>c</sup> Standard regression coefficients and standard errors are presented. Regressions for each health outcome used bullying or sexual harassment as predictors and controlled for gender, sexual orientation, life events, and school stress.

**Table IV.** Bullying, Sexual Harassment, Gender, Sexual Orientation and Health Outcomes

Total	Girls <sup>b</sup>	Boys	GLBQ <sup>d</sup>
-------	--------------------	------	-------------------

	Sample <sup>a</sup>			
<u>Outcomes</u> <sup>c</sup>				
Self Esteem				
Bullying	.109 (.23)*	.170 (30) *	.087 (1.2)	.247 (1.5)
SexHar	.128 (.24) **	.201 (.24) **	.089 (.25)	.261 (1.6)
Mental Health				
Bullying	.151 (.22)**	.163 (.34) *	.191 (.35)**	.168 (1.0)
SexHar	.246 (.20)**	.270 (.30) **	.227 (30) **	.393 (.86)**
Physical Health				
Bullying	.163 (35)**	.300 (.42) **	.082 (.45)	.042 (1.2)
SexHar	.236 (.30)**	.204 (.38) **	.286 (.39) **	.606 (1.4)**
Trauma Symptoms				
Bullying	.074 (.31)	.055 (.43 )	.123 (.43)	.085 (1.1)
SexHar	.358 (.33)**	.350 (.35) **	.355 (.36) **	.403 (1.3)**
Substance Abuse				
Bullying	.085 (.10)	.076 (.11)	.033 (.10)	.152 (.64)
SexHar	.121 (.09)*	.181 (.12)**	.099 (.64)	.372 (.56)**

<sup>a</sup> Bullying and sexual harassment were regressed on each outcome with gender, sexual orientation, stressful life events, and school stress as controls.

<sup>b</sup> Regressions were conducted separately for girls and boys. Each outcome was regressed with bullying and sexual harassment, controlling for sexual orientation, life events, and school stress.

<sup>c</sup> Positive regression coefficients denote being bullied or harassed and having poor health outcomes.

Gruber, J.E , & Fineran, S. (2008). Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents  
*Sex Roles*, 59, (1-2), 1-13.

<sup>d</sup> Regressions were conducted separately for GLBQ students. Each outcome was regressed with bullying and sexual harassment, controlling for gender, life events, and school stress.

\*\* p<.01

\*p<.05



## **Appendix**

### Variable Measurement

#### *Bullying*

During this school year, have one or more students at school... (Never, A few times, Many times)

Upset you for the fun of it.

Scared you.

Teased you

Picked on you.

Made fun of you.

Called you names.

Got in a physical fight with you.

Pushed, shoved, slapped, or kicked you.

Threatened to hurt or hit you.

Excluded you from your group of friends.

#### *Sexual Harassment*

During this school year, have one or more students at school done any of these things that you did not want them to do. (Never, A few times, Many times)

Touched, grabbed or pinched you in a sexual way.

Cornered you in a sexual way.

Spread sexual rumors about you.

Made sexual jokes about you.

Made sexual gestures or looks at you.

Showed, gave, or left you sexual pictures, messages, or notes

Wrote sexual messages about you on bathroom walls, locker rooms, or classroom  
blackboards.

Called you gay or lesbian or a name like fag or dyke.

Spied on you as you showered or dressed at school.

Flashed or mooned you.

Pressured you for a date.

Pulled your clothing off or down.

Kissed or hugged you when you did not want it.

Listed you in a “slam book” with sexual remarks about you.

### *Sexual Orientation*

What is your sexual orientation?

Heterosexual or straight

Gay or lesbian

Bisexual

Not sure

### *Self Esteem*

How well does each statement describe you? (A lot, A little, Not at all)

I feel positive about myself.

I am satisfied with myself.

I have a number of good qualities.

I am able to do things as well as most other people.

### *Mental Health*

During the past week, how often did you feel the following? (Never, Sometimes, Often)

Successful	Lonely
Pleased with yourself	Sad
Confident	Felt like crying

### *Physical Health*

How often during the past 7 days have you experienced any of the problems listed below?

(None, 1-2 days, 3 days or more)

Loss of appetite	Upset stomach or stomach ache
Headache	Vomiting or feeling sick to your stomach
Dizziness or fainting	Trouble with nerves
Trouble going to sleep	

### *Trauma Symptoms*

Below is a list of comments made by people in response to stressful experiences. Please check each item, indicating how frequently these comments were true for the experience [Respondent's description of bullying or sexual harassment experience that was the most upsetting] you described above. (Not at all, Rarely, Sometimes, Often)

I thought about it when I didn't mean to.

I tried to remove it from my memory.

I had waves of strong feelings about it.

I stayed away from reminders of it.

I tried not to talk about it.

Pictures of it popped into my mind.

Other things kept making me think of it.

I tried not to think about it.

### *Stressful Life Events*

Please tell us a little bit about your life during the past year. Listed below are a number of life events, both positive and negative...If you experienced an event in the last 12 months, rate the event in terms of the impact it had on you. (Extremely negative, Very negative, Slightly negative, No impact, Slightly positive, Very positive, Extremely positive.

Parents divorced	Had a serious accident or illness
Found a new group of friends	Got in trouble with the law
Stole something valuable	Increase in size of household
Given medication by physician	Fell in love
Family member died	Started seeing a therapist
Changed schools	Started dating regularly
Decided about college	Family had money problems
Broke up with girl/boy friend	Got in trouble in school
Thought about suicide	Started making own money
Was victim of a crime	Ran away from home
Got poor grades in school	Got pregnant or made someone pregnant

Gruber, J.E , & Fineran, S. (2008). Comparing the Impact of Bullying and Sexual Harassment Victimization on the Mental and Physical Health of Adolescents  
*Sex Roles*, 59, (1-2), 1-13.

Family moved

Parents argued or fought

Parents remarried

Gained or lost a lot of weight

### *School Stress*

What is school like for you most of the time? (Not at all, A little bit, Moderately, Quite a bit, Extremely)

I find school hectic.

I find school tense.

I find school fun.

I find school relaxing.

I find school exciting.

I find school stressful.