

Peer Sexual Harassment in Middle School: Classroom and Individual Factors

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ABSTRACT

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In recent years, sexual harassment among adolescents has received significant national attention in the media and from behavioral science researchers. Initial research focused predominantly on describing the prevalence of peer sexual harassment (PSH) among adolescents and understanding the associated outcomes. More recently, researchers have begun to examine individual and contextual risk factors for victimization. Using the problem behavior hypothesis, opportunity theory and developmental theory, a theoretical framework to identify risk factors for PSH was developed, namely risky behaviors (i.e., self-reported delinquency, aggression and friend support for counter conventional behaviors) and sexual saliency variables (i.e., flirting, dating and opposite sex nominations). Moreover, this is the first study that has used classroom demographic factors (i.e., percent male and class size) to predict PSH. Thus, the current cross-sectional study adds to the literature by examining the associations of individual variables with PSH using multilevel modeling techniques, taking into account the nested design of students within classrooms, with theoretically based correlates (i.e., classroom variables, risky behaviors, sexual saliency factors) to examine vulnerability factors for PSH.

A cohort of 8th grade students from an urban, culturally diverse and low-income school district was used. Self-report and peer-reported data were obtained from 744

students in the fall. Self-report measures include PSH (AAUW, 1993; 2001); self-reported delinquency (Elliot, Huizinga, & Ageton, 1995), a modified friends' support for counter conventional behaviors scale (Schierer & Botvin, 1998); and dating frequency. Peer ratings of aggressive behavior, flirtatious behavior, and opposite sex peer nominations came from the Revised Class Play (Matesen, Morrison, & Pellegrini, 1985).

Hierarchical linear regression analyses indicated that PSH scores did not significantly differ between classrooms. As such, all variables were disaggregated to the individual level. Regression analyses found that classroom variables of class size and percent male were not related to the experience of PSH. Risky behaviors (i.e., self-reported delinquency, friend support for counter conventional behaviors, peer rated aggression) was a significant factor, with self reported delinquency being significant for girls and boys and peer rated aggression was a significant predictor for boys. Sexual salience variables (i.e., dating, flirtatiousness, opposite sex nominations) was also a significant factor, with flirtatiousness being a significant predictor for girls and boys and dating being significant uniquely for girls. Findings indicated that risky behaviors account for a greater variance in PSH victimization in boys, whereas sexual saliency account for a greater proportion of variance in girls. Findings also indicate that 6th grade pubertal status was predictive of 8th grade PSH. These results were discussed within the context of clinical implications for schools and future research directions.

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CHAPTER 1

Introduction

In recent years, sexual harassment among adolescents has received significant national attention in the media and from behavioral science researchers. Though previously conceptualized as an adult phenomena occurring in the workplace environment and on college campuses, research has highlighted the widespread prevalence of peer sexual harassment (PSH) in schools and its impact on adolescents (Fineran & Bennett, 1999; Fitzgerald et al., 1988; Gruber & Fineran, 2008). Initial research focused predominantly on describing the prevalence of PSH among adolescents and understanding the associated outcomes such as school absenteeism, depression, anxiety and related mental health problems. More recently, researchers have begun to examine individual and contextual risk factors for victimization such as risky behaviors, peer groups and school climate for PSH victimization. This dissertation will add to the growing body of literature by using classroom demographic factors combined with individual risk factors to determine which factors are associated with experiencing PSH via multilevel modeling in a group of eighth grade students within a theoretical framework. Understanding the individual level factors within the group context is necessary to detail the underlying relationships.

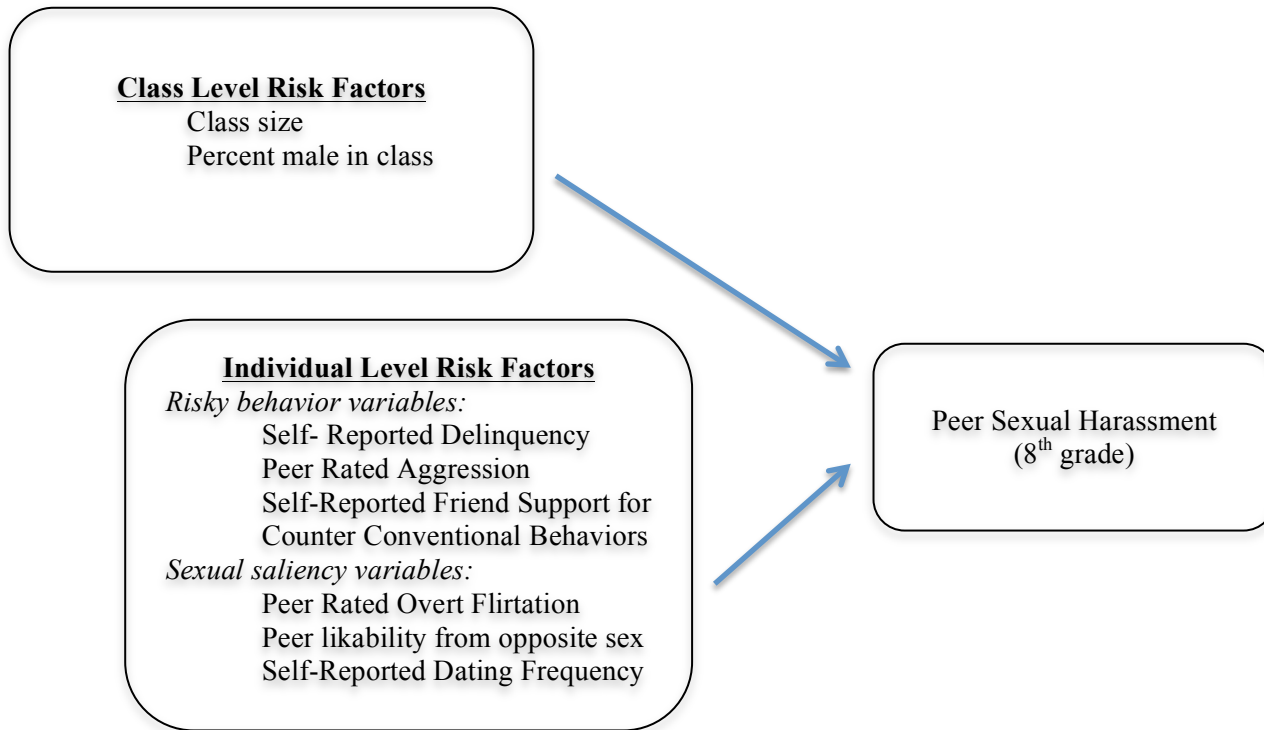
Statement of Problem

PSH is a complicated and prevalent phenomenon throughout adolescence. Research has demonstrated that although some PSH occurs in the elementary school years, PSH significantly increases over middle school, becoming a widespread experience for girls and boys. The research describes prevalence rates and outcomes in

great detail. While individual and environmental risk factors for PSH have been explored, they have not been investigated simultaneously nor have theoretical frameworks been used to help identify risk factors. This is problematic as an adolescent's individual risk factors and experiences are embedded within an environmental context, such as the classroom environment. In addition, while individual and peer group factors have been identified, no research has examined classroom factors such as class size and the proportion of male students in the class which likely play a role in the experience of PSH given the overwhelming evidence that males are the primary perpetrators of PSH for both girls and boys (McMaster et al., 2002). These contextual factors, such as an increase in class size and more males within the class, may be related to PSH by increasing the opportunity for PSH within the peer network.

This dissertation will review the current literature on PSH by examining formal definitions, prevalence rates and outcomes. It will review the developmental context of PSH and attempt to integrate both individual and contextual factors that increase vulnerability for greater PSH victimization during early adolescence within the school settings and situate them in a theoretical framework. The main theoretical frameworks used to explain PSH risk factors include opportunity theory, the risky behavior hypothesis, and developmental theory.

Figure 1.
Model 1: Main Effects Model



Literature Review

Sexual Harassment

Formal definition. Sexual harassment was first identified in the 1970's by Mackinnon, who conceptualized it as various acts that marginalize and demean women (MacKinnon, 1979). Mackinnon argued that sexual harassment is a severe form of sex discrimination that reinforces gender inequality and power hierarchies, and should therefore be considered as such under Title VII of the Civil Rights Act of 1964 which outlawed gender discrimination within places of employment (Public Law) (MacKinnon, 1979). Unfortunately, legislators delayed incorporating sexual harassment into law, and sexual harassment remained a theoretical and empirical phenomenon rather than a legal one for another decade.

Schools began to prohibit sex discrimination as part of Title IX of the Educational Amendment Act of 1972. The development of this act sought to increase equal access to education for women and minorities and was believed to be complementary to the Civil Rights Act (Fineran & Bennett, 1998). Within Title IX, sex discrimination was prohibited for all schools and programs receiving federal funding for both student-to-student and faculty-to-student subtypes of sexual discrimination. Moreover, educational institutions were required to have established grievance procedures, allowing for the resolution of sex discrimination. While no specific mention of sexual harassment was made in either Title VII or Title IX, federal courts and the U.S. Department of Education indicated that sexual harassment is a reason for legal action under these acts (Grube & Lens, 2003).

Sexual harassment was first defined by the Equal Employment Opportunity Commission [EEOC, 1980], the governing body for Title VII, as "unwelcome sexual

advances, requests or favors.” In 1986 the Equal Employment Opportunity Commission formally recognized sexual harassment in work and educational settings with two components: *quid pro quo* and *hostile environment* (EEOC, 1993). *Quid pro quo* harassment includes unwelcomed sexual advances, requests for sexual favors and other forms of verbal or physical conduct of a sexual nature when submission or rejection to such behavior is a condition for an individual’s employment or may effect employment decisions. In an educational setting, this may include a condition or threat of a negative grade or evaluation by a teacher or an administrator. Thus, *quid pro quo harassment* assumes a power differential between perpetrator and victim such as with an employer and an employee, or a teacher and student, where the perpetrator is of a higher status or power than the target (Fineran & Bennett, 1999; Shepela & Levesque, 1998). *Hostile environment* harassment occurs when unwanted or unwelcomed sexual behaviors renders an environment hostile or intimidating, and rises to a level whereby it interferes with the ability to work or learn (Chiodo, Wolfe, Crooke, Hughes, & Jaffe, 2009; Fineran & Bennett, 1999). This definition deemphasizes the power differential that is necessary in *quid pro quo* harassment, enabling peers to take the role of the perpetrator and create a hostile environment (U. S. Department of Education, Office of Civil Rights (OCR), 1997). *Hostile environment* is the form of sexual harassment that most frequently occurs amongst similarly aged peers and directly includes PSH (Brandenburg, 1997; Kopels & Dupper, 1999; Stein, 1999). The definition encompasses a variety of undesired behaviors including: sexual comments, jokes, gestures, showing sexual pictures, photographs, spreading sexual rumors, writing sexual notes either privately or for public display, calling someone gay or lesbian, touching them in a sexual way such as grabbing clothing,

spying on them when they are in a compromising position, forcing a kiss or sex. Importantly, all of these behaviors must be unwanted and unwelcomed to qualify as harassment (Brandenburg, 1997). Both the National Education Association and American Association of University Professors (AAUP) have issued statements against sexual harassment. Notably, the AAUP has developed guidelines that specifically include student-to-student and professor-to-student sexual harassment (Ivy & Hamlet, 1996).

In 1987 the scope of Title IX, under the jurisdiction of the Office for Civil Rights (OCR) of the United States Department of Education, increased with the Civil Rights Restoration Act and allowed for protection against sexual discrimination for all individuals of an institution receiving federal funds. Prior to this amendment, Title IX only covered the specific departments and programs that received federal funds as opposed to the institution at large. The Office for Civil Rights formally defined sexual harassment as “verbal or physical conduct of a sexual nature, imposed on the basis of sex, by an employee or agent of a recipient that denies, limits, provides different, or conditions the provision of aid, benefits, services or treatment protected by Title IX” (1981, p.2).

An argument has been made for a distinction between legal and psychological definitions of sexual harassment. Fitzgerald, Swan, and Magley (1997) proposed that legal definitions are based on narrow criteria that are external to the victim, whereas psychological definitions are internally derived, based on the victim’s experience. Research is increasingly taking the victim’s perspective into account when determining whether an act is sexual harassment or not. This is accomplished by asking victims if the perpetrator’s behavior was unwanted or threatening, regardless of whether the behavior

meets the legal, behavioral criteria of sexual harassment. Fitzgerald and associates (1997) further contend that psychological definitions are developed based on an assessment of stimulus factors (the behavior), contextual factors (the environment) and individual factors (individual person).

Prior to the institution of sexual harassment into the law, behavioral conceptualizations of sexual harassment had been developed. In 1980, Till examined the content of sexual harassment descriptions of college women via a qualitative analysis. Based on his content analysis, he identified five major categories viewed on a continuum of severity that increased across categories: 1) *generalized sexist remarks and behaviors* (not aimed at sexual cooperation but rather conveys insulting, degrading, or sexist remarks about women); 2) *inappropriate and offensive, but essentially sanction-free sexual advances* (no penalty is attached to the woman's refusal to comply); 3) *solicitation of sexual activity or other sex-related behavior by promise of reward* (sexual bribery); 4) *coercion of sexual activity by threat of punishment* (sexual coercion); and 5) *sexual assaults* (sexual imposition, including rape and sexual assault).

Fitzgerald and Shulman (1993) reduced Till's (1980) five factors into, three independent factors (gender harassment, unwanted sexual attention and sexual coercion) with its own continuum of severity in order to better reflect the actual groupings of harassing behavior. That is, they proposed three distinct factors with various behaviors within each factor. These behaviors could then increase in severity within a given factor. Fitzgerald, Gelfand, and Drasgow (1995) define *gender harassment* as a range of verbal behaviors, physical acts, and symbolic gestures (i.e., pornographic pictures, sexual jokes) that indicate insulting, hostile, and degrading attitudes about women because of their

gender; *unwanted sexual attention* includes verbal and nonverbal sexual behavior which communicate sexual desires or intentions that are unwelcome, offensive, and unreciprocated (i.e., staring at breasts, making comments that suggest sexual activities); and *sexual coercion* refers to the pressure of sexual cooperation in return for job-related benefits. Sexual coercion is the most traditionally recognized form of *quid pro quo sexual harassment* (Shepela & Levesque, 1998).

Research supports the unique dimensions of gender harassment, unwanted sexual attention and sexual coercion and the conceptualization that severity increases within these factors (Langhout et al., 2005). As a result, comparing experiences of sexual harassment between factors can be difficult, as severity may be individually and contextually based.

Important differences between the experience of sexual harassment in adulthood compared with adolescence suggests that sexual harassment in adults should be considered independently from sexual harassment in adolescents for several reasons. Firstly, the prevalence of sexual harassment as measured via self-report data is significantly higher in adolescents than reports from adult populations in universities and workplace settings (Fitzgerald & Shulman, 1993). Secondly, both male and female adolescents report high prevalence rates whereas adult females report a significantly higher prevalence of sexual harassment than adult males (Nielsen, Bjorkelo, Notelaers & Einarsen, 2010). As a result, the risk factors of PSH within an adolescent population may be different than the risk factors for an adult population.

Peer Sexual Harassment

Formal Definition. PSH falls in the hostile environment category of sexual harassment discussed previously, and is the most frequent form of sexual harassment occurring in the school setting. Notably, PSH is the most prevalent form of sexual harassment experienced by adolescents (AAUW, 1993; 2001; Fineran & Bennett, 1999; Timmerman, 2003). PSH encompasses a variety of behaviors including physical contact, verbal comments, and sexual activity. The behaviors that constitute PSH are found within Fitzgerald and Schulman's (1993) three factors of gender harassment, sexual attention and sexual coercion. The distinguishing factor of PSH from sexual harassment is that the perpetrator is a peer (i.e., a fellow student) as opposed to a superior, such as an authoritative adult, boss or teacher. Stein's student-based conceptualization is a widely cited definition and states that PSH is "unwanted and unwelcome behavior of a sexual nature that interferes with the right to receive an equal educational opportunity" (Stein, 1999, p.2). This definition emphasizes that behaviors must be unwanted, be of a sexual nature and interfere with the educational environment.

Official guidelines were published with respect to PSH in 1997 in a document entitled, *Sexual Harassment Guidance: Harassment of Students by School employees, Other Students and Third Parties* (Notice, U.S. Department of Education, 1997). This document explicitly outlines the characteristics of a hostile environment, including PSH as a form of sexual discrimination within schools (Fineran & Bennett, 1999). The Office for Civil Rights formally defines sexual harassment as follows:

Hostile environment harassment, which includes unwelcome sexual advances, requests for sexual favors, and other verbal, nonverbal, or physical conduct of a sexual nature by an employee, *by another student*, or by a third party, is behavior that is sufficiently severe, persistent, or pervasive to limit a student's ability to

participate in or benefit from an education program or activity, or to create a hostile or abusive educational environment (Department of Education 1997: 12038).

The implication of this document is that schools must formally recognize PSH and the associated behaviors as problematic. Unfortunately, the guidelines stop by short by not prescribing to schools how to address instances of PSH within the school setting.

Peer Sexual Harassment in Adolescence

Despite the presence of a legal definition of PSH, there is a reluctance to conceptualize these behaviors as harassment with adolescents (Grube & Lens, 2003; Murdoch & McGovern, 1998; Trigg & Wittenstorm, 1996). Although the most severe forms of sexual harassment, such as rape and assault are easily labeled, the more covert forms, including remarks and gestures, are less objective. A common methodological approach to assessing the prevalence of PSH among adolescents has been the use of behavior checklists that represent possible harassing behaviors (Grube & Lens, 2003). Many researchers avoid using the term sexual harassment in research questionnaires or when interviewing adolescents in an attempt to remove the stigma associated with the term 'harassment' (AAUW, 2001; Grube & Lens, 2003). However, this methodology does not allow for an individual's subjective experiences, judgments of offensiveness, and interpretations of specific incidents to be rated, which may minimize accurate labeling of harassing behaviors (Grube & Lens, 2003). To address this problem, several studies have asked distinct questions regarding level of distress following the incident (see AAUW, 2001; Fineran & Bennett, 1999).

In an attempt to clarify and streamline the definition, King, Tribble and Price (1999) recommended a definition whereby PSH would include all nonconsensual sexual

behaviors occurring on school grounds. King and colleagues asserted that the focus and purpose of identifying behaviors consistent with PSH should be to address the inappropriate behavior regardless of the perceived intent and subjective experience of the victim (King, Tribble, & Price, 1999). Thus, their definition included a number of sexually harassing and coercive behaviors that would qualify as sexual harassment while removing the target's subjective experience in an attempt to form an objective measure of PSH. The authors defined nonconsensual activity as "forcing sexual contact or intercourse, snapping bras, grabbing buttocks, brushing the genital area against peers, and making obscene gestures and statements" (p. 286). Presently, behavioral researchers define PSH objectively and/or subjectively, resulting in differences in conceptualizations and prevalence rates.

The AAUW (American Association of University Women) study, the largest and most widely cited study on PSH, defined PSH as unwanted and unwelcomed behaviors that interfere with a student's life (AAUW, 1993). Their survey included forty questions addressing type of harassment, frequency, grade level of first experience, frequency of adult-to-student sexual harassment, frequency of peer-to-peer sexual harassment, location, impact on students' education, emotional state following the event and avoidance behavior following harassment. By including the above information, the survey objectively states the behaviors consistent with PSH and also includes the subjective experience of being victimized. The survey identified a set of fourteen behaviors that are most common in adolescence and are considered sexual harassment if they induce distress in the victim. As listed in *Hostile Hallways* (AAUW, 1993) these acts include: (1) made sexual comments, jokes, gestures, or looks; (2) showed, gave, or

left you sexual pictures, photographs, illustrations, messages, or notes; (3) wrote sexual messages/graffiti about you on bathroom walls, in locker rooms, and so forth; (4) spread sexual rumors about you; (5) said you were gay or lesbian; (6) spied on you as you dressed or showered at school; (7) flashed or "mooned" you; (8) touched, grabbed, or pinched you in a sexual way; (9) pulled at your clothing in a sexual way; (10) intentionally brushed against you in a sexual way; (11) pulled your clothing off or down; (12) blocked your way or cornered you in a sexual way; (13) forced you to kiss him or her; (14) forced you to do something sexual, other than kissing. These behaviors were specifically mentioned in an attempt to operationalize the definition and discriminate them from behaviors that students may welcome, such as flirting. The follow-up 2001 study had participants respond to additional questions regarding their level of distress following their experience with respect to each of the above acts, which is more consistent with the legal definition of PSH. Despite the inclusion of perceived severity and self-reported distress items, the reported prevalence statistics from the AAUW study (2001) included items that individual participants rated as "not at all upsetting" (AAUW, 2001).

Both adults and adolescents have difficulty labeling the aforementioned inappropriate behaviors as sexual harassment amongst teenagers. Several researchers have found that women have a broader based definition than men, labeling more behaviors as sexual harassment (Fitzgerald & Ormerod, 1991; Gutek, 1985). Like adults, adolescents have ambiguity regarding the definition of and the behaviors constituting PSH. Evidence suggests that adolescents define PSH as the behaviors that constitute the

more serious forms of sexual harassment rather than the behaviors that fall into the gender harassment or unwanted sexual attention categories.

Land (2003) examined 147 high school students and found that while they perceived the physical behaviors (e.g., touching, grabbing) of sexual harassment as harassment, verbal behaviors (e.g., making fun of, sexual joking) did not meet their definition. Similarly, Fitzgerald and Ormerod (1991) found that adolescents appraised behaviors as meeting the criteria for PSH when the behavior included physical contact from a male directed at a female such as “kissed you against your will” or “cornered you sexually” (Fitzgerald & Ormerod, 1991). Similar findings have been documented cross-culturally as Timmerman (2002) found that adolescents in the Netherlands are readily able to label rape or assault as harassment, but have more difficulty identifying the more subtle forms of sexual harassment such as “made a sexual comment” and “showed you sexual pictures”, despite their high prevalence rates (AAUW, 1993; 2001; Timmerman, 2002).

Foulis and McCabe (1997) compared attitudes and perceptions of sexual harassment of high school students, university students and individuals in the workforce. They found that high school boys were more tolerant of sexually harassing behaviors than girls were. However, no other significant differences were found between genders in the college or the workplace groups. They explained their findings from a feminist/cultural perspective, suggesting that differences in attitudes are related to gender-role stereotypes as males are conditioned early on to appraise more situations as sexual. Although this would suggest that gender differences would be greatest among

adults, other differences such as perspective taking and maturity, may account for the non-significant differences between adults.

These above findings are consistent with those of Murnen and Smolak (2000) who examined the sexual harassment attitudes of elementary school children by reviewing vignettes. They found that while young girls perceived more situations as frightening or confusing, boys perceived them as a form of flattery because of the attention given (Berman et al., 2000; Murnen & Smolak, 2000). These findings point to significant appraisal differences between males and females, results which have been replicated among other studies assessing PSH in adolescent populations (see Foulis & McCabe, 1997; Hand & Sanchez, 2000). Collectively, results of these studies suggest that males are more tolerant of sexual harassment than females across ages, and that adolescents are more tolerant of harassment than children and adults.

Researchers have also found that adolescents take into account intent of the harasser and the familiarity between victim and perpetrator prior to labeling a behavior as harassment. For instance, in Trigg and Wittenstrom's (1996) study of high school students in New Jersey, students completed both a survey section and responded to open-ended questions about their victimization experiences. In reviewing participants' open-ended responses, the researchers found that adolescents took into account the intent of the harasser and the prior relationship between victim and perpetrator, rather than the behavior in isolation when appraising the incident. In another study, high school and college students were asked to judge the behavior of a perpetrator and the reaction of a target by reading a series of ambiguous sexual situations from vignettes. The researcher

found that participants perceived the ambiguous situation as inappropriate more frequently when the perpetrator was a stranger rather than a peer (Kneeshaw, 1997).

It has been hypothesized that adolescents do not readily label behaviors that are perceived as a routine part of their life as harassment, even when being distressed by such experiences (McMaster, Connolly, Pepler, & Craig, 2002). Brown and Bigler (2004) found that girls as young as ten years old were able to perceive sexism from vignettes, which suggests that adolescents should also be able to identify such behaviors as harassment. McMaster suggested that PSH is so prevalent that adolescents may accept it as normative behavior (McMaster et al., 2002). Adolescents' reluctance to label a behavior as sexual harassment even if it meets the legal definition may also be the result of psychological factors, such as the tendency to interpret a peer's action as being in jest rather than as a hostile behavior (Houston & Hwang, 1996; Roscoe, Strouse, Goodwin, Taracks, & Henderson, 1994). Moreover, adolescents' difficulty in labeling PSH may reflect a reluctance to label these behaviors in order to minimize future victimization (Terrance, Logan, & Douglas, 2004; Timmerman, 2004), as there may be pressure for adolescents to both accept and engage in sexual harassment in order to maintain their position within the peer group (McBride, 1998).

The sum of these findings suggests that labeling PSH is a complex task. For adolescents in particular, the frequency of harassment and the motivation to conform to peer pressures may make it even more difficult to label and identify sexual harassment within the peer group. Policies and intervention programs function under the assumption that the legal definition is sufficient for determining which behaviors meet criteria for *harassing* or *unwelcomed* behaviors. However, research has demonstrated that adults and

adolescents have difficulty determining which behaviors are severe enough to warrant being labeled as harassment as opposed to normative sexualized behavior.

Prevalence Rates. There is a significant body of literature documenting high prevalence rates of PSH among adolescents, suggesting that PSH is a characteristic common to the school environment and to the adolescent experience across the world. Several large scale and representative studies of high school students indicate high incidence rates of PSH ranging from 79%- 84% (83-87% of girls, 70-79% of boys) (AAUW, 1993; Fineran & Bennett, 1999; Lee, Croninger, Linn, & Chen, 1996; Trigg & Wittenstrom, 1996). The largest studies examining the prevalence rates of PSH among students in the United States are those commissioned by the AAUW (1993, 2001). Results from the 1993 study found that 85% of girls and 71% of boys between grades eight and eleven reported being a lifetime victim of PSH, experiencing at least one incident of PSH throughout high school. In their follow-up 2001 study, 88% of girls and 83% of boys endorsed experiencing sexually harassing behaviors with a cumulative lifetime rate of 81% (AAUW, 1993, 2001; Fineran & Bennett, 1999). A study using 23 Canadian schools indicated similar victimization rates for both boys (42.4%) and girls (44.1%) (Chiodo et al., 2009). In another recent study, 23% of males, and 57% of females reported sexual harassment victimization within the current school year (Tillyer et al, 2010).

Because the AAUW studies used lifetime prevalence rates, employing an “all or nothing” definition of PSH, their prevalence rates are higher than in other studies using more stringent criteria. Lifetime prevalence rates and “all or nothing” definitions may be less useful in understanding the actual frequency of such behaviors as it does not

discriminate between individuals who experienced varying degrees of severity or frequency.

A breakdown of the 2001 AAUW data found that 59% of students were harassed occasionally, and 27% were harassed often (AAUW, 2001). Lee and colleagues (1996) analyzed the AAUW (1993) results and created a variable based on the severity of sexual harassment, including the frequency of each form, the number of forms experienced and the degree of distress reported. This allowed the researchers to identify factors relating to the severity of harassment experienced. Results from their analysis indicated that gender (i.e., female) and race (i.e., African American) were related to increased levels of sexual harassment severity, highlighting the importance of looking at various risk factors to better understand who is most vulnerable to experience PSH (Lee et al., 1996). Although the researchers had hypothesized that social status would be related to both severity and occurrence of PSH, they found that gender was the strongest predictor. However, the researchers did find that social context did influence harassment, with students being more vulnerable to PSH victimization if their friends were victims.

The AAUW studies came after *Seventeen* magazine published findings from two thousand girls in 1992, which indicated that 80% of females had experienced behaviors consistent with PSH. Though the survey was written by the Wellesley College Center for Research and was cosponsored by the National Organization for Women Legal Defense and Education Fund, the survey methodology was limited by the fact that respondents were self-selected and the ethnic breakdown reflected the magazine's readership, which was not nationally representative based on the most recent US census data at the time. The initial findings from *Seventeen* magazine as well as the AAUW (1993) study

provided the impetus for a great deal of national and research interest in this area. In another prevalence study, the Connecticut Permanent Commission on the Status of Women Survey (PCSW, 1995) with the University of Connecticut School of Social Work and the Connecticut Sexual Assault Crisis Service Inc. examined PSH among 10th through 12th grade students in seven school districts selected by the Connecticut Department of Education. These schools were selected in order to reflect the gender, socioeconomic and age representation of the Connecticut high school student population. Researchers found that 78% of students in grades 10 through 12 reported experiencing PSH at some time in their high school lives (PCSW, 1995). This report, published as *In Our Own Backyards: Sexual Harassment in Connecticut Public High Schools* (1995), documented that 92% of girls compared with 57% percent of boys experienced at least one incidence of sexual harassment.

Though most studies focused on the incidence of PSH in high school, several studies have examined rates of PSH in elementary and middle schools. These studies have found that sexually harassing behaviors emerge in primary school (AAUW, 1993; Murnen & Smolak, 2000; Trigg & Wittenstrom, 1996), with rates that increase throughout the middle school years (Craig, Pepler & Connolly, 2001, McMaster et al., 2002; Pellegrini, 2001; Roscoe et al., 1994; Trigg & Wittenstrom, 1996). In examining the AAUW 1993 data, Bryant (1993) found that 32% of students had already been sexually harassed by the 6th grade. Similarly, Murnen and Smolak (2000) investigated the incidence of PSH in 3rd through 5th grade and reported that approximately 75% of the sample, regardless of gender had experienced some form of PSH during these early years. Trigg and Wittenstrom (1996) in their examination of high school and college-aged

students found that 15% of their participants recalled experiencing PSH behaviors in the first through fifth grades. These findings suggest that although PSH is more common among adolescents, school-aged children are also at risk for experiencing PSH. Because harassment is at such an early age becoming a part of the school culture, it further normalizes these behaviors as part of the daily social environment.

With respect to prevalence rates in middle school, Trigg and Wittenstrom (1996) found that 36% of participants in their sample first reported experiencing some form of sexually harassing behavior between the sixth through eighth grade. Roscoe and colleagues (1994) examined PSH in middle school and found that 50% of females and 37% of males self-reported experiencing at least one form of PSH.

The literature indicates that there are gender differences between the experience of PSH. For instance, girls not only experience more frequent forms of PSH than boys do (Chiodo et al., 2009), but they also experience more severe, physically intrusive, and intimidating forms of sexual harassment than boys (Hand & Sanchez, 2000; Lored, Reid, & Deux, 1995; Roscoe et al., 1994; Timmerman, 2003). Fineran and Bennett (1999) found that girls experience more severe and overt forms of PSH than boys do, such as being pressured for a date, called sexually offensive names, cornered sexually, and pressured to do something sexual. Additionally, whereas females' accounts of PSH included a variety of behaviors, males' experience of PSH was generally precipitated by a singular behavior, namely homophobic comments. Interestingly, Berman and colleagues (2000) found that boys often enjoyed being the recipient of sexually harassing behaviors by females, which suggests that they do not find these behaviors to be threatening, or unwelcoming as they are perceived as positive attention.

Several PSH prevalence studies have been undertaken in other countries. Fineran, Bennett and Sacco (2003) found similar prevalence rates of PSH between the US and South African high school students, with 83% and 79% respectively within the past school year. Timmerman (2004) examined the incidence of sexual harassment among 2,808 secondary school students in the Netherlands and found that girls (24%) were more likely to be victims of unwanted sexual attention from peers or teachers than boys were (11%). The lower prevalence rate in the latter study is likely the result of a requirement for providing responses to both open-ended and closed-ended questions for study inclusion, reducing the overall valid sample size.

PSH Perpetration. Previously conceptualized as male-perpetrated behavior, females are increasingly known to be perpetrators of PSH. In fact, similar perpetration rates have been found for both adolescent males and females (Wekerle & Wolfe, 1999). Research has also found a relationship between being a victim and being a perpetrator of PSH (AAUW, 1993, 2001; Fineran & Bennett, 1999, McMaster et al., 2002). The AAUW study (1993) reported that out of the 59% who admitted perpetration, 94% were also victims. Lee and colleagues further examined the AAUW (1993) study and found that even though females were more likely to be victims and males more likely to be perpetrators, 53% of female victims also endorsed being a perpetrator (Lee et al., 1996). Comparably, a study conducted by Fineran and Bolen (2006) found a strong correlation between individuals who were victims and perpetrators of PSH ($r=.544$ for girls; $r=.700$ for boys). McMaster and colleagues (2002) documented consistent findings as 54% of victims identified themselves as perpetrators (McMaster, et al., 2002).

Research has indicated that girls and boys vary in the types of sexually harassing behaviors perpetrated. Girls were more likely to make verbal comments about a peer's body, weight, or clothing, whereas boys were more likely to engage in physically coercive behaviors (Fineran & Bennett, 1999). Unfortunately, the researchers were unable to examine if the types of victimization perpetrated varied between same- or opposite-sex. The totality of these findings suggests that the status quo view of perpetrators as aggressive or 'bad eggs', may be slightly misconstrued as perpetrators experience similar levels of victimization. For these adolescents, both PSH perpetration and victimization is a part of their social relationships and behaviors.

Same-Sex Sexual Harassment. Several researchers have studied prevalence rates of same-sex PSH. Trigg and Wittenstrom's (1996) results indicated that 31% of male and 16% of female students were targets of same-sex sexual harassment. Similar results were obtained from behavioral researchers at the University of North Dakota who examined high school seniors (Stratton & Backes, 1997). McMaster's (2002) study of early adolescents indicated that same and cross-gender harassment are actually two separate constructs. She suggests that cross-gender harassment is characteristic of typical sexual harassment whereas same gender sexual harassment is characteristic of relational aggression, a form of victimization aimed at degrading a peer's social status. Past researchers have documented that girls engage in more relational aggression than boys. This is likely related to the greater emphasis that girls place on social relationships and concern about their social status within these relationships (Paquette & Underwood, 1999). Same-gender sexual harassment may then be an extension of these techniques in an attempt to gain popularity, assert a position within the peer group (McMaster et al.,

2002) and demonstrate mate value by degrading potential competition for romantic partners.

In summary, the literature provides robust documentation for the widespread incidence of PSH among adolescents. Moreover, there is indication that certain vulnerability factors such as race and gender render youth more susceptible to experiencing a greater frequency and severity of PSH.

Adverse Outcomes of Peer Sexual Harassment. The literature has documented numerous adverse outcomes associated with PSH, including emotional, academic and social difficulties.

Across studies, researchers have found that adolescents who reported PSH have a greater incidence of mental health problems including internalizing and externalizing behaviors (Bertrand, Bagley, & Bolitho, 1997). This can include symptoms of posttraumatic stress disorder, lower self-esteem, anxiety and depression (AAUW, 1993; 2001; Fineran & Bennett, 1999; Grube & Lens, 2003; Hand & Sanchez, 2000; Lee et al., 1996; Nadeem & Graham, 2005; Ormerod, Collinsworth, & Perry, 2008; PCSW, 1995; Strauss, 2003; Timmerman, 2004; Underwood 2003). Victims may also isolate themselves from peers, becoming withdrawn and experience embarrassment and fear (AAUW, 1993; Anderson, 1996; Duffy, Wareham, & Walsh, 2004; Stratton & Backes, 1997; Strauss, 2003; Van Roosmalen & McDaniel, 1998). Substance abuse problems have further been identified as a reported outcome (Goldstein, Malanchuk, Davis-Kean, & Eccles, 2007). Medical health problems have been reported including sleep problems, loss of appetite, headaches, nausea (AAUW, 1993; Lee et al., 1996; Murdoch & McGovern, 1998; Stratton & Backes, 1997; Timmerman, 2004; Van Roosmalen &

McDaniel, 1998). There is also evidence that these problems persist over time (Duffy et al., 2004; vanRoosmalen & McDaniel, 1998). Lee et al. (1996) attributed the severity of the negative effects to adolescent's immature coping mechanisms.

PSH has been linked to educational consequences (Duffy, Wareham & Walsh, 2004). Namely, it has been associated with school absenteeism, skipping classes, tardiness, learning difficulties and lower grades (Fineran, 2001). Within the AAUW study, 23% of students reported not wanting to attend school or talk in class and 3% wanted to change schools because of their experience (AAUW, 1993). The aforementioned finding is particularly true for girls, where 25% of girls reported that harassment affected their desire to attend school regularly (AAUW, 1993). Reduced educational outcomes are likely related to avoidance behaviors following harassment. Lee and colleagues (1996) found that three quarters of students engaged in some form of avoidance behavior, such as skipping classes or changing their routine in order to avoid their harasser.

A common finding across studies is that PSH has more damaging outcomes for girls than boys (AAUW, 1993, 2001; Chiodo et al., 2009; Fineran & Bennett 1999; Hand & Sanchez, 2000; Larkin, 1994; Larkin & Popaleni 1994; Lee et al., 1996; Murnen & Smolak, 2000). This is likely related to the finding that girls perceive PSH as more threatening than boys. The 1993 AAUW study revealed that 39% of girls felt afraid or scared following an act of PSH, whereas only 8% of boys responded did (AAUW, 1993). Similarly, Fineran and Bennett (1999) conducted a study with high school students and found that girls perceive all forms of PSH as more threatening than boys. Thus, the increased negative mental health and psychosomatic health problems that girls experience

in comparison to boys is likely the result of the greater frequency and severity of PSH experienced by girls and their perception of these behaviors as more threatening (Ormerod, Collinsworth, & Perry, 2008).

It has been proposed that the experience of PSH during adolescence is qualitatively different than similar experiences in adulthood. Although adolescents are more tolerant of such behaviors, when adolescents personally experience an event to be PSH or another form of victimization, they perceive the experience more severely than adults (Ormerod, et al., 2008). Perceptions of these events may impact adolescents' subsequent development and interactions with peers as well as romantic and sexual relationships later on. For example, an adolescent victim may experience PSH as a personal attack, rather than appraise it as an aggressive behavior, representative of the manner in which that the perpetrator interacts with other girls or boys. The victim may then come to anticipate PSH types of behaviors as normal in subsequent relationships (Leaper & Anderson, 1997).

Although the literature presents strong evidence for a relationship between PSH and negative outcomes, a confounding factor present in most studies is that the prevalence of PSH and its associated negative symptoms were assessed at the same point in time (i.e., cross-sectional research). As such, it is difficult to discern the exact relationship (i.e., causation or correlation) between PSH and its associated outcomes.

Developmental Context of Peer Sexual Harassment in Adolescence

Researchers have observed a trend in types of victimization from childhood to adolescence. Compared with adolescence, childhood victimization is characterized by more direct forms of verbal and physical aggression. As children age, there is a decline in

physical aggression and an increase in indirect aggression, social/relational aggression and PSH. The increased prevalence of PSH in youth occurs concomitantly with the onset of puberty and its accompanied developmental changes (McMaster et al., 2002; Pellegrini, 2002). This observation has resulted in the conceptualization that PSH is a normal part of adolescent development, rooted in biological and social changes. Thus, understanding the unique characteristics associated with adolescence is necessary for accurate identification of risk and vulnerability factors.

Biological changes. The biological theory attributes sexual harassment to physical differences between girls and boys. Puberty is associated with a significant number of physical changes in the developing adolescent, serving as the starting point for changes in behavioral, emotional and intellectual development. Physical changes include changes in physical size, development of secondary sexual characteristics and maturation of physiological mechanisms, which can differentially impact adolescents based on their biology and time of puberty. This may affect body image, how an adolescent views themselves and others, and how others perceive them. Hormonal changes can lead to new experiences and sensations (Rodriguez-Tome et al., 1993).

Research has found that girls reach puberty earlier than boys, at 10-12 years of age on average compared with boys who attain puberty between 12-14 years of age (Caissy, 1994). Data published from the National Health and Nutrition Examination Survey III (NHANES III) conducted from 1988 to 1994 indicated that by the end of the 8th grade (approximately age 14), most boys, regardless of ethnicity had reached puberty as evidenced by pubic hair and genital growth (94.9/96.2% African American, 96.7/100% Mexican American, and 96.8/100% White) (Herman-Giddens, Wang, & Koch, 2001).

The survey data for girls indicates that by the end of grade 7 (approximately age 13) most girls across all ethnicities reached puberty based on evidence of pubic hair, breast development and menarche status (100/100/92.9% African American, 98.9/97.7/86.4% Mexican American, and 100/100/70.3% White) (Wu, Mendola, & Buck, 2002).

Understanding pubertal timing is important because it has been related to the debut of sexual initiation and romantic interest (Smith, Urdy, & Morris, 1985).

Research has indicated that adolescents who are early or late developers are more susceptible to victimization from peers due to physical differences when compared to the majority peer group (Caissy, 1994; Silbereisen & Kracke, 1997). Females who develop early are more likely to receive sexual attention and may associate with older peer groups, which increases their risk for more deviant and sexualized behaviors (Hamburg, 1998). Peers may respond to visible secondary sexual characteristics with sexually harassing behaviors (Peterson & Hyde, 2009). Moreover, early developing adolescents may be psychologically unprepared to manage physical changes occurring within their bodies (Craig et al., 2001). In comparison, early maturation for males has been associated with positive outcomes such as increased popularity, athleticism, and increased self-esteem throughout early adolescence (Hamburg, 1998). Late maturation has been related to negative outcomes for both girls and boys. Specifically, a lack of developmental change may cause concern about body image and physical attractiveness, thereby influencing early adolescents' self-view and personal adjustment (Hamburg, 1998).

Social changes. In western culture, adolescence is a period of social skill development; in particular for the development of interpersonal skills with members of the opposite sex leading to mixed gender friendships and peer networks (Foulis &

McCabe, 1997). A transition within peer group composition occurs from childhood to adolescence, whereby early adolescents form same-gender cliques, but by mid adolescence peer groups are larger and incorporate an increased number of members from the opposite sex (Connolly, Furman, & Konarksi, 2000; Dunphy, 1963; Feiring & Lewis, 1991). The social skills that adolescents acquire during these cross-gender friendships may help them become more comfortable in cross-sex friendships and romantic relationships later on (Connolly & Goldberg, 1999).

As children develop into adolescents, the frequency and importance of their interactions with peers increases (Larson & Richards, 1991; Laursen, 1996). Concomitantly, it is a turning point for when peers become more influential on an adolescent's life than parents as they look to peers as role models for appropriate behavior and for support (Allen & Land, 1999; Furman & Buhrmester, 1992; Shortt, Capaldi, Dishion, Bank, & Owen, 2003). This transition is coupled with a desire to conform to group norms even if they are discordant from personal values in order to "fit in" with the dominant peer group (Eder, 1991). The underlying assumption of the developmental theory is that individuals learn through social interaction how to communicate feelings to others. It argues that sexual harassing behavior occurs because of an inability to appropriately and adequately address sexual and romantic feelings (Loredo, Reid, & Deaux 1995; McMaster et al., 2002).

Romantic activity is a social phenomenon, reflecting an individual's feelings as well as the norms and values of the peer group, first developing in adolescence (Cavanagh, 2007). Peer networks are essential to development and may be characterized as "incubators" of romantic activity (Cavanagh, 2007; Dunphy, 1963). The peer group

socializes adolescents to their attitudes and beliefs about romantic relationships.

Interestingly, Cavanagh (2007) suggests that this process is different among various racial groups and between genders. Because friends guide expectations regarding normal and abnormal behavior, the peer group is critical in normalizing PSH.

Complicating this further is the fact that adolescents must learn to distinguish sexual harassment from positive sexual attention that is not harassing in nature (Anderson, 1996; Jordan, 1996; Larkin, 1994). This is a complex task as young girls and boys have difficulty understanding and separating acceptable behaviors from those behaviors that constitute harassment. Loredo and colleagues found that adolescent boys struggled to differentiate appropriate from inappropriate behaviors (Loredo et al., 1995). A longitudinal study of early adolescents throughout the transition to middle school, found that girls became more tolerant of boys' aggressive behavior over time (Bukowski, Sippola, & Newcomb, 2000). One explanation for this finding is that girls are confusing sexual harassing behaviors with positive sexual attention and/or flirting (Anderson, 1996; Larkin, 1994). The confusion felt by both girls and boys may lead adolescents to accept harassing behaviors as the norm (Duncan, 1999; Larkin, 1994). This is related to the "paradox of prevalence" (Dahinten, 1999), which suggests that the pervasiveness of PSH normalizes sexualized behaviors for adolescents, thereby legitimizing and trivializing the experience of PSH. This concept is supported both by the high prevalence rates and feminist research, which indicates that when the culture is accepting of a series of behaviors, they are more likely to increase in frequency (Larkin & Popaleni, 1994; Stein, Marshall, & Troop 1993; Pryor, Giedd, & Williams, 1995). Therefore, even though PSH may be distressing, the accepting culture enables adolescents to appraise these events as

part of normal developmental and part of the “growing pains” associated with adolescence.

The peer network can create an environment whereby PSH is normative and appropriate social behavior. Thus, PSH and the frequency of victimization are likely related not only to the behaviors of one’s peers, but also the attitudes of their peers as reflective of the norms of the group. Several researchers examined adolescents’ self-reported willingness to conform to peers attitudes between childhood and adolescence. Through the use of hypothetical scenarios, researchers have found that adolescents are significantly more likely than children to comply with peer demands and pressures (Brown, Clasen, & Eicher, 1986; Steinberg & Silverberg, 1986). Given the substantial evidence for the importance of peers during adolescence, it follows that peers are powerful influencers during this developmental period.

There are several limitations to using biological and developmental models for conceptualizing PSH with an adolescent population. One drawback of the biological model of PSH is that it rests on the assumption that boys are the primary perpetrators of PSH because hormonal and physical size differences make boys more likely to be aggressive than girls. Although research has found that boys perpetrate more, and more severe forms of PSH towards both girls and boys, girls are increasingly self-reporting that they too are perpetrators of PSH (AAUW, 1993, 2001; Lee et al., 1996). This suggests that the biological theory may only be one part of the explanation for PSH victimization among adolescents. An additional element of this model is the examination of same-versus cross-sex sexual harassment. McMaster and colleagues examined the motivation, behavioral and contextual constituents of same- and cross-gender harassment (2002).

Findings indicated that boys experienced more same-gender than cross-gender harassment, while the opposite was found for girls (McMaster et al., 2002). Girls' increased cross-gender harassment may be related to the earlier pubertal onset, and captures opposite sex sexual interest, whereas boys' experience may be more in line with verbal aggression and hostility that is common among early adolescent male social groups (Marshall & Tanner, 1974; McMaster et al., 2002). Within developmental theory, PSH is conceptualized as the product of immature social skills. It is then anticipated that most individuals would develop appropriate social skills by adulthood (Lee et al., 1996), resulting in fewer incidences of sexual harassment as people age. However, the prevalence of sexual harassment and sexual violence through adulthood provides contrary evidence, suggesting this theory also does not fully explain PSH.

In sum, the combined biological and developmental theories argue that a newly acquired desire for cross-sex relationships and sexual activity, as a result of pubertal onset, coupled with a lack of appropriately developed social skills for how to effectively interact with others, may result in cross-gender harassing behaviors as adolescents learn to manage their feelings and relationships (Loredo et al., 1995; McMaster et al., 2002). It is also noteworthy that these frameworks and past research have focused on opposite-sex sexual harassment and sexual interest, rendering a void in the literature with regards to same-sex sexual harassment and its relationship with same-sex sexual interest. Given the lack of literature in this area, same-sex sexual harassment that is or is not related to sexual interest may not be explained by the same theoretical foundation.

Developmental-contextual framework. Despite the wide literature on PSH, few researchers have attempted to find a theoretical framework in order to ground their

findings of PSH with an adolescent population. There is overwhelming evidence that the school and peer context along with individual characteristics are related to the experience of PSH. Therefore, a framework such as developmental contextualism (Lerner, 1993, 1995), which explains development within the context of multiple interactions between individuals and their environment, helps to explain the integration of biological and social/contextual factors of adolescent PSH.

According to this framework, adolescents' individual characteristics interact with their surrounding context. Context is a broad term that may include a physical setting such as a classroom or home, and social influences such as families and peers. This perspective proposes that these multiple levels do not act independently, but concurrently, to affect developmental change. This theoretical framework underscores the interaction between the individual and their environment; individuals influence their context and their context in influences them. According to Lerner (1993), although all individuals pass through adolescence, it is the simultaneous experience of a number of changes, in conjunction with a variety of individual experiences that would increase vulnerability to PSH.

This framework is useful for examining the antecedents of PSH among middle school adolescents as it recognizes the importance of peers during adolescence, while also examining the transactional relationship between an individual and their environment. The middle school context is an important influence on the developmental changes in early adolescence. Independently, the transition to middle school has been associated with negative outcomes including a decrease in self-esteem and academic skills (Eccles, Lord, & Buchanan, 1996). Developmentally, this is a period characterized

by an increase in peer interactions, blossoming opposite-sex friendships and romantic feelings. Compounded by less adult supervision, middle school may create an environment conducive to inappropriate behaviors that exaggerate gender stereotypes, allowing for sexual harassing behavior to emerge.

As Lerner (1993) indicated, it is the interrelatedness of these factors; biological, emotional, and contextual that increases the opportunity for PSH. Understanding the specific risk factors for PSH across the middle school years is essential in understanding who and why some adolescents have a greater vulnerability for PSH victimization.

Risk Factors

Though significant research has shed light on prevalence rates and outcomes of PSH, it is only within the past fifteen years that researchers have examined risk factors for its occurrence. Several risk factors have been suggested to predispose an adolescent to PSH victimization. However, in many of the studies, risk factors were identified during post-hoc analyses, providing little support for their use in causal models (Fineran & Bolen, 2006). This section will discuss the identified and suspected risk factors for PSH that will be used for this study.

School/Classroom factors. For early adolescents, the school environment provides an important context for developing social skills. As children and adolescents spend much of their lives on school grounds, the school setting has a major role in shaping behaviors and values (Gottfredson, 2001). Thus, understanding contextual factors that increase victimization opportunity is necessary, as victimization is related to negative social, psychological and academic outcomes.

Early adolescence is marked by the transition to middle school and is accompanied by many contextual changes in the school environment. In addition to a physical change in school property, middle school students often have more teachers and are required to move between different classrooms and spaces. As a whole, middle school is marked by a decrease in supervision and monitoring, and an increase in autonomy. While some adolescents may enjoy the increased independence, others may be fearful of their new freedom. Research has found that the increased school size and student-to-teacher ratio, common to most middle schools, may render students more vulnerable to peer pressures (Hamburg, 1998). Students' reports indicate that their relationships with teachers are more distant and less supportive in comparison to student-teacher relationships in elementary school (Eccles et al., 1996).

Schools can be conceptualized as individual communities, which share a set of norms and values (Bryk, Lee, & Holland, 1993). Under this framework, sexual harassment can be viewed as inadequate attention to the norms and values of the school. At the same time, school environments differ, and some schools may be more permissive or be more tolerant of certain behaviors leading to inappropriate norms. The cultural approach of sexual harassment reflects the school culture in two ways. In the first, sexual harassment becomes a part of the school culture because it is a public occurrence; by occurring in open spaces around other students and faculty, PSH becomes an acceptable behavior. Secondly, sexual harassment may become a part of the school culture because it is a daily event (Lee et al., 1996). This is consistent with research that has found that PSH often occurs in public arenas such as lunchrooms, hallways, gyms, parking lots, school buses, and classrooms, locations with a high percentage of potential bystanders

(AAUW, 1993, 2001; PCSW, 1995; Stein, Marshall, & Tropp, 1993; Stein, 1995; Timmerman, 2002; Trigg & Wittenstrom, 1996). As such, the common act of attending school is considered a risk factor for PSH. This suggests that adults, including teachers and administrators, are privy to these acts because of the open setting in which it may occur. Many of these influential adults turn a blind eye to these behaviors by accepting them as a normal part of development, ignoring their legal responsibility to protect youth from harassment, thereby creating a hostile school environment (AAUW, 1993, 2001; Grube & Lens, 2003; Stein, 1995). Thus, the combined effects of PSH being a public act coupled with it being a frequent occurrence, contribute to the normalization of PSH in schools.

According to Stein, “school employees often ignore or trivialize sexual harassment, refer to it as an ‘initiation rite’ or excuse it with the phrase ‘boys will be boys’” (*The New York Times* 1993: C8). Stein and associates (1993) have identified several reasons why adults accept PSH as normative behavior including: an inability to define sexual harassment accurately, an inability to adequately manage complaints, and an inability to institute appropriate policies. The attitudes of PSH are reflective of the school’s overall culture. Given this observation, in schools with more permissive norms, where PSH is understood as normal development, there tends to be increased levels of PSH, suggesting to students that they too may be sexually harassed as they have seen students be victimized, as well as perpetrate this behavior and receive no consequences (Dupper & Meyer-Adams, 2002; Lee et al., 1996; Stein, 1995). Thus, the school culture and attitudes towards PSH may be related to the frequency of PSH. Empirical support comes from a study by Guerra, Williams and Sadek (2011) who assessed school climate

by examining perception of rules in regards to respect and fairness. Their results indicated that positive school climate was inversely related to victimization for adolescents. As such, there may be school communities in which these behaviors are more tolerated than others.

A review of the literature indicated that there is a lack of research examining school or classroom factors that relate to victimization, bullying and PSH (Green, Dunn, Johnson, & Molnar, 2011). Although prior research has shown a relationship with school culture and victimization (Barth, Dunlap, Dane, Lochman, & Wells, 2004; Guerra et al., 2011; Tully, 2010), there are almost no theoretical frameworks to guide research in this area, necessitating the need for further work (Green et al., 2011).

In addition to school factors, peer relationships are an important social context to consider. For instance, findings from one study suggest that adolescents whose friends are victims of PSH have a greater probability of being victims themselves (Lee et al., 1996) as there may be more opportunities for them for them to be victimized because of their social network. Tillyer and colleagues (2010) explored whether an opportunity theory may be employed to examine the sexual victimization experiences of middle and high school students with regards to their school and peer culture. Opportunity was conceptualized as a multi-layer construct, and opportunities exist both individually and environmentally. Findings from this study indicated that peer and school level opportunity factors are related to increased PSH experiences (Tillyer et al., 2010).

An opportunity framework may be used to explain environmental risk factors. Individuals with opposite sex friends have a higher risk for PSH as mixed gender peer groups have been related to elevated perpetration and victimization experiences of PSH

among adolescence. Since males perpetrate more PSH than females, females who are a part of mixed gender networks have a greater opportunity for PSH victimization. Lacasse and colleagues (2003) documented that girls who reported having a higher proportion of cross-sex friends tended to experience a greater amount of moderate and severely offensive sexualized behaviors. Likewise, Craig and Smith (2000) studied fifth to eighth graders and found that female students with significantly more cross-sex friends were more likely to be victims of PSH than those with less cross-sex friends. This may translate to classrooms where an increased proportion of males to females may result in a greater opportunity for PSH. Given prior research findings, for the purpose of this study, the two classroom level factors that will be explored include number of students per class and the ratio of male to female students. These variables are important to study as school administrators may be unaware of the influence of these factors and may be able to play a role in mitigating these risk factors in the future.

Differences in the interactions between same and cross-sex peers date back to the preschool years. Researchers studying early childhood have found that when young girls play with boys, their play involves more dominant - submissive roles, and is more forceful. When young girls play together, their play is quieter and is more cooperative in nature (Moller, Forbes- Jones, Hightower, Friedman, 2008). Other research has found that when young children engage in pretend play within their own sex, they are perceived as more competent by teachers and are more well-liked by peers when compared to those that play in opposite sex or mixed gender peer groups (Colwell & Lindsey, 2005). Green and colleagues (2003) manipulated the gender of peer work groups in an experimental study of six to seven year old students. They found that girls performed better in same-

sex groups, while boys did better in mixed gender groups (Green, Cillessen, Berthelsen, Irving, & Catherwood, 2003). Moller and colleagues (2008) looked at developmental change with respect to classroom gender composition. In this study, the researchers concluded that girls' developmental growth was not related to classroom composition, while boys' development was. Specifically, boys performed better in classrooms when there was a smaller male to female ratio. Regrettably, few studies have examined the social relationships of adolescents with regards to classroom gender composition, and the body that exists has focused predominantly on academic achievement. However, what may be extrapolated from the childhood literature is that the play styles between girls and boys vary, as do developmental trajectories, which were related to the gender of the peer group. These differences likely extend to classrooms in the middle school years, such that gender composition may impact classroom productivity, socialization and victimization experiences. These findings provide an additional rationale for examining the classroom composition of students with respect to PSH.

An opportunity theory perspective can be used to examine school-level factors. Specifically, several studies have found that increased teacher presence and consistently applied school rules can minimize risk for victimization because it decreases the opportunities for PSH (Benbenishty & Astor, 2005; Burrow & Apel, 2008; Tillyer et al., 2010). Miller (2004) examined in-school violent victimization and concluded that it was related to the number of classroom changes and classroom size. That is, larger schools with bigger classrooms with a greater number of classroom changes provide students with an increased opportunity for victimization. Within classes, classrooms with an

increased number of students may result in more opportunities for victimization, as there are a greater number of potential perpetrators.

Individual Factors. Although this section will outline the individual risk factors identified in the literature, it necessary to note that studies have found mixed results on the strength of these variables, and the extent to which they influence vulnerability for PSH. A comprehensive review of the literature indicates two overarching domains of individual risk factors, risky behaviors and sexual salience factors.

Risky Behaviors. The teenage years are often associated with an increase in risk-taking behaviors such as a substance use, sensation seeking behavior, and delinquency. Fineran and Bolen (2006) examined the predictors of PSH victimization in a study of predominately Caucasian high school adolescents and in doing so identified several risk factors related to risky behaviors. For both genders, frequency of alcohol use, delinquency, and past history of family violence were associated with PSH. For females, substance use, dating frequency, and younger age of dating were related to PSH victimization via a delinquency pathway. For boys, PSH perpetration was related to their experience of PSH victimization, such that boys were more likely to be perpetrators if they were also victims of harassment. Similar findings have been replicated in other students. For instance, Tillyer and colleagues (2010) also found that delinquency was related to school-based sexual victimization. Similarly, Lacasse and Mendelson (2007) demonstrated that in a high school sample peer sexual coercion was related to increase substance use when compared to the control group.

The aforementioned studies suggests that increased vulnerability to PSH may be explained by problem behavior theory (Jessor, 1992). According to Jessor's problem-

behavior theory, adolescence is a period of significant developmental change, in which some individuals depart from social norms. Problem behaviors are considered to be purposeful and goal oriented (Jessor, Jessor, & Finney, 1973). In addition, the theory proposes that individuals who engage in one form of risky behavior are more likely to engage in other forms. That is, problem behaviors are interrelated such that the personal and situational factors that influence one behavior are the same that influence other behaviors. Adolescents who engage in problem behaviors such as drug use, drinking and sexualized behaviors, socialize with others with the same pattern of behaviors, which in turn increases their risk for PSH as well as the opportunity to be in sexual situations in which they are unprepared. PSH itself can be considered a problem behavior, as sexual harassing behaviors are unacceptable and illegal. Developmentally, adolescents may engage in such behaviors in order to assert their sexual interest, despite the fact that this display of unwanted attention or flirting is considered non-normative behavior. Thus, a risky lifestyle, including substance use, alcohol use, and smoking, may increase risk for PSH victimization.

Other research has found that adolescents who are part of mixed gender groups are more likely to engage in risky behaviors. Given that risky behaviors tend to cluster together, adolescents who are part of social groups that engage in one form of risky behavior are more likely to engage in other forms of risky behavior. As such, students who associate with delinquent peers have a greater propensity to engage in delinquent behaviors, increasing their opportunity for victimization and reception of unwanted sexual attention (Jessor, 1992; Tillyer et al., 2010).

Sexual Saliency. A common finding in the literature is that female adolescents who are more sexually developed (i.e., evidence of secondary sexual characteristics) or advanced (i.e., engaging in sexual behaviors) than their peers report a greater frequency sexual harassment (Stattin & Magnusson, 1990). That is, early pubertal timing marked by menarche places females at an increased risk for PSH (Craig & Pepler, 2003; McMaster, et al., 2002; Pellegrini, 2002). This is likely related to the finding that girls who reach sexual maturity earlier have more opportunities to interact with older and more mature peer groups, opening the door to risky behaviors such as substance use, delinquency and earlier sexual activity.

Girls' earlier sexual maturation may also be related to earlier interest in members of the opposite sex. Like boys, girls may be unsure how to appropriately indicate signs of sexual interest and romantic feelings, and thus may engage in inappropriate flirting behaviors to indicate interest. Boys may respond to the sexual interest with PSH behavior in order to reciprocate their interest. Unfortunately, few studies have explored flirting behavior with PSH among adolescence. An earlier study (Greenwald, 2004), using the same data set as this, found that flirting was related to an increased frequency of PSH for both boys and girls. Given the finding that more interaction with cross-gender peers provides an increased opportunity for PSH, girls and boys who flirt are interacting more and attracting more cross-sex attention, which likely places them at an increased risk for PSH. Given that physical maturity is likely related to other sexual behaviors, it is important to examine this construct within the context of other sexual saliency variables.

Physical attractiveness has been identified as a potential risk factor for females. Shakeshaft and colleagues' (1995) qualitative study found that girls who looked physically mature and were more attractive were more likely to be recipients of PSH.

Relatedly, as adolescents gain sexual maturity, they become more interested in sexual relationships and cross-sex friends may become romantic interests (Cavanagh, 2007; Laursen, 1996). Increased interaction with opposite sex peers, either through the peer group or dating, fosters a greater number of interactions by increased exposure. Greater interaction with opposite sex peers leaves more room for ambiguity in terms of the intent of the interaction, and the nature of the relationship between individuals. Similarly, studies have documented that increased dating frequency increases sexual victimization, presumably by providing more opportunities for sexualized behaviors (Miller, 2008). It then follows that earlier dating initiation raises victimization opportunity for both males and females (Fineran & Bolen, 2006).

Demographic factors. Perhaps the most significant risk factor of PSH is gender, as research has consistently demonstrated that females are at a greater risk of PSH based on the number of reported victimization experiences (AAUW, 1993, 2001; Fineran & Bennett, 1999; PCSW, 1995; Tillyer, Wilcox, & Gialopsos, 2010; Trigg & Wittenstrom, 1996). Gender may also be a risk factor for the type of PSH behavior received. Several studies have documented that boys are significantly more likely to report homophobic victimization compared with girls who experience more severe forms of PSH, including unwanted attention and sexual coercion (AAUW, 1993, 2001; PCSW, 1995, Poteat & Espelage, 2007; Stein et al., 1993; Trigg & Wittenstrom, 1996). In addition to the frequency and severity of victimization experiences, girls are more likely to suffer

emotional symptoms, avoidance behaviors and academic difficulties following sexual harassment. Importantly, some researchers assert that it is not gender that determines the increase in negative outcomes experienced by girls, but rather their appraisal of the event which results in more negative outcomes (Duffy et al., 2004).

Several studies have explored race as a risk factor for PSH. Shakeshaft and colleagues (1995) as well as Trigg and Wittenstrom (1996) found that race was a risk factor for perpetration, whereas the AAUW studies (1993, 2001) and Fineran and Bennett (1999) did not find significant differences for PSH perpetration based on race. In Hand and Sanchez's (2000) in-depth analysis of the AAUW (1993) data, the authors found significant differences in frequency and severity of PSH victimization experiences between Caucasian and Hispanic females. Specifically, being a Hispanic female was associated with reduced frequency and severity of PSH. However, no differences were observed between African American females and Caucasian females.

Summary. There has been a great deal of research on PSH over the past two decades. PSH has roots in gender harassment, gendered violence, and sexual coercion. PSH is considered a type of hostile environment harassment occurring between individuals of equal status as sanctioned by the Equal Employment Opportunity Commission (EEOC, 1993). PSH is typically defined as a series of behaviors ranging from verbal comments, to physical gestures and more sexually coercive acts. Though PSH is grounded in a legal framework, adolescents experience some difficulty labeling behaviors from their peers as sexual harassment. Self-report data on the experience of PSH often include participants' subjective experiences and judgments of offensiveness,

including their perception of the perpetrator's intent and their familiarity with the perpetrator.

Several studies have highlighted the widespread incidence of this type of harassment among adolescents. In fact, research has indicated that peer-to-peer sexual harassment is the most prominent type of sexual harassment among adolescents. Rates are high for both girls and boys, indicating that PSH affects a large portion of adolescents. However, across studies, girls consistently reported increased level of PSH. Girls not only experience more PSH, but they also experience more severe forms of PSH compared with boys.

There is a large literature documenting the negative effects of PSH victimization including mental health, educational and somatic complaints. Importantly, several studies have found that the negative outcomes are stronger for girls than boys, particularly in regards to internalizing problems and to academic achievement. PSH has direct negative consequences for its victims and creates a harmful and hostile environment. By excusing these actions, adolescents are sent misguided messages about appropriate and acceptable cross-sex relationships, and this is likely leading to the increased number of legal peer sexual harassment cases. Thus, regardless of the gender or intent of the perpetration, PSH needs to be recognized as sexual violence that contributes to negative mental health outcomes (Fineran, 2002).

Several studies have examined vulnerability factors such as gender, delinquency, pubertal status, and increased male friends for PSH. However, to date, no studies have examined these individual and environmental factors together and no studies have examined the specific classroom environment such as class size and percentage of boys

in the class. This is important because sexual harassment occurs within the school context and within the peer group.

Purpose of Study

The purpose of this study is to assess individual and classroom level risk factors for the experience of PSH victimization in the 8th grade. The current research, part of a larger longitudinal project, uses archival data, which consists of two cohorts of ethnically diverse, low-income urban middle school students. Research has indicated that the rise in PSH is developmentally based, occurring during puberty and subsequently increasing throughout the middle school years. Given the national statistics on pubertal timing, the use of eighth grade data ensures that a majority of the sample will have started puberty, and be at an age where students typically engage in activities such as cross-sex friendships and dating that increase opportunity for PSH.

This study will use a hierarchical linear model (HLM) model to examine the effects of classroom social context (i.e., class size and percent males) and individual characteristics (i.e., sexual salience and risky behaviors) on the incidence of PSH in an 8th grade cohort. HLM allows for the analysis of individual level variables within the group context that influences these variables. This type of data analysis allows for the nesting of individual observations, within higher levels groups (Heck, Thomas, & Tabata, 2010). For the purpose of this study, there will be two groups. The lower group will consist of individual data (student characteristics) and the higher-level group will be based on the major classroom grouping. A total of 30 classrooms (19 in school A, 11 in school B) with an average of 21 students per class will be examined across two schools. Students in this study spend at a minimum of four class periods per day with the same group of students,

creating a peer network for students. As such, the classroom is being used as a proxy for the social/ peer context. Because study data were collected three to four months into the school year, students were well acquainted with one another.

Beyond the classroom factors of class size and percent male, this study will determine the extent that individual factors identified in the literature contribute to the frequency of PSH. With respect to individual factors, the literature suggests the presence of two categories that are related to increased vulnerability for PSH. These include risky behaviors and sexual saliency. These clusters of variables were selected due to their onset and salience for the developmental age group under examination. For the purpose of this study, indicators of risky behaviors include self-reported delinquency, peer rated aggression, and attitudes and behaviors of the peer group toward risky behaviors as reported by the individual. Sexual saliency refers to the prominence of sexual and romantic behaviors as evidenced both through an individual's own behavior and the attention that an individual receives from members of the opposite sex. As such, sexual saliency will be defined for the purposes of this study as peer rated expression of flirtatiousness (i.e., "overtly flirtatious/ comes on strong with the opposite sex"), popularity from members of the opposite sex (i.e. "who do you like most?") as well as self-reported dating frequency. Risky behavior and sexual saliency factors will be analyzed at the individual level of analysis. PSH, the dependent variable, will also be examined as a continuous variable at the individual level of analysis based on frequency of experience.

Based on the PSH literature, the following hypotheses will be tested. A description of all the measures used in this study are described in detail in the methods

section.

Hypotheses.

Hypothesis I: Research using an opportunity framework has indicated that various school environments allow for more or less opportunities for PSH. Taken together with the findings that larger and mixed gender peer groups increase opportunity for PSH, it is anticipated that larger class sizes and a higher classroom ratio of males-to-females will both independently increase the frequency of PSH (using the Experience of Peer Sexual Harassment scale) in the 8th grade. As such, these environments by virtue of number and composition will increase opportunity for PSH for both males and females. For the purpose of this study, class is based on the classroom composition in which students spend a minimum of four class periods per day (major subject areas of math, science, language arts, and social studies).

Research has found school-based victimization is related to opportunity (Tillyer et al., 2010). Given this finding, it is likely that an increased number of opportunities should increase vulnerability for PSH. In this study, opportunity is being operationalized as larger classroom sizes and percent of males in the classroom. A larger number of students increase the likelihood that an individual will be victimized from a larger number of potential perpetrators. In addition, numerous studies have identified that males are the primary perpetrators of PSH for both males and females (AAUW, 2001; McMaster et al., 2002) suggesting that a higher proportion of males would increase PSH within the classroom.

Additional support for examining the relationship between classroom composition and PSH comes from the early childhood literature, which has found that play styles vary

between single sex and opposite sex peer groups, with boys and girls having less cooperative play when there are more boys (Moller et al., 2008). Moreover, some research has found that boys' development is negatively impacted by the presence of more boys in the classroom (Moller et al., 2008). These differences may take on parallel forms within the classroom of middle school students.

Another rationale for this hypothesis came from anecdotal information collected during data collection. One student who was interviewed following the study for reporting frequent suicidal thoughts reported that these thoughts were triggered in part by the amount of male-perpetrated PSH within her classroom. Her teacher confirmed that it was a problem and described unsuccessful attempts to curtail the frequency of PSH perpetrated by boys in the classroom towards girls. This suggests that classroom composition, such as number of boys in a classroom, may be related to PSH and requires further examination.

Hypothesis II: The literature has identified several individual risk factors for experiencing PSH in early adolescents, namely risky behaviors and sexual saliency factors. A model that includes these individual level independent variables is anticipated to significantly account for the frequency of PSH victimization in the 8th grade.

Hypothesis IIA: Regarding risky behaviors, it is predicted that adolescents with higher self-reported delinquency, peer rated aggression and individuals with greater friend support for counter conventional behavior will experience a greater frequency of PSH in the 8th grade for both males and females.

These individual variables are important as they contribute to the specific peer network of the adolescent. Because the peer group becomes increasingly important

throughout the middle school years, there is a large overlap between individual and peer related characteristics which mutually influence one another. Given that adolescents tend to cluster with peers with similar interests and behaviors, adolescents who engage in risky and aggressive behaviors are more likely to associate with peers who also engage in similar behaviors. Deviant peer group activities such as delinquency exist in peer groups with greater support for counter conventional behaviors and aggression. Taken in light of the risky behavior hypothesis, it is anticipated that individuals in deviant peer environments are more vulnerable to other problem behaviors and negative trajectories (Hamburg, 1998) such as PSH, as more forms of deviant behavior are considered normative and acceptable within their peer group.

Hypothesis IIB: Several sexual salience factors have been identified as risk factors for PSH due to the developmental changes associated with adolescence and the newfound interest in romantic and sexual relationships. Given this, it is predicted that individual expression of sexual interest in the form of individual flirtatious behavior (rated by peers), self-reported dating frequency, and popularity with opposite sex [i.e. number of ratings of “who do you like most” (Class Play item) from the opposite sex] (girls liked most by boys and boys liked most by girls) will be independently and significantly related to the frequency of PSH in the 8th grade for both boys and girls. By incorporating several variables that relate to an individual’s sexualized behaviors, it becomes possible to develop an understanding of the amount of sexual energy received from members of the opposite sex.

Adolescence is characterized by an increase in cross-sex friendships, mixed gender peer groups and romantic interest, related to the biological and social changes

affecting this developmental period. With an increase in sexual and romantic interest, adolescents look to express these newly developed interests in others (Connolly et al., 2000). This interest and greater contact with opposite sex peers fosters greater flirtation and dating, increasing opportunity for sexual harassment by interacting with others who may inappropriately respond to sexual attention. Research has indicated that early dating is related to more involvement with delinquent peers, earlier sexual debut, and being a victim of sexual or dating violence (Lavoie & Vezina, 2002; Williams, Connolly, Pepler, Craig, & Laporte, 2008). PSH is then likely to be a predecessor to such behaviors (Williams et al., 2008). Popularity with the opposite sex may capture cross-sexual interest by examining the number of peer ratings from opposite peers and may be indicative of their overall romantic desirability. More specifically, nominating opposite sex peers likely suggests some form of sexual or romantic interest; thus, adolescents with greater nominations from opposite sex peers may be more vulnerable for PSH given the increased attention from an opposite sex peer.

Research Question: The review of the literature indicates that the rise in PSH occurs concomitantly with puberty and its associated biological and social changes. Research has found that adolescents who are more physically mature have a greater likelihood of PSH victimization (Goldstein et al., 2007; Stattin & Magnusson, 1990). Similarly, other researchers have found that earlier sexual debut was related to increased levels of PSH (Craig & Pepler, 2003; McMaster, et al., 2002; Pellegrini, 2002). Given these findings, this dissertation will explore differences in the frequency of PSH victimization compared to various stages of pubertal development. It is predicted that adolescents whose yearbook photos are rated by peers as having completed puberty will report a higher

frequency of PSH than those who are rated as having started but not completed puberty and as not having started puberty. It is also predicted that those who are rated as having started puberty will report a higher frequency of PSH than those who have not started puberty.

CHAPTER II

Methods

Participants

A cohort of sixth graders (N = 732) attending two urban, racially heterogeneous, low income middle schools in the northeastern United States were invited to participate in a three year longitudinal study (sixth through eighth grades) designed to identify modifiable risk factors for aggression (Principal Investigator, Marla R. Brassard). The Institutional Review Board (IRB) at Teachers College granted the study a waiver allowing for the use of passive parental consent. Parents were provided with information about the study (in both English and Spanish; see Appendix A) and given a chance to decline their child's participation. Prior to data collection, students read and signed individual assent forms describing their ability to withdraw from the study at any time without consequence (see Appendix B). This study uses data from the 8th grade. In the eighth grade, self-report data was obtained on 744 out of 777 students (96% participation rate, 12 refused, 16 absent, 1 suspended, 4 other). Across the two schools there were a total of 30 classroom (19 in school A, and 11 in school B). 44.6% of the sample is female. Demographic information for the 8th grade sample used for this dissertation is presented below. The high level of participation in this study may be attributed to several factors. Firstly, all students earned attractive mechanical and colored pencils for their participation following completion of the first part of the questionnaire on day one. Students were also informed that after completing the second part of the study on day two, their names were would be entered into a raffle for gift card money to the local mall (n=20) and the winners would be announced to the whole school over the intercom at the

end of the school day. Students appeared to be excited by the prospect of having their name announced and by winning a gift card to the local mall, increasing participation.

Table 1.
Demographics on Participants Across Schools

| | | Total (%) n= 744 | Male (%) | Female (%) |
|------------------------------------|----------------------|---------------------|----------|------------|
| Age | | 13.7 (12-15) | | |
| Gender | | | 52.8 | 47.2 |
| Ethnicity | Latino/Hispanic | 42.1 | 41.2 | 42.2 |
| | African-American | 19.6 | 18.6 | 20.8 |
| | White | 26.7 | 28.5 | 24.7 |
| | Biracial | 6.8 | 6.3 | 7.4 |
| | Other | 2.1 | 4.7 | 4.8 |
| Living | 2 biological parents | 36.2 | 38.7 | 33.4 |
| | 1 biological parent | 51.7 | 47.9 | 55.9 |
| | Other | 12.1 | 13.4 | 10.7 |
| Free/Reduced Lunch | | 63.0 | 61.2 | 64.4 |
| Mother Education (level completed) | <10th grade | 6.0 | 4.7 | 7.5 |
| | 10th-12th grade | 12.2 | 11.7 | 13.4 |
| | High school | 16.2 | 14.2 | 18.3 |
| | Some college | 17.7 | 17.1 | 18.3 |
| | 4+ years college | 17.8 | 18.2 | 17.4 |
| | Unknown | 29.8 | 34.0 | 25.0 |
| Father Education (level completed) | <10th grade | 5.3 | 5.1 | 5.5 |
| | 10th-12th grade | 7.9 | 8.2 | 7.5 |
| | High school | 17.5 | 17.0 | 18.1 |
| | Some college | 11.8 | 13.14 | 10.2 |
| | 4+ years college | 13.5 | 13.7 | 13.4 |
| | Unknown | 43.9 | 42.7 | 45.2 |

Procedure

In the fall, a team of trained graduate-level researchers (majority were female and white) orally administered self-report and peer nominations questionnaires to the students during their language arts or social studies class (school A and school B, respectively). Questionnaires were administered in groups to classrooms over a two-day period (approximately 45 minutes per day, 90 minutes total across the two days for each classroom). The questionnaires were read aloud to students, though they were also able to read to themselves. Students independently filled in their responses on the paper questionnaires. The researchers described the purpose of the study and explained to the students that the information was going to be used to gain a better understanding of relationships between students and their peers, teachers, and parents. Students were told that they would be answering questions about their friendships, relationships with teachers and parents, and their feelings about themselves. The students were told that their responses were confidential and ID codes were used instead of names, to ensure this confidentiality. A key to the ID codes was maintained on one hard copy and a password protected file. Students were told that if their responses indicated harm to themselves, the primary project investigator would ask to speak with them to assess their risk, and refer them to the school psychologist if she deemed necessary. This information was provided on a consent form that the students were asked to sign if they agreed to participate in the study. Given the different reading abilities in the sample, a researcher read the entire questionnaire aloud to the class. Another researcher monitored the classroom, answering questions for individual students and making sure that all students were following along and understanding the questions being asked. The questionnaire was also translated into a

Spanish version reflecting usage in Western Massachusetts. It was translated initially by a New York Puerto Rican Spanish speaker, then back-translated by a native Western Massachusetts Puerto Rican Spanish speaker, and then reviewed by another Western Massachusetts Puerto Rican speaker. The final translated version was administered orally to the Spanish-speaking students by a Native Spanish speaking researcher (Dominican Republic native with many years of New York City and Eastern Massachusetts Puerto Rican Spanish). Questionnaires of students, whose responses seemed questionable (i.e., they responded all true to a scale) and who seemed to be distracted or not paying attention during the administration, were flagged and reviewed carefully for their validity. After careful examination, no students' questionnaires were eliminated, as responses appeared valid and reliable. The administration of the entire questionnaire (over the course of two days) was approximately 90 minutes per classroom.

In the early winter of each academic year, the team of researchers returned to the schools to administer the questionnaires to those students who did not have time to complete the questionnaire or who were absent during the initial data collection day. These students were divided into small groups, and the questionnaire was administered orally, as explained previously.

All data remained confidential and stored in a locked file by the primary investigator and research team. School personnel received preliminary verbal and written feedback at the end of the year that included general findings that pertained to their school. The principal investigator gave 20-minute presentations to students at each school on the overall findings.

Measures

A variety of self-report measures assessing emotional and behavioral functioning were administered as part of a larger, ongoing study. The following is a description of the measures utilized in the present study. Measures that were included in the larger study, but not relevant to this study are not included in this review.

Dependent variable.

Experience of Peer Sexual Harassment. Students' experience of sexual harassment by their peers (PSH) was measured by a scale used by Fineran and Bennett (1999) that was originally adapted from the behaviors described in the AAUW study (1993) and other studies of peer sexual harassment in adolescence (Permanent Commission on the Status of Women, 1995; Stein et al., 1993; see Appendix C). These behaviors were developed originally from a panel of experts in the field of sexual harassment (AAUW, 1993). This scale is consistently used across studies assessing PSH with adolescent populations, suggesting that is the gold standard (see AAUW, 2001, 2010; Fineran & Bennett, 1999). The scale consists of 12 items, ranging from the least intrusive, nonphysical behaviors (i.e., negative comments made about clothing/body/weight) to the most intrusive physical behaviors) (i.e., attempted rape or rape). All items were responded to on a 5-point Likert-type scale (0=never; 1=almost never; 2=sometimes; 3=almost all the time; 4=all the time) and students were asked to base their responses on experiences they had with a schoolmate within the pervious year. Students were given verbatim instructions that these were experiences that were unwanted or unwelcome. Students' responses on the 12 items were summed to produce a scaled score. This creates a continuous variable where higher scores on items indicate a

greater frequency of PSH experienced (all items in this measure were used). In the current study, internal consistency across items was adequate (Cronbach's $\alpha = .84$ in 8th grade). Similar alphas have been reported in previous uses of the scale (Fineran & Bennett, 1999; McMaster et al., 2002). A confirmatory factor analysis of this scale was conducted by partitioning into the components of gender harassment, unwanted sexual attention and sexual coercion, identified in the literature as unique areas of sexual harassment. However, an analysis of the responses collected for this study found the PSH scale to be unidimensional, validating its use as one construct. Moreover, previous studies using this scale have also used it as a one-dimensional scale (see AAUW 1993, 2001; Fineran & Bennett 1999; Hand & Sanchez, 2000; McMaster et al., 2002; Straus & Epseland, 1992). Content validity was initially established for this measure by experts in the field of sexual harassment who compiled a list of a variety of behaviors reported by girls on the AAUW survey conducted in 1992 addressing the general subject of sexual harassment of girls in schools (AAUW, 1993; Straus & Epseland, 1992). Criterion validity is indicated in this study by significant correlations between PSH and negative psychosocial outcomes such as depression ($.25; p < .01$ for 8th grade), a lack of self-esteem ($-.12; p < .01$ for 8th grade) and education outcomes such as diminished sense of school belonging ($-.21; p < .01$ 8th grade); these negative effects have been shown in the literature to be related to the experience of PSH (AAUW, 1993; 2001; Fineran & Bennett, 1999). Independent variables.

Self Reported Delinquency. The Self-Report of Delinquency (SRD) scale (Elliot, Huizinga, & Ageton, 1985; Elliot, Dunford & Huizinga, 1983) measured students' self-reported frequency of delinquent acts that they engaged in over the past year. The scale

consists of 38 items that assess a comprehensive range of both overt and covert acts of delinquency, including physical aggression, weapon possession and use, drug dealing and drug use, gang fights, stealing, vandalism, and truancy (e.g., “Stolen or tried to steal something that’s worth more than \$50.00?”; “Attack someone because you wanted to seriously hurt or kill them?”). In the current study, the scale consisted of only 33 items from the original scale, in order to reduce redundancy with other measures used in the study that asked corresponding questions. The five items that were omitted, include: “damaged or destroyed something on purpose that belongs to your parents, brothers or sister, (or other family members)?”, “damaged or destroyed something on purpose that belongs to a school?”, “used fake money to pay for something?”, “hitch-hiked where it was against the law to do so?”, “been suspended from school?” Moreover, on a pilot study, none of the participants endorsed the aforementioned items, providing additional evidence for their removal. However, two items were added: “been drunk or high in school” and “used cocaine, crack, inhalants, speed, heroin, or other drugs except for marijuana/pot?” Thus, the scale became 35 items. These items were added to better reflect and assess the frequency of such behaviors that are common in an adolescent population as well as to accommodate researcher interests. All items were responded to on a 4-point Likert-type scale (1=never; 2=one in a while (1-2 times/year); 3=pretty often (3-4 times/year); 4=very often (5+ times/year)). Consistent with other studies, internal consistency in this study was excellent (Cronbach’s alpha = .93 in eighth grade). Validity of this modified version is established through pilot data which used all original 38 items and this current study, which indicated significant positive correlations between the SRD and teacher’ ratings of aggression and number of discipline referrals. In the 8th grade,

self-reported delinquency was significantly related with drug problem severity ($r=.593$), reduced parental monitoring ($r=-.339$), friend support for counter conventional behaviors ($r=.368$) and lower grades ($r=-.184$) at the .05 level. Analysis of this scale was based on the use of averaged raw scores, with higher scores indicating a greater frequency of delinquency (Appendix D).

The SRD is one of the leading instruments used in delinquency and juvenile offender research (Elliot et al., 1985; Farrington, 1995; Gorman-Smith, Tolan, Zelli, & Huesmann, 1996; Loeber & Stouthammer-Loeber, 1998) and self-reports have been cited as advantageous with this population as subjects typically reveal many more offenses than are in official records (Farrington, 1997). Also, official records may be less valid due to biases in police or court processing. Discriminant validity and predictive validity for the SRD have been supported with chronic offenders (Dunford & Elliot, 1984) and serious offenders (Elliot, Huizinga & Mendard, 1989).

Friend Support for Counter Conventional Behaviors. A measure of peer support for counter-conventional behaviors (FSUP) was adapted from a scale developed by Scheier and Botvin (1998), which assessed social influence risk for alcohol use. The original measure consisted of a five-item composite scale that included adolescents' self-report of their friends' alcohol use, as well as their perception of peers' and parental attitudes toward alcohol use. The current study uses the three items from this scale that assess for adolescents' perceived view of their peers' attitude toward alcohol use. Additional items that included perception of friends' approval for other risk and counter-conventional behaviors were included in the scale to reflect common adolescent deviant behaviors (i.e., "How do your friends feel about you skipping school?"). Thus, the final scale used

consisted of 9 items (including both original items (n=3)) and items added by the researchers (n=6). Students rated each of the 9 items on a 5-point Likert type scale (1=strongly against it; 2=sort of against it; 3=don't care; 4=sort of in favor of it; 5=strongly in favor of it). Students' responses to the 9 items were average to provide a scale score (see Appendix F). A principal component analysis was conducted and only one factor was extracted which accounted for 56.5% of the total variance, providing additional evidence of the use as this as unidimensional scale. In our study, internal consistency coefficients revealed good internal reliability (Cronbach's alpha =.90 in 8th grade). Criterion validity is indicated in this study by the significant positive correlations between friend's support for counter-conventional behaviors and adjustment difficulties, including teacher ratings of aggression ($r=-.6$), discipline referrals ($r=.203$), and its negative correlations with grades ($r= -.254$).

Dating. According to the literature on adolescent development, the pubertal and social changes that occur during early adolescence reflect the onset of dating behaviors that emerge during this time (Connolly et al., 2000). Thus, students' amount of heterosexual dating was measured in the last year of data collection (eighth grade) when a greater majority of the adolescents, including boys, would have begun to go through puberty, and dating would seem to be most salient. Based on a dating scale used by Pellegrini (2001), which was originally adapted from Simmons and Blyth (1987), students were asked the question: "How often do you go out with/meet a boy/girl somewhere?" Within the measure directions, students were instructed that this question was referring to "dating or going out with someone of the opposite sex." Response

choices were based on a 6-point Likert-type scale (1=never; 2=once every 2-3 months; 3=once a month; 4=2 times a month; 5=once a week; 6=more than once a week).

In addition to the self-reported measures discussed above, this study will also use several peer-rated measures.

Revised Class Play – Peer Report. Social reputation of students based on peer reports was assessed using a modified version of the Revised Class Play (RCP) (Masten, Morrison, Pellegrini, 1985) which has been used widely in the field (see Appendix B). Students were asked to imagine that they were directing a play, and that they were required to cast their classmates in the most appropriate roles. The students were provided with a class list and asked to identify up to three individuals who they felt best suited the role that was listed. Students were informed that a classmate could be selected for more than one role; however, students were not allowed to pick themselves for any role listed. Students who were not originally on a class list, but were new members on a class, were manually added on the day of data collection, to ensure that they could be selected by their peers. Thus, this measure was modified for each of the thirty classrooms in order to reflect the students in the class. During data cleaning, if self-selection did occur, this vote was counted as missing. The Revised Class Play consisted of 30 roles, 15 positive attributes (i.e., good leader, someone you can trust, helps others when they are sad) and 15 negative attributes (i.e., excludes others, spreads rumors, rather play alone, loses temper easily).

Four dimensions have been found through exploratory factor analyses in a study with adolescent populations, and include Peer Popularity, Aggressive/Disruptive reputation, Isolation in the peer group, and Prosocial Orientation (Luthar & McMahon,

1996; Zeller, Vannatta, Schafer, & Noll, 2003). Zeller and colleagues (2003) also found support for the validity of 4 factors, in the significant patterns of association between the subscales and measures of peer acceptance that emerged across several age groups. It is important to note that there are no published confirmatory factor analyses for this measure. DeCarlo (personal communication, 2003) was unable to confirm factors in this data set, the pilot study and in two large data sets of a colleague.

Scores for each person on each of the 15 roles were determined based on the total number of votes they received for that specific role within their class. Each student's score for an individual item is the proportion of votes they received by their classmates to the total number of votes in the class for that item. Scores were standardized to account for differences between class sizes. Scores for each of the 4 dimensions are based on the average of their scores for the individual items in each subscale. It is important to note that a number of students did not receive any votes for a particular subscale. For example, on the Overtly Aggressive/ Disruptive subscale approximately 15% of students did not receive any votes for any of the items on that scale. Furthermore, approximately 40-50% of students across did not receive a vote on the Flirtatious Behavior item (not part of any dimension). The Overtly Aggressive/Disruptive subscale, used in this study, had a Cronbach's alpha of .91 in 8th grade. Luthar and McMahon (1996) found similar reliability alphas based on internal consistency (ranging from .82 to .88), in their analyses of the RCP and its correlates. Validity in this data set has been established for each of the subscales through correlations of similar measures. The Overtly Aggressive/Disruptive subscale has been shown to be positively associated with teacher ratings of aggression

($r=.496$), student aggression toward the teacher ($r=.400$), and negatively associated with grades ($r=.219$).

Flirting. Flirting is the same item that was collected as part of the Revised Class Play, Peer Report discussed above (Masten, Morrison, Pellegrini, 1985). This item was not included in any of the previously subscales identified and for the purposes of this study, was only used as a one-item to assess flirtatious behavior. Students were asked to nominate up to three students who were “overly flirtatious/comes on strong with the opposite sex.” The item was developed by asking 7 multiracial 11-13 year old adolescents (4 girls, 3 boys) if they “knew kids their age who were big flirts, who made an obvious effort to attract the attention of other kids that they were romantically interested in.” They all said that they did. They were then asked what words they would use to describe these kids. Most suggestions were similar to the final version and all 7 agreed that “kids like them” would know what was being asked if the final wording was used. Validity for this one item was demonstrated by Sichel (2012) using this data set. Flirting correlated with dating in the 8th grade ($r = .174, p < .05$), which indicated that the more nominations one had as a flirter, the more frequently they were dating. In addition, consistent flirterers had higher ratings from peers on physical and sexual attractiveness and it was positively related to number of opposite sex nominations.

Opposite sex peer nominations. Opposite sex peer nomination was derived from the “like most” item from the Revised Class Play in order to capture opposite sex interest. Specifically, the number of nominations was summed for each participant who received a nomination from the “like most” item for boys who nominated girls and for girls who nominated boys.

Pubertal Status, Physical and Sexual Attractiveness. Researchers of this study developed a measure in order to capture peer perception of pubertal status and attractiveness. 24 (12 boys) naïve raters from the same lower income, urban multiethnic background and age range as the participants in the larger study were recruited to rate yearbook photos. Written parental consent and student assent were obtained. Students were paid \$5 for one hour's work. There were 380 8th grade yearbook photos and 488 6th grade rated by four rates, presented one at a time on a computer screen in the school computer lab. Some students were rated in both 6th and 8th grade, while others were only rated one time, based upon available data. For each enlarged black and white photo the raters answered the following questions using a Likert scale: (1) Do you think the person is physically attractive? [unattractive, somewhat unattractive, somewhat attractive, and attractive]; (2) Do you think this person has reached puberty? [completed puberty, has started puberty, has not started puberty]; and (3) Do you think other kids would want to 'go out' with (date) this person? [definitely, probably, probably not, not want to date]. Written parental consent and student assent were obtained. Students were paid \$5 for one hour's work. Interrater agreement among the 4 raters of each photo (2 boys, 2 girls) was low even though some pairs of raters achieved fairly high agreement ($r = .5$). Because naïve raters were used, this was expected. Thus, the four ratings for each item per photo were pooled. This created raw scores ranging from 3-12 for puberty and 4-16 for physical and sexual attractiveness, which were linearly transformed to 0 -9 and 0-12 respectively.

The pubertal maturity variable showed the expected movement from not having started puberty to starting and completing puberty as youth moved from 6th to 8th grade. Among boys 64.2% were rated as not having started puberty in 6th grade as opposed to

28% in 8th grade. Among girls, 39.8% were rated as not having started in 6th grade as opposed to 18.8% not having started in 8th grade. In addition, girls had significantly higher ratings than boys in each of the two years ($F(1,488) = 34.68, p=.000$; $F(1, 373) = 7.07, p=.008$) and pubertal status was significantly correlated from 6th to 8th grade for boys ($r = .31$) and for girls ($r = .33$). This gender difference was expected as research has found that girls reach puberty earlier than boys at 10-12 years of age on average compared with boys who attain puberty between 12-14 years of age (Caissy, 1994).

Analyses

A correlation matrix, describing the strength of the relationship and direction of association among the main variables will be presented. Hierarchical linear modeling (HLM) will be used to test the hypotheses. This was chosen as the method of analysis because HLM allows for the analysis of group and individual level factors. Moreover, this method of analysis enables for nesting of individual level observations within larger level groups such as individuals within classrooms. For this study, class size and percent males within the classroom are the higher-level factors, whereas risky behaviors and sexual salience factors are individual level factors. This type of data analysis is based on the data collection procedures used for this study as groupings are the direct result of the sampling process. PSH is the main dependent variable, analyzed at the individual level of analysis. Gender and school will be examined in order to determine if they should be included as covariates in the study.

CHAPTER III Results

The data analysis procedures and results will be presented in this section. This study implemented a cross-sectional design to explore the relationship between the continuous dependent variable, PSH, and predictor variables related to risky behaviors (i.e., self-reported delinquency, friend support for counter conventional behaviors, and aggression) and sexual saliency (i.e., peer-rated flirting behavior, dating and opposite sex peer nominations). Moreover, this study took into account the nested design of students within classrooms (N=30) by taking into account two classroom variables (i.e., class size and percent males in the classroom). The first section will describe the study's sample. Then, descriptive information for PSH and correlations for all peer and classroom variables in the 8th grade will be provided. The final section will describe the results from HLM analyses and provide the results for specific hypotheses and research questions.

Sample Characteristics. The demographic composition of the sample is described in Table 1. It is composed of an almost equal sample of males and females (52.8% male) and majority Latino/Hispanic (42.1%) population. A significant portion of the sample received free or reduced lunch (63.0%), which was used as a proxy for socio-economic status. Approximately 36% of the sample lived with both biological parents, while 52% lived with one biological and 12% lived with adults other than their own biological parents.

Table 1.
Demographics on Participants Across Schools

| | | Total (%) | Male (%) | Female (%) |
|------------------------------------|----------------------|--------------|----------|------------|
| Age | | 13.7 (12-15) | | |
| Gender | | | 52.8 | 47.2 |
| Ethnicity | Latino/Hispanic | 42.1 | 41.2 | 42.2 |
| | African-American | 19.6 | 18.6 | 20.8 |
| | White | 26.7 | 28.5 | 24.7 |
| | Biracial | 6.8 | 6.3 | 7.4 |
| | Other | 2.1 | 4.7 | 4.8 |
| Living | 2 biological parents | 36.2 | 38.7 | 33.4 |
| | 1 biological parent | 51.7 | 47.9 | 55.9 |
| | Other | 12.1 | 13.4 | 10.7 |
| Free/Reduced Lunch | | 63.0 | 61.2 | 64.4 |
| Mother Education (level completed) | <10th grade | 6.0 | 4.7 | 7.5 |
| | 10th-12th grade | 12.2 | 11.7 | 13.4 |
| | High school | 16.2 | 14.2 | 18.3 |
| | Some college | 17.7 | 17.1 | 18.3 |
| | 4+ years college | 17.8 | 18.2 | 17.4 |
| | Unknown | 29.8 | 34.0 | 25.0 |
| Father Education (level completed) | <10th grade | 5.3 | 5.1 | 5.5 |
| | 10th-12th grade | 7.9 | 8.2 | 7.5 |
| | High school | 17.5 | 17.0 | 18.1 |
| | Some college | 11.8 | 13.14 | 10.2 |
| | 4+ years college | 13.5 | 13.7 | 13.4 |
| | Unknown | 43.9 | 42.7 | 45.2 |

Missing Data/Attrition Analysis. To be eligible for inclusion in the sample, a participant must have a valid eighth grade PSH score, as this is the dependent variable under consideration. Students with valid and with missing 8th grade PSH scores were compared on several key demographic factors (i.e., gender, race and school) in order to determine if there was a biased sample. There were no significant differences between those with and without 8th grade PSH scores on demographic variables such as gender

(Chi-Square = 0.85, $p > .05$), race (Chi-Square = 6.253, $p > .05$), free/reduced lunch (Chi-Square = 3.717, $p > .05$), and school (Chi-Square = 0.81, $p > .05$) (Tables 2-5). Given these findings, the data suggests that the sample with PSH data in 8th grade and the subsample without PSH data in 8th grade are statistically similar across these demographic variables. This lends evidence to the assumption that the sample with valid PSH scores is not biased.

Table 2.

Gender Differences Between Participants with 8th Grade PSH scores and Participants with Missing 8th Grade PSH Scores

| | Gender = Male | Gender = Female | Total |
|---|--------------------------|----------------------------|--------------|
| 8 th Grade PSH Score Missing | 16 (4.0%) | 10 (2.8%) | 26 (3.5%) |
| 8 th Grade PSH Score Present | 376 (95.9%) | 342 (97.2%) | 718 (96.5%) |
| Total | 392 (100%) | 352 (100%) | 744 (100%) |

Table 3.

Race Differences Between Participants with 8th Grade PSH and Participants with Missing 8th Grade PSH Scores

| | Latino/ Hispanic | Black/African American | Asian | White | Biracial | None of the above | Total |
|---|-----------------------------|-----------------------------------|--------------|----------------|-----------------|----------------------------------|----------------|
| 8 th Grade PSH Score Missing | 11 (3.7%) | 5 (3.5%) | 0 (5.9%) | 1 (0.5%) | 1 (2.0%) | 0 (0.0%) | 18 (2.5%) |
| 8 th Grade PSH Score Present | 290 (96.3%) | 136 (96.5%) | 19 (100%) | 191 (99.5%) | 48 (98.0%) | 15 (100%) | 699 (97.5%) |
| Total | 301 (100%) | 141 (100%) | 19 (100%) | 192 (100%) | 49 (100%) | 15 (100%) | 717 (100%) |

Table 4.
School Differences Between Participants with 8th Grade PSH scores and Participants with Missing 8th Grade PSH Scores

| | School = 1 | School = 2 | Total |
|---|-----------------------|-----------------------|--------------|
| 8 th Grade PSH Score Missing | 9 (3.0%) | 16 (4.0%) | 25 (3.5%) |
| 8 th Grade PSH Score Present | 201 (97.0%) | 387 (96.0%) | 688 (96.5%) |
| Total | 310 (100%) | 403 (100%) | 713 (100%) |

Table 5.
Lunch Differences Between Participants with 8th Grade PSH scores and Participants with Missing 8th Grade PSH Scores

| | Free/reduced lunch | Full Price | Total |
|---|-------------------------------|-------------------|----------------|
| 8 th Grade PSH Score Missing | 14 (3.1%) | 3 (1.8%) | 17 (2.8%) |
| 8 th Grade PSH Score Present | 428 (96.9%) | 155 (98.2%) | 583 (97.2%) |
| Total | 442 (100%) | 158 (100%) | 600 (100%) |

Variable Characteristics. With respect to the predictor variable, descriptive statistics indicate that the mean PSH score in 8th grade is 7.11 with a standard deviation of 6.83 based on summing the frequency scores across each PSH item (min=0, max=48). Summing instead of averaging was selected to maintain consistency with other studies on PSH that used this method (i.e., AAUW, 1993; Fineran & Bennett, 1999). There were PSH scores on 692 participants from a total of 744 participants (93.0% response rate). Descriptive information for the presence or absence of a particular PSH behavior is presented in Table 6. This table provides the percentage and frequency (i.e., number of people who endorsed an item) for each item based on gender if endorsed at a frequency greater than “almost never”. For each item, responses were coded a 1 if a student

endorsed experiencing this form of harassment, and coded a 0 if they did not endorse it. Items were then tallied across participants. Data suggest that in the 8th grade almost half of all students are reporting experiencing at least some forms of PSH victimization.

Table 6.
Percentage (Frequencies) of PSH Behavior in 8th Grade by Gender

| | 8th grade | |
|---|------------------------------|-------------------------------|
| | Boys (N=358) ^a | Girls (N=334) ^a |
| 1. Made negative comments about your body | 61(234) | 69(239) |
| 2. Pressured you for a date | 52(202) | 49(169) |
| 3. Called you sexually offensive names | 35(132) | 45(154) |
| 4. Told sexually offensive jokes to you or about you | 43(162) | 47(163) |
| 5. Spread false sexual rumors about you | 25(95) | 31(107) |
| 6. Called you gay or lesbian | 41(153) | 25(87) |
| 7. Showed, gave, or left you sexually offensive pictures, photos, or messages | 27(102) | 17(57) |
| 8. Wrote sexually offensive graffiti about you at school | 9(34) | 11(37) |
| 9. Touched, brushed up against you, or cornered you in a sexual way | 41(155) | 53(182) |
| 10. Grabbed you or pulled at your clothing in a sexual way | 33(126) | 32(112) |
| 11. Pressured you to do something sexual that you did not want to do | 18(70) | 17(59) |
| 12. Attempted to hurt you in a sexual way (attempted rape or rape) | 5(19) | 6(20) |

^aN varies slightly per item

Mean and standard deviations for independent variables are presented in Table 7. An analysis of classroom variables under consideration indicates that the average class size is 22 students per class, with a standard deviation of 3.2. The maximum number of students in a given class is 27 and the minimum is 15. An analysis of gender composition

in classrooms indicates that the percent of male students is .50, suggesting generally equal numbers of males and females within classes. A closer examination of individual variables is also warranted. Self-reported delinquency was scored on a 5-point Likert scale, with higher scores indicating increased frequency of engaging in specific delinquent behaviors. Scores were averaged across the 35 items. The low mean score of the sample (mean = 1.3) is indicative of a non-delinquent sample, as students' reports of their risky behaviors averaged 'never' to 'once in a while'. Friend support for counter conventional delinquency was averaged across the nine items based on a 4-point Likert scale. The average score of 2.25 indicates that students' friends are, on average, 'sort of against' a variety of risky behaviors. Regarding peer rated aggression (from the Revised Class Play), the average student received 4.22 nominations (range 0-55.5% of total nominations) for aggressive behavior from their peers. The large standard deviation (SD=6.82) indicates that some students are viewed as considerably more aggressive than others. The average dating score for the sample is 3.78. This indicates that on average students are dating between 'once a month' to 'two times a month'. According to the results of the Revised Class Play scale, students are flirtatious, averaging 4.78 nominations per student. The standard deviation and histogram indicate that while half of the students are not flirtatious, many students are receiving multiple peer nominations for this item. With respect to peer popularity with the opposite sex, students regardless of gender received less than one nomination from a member of the opposite sex. This suggests that at this developmental period, students prefer same-sex over cross-sex peers.

The predictor and criterion variables were assessed for normality. Several of the variables were found to violate the assumption of normality based on skewness and/or

kurtosis, which may compromise significance tests. These variables include PSH, popularity with opposite sex, self-reported delinquency, and student aggression. Several of these variables may be considered indicators for psychopathology, which are generally skewed due to their non-normal distribution in the population. As such, these variables were log-transformed in order to improve normality and reduce bias in the regression estimates (Field, 2009). Of note, subsequent analyses for HLM models and regressions did not find any significant differences between findings for analyses that used the original or log-transformed data. This resulted in the use of the untransformed variables for ease of interpretation with their original scale throughout the data analysis.

Table 7.

Means (SD) of Variables in 8th Grade Across Schools (n=718)

| Dependent Variable | Mean (SD) |
|---|----------------------|
| PSH | 7.1 (6.83) |
| Classroom Variables | |
| Class Size | 22 (3.2) |
| Percent Male | .50 (.10) |
| Risky Behavior Variables | |
| Self-Reported Delinquency | 1.3 (.36) |
| Friend Support Counter | 2.25 (.85) |
| Conventional Behaviors | |
| Peer Rated Aggression ^a | 4.77 (6.82) |
| Sexual Saliency Variables | |
| Dating | 3.78 (1.95) |
| Overt Flirtatiousness ^a | 4.8 (7.6) |
| Popularity with Opposite Sex ^a | 0.82 (1.1) |

^aPeer report; scores based on proportion of nominations to total nominations in a class

In order to ascertain if school should be included in the analyses as a covariate, a one-way ANOVA was used to determine if the means on the variable under consideration significantly differed. MANOVAs indicated significant school differences on mean

scores for class size and percent male ($F=48.79, p<.05$; $F=46.48, p<.05$), popularity with opposite sex ($F= 6.19, p<.05$), and aggression ($F=5.13, p<.05$). Given the significant differences, a multiple regression was performed with all independent variables of interest including school with PSH as the dependent variable. Results of the multiple regression demonstrated that when all other variables of interest are accounted for, school ($t = .485, p>.05$) is not a significant predictor for the outcome variable. Thus, school was not included as a covariate in subsequent analyses. Additional variables, such as GPA, socio-economic status and living environment were considered as control variables for this study. Given that there were no significant differences, these variables were excluded as control variables.

Interaction effects were assessed for predictor variables and gender. Findings indicated that the affects of predictor variables on PSH were the same for girls and boys; thus, there were no interactions for any of the predictor variables and gender with PSH.

Bivariate correlations were examined. These indicate that PSH is significantly positively correlated with delinquency ($r=.348$), friend support for counter conventional behaviors ($r=.204$), flirting ($r=.288$), and dating ($r=.248$) for the overall sample and for both boys and girls at the $p<.05$ level (see Tables 8 and 9). PSH was also significantly positively correlated with popularity with opposite sex for girls ($r= .136$), and with peer rated aggression for boys ($r= .179$). These correlations were in the hypothesized direction. Correlations between variables ranged from small to moderate, indicating that the assumption of multicolliniarity was not violated. Correlations are presented in Table 8 for the overall sample and in Table 9 separated by gender due to known developmental differences between girls and boys.

Table 8.

Bivariate Correlations of Criterion and Predictor Variables in the PSH Study

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---------------|--------------|--------------|--------------|--------------|--------------|------|---------------|---|
| PSH (1) | | | | | | | | | |
| Delinquency (2) | .348** | | | | | | | | |
| Friend Support (3) | .203** | .8** | | | | | | | |
| Aggression (4) | .130** | .140* | .100* | | | | | | |
| Flirting (5) | .299** | .146* | 0.074 | .455* | | | | | |
| Dating (6) | .248** | .246* | .110* | .138* | .210* | | | | |
| Popularity with Opposite Sex (7) | .0101 | .046 | 0.008 | .066 | .318* | .172* | | | |
| Class Size (8) | .062 | .044 | 0.047 | -.103* | -.096* | .056 | .001 | | |
| Percent Male (9) | -.0002 | -.009 | .138* | .016 | -.004 | -.053 | .018 | .322** | |

All correlations in bold are significant.

*** Correlation is significant at the .01 level*

** Correlation is significant at the .05 level*

Table 9.

Bivariate Correlations of Criterion and Predictor Variables in the PSH Study Separated by Gender

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----------------|---------------|
| PSH (1) | 1 | .373* * | .195* * | .08 | .311* * | .252* * | .136* | .064 | .022 |
| Delinquency (2) | .336** | 1 | .328* * | .173* * | .230* * | .216* * | .12* | .060 | -.04 |
| Friend Support (3) | .215** | .402* * | 1 | .085 | .076 | .029 | -.003 | .006 | .042 |
| Aggression (4) | .179** | .115* | .116* | 1 | .336* * | .131* | -.010 | .183 ** | .046 |
| Flirting (5) | .256** | .083 | 0.085 | .597* * | 1 | .176* * | .257* * | -.103 | .56 |
| Dating (6) | .244** | .277* * | .210* * | .154* | .243* * | 1 | .046 | .082 | -.058 |
| Popularity with Opposite Sex (7) | .034 | -.004 | 0.034 | .141* | .385* * | .294* * | 1 | .075 | .171** |
| Class Size (8) | .051 | .025 | 0.08 | -.25 | -.81 | .032 | -.07 | 1 | .358** |
| Percent Male (9) | -.037 | -.007 | .212* * | -.026 | -.51 | -.03 | -.124* | .274** | 1 |

Note: Below the line is male, above the line is female.

All correlations in bold are significant.

** Correlation is significant at the .01 level

* Correlation is significant at the .05 level

Major Analyses. The purpose of this dissertation was to examine classroom and individual level predictors of PSH. Given the nature of the data set, with individual students (level 1) nested within classrooms (level 2) in schools, an HLM (i.e., multilevel) approach was undertaken. In order for data to be analyzed with an HLM approach, there is a requirement of a minimum of 30 higher-level clusters with approximately 30 units within each cluster (Heck, Thomas, Tabata, 2010). As a result of these restrictions, this data was only able to make use of classroom and individual level factors, resulting in a two-level model. HLM combines two equations (one at each level of analysis) into one model that is estimated simultaneously, resulting in a more complex variant of linear regression (Heck, Thomas, Tabata, 2010). HLM was considered the superior form of analysis in order to manage the problem of homoscedasticity (i.e., homogeneity of variance) when dealing with a nested design as observations are not independent due to shared characteristics of being within the same class (Heck, Thomas, Tabata, 2010). This is because students are not randomly assigned to classrooms from the population, but rather were assigned to classrooms based on language and academic ability. Moreover, students may have shared experiences from being educated by a specific teacher who may be influencing the classroom environment. By incorporating both levels of data HLM is able to deal with the violation of the homogeneity of variance assumption, resulting in unbiased residuals (Heck, Thomas, Tabata, 2010). In addition, HLM is designed to manage intraclass correlations, which assumes that data within a class is more alike than data between classes.

The first step of HLM is to test the intercept-only model/unconditional model, a model without predictor variables; this is similar to a one-way ANOVA. The outcome of this model provides the estimated proportion of variance of PSH between and within classrooms (i.e., average PSH score per class) (Heck, Thomas, Tabata, 2010). The model revealed an intraclass

correlation of 2.7% (calculated by estimate intercept/[estimate intercept + residual]) and a Wald $Z = .948, p > .05$. These statistics demonstrate that the variance is not statistically significant, indicating that PSH does not significantly vary between classes. However, the residual parameter, which describes variance due to individual differences (Heck, Thomas, Tabata, 2010), suggests that there are significant differences within groups (Wald $Z = 15.422, p < 0.05$).

Removing the classroom level in a mixed model analysis did not significantly change the value of the residual estimate (Wald $Z = 15.859, p < 0.05$), providing additional evidence that classroom variables are not related to the frequency of PSH. The covariance parameter was also examined (Wald $Z = .779, p = .436$). This statistic provides the relationship in residuals between students within a classroom (Heck, Thomas, Tabata, 2010). Its non-significance provides further evidence that students' PSH scores are independent of each other, suggesting that PSH may be better accounted for by individual variables rather than shared characteristics. The totality of these findings indicates that the development of a multilevel model is not justified at this time, though a closer analysis of individual differences is warranted. Because one of the rationales for using HLM is to account for biased estimates that result from non-independent data, and this finding indicates that estimates will not be biased, there is no need to continue with an HLM analysis. Given this finding, higher-order variables were disaggregated to the lower, individual level as classroom variables may still be related to increased frequency of PSH, but data may not warrant an HLM model.

The remainder of this chapter will provide the results for the hypotheses and research question under consideration. Because prior HLM analyses revealed that continued HLM analysis was not needed, the hypotheses were tested as a hierarchical setwise multiple regression. Results of the full model including the adjusted R^2 , incremental R^2 for each step, beta

coefficients for the individual predictors and the omnibus F for the overall model are provided in Table 10, summarizing the results for hypotheses 1, 2a and 2b. Classroom variables were entered into the model as the first step as these contextual factors are common influencers across the sample. Then, gender was added as a common demographic variable in the second step. For the final step, risky behaviors and sexual salience variables were added as the individual risk factors. Although interactions between predictor variables and gender with PSH were not found to be significant, there is a large developmental literature documenting differences between boys and girls as it relates to peer relationships and victimization. Thus, while there may not be an interaction, the strength of the relationships may vary. It is this body of literature that provides the impetus for examining findings based on gender in addition to the overall sample (Tables 11 and 12).

Hypothesis I: It is anticipated that larger class sizes and a higher classroom ratio of males-to-females will both independently increase risk for PSH (using the Experience of Peer Sexual Harassment scale) in the 8th grade. As such, these environments by virtue of number and composition will increase PSH scores for both boys and girls.

The results of the regression for the entire sample found that hypothesis one was unfounded (Adjusted $R^2 = -.002$; $F = .425$, $p > .05$) as both predictors failed to significantly predict PSH (class size $\beta = .037$, percent male $\beta = -.033$, $p > .05$) (Table 10).

Hypothesis IIA and IIB: Regarding risky behaviors, it is predicted that adolescents with higher self-reported delinquency, peer rated aggression and individuals with greater friend support for counter conventional behaviors will be more likely than other adolescents to experience PSH in the 8th grade for both males and females when classroom behaviors are accounted for.

Moreover, several sexual salience factors have been identified as risk factors for PSH due to the developmental changes associated with adolescence and the newfound interest in romantic and sexual relationships. Given this, it is predicted that peer-related expression of sexual interest in the form of flirtatious behavior, self-reported dating frequency and popularity with opposite sex (i.e., number of ratings of “who do you like most” (Revised Class Play item) from the opposite sex) will be independently and significantly related to PSH in the 8th grade for both boys and girls, controlling for classroom variables.

A combined hierarchical setwise regression with both boys and girls revealed that a model with risky behaviors and sexual saliency factors was significant (Total Adjusted $R^2 = .161$; $F=11.36$, $p<0.05$) even when classroom variables and gender are controlled for. Regarding individual predictors related to risky behaviors, only self-reported delinquency ($\beta=.239$, $p<.05$) was significant, in the hypothesized direction with increased delinquency related to more PSH. Peer rated aggression ($\beta=-.034$, $p>.05$) and friend support for counter conventional behaviors ($\beta=.045$, $p>.05$) did not reach significance, indicating that this hypothesis (IIa) was only partially confirmed. Similarly, with sexual saliency factors, peer rated overt flirtatiousness ($\beta=.233$, $p<.05$) and dating ($\beta=.121$, $p<.05$) were significant in the predicted direction with increased sexual saliency related to more PSH, whereas opposite sex nominations ($\beta=.008$, $p<.05$) was not significant (Table 10).

The relationship between individual predictors with PSH was also examined uniquely by gender (Table 11 and Table 12). Findings indicate that for boys self-reported delinquency ($\beta=.256$, $p<.05$), peer rated aggression ($\beta=.134$, $p<.05$) and flirting ($\beta=.224$, $p<.05$) were significant predictors, whereas for girls self-reported delinquency ($\beta=.207$, $p<.05$), flirting ($\beta=.231$, $p<.05$) and dating ($\beta=.147$, $p<.05$) were significant in the hypothesized direction.

Table 10. *Overall Hierarchical Regression Analysis Evaluating Predictor Variables on PSH*

| Variables | Model 1 | Model 2 | Model 3 |
|--|----------------|----------------|----------------|
| | β | β | β |
| <i>Classroom Variables</i> | | | |
| Class Size | .037 | .037 | .034 |
| Percent Male | -.033 | -.032 | -.010 |
| <i>Demographic</i> | | | |
| Gender | | .007 | .005 |
| <i>Risky Behaviors</i> | | | |
| Self Reported Delinquency | | | .239* |
| Peer rated Aggression | | | -.034 |
| Friend Support for Counter Conventional Behaviors | | | .045 |
| <i>Sexual Saliency</i> | | | |
| Peer rated overt Flirtatiousness | | | .233* |
| Dating | | | .121* |
| Opposite Sex Nominations | | | .008 |
| Total Adjusted R ² | -.002 | -.004 | .161* |
| R ² Change | .002 | .00 | .174* |
| Overall Model F | .425 | .291 | 11.36 * |
| df | 2, 487 | 3, 487 | 9, 487 |

* $p < .05$

Table 11. *Hierarchical Regression Analysis Evaluating Predictor Variables on PSH for Boys*

| Variables | Model 1 | Model 2 |
|--|-------------|--------------|
| | β | β |
| <i>Classroom Variables</i> | | |
| Class Size | .58 | .052 |
| Percent Male | -.06 | -.046 |
| <i>Risky Behaviors</i> | | |
| Self Reported Delinquency | | .256* |
| Peer rated Aggression | | .134* |
| Friend Support for Counter Conventional Behaviors | | .047 |
| <i>Sexual Saliency</i> | | |
| Peer rated overt Flirtatiousness | | .224* |
| Dating | | .113 |
| Opposite Sex Nominations | | -.053 |
| Total Adjusted R ² | -.003 | .154 |
| R ² Change | .005 | .176 |
| Overall Model F | .628 | 6.52* |
| df | 2, 243 | 8, 243 |

* $p < .05$

Table 12. *Hierarchical Regression Analysis Evaluating Predictor Variables on PSH for Girls*

| Variables | Model 1 | Model 2 |
|--|---------------------------|---------------------------|
| | β | β |
| <i>Classroom Variables</i> | | |
| Class Size | .014 | .002 |
| Percent Male | -.003 | .014 |
| <i>Risky Behaviors</i> | | |
| Self Reported Delinquency | | .207* |
| Peer rated Aggression | | -.052 |
| Friend Support for Counter Conventional Behaviors | | .055 |
| <i>Sexual Saliency</i> | | |
| Peer rated overt Flirtatiousness | | .231* |
| Dating | | .147* |
| Opposite Sex Nominations | | .064 |
| Total Adjusted R ² | -.008 | .153 |
| R ² Change | .000 | .181 |
| Overall Model F | .02 | 6.49* |
| df | 2, 243 | 8, 243 |

* $p < .05$

In order to determine whether risky behaviors or sexual saliency factors had a greater relationship with PSH, which may be of clinical significance for intervention and prevention programs, a hierarchical regression was performed. Classroom variables and gender were removed given their lack of significance in previous models. Results indicated that risky behavior factors ($F=20.94, p=0.00; R^2$ change = 11.2%) accounted for a similar proportion of variance of PSH as sexual saliency ($F=21.24, p=0.00; R^2$ change = 11.3%) in a regression with the whole sample. When results were analyzed uniquely by gender, results indicated that risky behaviors accounted for a greater portion of the variance of PSH victimization for boys (R^2 change = 14.1% risky behaviors versus R^2 change = 11.4% sexual saliency), whereas sexual saliency accounted for a greater portion of the variance of PSH victimization for girls (12.7% sexual saliency versus 9.1% risky behaviors).

Figure 2.

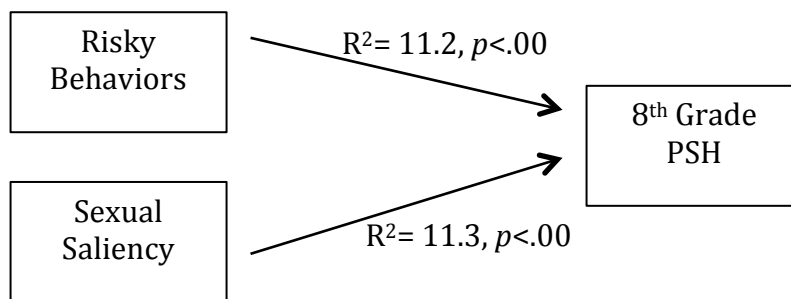
Overall Hierarchical Regression

Figure 3.

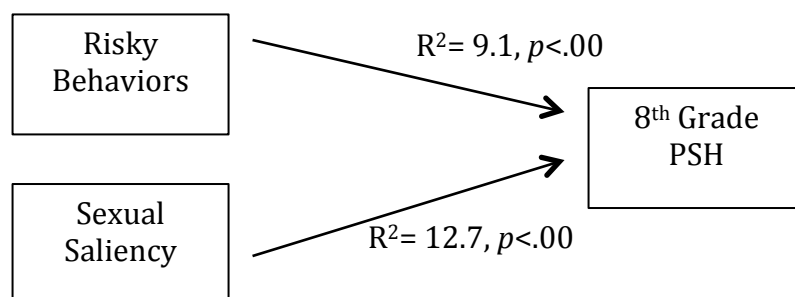
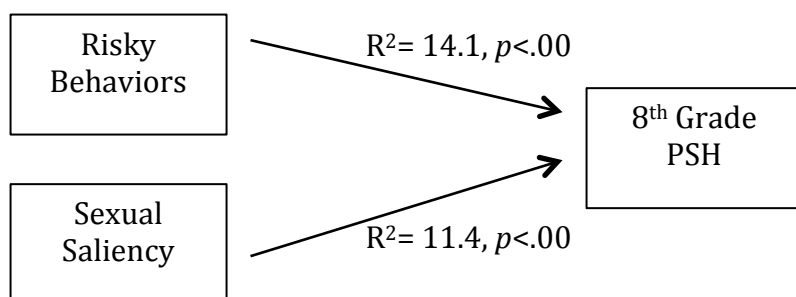
Girls Hierarchical Regression

Figure 4.

Boys Hierarchical Regression

Research question: The research question regarding the relationship between pubertal status and PSH was also tested. It was anticipated that being more physically mature, as evidenced by pubertal status, would be indicative of higher levels of PSH victimization. Physical maturity was graded on a 9-point scale. Descriptive data for pubertal status in the 8th grade are presented in Table 13, separated by gender. Overall means and percentage of completion were similar for boys and girls.

Table 13. *Descriptive Data for Pubertal Status by Gender*

| | Mean (SD) | % Not Started | % Started | % Completed |
|-------|------------------|----------------------|------------------|--------------------|
| Boys | 4.39 (1.54) | 28.0 (53) | 62.5 (118) | 9.5 (18) |
| Girls | 4.81 (1.52) | 18.8 (35) | 67.2 (125) | 14.0 (26) |

* N's are in brackets

A one-way independent ANOVA was conducted in order to ascertain the relationship of pubertal status (not started, started and completed) and PSH. A total of 375 student yearbook photos were rated (approximately half the sample) and had valid PSH scores. Two separate contrasts (via

dummy coding) were conducted in order to determine if those who had not started puberty differed on their PSH score from those who had started and completed puberty (i.e., not started vs. started and completed; started vs. completed). The first hypothesis was unfounded as no significant differences were found between those who had not started and those who had started or completed puberty ($F=1.435, p>.05$). The second hypothesis was also disconfirmed as no differences were found between groups ($F=1.883, p>.05$) between those who had started compared with those who had completed. Finally, no significant differences were found when the analyses were separated by gender.

Alternative Analyses.

To more precisely examine the lack of significant findings regarding classroom factors, several post-hoc analyses were performed. The classroom variables of class size and percent male were dichotomized into top and bottom quartiles, quarters and tenths in order to capture the variability within groups as it was hypothesized that a lack of variability within these variables (Class Size: $M=21, SD=3.2, Min=15, Max=27$; Percent Male: $M=0.5, SD=0.1$) may be contributing to the non-significant findings. Thus, by looking at the extreme groups, an attempt was made to capture the extremities within these variables, which may contribute to PSH differences between groups. Top and bottom groups were dummy coded for the ANOVA (top =1, bottom = - 1). Factorial ANOVAs were conducted which examined the dichotomized variables with respect to PSH. These analyses failed to find significant effects for percent males, class size and their interaction on PSH. Non-significant findings were also found when these ANOVAs were analyzed separately based on gender. Thus, there were no differences with mean PSH scores even when extreme groups were used. These post-hoc findings, coupled with the non-significant HLM findings provide evidence that even when looking to capture extreme

differences within the classroom variables of class size and percent male, that these variables are not related to the experience of PSH in this sample.

A closer examination of the descriptive information of these variables was performed to ensure that there was sufficient variability within them. Although there was more variability within the percent male variable, both variables had enough variability to be adequately examined as predictors. Evidence for this comes from the positive significant correlation between the two variables ($r=.32$) at the $p<.05$ level. Because two variables can only co-vary to the extent that they each have variability, the moderate correlation between the variables shows that there is enough variability within the variables. Thus, the fact that these variables do not have a relationship with PSH demonstrates that these variables are unrelated, and not that there is a limitation inherent in the classroom variables.

Further examinations were conducted with respect to pubertal status. At this time, pubertal status was examined as a binary construct, comparing those who had ($n= 45$) versus those had not ($n= 335$) completed puberty in the eighth grade with PSH. A one-way ANOVA indicated no significant differences with respect to PSH score between groups ($F =0.646, p>.05$). To further explore the hypothesis that pubertal development might play a role in 8th grade PSH, 6th grade ratings of yearbook photos were used for the 41.2% ($n=396$) of students with ratings available in the 6th grade and with 8th grade PSH scores. Students were dichotomized into those who were rated as not started puberty versus those who had started or completed puberty via dummy coding. There were significant differences between groups in the 6th grade ($F= 6.046, p<.05$) with the mean PSH score in the 8th grade for those had had started and/or completed puberty higher ($M= 11.23, SD=10.82, n=22$) than for those who had not started puberty ($M= 6.61, SD=6.63, n=471$). Thus, the more developmentally advanced sixth graders have above

average mean 8th grade PSH scores and the less advanced group had below mean PSH scores. However, given the very small sample size of the puberty positive group, these results should be interpreted with caution.

Given that the literature suggests that PSH may be related to physical attractiveness (Shakeshaft, 1995; Peterson et al., 2009), an analysis was performed to assess this relationship within the dataset. More specifically, both physical attractiveness ($M=3.21$ $SD= 2.43$) and sexual attractiveness ($M=3.77$, $SD=2.33$) were considered as independent predictor variables to experiencing a greater frequency of PSH. Physical attractiveness was assessed via the item “Do you think the person is physically attractive?” [unattractive, somewhat unattractive, somewhat attractive, attractive] based on a yearbook photo. Sexual attractiveness was assessed via the item “Do you think other kids would want to ‘go out’ with (date) this person?” [no, probably not, probably, definitely] based on the same yearbook photo. A total of 375 8th grade yearbook photos were used. Each student received four ratings for being physically or sexually attractive. There were low correlations between PSH with physical attractiveness ($r=-.015$) and sexual attractiveness ($r=-.024$). Because a multiple regression ($F=.109$; $p>.05$) with physical attractiveness ($\beta=.014$) and sexual attractiveness ($\beta=-.036$) regressed on PSH was not significant, an ANOVA was conducted with the variables dichotomized. Groupings were establishing based on the Likert scale questions. Specifically to be in the physically attractive group, participants had to be rated at a minimum as “somewhat attractive” on average. Approximately twelve percent of the sample fell in this group ($n=42$). The overall one-way ANOVA was not significant ($F=.90$, $p>.05$). Findings were consistent when the results were examined uniquely by gender. Similarly, sexual attractiveness was divided into groups. Sexual attractiveness was defined as being rated on average as “someone that other kids would “probably” want to date.”

Approximately fourteen percent (n=50) fell into the sexual attractive positive group. The one-way ANOVA was not significant ($F = .020, p > .05$). When results were examined based on gender, they were also not significant. These findings suggest that that concurrent attractiveness and sexual attractiveness are not related to the frequency of PSH victimization in the 8th grade.

One of the premises that analyses of this dissertation were based upon was that the effects between classroom and individual factors worked in tandem. Beyond this, above analyses examined this relationship as additive, as opposed to interactive. In order to test this hypothesis, post-hoc analyses were conducted in order to determine if there were interaction effects between classroom factors with risky behaviors and classroom factors with sexual saliency factors. In order to do this, individual level variables within risky behaviors and sexual saliency were standardized and combined into two composite variables. These two composite variables were normally distributed. Cross-product terms were then created with classroom variables and composites resulting in four interaction terms (i.e., class size * risky behaviors, class size * sexual saliency, percent male * risky behaviors, present male * sexual saliency). A multiple regression was then generated with the four individual terms (percent male, class size, sexual saliency cluster, risky behavior cluster). This regression was then compared to the multiple regression model with the four individual variables and the cross-product terms. The interaction terms together accounted for an additional 1% of the variance explained ($R^2 = .009, F = 1.50, df = (4, 579), p = .20$). Moreover, none of the interaction terms were statistically significant. Thus, these findings support that the effects of individual variables are additive (main effects) and not interactive.

CHAPTER IV Discussion

The purpose of this dissertation was to assess the relationship between classroom and individual variables that are related to the experience of PSH during 8th grade based on developmental theory, opportunity theory and the risky-behavior hypothesis. This study contributes to the literature by identifying theoretically based risk factors for PSH from an ethnically diverse, low-income 8th grade population. A multi-respondent measurement design was used to test variables related to risky behaviors and sexual saliency that have been identified as risk factors in the literature based on the developmental and social changes that occur in adolescence. In addition, this study accounted for the peer environment and the nested design of students in classrooms by examining two previously unexplored demographic components of their classrooms: percentage of males and number of students. The general findings indicate that: (1) Classroom factors are not significant in predicting the frequency of PSH; (2) Risky behaviors predict PSH with higher ratings of self-reported delinquency being the greatest risk factor; (3) Sexual saliency variables predict the experience of PSH with flirting and dating accounting for most of the variance; (4) Risky behaviors are more salient risk factors for boys, whereas sexual saliency risk factors are more salient for girls; (5) Pubertal status in the 6th grade predicts levels of PSH in the 8th grade; and (6) Attractiveness and sexual attractiveness are not related to PSH victimization.

Classroom variables- Does opportunity matter?

Hierarchical linear modeling was used to assess if classroom variables, class size and the percent of males within the classroom, increased the frequency of individually reported PSH. Results of this analysis indicated that there were no significant differences between mean classroom PSH scores, and that there was more variability within than between classrooms. As

such, hypothesis one was unfounded. These findings suggest that experiencing PSH is related to individual rather than environmental characteristics. A proposed rationale for the lack of significant findings is that it is due to the limited variability (i.e., standard deviation) of the two classroom variables. In order to address this, post-hoc analyses assessed whether dichotomizing the classroom variables into quarters, quintiles and tenths and then dummy coding them would illuminate differences between extreme groups in relation to PSH. Post-hoc analyses were again non-significant, providing additional evidence that even when examining extreme groups percent males and class size are not related to the frequency of PSH victimization. Moreover, examination of the descriptive data demonstrates that there is enough variability within these variables for them to be used as independent predictors. Specifically, the finding that there is a moderate correlation between class size and percent male indicates sufficient variability within these variables. Collectively, these findings indicate that these classroom variables are not related to the experience of PSH in this sample and that PSH is related to individual rather than classroom factors.

Prior studies have examined opportunity for victimization looking at different school contextual factors than the current study. For example, Tillyer and colleagues (2010) studied school involvement via sports and school activities, documenting that adolescents who are more involved in such activities have a greater opportunity for victimization due to the greater number of peer interactions in their school social environment. Of note, these are activities where there is often less adult supervision, which may itself be a factor that increases opportunity for victimization. Thus, teacher presence within the classroom may serve as a protective factor to the effect of larger class size, thereby mitigating the effect of larger peer groups. In addition, Tillyer and colleagues' study was based on a population of middle and high school students in rural

Kentucky and, findings from this population may be different from the urban and diverse racial population used in the current study.

Schools may unconsciously balance class size and gender within a class in an attempt to reduce victimization. In general, schools aim to balance class size for teachers and may balance gender to foster more equal classroom composition for teachers and for student learning. This is particularly possible at the middle school level where most students are mandated to take specific classes with little opportunity for electives, allowing school administration greater flexibility in assigning students to classrooms. Previous research on school classroom composition has generally found that academically, both girls and boys perform better in same- than mixed gender classrooms (Riordan, 1985; Vezeau, Bouffard, & Chouinard, 2000). Interestingly, a recent study examining preschoolers found that girls' social, motor and cognitive development was not related to classroom composition, and that boys performed better in classrooms with more females (Moller et al., 2008). As neither single sex, nor increasing the ratio of girls in classrooms is possible in most public schools, an attempt to equalize the composition may be made to not make either gender feel marginalized and provide equal opportunities for learning and social interaction. The transition to middle school, already fraught with significant changes in the school environment, is a difficult time. However, the results of the present study, which examines the experiences of PSH in the context of mixed gender classrooms, suggests that neither classroom composition by gender nor size is related to the frequency of PSH victimization.

An additional element of classroom variance unaccounted for in this research project is the impact of classroom climate, which may be related to the role of the teacher. Research conducted with respect to bullying has found that teacher attitudes are an important mediator. Despite the

advent of numerous research-based interventions (see Olweus, 2008), research has found that the clinical strength of these programs rests on teachers' beliefs about victimization (Kochenderfer-Ladd & Pelletier, 2008). Teachers who believe that bullying is normative and that victims need to develop self-assertion skills are less likely to advocate than those who do not (Hektner & Swenson, 2012; Kochenderfer-Ladd & Pelletier, 2008). By ignoring the victimization, students may feel that they cannot depend on the teacher for their safety. Therefore, teachers who believe that victimization is inappropriate are more likely to advocate for the safety of their students. Although most studies examining classroom climate have not specifically assessed PSH, it may be argued that the same framework holds.

Are risky behaviors or sexual salience variables most important?

The findings from this study indicate that both risky behaviors and sexual saliency variables are related to the frequency of PSH in 8th grade. In an overall hierarchical regression self-reported delinquency, dating and being flirtatious were significant predictors of PSH.

Taken together, findings related to risky behaviors indicate that adolescents who are engaging in delinquent activities and behaviors are more likely to be sexually harassed in middle school. These findings are related to the deviant peer group and risky behavior hypotheses, which indicate that adolescents who engage in delinquent behaviors likely associate with peers who also engage in such behaviors forming deviant peer groups where non-normative behaviors, such as harassment, are normalized. This is supported by the significant positive correlation between friend support for counter conventional behaviors and self-reported delinquency. Thus, adolescents' friends' behaviors and attitudes may render some youth more susceptible to being in risky situations where harassment is acceptable as the deviant peer group is more tolerant to such behaviors.

It is noteworthy that increased aggressive behavior was related to increased experience of PSH for males and not females. In general, males engage in more overtly aggressive behaviors, which are the types of behaviors that are captured by these items, rather than the covert, relational aggression that is more common among adolescent girls. For adolescent girls, being traditionally aggressive does not correspond to the set of traits that are considered feminine. Therefore, girls who are aggressive may not be the same girls with whom boys are attracted to or sexually harass.

However, in some ways it is counter intuitive to anticipate that increased aggressive behavior would foster increased experience of PSH. Therefore, it is worthwhile to consider that the rationale for PSH victimization may vary based on the gender of the victim. There is a significant body of literature which hypothesizes about the relationship between masculinity and PSH. Specifically, the hegemonic masculinity perspective (Connell & Messerschmidt, 2005) argues that the experience of PSH is part of achieving a high peer status, which is partially earned by humiliating others (Messerschmidt, 2000). This is consistent with research that has found that aggression towards others is a way of maintaining and creating a perception of masculinity. Thus, PSH from males directed towards other males is a way to degrade others and demonstrate increased social power (Oransky & Marecek, 2009; Phillips, 2007). Because masculinity is a characteristic that needs to be consistently demonstrated, aggressive adolescent boys perpetrate PSH because their aggressive behaviors are “cool” and “macho”. PSH within and between adolescent boys then becomes a way for them to renegotiate and prove their masculinity within the peer group (Wei & Chen, 2011). Additionally, male victims of sexual harassment may be more prone to retaliate after victimization, and thus engage in aggressive behaviors to demonstrate their masculinity.

Regarding sexual saliency variables being overtly flirtatious and dating were significant predictors, predicting an increased frequency of PSH victimization during the eighth grade for boys and girls. Dating activities are likely to be unsupervised by adults and thus provide adolescents increased opportunities for sexualized contact with the opposite sex. Opposite sex adolescents who are unsure how to demonstrate interest, may express their attention via harassment. Examining the expression of sexual interest is meaningful as this is the development time when interest in sexual and romantic cross-sex emerges. It is not surprising then that the expression of sexual interest is related to the experience for PSH in the 8th grade. Greenwald (2004), using the same data set as this study found that most of the physical sexual harassing behaviors were reported to be perpetrated by a dating or former dating partner, indicating that this may be an area for intervention. Since dating often begins in early adolescence, those engaged in dating are likely testing the boundaries of such relationships. Because sexual harassment within dating relationships may be a precursor to future dating victimization, it should be carefully monitored.

Understanding the relationship between risky behaviors and sexual behaviors went one step further in examining whether risky behaviors or sexual saliency factors were most salient to boys and girls. Results indicated that risky behaviors accounted for a greater proportion of the variance for boys, whereas sexual salience factors accounted for a greater proportion of variance for girls suggesting that there may be different angles to intervene in depending on gender.

Does how you look matter?

There is some research suggesting that appearance may be related to experiencing PSH during middle school (Caissy, 1994; Petersen et al., 2009; Silbereisen & Kracke, 1997). Thus, this dissertation examined the relationship between pubertal status, attractiveness and sexual

attractiveness. Results of these analyses indicated that students who were rated to have completed puberty in the 6th grade self-reported a greater frequency of PSH in the 8th grade compared with those who were not rated as having completed puberty. However, eighth grade pubertal status was not related to eighth grade PSH. Adolescents may target sexually advanced peers for several reasons. More advanced youth may be more visible in the school community, particularly females because of the physical developmental changes associated with puberty. Their physical body garners attention as fellow students are unsure how to manage the feelings associated with puberty or others' pubertal development. Research has also found that more pubertally advanced youth associate with more delinquent peers and are more prone to be in sexual situations (Goldstein et al., 2007).

Attractiveness as measured continuously or categorically in the 8th grade was not related to self-reported PSH. These findings are somewhat similar to findings from Petersen and colleagues (2009) who found that while 7th grade attractiveness was related to concurrent experience of PSH, 5th and 9th grade attractiveness did not relate to PSH. Students may be still be developing their schema for sexual attractiveness in the 5th grade and may have developed another system to determine who is sexually harassed by the 9th grade. The present study uses a different population from Petersen who used a Midwestern population which may account for some of the differences.

Although this study overall did not find significant differences between attractiveness and sexual attractiveness with PSH, this may be the result of the smaller sample size. Another hypothesis is that student attractiveness may serve as a protective factor rather than a risk factor for PSH. Attractiveness is likely related to heightened social status, and those with increased social power generally reported reduced victimization experiences. Thus, the adolescents who

are most attractive may experience reduced PSH as harassers may be intimidated by their status or concerned about the consequence of harassing a member of a higher status peer group.

Moreover, harassers may understand that victimizing “the pretty girl” or “the hot boy” will likely not result in them receiving positive attention from that person.

Summary. The findings of this study indicate that expression of sexual interest, increased dating and delinquency increase vulnerability for PSH during the middle school years. These factors emerge during adolescence and while they are developmentally appropriate, the co-occurrence of these risk factors increases the propensity for PSH. Thus, it is not one of these factors in isolation but the interrelationship of these factors as specified in the developmental-contextual model that increases risk for PSH. While PSH is related to the social and biological developmental changes that occur in adolescence, individual and peer groups factors as well as the culture of adolescence in North America and western countries further enable PSH. The adolescent peer group culture is unique in that it is more tolerant of deviant behaviors regardless of whether one is or is not deviant. These behaviors often become less tolerated as adolescents develop, and engage in more goal directed and prosocial activities to achieve their long-term goals.

Limitations. This study has several limitations, all of which are common to studies that make use of correlational and self-report data. The use of a self-report questionnaire for assessing the experience of PSH may be problematic as some reporters may be more apt to over or under report their experience of PSH, resulting in biased estimates. Moreover, students may be uncomfortable with responding to questions of a sexual nature, in particular those that pertain to sexual harassment. Research that examines both teacher reports of PSH in conjunction with self-report data may be an important step to improve the external validity of such a measure. A

qualitative approach, such as an interview, may also be helpful to assess students' reactions and to have an external rater to determine whether or not the behavior is in fact sexual harassment. Moreover, because data is correlational, predictor variables may actually follow PSH as oppose to precede the dependent variable.

Another drawback of this study was that it asked about heterosexual dating and sexual interest. Students who identified as gay, lesbian or questioning may have not responded to these questions. Although this was largely a reflection of the time of data collection (early 2000s), future studies may want to examine sexual saliency variables and PSH with respect to a population that identifies a sexual orientation other than only heterosexual (i.e., gay, lesbian, queer, transgender).

Although the Revised Class Play "who you like most" item was used to determine attention from the opposite sex, it is unclear if students are sexually or romantically interested in the opposite sex peers that they nominated or if the relationship is platonic. Therefore, future research could also include in a class play an item assessing romantic interest such as "someone you would like to date" or "something you think is attractive." Understanding which students are receiving most sexual attention from opposite sex peers would be of interest to future researchers.

Finally, although this study had detailed information regarding the characteristics of PSH victims, and the types of harassment experienced, this study did not identify the perpetrators of PSH. This is a limitation as prior studies have identified that students are often both victims and perpetrators. Understanding the characteristics of students who are victims, compared with those who are perpetrators and victim/perpetrators is necessary for developing further insight in the

perpetrator-victim process, identifying risk and resilience factors, as well as developing prevention programs.

Another limitation is that this study had limited data on who were the perpetrators of PSH. Understanding who perpetrates sexual harassment is important for identification of perpetration risk factors as well as to examine the relationship between victimization and perpetration. Moreover, by identifying the relationship between victim and perpetrators, researchers would be better able to create vulnerability profiles and develop intervention/prevention programs.

Strengths. This study has many strengths. It makes use of a large data set, with students from a diverse and multi-racial background, often under represented in PSH research. The main findings of this study are generalizable to other geographic areas with similar diverse populations. Moreover, there was a large response rate for the current study. This study used measures that reflected peer perception, which is important as selection for who is or who is not sexually harassed is likely largely related to individual factors that are perceived by peers. This study also uses individual risk factors and classroom factors, and no prior PSH studies have examined classroom vulnerability factors. Finally, this is one of the first studies to use multilevel modeling with PSH.

Implications for School Psychology Practice. Adolescence is a paramount developmental period, critical for the development of later adult relationships. Given that many adults view PSH as a normal behavior associated with adolescence, it is not surprising that many schools do not have formal sexual harassment policies (King et al., 1999). Thus, it is important for mental health professionals, such as school psychologists, to bring attention to the issue of sexual harassment for both school faculty and students and to develop and enforce a school-wide policy. By doing so, students along the bully-victim continuum as well as bystanders and staff will

develop a schema of the school's view of peer sexual harassment. School personnel should feel an impetus to address this as PSH is related to negative educational outcomes (i.e., academic achievement, truancy, etc.). As such, schools staff may benefit from opportunities that help them to challenge the conception that "boys will be boys" and instead recognize PSH as a widespread behavior that can have a negative impact on boys and girls development as well as on their learning.

Schools have a responsibility to create a safe education milieu. Although some schools have school-wide policies to address PSH, the findings that almost all students experience at least one form of harassment indicates that these policies are necessary across all schools, and that they need to be consistently followed (Fineran & Bennett, 1998). This is in line with Title IX, which requires all schools to have sexual harassment policies. Educating youth about sexuality and discrimination may be a better approach when it occurs prior to harassment experiences (Lee et al., 1996). One example of a prevention program is Safe Dates (Foshee et al., 1998). Safe Dates is an empirically validated intervention and prevention program targeted for dating sexual abuse. This program was developed for students aged 13-17, and intended to be implemented across all health classes. It is a multimodal program, including: 9-session curriculum, a play script, poster contest, parent materials and teacher training manual (Foshee et al., 1998). This program's effectiveness may be related to its focus on educating not just the student, but important adults and authority figures.

Adolescents are often ambivalent about their sexual development. Moreover, they may be confused about the mixed messages they receive regarding the acceptability of PSH from adults. Therefore, openly discussing adolescents' feelings and attitudes towards pubertal development, sexuality, romantic relationships and sexual harassment is an important first step. Moreover,

students need to be educated on exactly the behaviors that constitute sexual harassment and then be taught appropriate replacement behaviors to show sexual interest. Any practices or policies aimed at reducing PSH in schools will likely also reduce other instances of sexual violence and discrimination (Blakley et al., 1998). By also incorporating teacher and parent training, Safe Dates has shown positive effects of reducing sexual victimization.

Findings from this dissertation assist with identification for who is most at risk for PSH victimization. Given that adolescents who are flirtatious, date and engage in risky behaviors are most vulnerable, these are the youth who would benefit most from direct prevention programs. Special attention should also be paid to those youth who develop earlier as these adolescents are more likely to be harassed as well. These adolescents need to be educated on what they may expect from future interactions and how they can appropriately address them.

Future Research. Although this study attempted to discern the influence of classroom level peer group factors, more information regarding the role of the adolescent peer group is needed. This study was not able to tease apart if adolescents who are sexually harassed are in different types of peer groups depending on whether they are sexually expressive or delinquent, or if these groups overlap. Determining how adolescents group together based on their actual peer group is important in terms of helping to identify potential victims. Research could also examine if certain perpetrators are more likely to harass certain groups of victims.

Beyond this, future research may examine the role of class size and percent male in high school students. During these years, students have a greater opportunity to select their classes and thus a specific gender or number of students may select specific courses, increasing the variability of the class size and percent male variables. Although this study did not find a relationship between PSH and classroom demographic variables, the role of the classroom

teacher should also be considered. A teacher's attitude towards PSH may be an important aspect of classroom PSH.

Future research should also examine the role of the Internet and PSH. The Internet provides another medium for which sexual harassment can occur, in a largely unsupervised space. Internet sexual harassment can occur by an abuser sending unwanted abusive, threatening or absence message via any form of e-communication. The increased access of technology among the middle school population, combined with the decrease in adult monitoring that occurs, renders this medium an ideal avenue for sexual harassment. Findings of current studies suggest that cyber bullying and face-to-face bullying are unique constructs (Jackson & Robert, 2012) and that may be true for PSH. Future studies are needed in order to determine if online PSH and face-to-face PSH are unique and if the risk factors for victimization are distinct or similar.

Finally, there is a growing body of research examining the interplay between the human genome with the peer environment. Recent studies are beginning to research and understand the interplay between genes and the environment with relationships in childhood and adolescence (Brendgen, 2012). Two studied gene-environment relationships are the gene-environment correlation and the gene-environment interaction (Brendgen, 2012). The gene-environment correlation refers to the fact that a person's genetics influence the type of peer environment that the individual experiences and selects. The gene-environment interaction suggests that an individual's genetics impact development based on the environment, and the environment affects development based on genetic make-up. Related to this dissertation, this nascent research indicates that genetic differences, such as time of pubertal onset, may render youth more likely to seek out similar peers who are involved in similar types of activities and relationships. Moreover,

these experiences may impact adolescents' developmental trajectory differently depending on their genetic disposition. Thus, even if these youth are not in such an environment, they are more likely to select an environment that corresponds to their behavioral characteristics. According to Brendgen (2012) "genetic factors not only play a part in shaping various aspects of youngsters' peer experiences but also modulate how these experiences affect further psychosocial adjustment." Thus, because genetic disposition plays such a significant role in peer group experiences and may modulate behavioral responses, genetic and quantitative research in this area is necessary, and in particular as this is related to PSH given its substantial increase during adolescence, a developmental period marked by an individual's genetics.

This study extends previous work by examining PSH in the context of classroom and individual level factors that increase an adolescent's propensity to be sexually harassed in middle school using multi-level modeling. This is necessary as PSH research has not focused on risk factors, nor has it incorporated the role of the classroom and peer group. Understanding the unique developmental characteristics associated with adolescents is important for understanding who and why someone is more vulnerable to PSH. Continued research into understanding who is most likely to be victimized and the long term impact with respect to PSH with mental health and relationship outcomes is needed in order to help such adolescents move onto positive developmental and relationship trajectories. It is hoped that the results of this study be used to help inform schools on who is most vulnerable for PSH victimization

References

- Allen, J. P., & Land, D. (1999). Attachment in adolescence. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 319-335). New York: Guilford Press.
- American Association of University Women (AAUW). (1993). Hostile hallways: The AAUW survey on sexual harassment in America's Schools. Washington D.C.: AAUW.
- American Association of University Women (AAUW). (2001). Hostile Hallways: Bullying, Teasing, and Sexual Harassment in School. Washington, D.C.: AAUW.
- Anderson, M. L. (1996). Sexual harassment: Purely academic? *Gender Studies, News and Views*, 6, 2-6.
- Barth, J.M., Dunlap, S.T., Dane, H., Lochman, J. E. & Wells. K. C. (2004). Classroom environment influences on aggression, peer relations, and academic focus. *Journal of School Psychology*, 42, 115-133.
- Bertrand, L., Bagley, C., Bolitho, & F.(1997). Sexual assault in school, mental health and suicidal behaviors in adolescent women in Canada. *Adolescence*, 32, 361-366.
- Benbenishty, R., & Astor, R. A. (2005). School violence in context: Culture, neighborhood, family, school, and gender. New York: Oxford University Press.
- Berman, H., McKenna, K., Traher Arnold, C., MacQuarrie, B., & Taylor, G. (2000). Sexual harassment: Everyday violence in the lives of girls and women. *Advances in Nursing Science*, 22(4), 32-46.

- Brandenburg, J. B. (1997). *Confronting sexual harassment. What schools and colleges can do*. New York: Teachers College Press.
- Brendgen, M. (2012). Genetics and peer relations: A review. *Journal of Research on Adolescence, 22*, 419-437.
- Brown, B. B., Clasen, D. R., & Eicher, S. A. (1986). Perceptions of peer pressure, peer conformity dispositions, and self-reported behavior among adolescents. *Developmental Psychology, 22*(4), 521-530.
- Brown, C. S., & Bigler, R. S. (2004). Children's perceptions of gender discrimination. *Developmental Psychology, 40*(5), 714 – 726.
- Bryant, A. L. (1993). Hostile hallways: The AAUW survey on sexual harassment in America's schools. *Journal of School Health, 63*(8), 355-357.
- Bryk, A. S., Lee, V. E., & Holland, P. B. (1993). *Catholic schools and the common good*. Cambridge, MA: Harvard University Press.
- Bukowski, W. M., Sippola, L. K., & Newcomb, A. F. (2000). Variations in patterns of attraction to same- and other-sex peers during early adolescence. *Developmental Psychology, 36*(2), 147-154.
- Burrow, J., & Apel, R. (2008). Youth behavior, school structure, and student risk of victimization. *Justice Quarterly, 25*(2), 349–380.
- Caissy, G. A. (1994). *Early adolescence: Understanding the 10 to 15 year old*. New York: Plenum Press.
- Cavanagh, S. E. (2007). The social construction of romantic relationship in adolescence: Examining the role of peer networks, gender and race. *Sociological Inquiry, 77*(4), 572-600.

- Chiodo, D., Wolfe, D. A., Crooks, C., Hughes, R., & Jaffe, P. (2009). Impact of sexual harassment victimization by peer on subsequent adolescent victimization and adjustment: A longitudinal Study. *Journal of Adolescent Health, 45*, 246-252.
- Civil Rights Act of 1964, P.L. 88-352, Title VII, 78 Stat. 255 (42 USC §2000c et seq.).
- Connell, R. W., & Messerschmidt, J. W. (2005). Hegemonic masculinity: Rethinking the concept. *Gender and Society, 19*, 829–859.
- Connolly, J., Furman, W., & Konarski, R. (2000). The roles of peers in the emergence of heterosexual romantic relationships in adolescence. *Child Development, 71*(5), 1395-1408.
- Connolly, J., & Goldberg, A. (1999). Romantic relationships in adolescence: The role of friends and peers in their emergence and development. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 266-290). Cambridge, UK: Cambridge University Press.
- Colwell, M. J., & Lindsey, E. W. (2005). Preschool children's pretend and physical play and sex of play partner: Connections to peer competence. *Sex Roles, 52*, 497–509.
- Craig, W. M., & Pepler, D. J. (2003). Identifying and targeting risk for involvement in bullying and victimization. *Canadian Journal of Psychiatry, 48*, 577–582.
- Craig, W. M., Pepler, D., & Connolly, J. (2001) Developmental Context of peer harassment in early adolescence: The role of puberty and the peer group. In J. Juvonen and S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 242–61). New York: The Guilford Press.

- Craig, W. M., & Smith, D. (2000). *Friendships and peer harassment in early adolescence*. Symposium at Development 2000: A conference on Developmental Psychology, Waterloo, ON.
- Dahinten, V. S. (1999). Peer sexual harassment: A barrier to the health of adolescent females? *Canadian Journal of Nursing Research, 31*(2), 41-52.
- Duffy, J., Wareham, S., & Walsh, M. (2004). Psychological consequences for high school students of having been sexually harassed. *Sex Roles, 50*, 811–821.
- Duncan, N. (1999). *Sexual bullying: Gender conflict and pupil culture in secondary schools*. New York: Routledge.
- Dunford, F. W. & Elliott, D. S. (1984). Identifying career offenders using self-reported data. *Journal of Research in Crime and Delinquency, 21*, 57-86.
- Dunphy, D. (1963). The social structure of urban adolescent peer groups. *Sociometry, 26*(2), 230-246.
- Dupper, D. R., & Meyer-Adams, N. (2002). Low-level violence: A neglected aspect of school culture. *Urban Education, 37*(3), 350-364.
- Eccles, J. S., Lord, S., & Buchanan, C. M. (1996). School transitions in early adolescence: What are we doing to our young people: In J. A. Garber, J. Brooks-Gunn & A.C. Petersen (Eds.), *Transitions through adolescence: Interpersonal domains and context*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Eder, D. (1991). “Go get ya a French!”: Romantic and sexual teasing among adolescent girls. In D. Tannen (Ed.), *Gender and conversational interaction* (pp. 17-31), New York, NY: Oxford University Press.

- Elliott, D. S., Dunford, F. W., & Huizinga, D. (1983). *The identification and prediction of career offenders utilizing self-reported and official data*. Unpublished manuscript, Behavioral Research Institute, Boulder, CO.
- Elliott, D. S., Huizinga, D., & Ageton, S. S. (1985). *Explaining delinquency and drug use*. Newbury Park, CA: Sage.
- Elliott, D. S., Huizinga, D. and Menard, S. (1980). *Multiple Problem Youth: Delinquency, Drugs and Mental Health Problems*. New York, NY: Springer.
- Equal Employment Opportunity Commission. (1993). Notice of proposed rule making: Guidelines on harassment based on race, color, religion, gender, national origin, age, or disability. *Federal Register*, 58, 51266–51269.
- Farrington, D. P. (1995). The twelfth Jack Tizard memorial lecture. The development of offending antisocial behavior from childhood: Key findings from the Cambridge study in delinquent development. *Journal of Child Psychology & Psychiatry*, 36(6), 929-964.
- Farrington, D. P. (1997). Early prediction of violent and non-violent youthful offending. *European Journal on Criminal Policy and Research*, 5, 21-66.
- Feiring, C., & Lewis, M. (1991). The transition from middle childhood to early adolescence: Sex differences in the social network and perceived self. *Sex Roles*, 7/8, 489-509.
- Field, A. (2009). *Discovering statistics using SPSS. Introducing Statistical Methods*. SAGE. ISBN 9781847879073.
- Fineran, S., Bennett, L.W., & Sacco, T. (2003). Peer sexual harassment and peer violence among adolescents in Johannesburg and Chicago. *Journal of International Social Work*, 46, 391-405.

- Fineran, S. (2002). Sexual harassment between same-sex peers: Intersection of mental health, homophobia, and sexual violence in schools. *Social Work, 47*(1), 626-641.
- Fineran, S. (2001). Sexual minority students and peer sexual harassment in high school. *Journal of Social Work, 11*, 50-69.
- Fineran, S., & Bennett, L. (1998). Teenage peer sexual harassment: Implications for social work practice in education. *Social Work, 43*, 55-64.
- Fineran, S., & Bennett, L. (1999). Gender and power issues of peer sexual harassment among teenagers. *Journal of Interpersonal Violence, 14*, 626-641.
- Fineran, S., & Bolen, R. M. (2006). Risk factors for peer sexual harassment in schools. *Journal of Interpersonal Violence, 21*(9), 1169-1190.
- Fitzgerald, L. F., Gelfand, M. J., & Drasgow, F. (1995). Measuring sexual harassment: Theoretical and psychometric advances. *Basic and Applied Social Psychology, 17*(4), 425-445.
- Fitzgerald, L. F., & Ormerod, A. J. (1991). Perceptions of sexual harassment: The influence of gender and academic context. *Psychology of Women Quarterly, 15*, 281-294.
- Fitzgerald, L. F., & Shulman, S. L. (1993). Sexual harassment: A research analysis and agenda for the 1990s. *Journal of Vocational Behavior, 42*, 5-27.
- Fitzgerald, L. F., Shulman, S. L., Bailey, N., Richards, M., Swecker, J., Gold, Y., et al. (1988). The incidence and dimensions of sexual harassment in academia and the workplace. *Journal of Vocational Behavior, 32*, 152-175.

- Fitzgerald, L. F., Swan, S., & Magley, V. J. (1997). But was it really sexual harassment? Legal, behavioral, and psychological definitions of the workplace victimization of women. (pp. 5–28). In W. O'Donohue (Eds.), *Sexual harassment: Theory, research, and treatment*. Boston, MA: Allyn & Bacon.
- Foshee, V. A., Bauman, K. E., Arriaga, X. B., Helms, R. W., Koch, G. G., & Linder, G. F. (1998). Evaluation of safe states, an adolescent dating violence prevention program. *American Journal of Public Health, 88*, 45-50.
- Foulis, D., & McCabe, M. (1997). Sexual harassment: Factors affecting attitudes and perceptions. *Sex Roles, 37*, 773-798.
- Furman, W., & Buhrmester, D. (1992). Age and sex differences in perceptions of networks of personal relationships. *Child Development, 63*, 103–115.
- Green, V., Cillessen, A. H. N., Berthelsen, D., Irving, K., & Catherwood, D. (2003). The effect of gender context on children's social behavior in a limited resource situation: An observational study. *Social Development, 12*, 586–603.
- Green, J. G., Dunn, E. C., Johnson, R. M., Molnar, B. E. (2011). A multilevel investigation of the association between school contact and adolescent nonphysical bullying. *Journal of School Violence, 10*, 133-149.
- Goldstein, S. E., Malanchuk, O., Davis-Kean, P. E., & Eccles, J. S. (2007). Risk factors of sexual harassment by peers: A longitudinal investigation of African American and European American adolescences. *Journal of Research on Adolescence, 17*, 285 – 300.
- Gorman-Smith, D., Tolan, P., Zelli, A., & Huesmann, L. R. (1996). The relation of family functioning to violence among inner-city minority youth. *Journal of Family Psychology, 10*(2), 1115-1129.

- Gottfredson, D. C. (2001). *Schools and delinquency*. Cambridge, UK: Cambridge University Press.
- Greenwald, M. (2004). *Peer sexual harassment across the middle school years: A developmental view of vulnerability*. (Unpublished doctoral dissertation). Teachers College, Columbia University, New York.
- Grube, B., & Lens, V. (2003). Student-to-student harassment: The impact of Davis v. Monroe. *Children & Schools, 25*(3), 173-185.
- 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*, 1-13.
- Guerra, N. G., Williams, K. R., & Sadek, S. (2011). Understanding bullying and victimization during childhood and adolescence: A mixed methods study. *Child Development, 82*, 295-310.
- Gutek, B. (1985). *Sex and the workplace The impact of sexual behavior and harassment on women, men and organizations*. San Francisco: Jossey-Bass.
- Hamburg, B. A. (1998). Psychosocial development. In S. B. Freeman (Ed.), *Comprehensive adolescent health care: Principles of adolescent medicine*. St. Louis, MO: Mosby.
- Hand, J. Z., & 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*(6), 718-746.
- Heck, R. H., Thomas, S. L., & Tabata, L. (2010). *Multilevel modeling of categorical outcomes with IBM SPSS*. New York: Routledge/Taylor.

- Herman-Giddens M. E., Wang, L., Koch, G. (2001). Secondary sexual characteristics in boys: estimates from the National Health and Nutrition Examination Survey III, 1988-1994. *Arch Pediatr Adolesc Med*, 155, 1022–1028.
- Houston, S., & Hwang, S. (1996). Correlates of the objective and subjective experiences of sexual harassment in high school. *Sex Roles*, 3/4, 189-204.
- Ivy, D. K., & Hamlet, S. (1996). College students and sexual dynamics: Two studies of peer sexual harassment. *Communication Education*, 45, 149–166.
- Jessor, R. (1992). Risk behavior in adolescence: A psychosocial framework for understanding and action. *Developmental Review*, 12(4), 374-390.
- Jessor, R., Jessor, S., Finney, J. (1973). A social psychology of marijuana: longitudinal studies of high school and college youth, 26,1-15.
- Jordan, T. R. (1996). Junior high students' perceptions regarding nonconsensual sexual activity. *Dissertation Abstracts International*, 57, (5-A), (UMI No. 1976).
- King, K. A., Tribble, J. L. & Price, J. H. (1999). School counselors' perceptions of nonconsensual sexual activity among high school students. *Professional School Counseling*, 2(4), 286–290.
- Kneeshaw, S. V. (1997). *High school students' perceptions of peer-to-peer sexual harassment and social-sexual behavior*. (Doctoral dissertation). Retrieved from ProQuest. (Accession No. AAT 9720987).
- Koechenderfer-Ladd, B. & Pelletier, M. E. (2008). Teachers' views and beliefs about bullying: Influences on classroom management strategies and students' coping with peer victimization. *Journal of School Psychology*, 46, 431-453.

- Kopels, S., & Dupper, D. R. (1999). School-based peer sexual harassment. *Child Welfare, 78*(4), 435-460.
- Lacasse, A., & Mendelson, M. J. (2007). Sexual coercion among adolescents: Victims and perpetrators. *Journal of Interpersonal Violence, 22*, 424–437.
- Lacasse, A., Purdy, K. T., & Mendelson, M. J. (2003). The mixed company they keep: Potentially offensive sexual behaviours among adolescents. *International Journal of Behavioral Development, 27*(6), 532- 540.
- Land, D. (2003). Teasing apart secondary students' conceptualization of peer teasing, bullying and sexual harassment. *School Psychology International, 24*(2), 147- 165.
- Langhout, R. D., Bergman, M. E., Cortina, L. M., Fitzgerald, L. F., Drasgow, F., & Williams, J. H. (2005). Sexual harassment severity: Assessing situational and personal determinants and outcomes. *Journal of Applied Social Psychology, 35*(5), 975-1007.
- Larkin, J. (1994). Walking through walls: The sexual harassment of high school girls. *Gender and Education, 6* (3), 263-280.
- Larkin, J., & Popaleni, K. (1994). Heterosexual courtship violence and sexual Harassment: The public and private control of women. *Feminism and Psychology, 4*, 1213-227.
- Larson, R., & Richards, M. (1991). Daily companionship in late childhood and early adolescence: Changing developmental contexts. *Child Development, 62*(2), 284-300.
- Laursen, B. (1996). Closeness and conflict in adolescent peer relationships:

- Interdependence with friends and romantic partners. In W. M. Bukowski, A. F. Newcomb, & W. W. Hartup (Eds.), *The company they keep: Friendship in childhood and adolescence* (pp. 186-210). New York, NY: Cambridge University Press.
- Lavoie, F., & Vézina, L. (2002). Violence dans les relations amoureuses à l'adolescence [Dating violence in adolescence]. *Enquête sociale et de santé auprès des enfants et des adolescents québécois* (Vol. 21, pp. 471-484). Québec, Canada: Institut de la Statistique du Québec.
- Leaper, C., & Anderson, K. J. (1997). Gender development and heterosexual romantic relationships during adolescence. In W. Damon (Series Ed.) & S. Shulman & W. A. Collins (Issue Eds.), *Romantic relationships in adolescence: Developmental perspectives* (New Directions for Child Development No 78) (pp. 85 – 103). San Francisco: Jossey-Bass.
- Lee, V. E., Croninger, R. G., Linn, E., & Chen, X. (1996). The culture of sexual harassment in secondary schools. *American Educational Research Journal*, 33(2), 383–417.
- Lerner, R. M. (1993). Human development: A developmental contextual perspective. In S. C. Hayes, L. J. Hayes, J. W. Reese, & T. R. Sarbin (Ed), *Varieties of scientific contextualism* (pp. 301-316). Reno, NV: Context Press.
- Lerner, R. M. (1995). Developing individuals within changing contexts: Implications of Developmental contextualism for human development, research, policy, and programs. In T. A. Kindermann & J. Valsiner, (Ed), *Development of person context relations* (pp. 13-37). Hillsdale, NJ: Lawrence Erlbaum Associates Inc.

- Loeber, R., & Stouthammer-Loeber, M. (1998). Development of juvenile aggression and violence: Some common misconceptions and controversies. *American Psychologist, 10*, 1234-1240.
- Loredo, C., Reid, A., & Deaux, K. (1995). Judgments and definitions of sexual harassment by high school students. *Sex Roles, 32*, 29–45.
- Luthar, S. S., & McMahon, T. J. (1996). Peer reputation among inner-city adolescents: Structure and correlates. *Journal of Research on Adolescence, 6*(4), 581-603.
- Marshall, W. A., & Tanner, J. M. (1974). Puberty. In J. D. Douvis & J. Drobeing (Eds.) *Scientific foundation of pediatrics* (pp. 124–151). London: Heinemann.
- MacKinnon, C. (1979). *The sexual harassment of working women: A case of sex discrimination*. New Haven, CT: Yale University Press.
- Masten, A. S., Morrison, P., & Pellegrini, D. S. (1985). A revised class play method of peer assessment. *Developmental Psychology, 21*, 523–533.
- McBride, K. A. (1998). Dynamics around peer to peer sexual harassment: A narrative study adolescents' perspectives. *Dissertation Abstracts International, 59* (03), 1362. (UMI No: 9828464)
- McMaster, L. E., Connolly, J., Pepler, D., & Craig, W. M. (2002). Peer to peer sexual harassment in early adolescence: A developmental perspective. *Development and Psychopathology, 14*(1), 91–105.
- Messerschmidt, J. W. (2000). Becoming 'real men': Adolescent masculinity challenges and sexual violence. *Men and Masculinities, 2*, 286–307.
- Miller, A. K. (2004). Violence in U.S. public schools: 2000 School Survey on Crime and Safety, NCES 2004–314 REVISED. U.S. Department of Education, National Center

- for Education Statistics. Washington, D.C: U.S. Government Printing Office.
- Miller, J. (2008). *Getting played: African American girls, urban inequality, and gendered violence*. New York: New York University Press.
- Moller, A. C., Forbes-Jones, E., Hightower, A. D., & Friedman, R. (2008). The developmental influence of sex composition in preschool classrooms: Boys fare worse in classrooms with more boys. *Early Childhood Research Quarterly, 23*, 409-418.
- Murdoch, M., & McGovern, P. G. (1998). Measuring sexual harassment: Development and validation of the sexual harassment inventory. *Violence and Victims, 13*(3), 203–216.
- Murnen, S. K., & Smolak, L. (2000). The experience of sexual harassment among grade-school students: Early socialization of female subordination? *Sex Roles, 43*, 2–17.
- Nadeem, E., & Graham, S. (2005). Early puberty, peer victimization, and internalizing symptoms in ethnic minority adolescents, *Journal of Early Adolescence, 25*(2), 197–222.
- Nielsen, M. B., Bjorkelo, B., Notelaers, G., & Einarsen, S. (2010). Sexual harassment: Prevalence, outcomes and gender differences assessed by three different estimation methods. *Journal of Aggression, maltreatment, & Trauma, 19*, 252-274.
- Ormerod, A., J., Collinsworth, L., L., & Perry, L., A. (2008). Critical climate: Relations among sexual harassment, climate, and outcomes for high school girls and boys. *Psychology of Women Quarterly, 32*(2), 113-125.
- Oransky, M., & Marecek, J. (2009). ‘I’m not going to be a girl’: Masculinity and emotions in boys’ friendships and peer groups. *Journal of Adolescent Research, 24*, 218–241.
- Paquette, J. A., & Underwood, M. K. (1999). Gender differences in young adolescents’

- experience of peer victimization: Social and physical aggression. *Merril-Palmer Quarterly*, 45(3), 242-266.
- Pelligrini, A. D. (2001). A longitudinal study of heterosexual relationships, aggression, and sexual harassment during the transition from primary school through middle school. *Journal of Applied Developmental Psychology*, 22(2), 119–33.
- Pellegrini, A. D. (2002). Bullying, victimization, and sexual harassment during the transition to middle school. *Educational Psychologist*, 37(3), 151–163.
- Permanent Commission (CT) on the Status of Women. (1995). *In our own backyard: Sexual harassment in Connecticut's public high schools*. Hartford, CT: Author.
- Petersen, J., L., & Hyde, J. S. (2009). A longitudinal investigation of peer sexual harassment victimization in adolescence. *Journal of Adolescence*, 32, 1173-1188.
- Phillips, D. A. (2007). Punking and bullying: Strategies in middle school, high school, and beyond. *Journal of Interpersonal Violence*, 22, 158–178.
- Poteat, V., & Espelage, D. L. (2007). Predicting psychosocial consequences of homophobic victimization in middle school students. *Journal of Early Adolescence*, 27(2), 175–191.
- Pryor, J. B., Giedd, J. L., & Williams, K. B. (1995). A social psychological model for predicting sexual harassment. *Journal of Social Issues*, 57(1), 69-84.
- Rodriguez-Tomé, H., Bariaud, F., Zardi, M. F., Delmas, C., Jeanvoine, B., & Slylagyi, P. (1993). The effects of pubertal changes on body image and relations with peers of the opposite sex in adolescence. *Journal of Adolescence*, 16(4), 421-438.
- Roscoe, B., Strouse, J. S., Goodwin, M. P., Taracks, L., & Henderson, D. (1994) Sexual harassment: An educational program for middle school students. *Elementary School*

- Guidance and Counseling*, 29(2), 110–20.
- Scheier, L. M., & Botvin, G. J. (1998). Relations of social skills, personal competence and adolescent alcohol use: A developmental exploratory study. *Journal of Early Adolescence*, 18, 77-114.
- Shakeshaft, C., Barber, E., Hergonrother, M., Johnson, Y., Mandel, L., & Sawyer, J. (1995). Peer harassment in schools. *Journal for Just and Caring Education*, 1(1), 30-44.
- Shepela, S. T., & Levesque, L. L. (1998). Poisoned waters: Sexual harassment and the college climate. *Sex Roles*, 38, 589–612.
- Shortt, J. W., Capaldi, D. M., Dishion, T. J., Bank, L., & Owen, L. D. (2003). The role of adolescent friends, romantic partners, and siblings in the emergence of the adult antisocial lifestyle. *Journal of Family Psychology*, 17, 521-533.
- Silbereisen, R. K., & Kracke, B. (1997). Self-reported maturational timing and adaptation in adolescence. In J. Schulenberg & J. L. Maggs, & K. Hurrelmann (Eds). *Health risk and developmental transitions during adolescence* (pp. 85-109). Cambridge, MA: Cambridge University Press.
- Simmons, R. G., & Blyth, D. A. (1987). *Moving into adolescence: The impact of pubertal change and school context*. New York: Aldine DeGruyter.
- Smith, E. A., Urdy, J. R., & Morris, N. M. (1985). Pubertal development and friends: A biosocial explanation of adolescent sexual behavior. *Journal of Health and Social Behavior*, 26(3), 183-192.
- Stattin, H., & Magnusson, D. (1990). *Pubertal maturation in female development*. Vol. 2 in the series Paths through life (D. Magnusson, Ed.). Hillsdale, NJ: Erlbaum.

- Stein, N. (1995). Sexual harassment in school: The public performance of gendered violence. *Harvard Educational Review, 65*(2), 145–162.
- Stein, N. (1999). *Classrooms and courtrooms: Facing sexual harassment in K-12 schools*. New York: Teachers Press.
- Stein, N., Marshall, N., & Tropp, L. (1993). *Secrets in public: Sexual harassment in our schools. A report on the results of a Seventeen magazine survey*. Wellesley, MA: Wellesley College Centre for Research on Women.
- Steinberg, L., & Silverberg, S. B. (1986). The vicissitudes of autonomy in early adolescence. *Child Development, 57*, 841-851.
- Strauss, S. (2003). Sexual harassment in k-12, In Paludi & Paludi (Eds.). *Academic and workplace sexual harassment: A handbook on the cultural, social science, management, and legal perspective* (pp. 106-145). Westport, CT: Praeger.
- Strauss, S., & Espeland, P. (1992). *Sexual harassment and teen*. Minneapolis: Free Spirit.
- Stratton, S. D., & Backes, J. S. (1997). Sexual harassment in North Dakota public schools: A study of eight high schools. *The High School Journal, 80*, 163-172.
- Terrance, C., Logan, A., & Douglas, P. (2004). Perceptions of peer sexual harassment among high school students. *Sex Roles, 51*, 479- 490.
- Till, F. J. (1980). *Sexual harassment: A report on the sexual harassment of students*. Washington, DC: The National Advisory Council on Women's Educational Programs.
- Tillyer, M. S., Wilcox, P., & Gialopsos, B., M. (2010). Adolescent school-based sexual victimization: Exploring the role of opportunity in a gender-specific multilevel analysis. *Journal of Criminal Justice, 38*, 1071-1081.

- Timmerman, G. (2003). Sexual harassment of adolescents perpetrated by teachers and by peers: An exploration of the dynamics of power, culture, and gender in secondary schools. *Sex Roles, 48*, 231–244.
- Timmerman, G. (2002). A comparison between unwanted sexual behavior by teachers and by peers in secondary schools. *Journal of Youth and Adolescence, 31*(5), 397-404.
- Timmerman, G. (2004) Adolescents' psychological health and experiences with unwanted behavior school. *Adolescence, 39*, 817 – 826.
- Title VII of the Civil Rights Act of 1964, 42 U.S.C. § 2000e et seq. (1982).
- Title IX of the Education Amendments of 1972, 20 U.S.C. § 1681-1686 (1982).
- Trigg, M., & Wittenstrom, K. (1996). “That’s the way the world really goes”: Sexual harassment and New Jersey Teenagers. *Initiatives, 57*(2), 55-65.
- Underwood, M. K. (2003). *Social aggression among girls*. New York: Guilford Press.
- U.S. Department of Education, Office of Civil Rights. (1997). *Sexual harassment guidance: Harassment of students by school employees, other students, or third parties* (No. 62 Federal Register 12034-12051).
- U.S. Office for Civil Rights. (2001). Revised sexual harassment guidance: Harassment of students by school employees, other students, or third parties. Retrieved April 22, 2002, from [http:// www.ed.gov/offices/OCR/shguide/index.html](http://www.ed.gov/offices/OCR/shguide/index.html)
- Van Roosmalen, E., & McDaniel, S. A. (1998). Sexual harassment in academia: A hazard to women’s health. *Women Health, 28*(2), 33– 54.
- Vezeau, C., Bouffard, T. & Chouinard, R. (2000). The impact of single-sex versus coeducational school environment on girls’ general attitudes, self-perceptions, and performance in . *Journal of Research and Development in Education, 34*, 49-59.

- Wekerle, C., & Wolfe, D. A. (1999). Dating violence in mid- adolescence: Theory, significance, and emerging prevention initiatives. *Clinical Psychology Review, 19(4)*, 435-456.
- Williams, T. S., Connolly, J., Pepler, D., Craig, W., & Laporte, L. (2008). Risk models of dating aggression across different adolescent relationships: A development psychopathology approach. *Journal of Consulting and Clinical Psychology, 76(4)*, 622-632.
- Wei, S. S. & Chen, J. K. (2012). Factors associated with peer sexual harassment victimization among Taiwanese adolescents. *Sex Roles, 66*, 66-78.
- Wu, T., Mendola, P., & Buck, G. M. (2002). Ethnic differences in the presence of secondary sex characteristics and menarche among US girls: The third national health and nutrition examination survey, 1988-1994. *Pediatrics, 110*, 752-757.
- Zeller, M., Vannatta, K., Schafer, J., & Nol, R. B. (2003). Behavioral reputation: A cross-age perspective. *Developmental Psychology, 39(1)*, 129-139.

APPENDIX A

Parental Consent Form

Dear Middle School Parent:

Parents across the country are asking if their children are safe in their schools. Here in Springfield we are enlisting students and teachers in an exciting new project where they themselves will assess how safe their own schools are and identify those factors within the school community that contribute to violent and unsafe behavior and those that promote positive behavior and school achievement during the middle school years. We are asking for your support of this project.

The Springfield School Department and Dr. Marla Brassard of Teachers College, Columbia University are collaborating on this joint project in the Springfield Middle Schools. Students will be asked to fill out questionnaires relating to school safety and violence in their Language Arts Class on two days (45 minutes per day). Questions will focus on violent incidents students may have witnessed, their relationships with teachers and with their classmates, and about their behavior and feelings during the school day.

Please be assured that all the information obtained during this project will be kept strictly confidential to the full extend of the law. No one other than Dr. Brassard and her research team will see individual children's questionnaires; the research team will be responsible for collating all the information received, identifying overall trends, and bring only this summarized information back to the schools. Questionnaires will be stored according to ID numbers specifically allotted for this project, and children's names will not appear on the questionnaires themselves. These safeguards will ensure that information from questionnaires will at no time be used to inform academic or disciplinary action regarding any individual students. The questionnaires we are using have all been used in other projects, and we are not aware of any instance where they have caused children any distress or anxiety. However, should you or your child have any questions or concerns, you may reach Dr. Brassard at (212) 678-3368 or the Teachers College, Columbia University Institutional Review Board at (212) 678-4105, IRB Approval #112-99.

As far as possible, we would like to include all the children in your child's class in this project, however, your child does not have to participate if either you or your child would prefer not to. If you do not want your child to participate, please sign your name, and your child's name in the spaces below and return this form to XXXX Middle School before XXXX. If you would prefer you may also call the office at 750-2333. This is an important project that addresses a very real problem within our community; it is our hope that you can support it, and take a moment to encourage your child to participate.

Please feel free to call me at 750-XXXX if you have any additional questions about this study.

Sincerely,
Principal XXX XXX

I **do not** wish to have my child _____ participate in the school project.
Signature: _____ Phone _____

APPENDIX B

Student Consent Form

Dear Middle School Student:

The Springfield Public Schools and Teachers College, Columbia University are working together to reduce violence in Springfield schools and improve relationships among students and between students and teachers. To do this we need your help. We are asking you if you would be willing to fill out this questionnaire. It asks questions about your relationships with other students, teachers, and your parents. It also asks how you are doing in your classes, how safe you feel at school and if you have recently witnessed any violence in your school and neighborhood. We will use the information you provide for us to develop programs to reduce violence in your schools and other schools.

You will be filling this questionnaire out here in your Language Arts or Social Studies class. We ask you to start by signing this letter in which you agree to participate in the project, and gently removing it from the rest of the questionnaire. Once this is done, the questionnaire becomes anonymous, which means that your name will not appear on it and no one at your school will be able to know who filled it out. The questionnaire will only be identified by an ID number in the upper right hand corner.

Although we strongly encourage you to complete this questionnaire, you are free not to do so. Should you choose not to participate, your teacher will assign you other work to do at your desk during this time.

If you agree to participate in this project, please sign below and return this letter to us. We will be reading the questions aloud, and you simply have to record your answers on the answer sheets below. Should you have any questions please raise your hand and ask for help.

If you find anything in this questionnaire upsetting you can talk to me, to your guidance counselor, or to Dr. Brassard, the head of this project.

I _____ agree to participate in this project.
(please print your name)

_____ date

(your signature here)

APPENDIX C

EXPERIENCE OF PEER SEXUAL HARASMENT (PSH)

The meaning of the numbers is as follows:

| | | | | |
|-------|--------------|-----------|---------------------|--------------|
| 1 | 2 | 3 | 4 | 5 |
| Never | Almost Never | Sometimes | Almost all the time | All the time |

The following are questions about experience that you may have had with a schoolmate within the previous year. These are experiences that are unwanted or unwelcomed.

How often has a schoolmate:

| | | | | | |
|--|---|---|---|---|---|
| 1. made negative comments about your body, weight, or clothing? | 1 | 2 | 3 | 4 | 5 |
| 2. pressured you for a date? | 1 | 2 | 3 | 4 | 5 |
| 3. called you sexually offensive names? | 1 | 2 | 3 | 4 | 5 |
| 4. told sexually offensive jokes to you or about you? | 1 | 2 | 3 | 4 | 5 |
| 5. spread false sexual rumors about you? | 1 | 2 | 3 | 4 | 5 |
| 6. called you gay or lesbian? | 1 | 2 | 3 | 4 | 5 |
| 7. show, given or left you sexually offensive picture, photos or messages? | 1 | 2 | 3 | 4 | 5 |
| 8. written sexually offensive graffiti about you at school? | 1 | 2 | 3 | 4 | 5 |
| 9. touched, brushed up against you, or concerned you in a sexual way? | 1 | 2 | 3 | 4 | 5 |
| 10. grabbed you or pulled at your clothing in a sexual way? | 1 | 2 | 3 | 4 | 5 |
| 11. pressured you to do something sexual that you did not want to do? | 1 | 2 | 3 | 4 | 5 |
| 12. attempted to hurt you in a sexual way (attempted rape or rape)? | 1 | 2 | 3 | 4 | 5 |

For each of the questions above, students were asked to indicate:

a. If this occurred, was it?:

| | | | |
|-------|--------|------|----------------|
| 1 | 2 | 3 | 4 |
| A boy | A girl | Both | Does not apply |

b. Is this someone that is? (circle all that apply):

| | | | | |
|--------------|----------|--------------------------------|-----------------|----------------|
| 1 | 2 | 3 | 4 | 5 |
| Acquaintance | A friend | A dating/former dating partner | No Relationship | Does not apply |

c. How scared/worried/mad did this make you feel?"

| | | | | |
|------------|-------------|----------|-----------|----------------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | Very little | Somewhat | Very much | Does not apply |

APPENDIX D
SELF-REPORTED DEQUINQUENCY (SRD)

The meaning of the numbers is as follows:

| 1 | 2 | 3 | 4 |
|-------|-------------------------------------|----------------------------------|-------------------------------|
| Never | Once in a while (1-2 times/year) | Pretty often (3-4 times/year) | Very often (5+ times/year) |

Indicate what best described how often you do the following behaviors. Remember only the Columbia research team will know what you write your responses will be confidential.

- | | | | | | |
|---|---|---|---|---|---|
| 1. damaged or destroyed something on purpose that does not belong to you? | 1 | 2 | 3 | 4 | 5 |
| 2. stolen or tried to steal a car, motorcycle, or any other major vehicle? | 1 | 2 | 3 | 4 | 5 |
| 3. used alcohol such as beer, wine, or liquor (like whiskey or gin)? | 1 | 2 | 3 | 4 | 5 |
| 4. stolen or tried to steal something that is worth more than \$50? | 1 | 2 | 3 | 4 | 5 |
| 5. bought or something or tried to buy or sell something that you knew was stolen? | 1 | 2 | 3 | 4 | 5 |
| 6. thrown objects such as rocks or bottles at cars, people, or windows? | 1 | 2 | 3 | 4 | 5 |
| 7. set fire or tried to set fire to a building, car, or other property on purpose? | 1 | 2 | 3 | 4 | 5 |
| 8. run away from home? | 1 | 2 | 3 | 4 | 5 |
| 9. lied about your age to get in somewhere (such as an R or X rate movie) or in order to buy something (such as alcohol)? | 1 | 2 | 3 | 4 | 5 |
| 10. carried a hidden weapon other than a plain pocket knife? | 1 | 2 | 3 | 4 | 5 |
| 11. stolen or tried to steal something that is worth \$5 or less? | 1 | 2 | 3 | 4 | 5 |
| 12. attacked someone because you wanted to seriously hurt to kill them? | 1 | 2 | 3 | 4 | 5 |
| 13. been involved in gang fights? | 1 | 2 | 3 | 4 | 5 |
| 14. sold marijuana (pot)? | 1 | 2 | 3 | 4 | 5 |
| 15. cheated on tests in school? | 1 | 2 | 3 | 4 | 5 |
| 16. stolen money or anything else from parents or brothers or sisters? | 1 | 2 | 3 | 4 | 5 |
| 17. hit or threatened to hit a teacher or other adult at school? | 1 | 2 | 3 | 4 | 5 |
| 18. hit or threatened to hit one of your parents? | 1 | 2 | 3 | 4 | 5 |
| 19. hit or threatened to hit other students? | 1 | 2 | 3 | 4 | 5 |
| 20. been loud, rowdy, or out of control in public places so that it bothered those around you? | 1 | 2 | 3 | 4 | 5 |
| 21. sold hard drugs such as cocaine, crack, speed, or heroin, or anything else other than pot/marijuana? | 1 | 2 | 3 | 4 | 5 |
| 22. tried to rip someone off by selling them something that had no value or it was not what you said it was? | 1 | 2 | 3 | 4 | 5 |
| 23. used a car, motorcycle, or any other vehicle for a ride with out asking the owner first? | 1 | 2 | 3 | 4 | 5 |
| 24. used force or threats to get money or things from people? | 1 | 2 | 3 | 4 | 5 |
| 25. gotten away with not paying for things such as movies, bus ride or food? | 1 | 2 | 3 | 4 | 5 |

APPENDIX EFriend Support for Counter Conventional Behaviors

The meaning of the numbers is as follows:

| | | | | |
|------------------------|--------------------|------------|---------------------------|----------------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly against it | Sort of against it | Don't care | Sort of in favor of it | Strongly in favor of it |

How do your friends feel about:

- | | | | | | |
|--|---|---|---|---|---|
| 1. whether you get sent to the office or get detention? | 1 | 2 | 3 | 4 | 5 |
| 2. you drinking beer, wine, or wine coolers? | 1 | 2 | 3 | 4 | 5 |
| 3. you smoking marijuana (pot, grass) or hashish (hash)? | 1 | 2 | 3 | 4 | 5 |
| 4. Getting suspended from school? | 1 | 2 | 3 | 4 | 5 |
| 5. Hitting or threatening to hit others? | 1 | 2 | 3 | 4 | 5 |
| 6. Smoking cigarettes? | 1 | 2 | 3 | 4 | 5 |
| 7. Skipping school? | 1 | 2 | 3 | 4 | 5 |
| 8. Getting low grades? | 1 | 2 | 3 | 4 | 5 |
| 9. Having sex with another person? | 1 | 2 | 3 | 4 | 5 |

APPENDIX F**REVISED CLASS PLAY (RCP)**

Below is a list of all the students in your class. We want each of you to pretend that you are the director of a play starring the students in this classroom. The director of a play has to do many things, but the most important job is to select the students who could play each part or role best. Try to pick the students who seem to fit each role in real life. You should pick at least one person for each part and you may select up to three people for each part. Since some students may fit more than one role, you may choose the same person for more than one part. That is fine, as long as you think carefully about your choices. As the director of this play, you would be too busy to play a part, so you can't choose a part for yourself. Circle the name and/or the number of the person that you feel fits the role best. Remember you can choose up to three people for each role.

(Items are presented in a random order on the questionnaire.)

Prosocial/Leader items

A person who:

1. is a good leader.
2. is someone you can trust.
3. helps other people when they need it

Aggressive/Disruptive (Relationally and Overtly) items

A person who:

1. excludes people from being in their group of friends
2. tries to make other kids not like a certain person by spreading rumors about them
3. loses temper easily
4. picks on/teases other kids
5. is too bossy
6. gets into a lot of fights

Sensitive/Isolated items

A person who:

1. rather play alone than with others
2. gets their feelings hurt easily
3. very shy
4. is often left out
5. is usually sad

Expression of Sexual Interest

1. A person who is overly flirtatious/comes on strong with the opposite sex