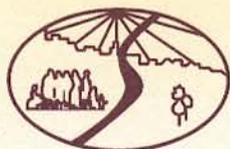


**CUISR:**

Community – University Institute for Social Research

*Peer Victimization Experiences  
in High School*

**by Ron Berntson**



*Building Healthy Sustainable Communities*

## **Community-University Institute for Social Research**

CUI SR is a partnership between a set of community-based organizations (including Saskatoon District Health, the City of Saskatoon, Quint Development Corporation, the Saskatoon Regional Intersectoral Committee on Human Services) and a large number of faculty and graduate students from the University of Saskatchewan. CUI SR's mission is "to serve as a focal point for community-based research and to integrate the various social research needs and experiential knowledge of the community-based organizations with the technical expertise available at the University. It promotes, undertakes, and critically evaluates applied social research for community-based organizations, and serves as a data clearinghouse for applied and community-based social research. The overall goal of CUI SR is to build the capacity of researchers, community-based organizations and citizenry to enhance community quality of life."

This mission is reflected in the following objectives: (1) to build capacity within CBOs to conduct their own applied social research and write grant proposals; (2) to serve as a conduit for the transfer of experientially-based knowledge from the community to the University classroom, and transfer technical expertise from the University to the community and CBOs; (3) to provide CBOs with assistance in the areas of survey sample design, estimation and data analysis, or, where necessary, to undertake survey research that is timely, accurate and reliable; (4) to serve as a central clearinghouse, or data warehouse, for community-based and applied social research findings; and (5) to allow members of the University and CBOs to access a broad range of data over a long time period.

As a starting point, CUI SR has established three focused research modules in the areas of Community Health Determinants and Health Policy, Community Economic Development, and Quality of Life Indicators. The three-pronged research thrust underlying the proposed Institute is, in operational terms, highly integrated. The central questions in the three modules—community quality of life, health, and economy—are so interdependent that many of the projects and partners already span and work in more than one module. All of this research is focused on creating and maintaining healthy, sustainable communities.

Research is the driving force that cements the partnership between universities, CBOs, and government in acquiring, transferring, and applying knowledge in the form of policy and programs. Researchers within each of the modules examine these dimensions from their particular perspective, and the results are integrated at the level of the Institute, thus providing a rich, multi-faceted analysis of the common social and economic issues. The integrated results are then communicated to the Community and the University in a number of ways to ensure that research makes a difference in the development of services, implementation of policy, and lives of the people of Saskatoon and Saskatchewan.

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## ABSTRACT

The current study's goal was to understand the prevalence and correlates of peer victimization in two different high school populations. Teachers at the schools had expressed similar concerns regarding their perceptions that adolescent girls were increasingly involved in aggressive peer victimization. To test their perceptions, this study examined sex differences in forms of peer victimization experienced (i.e. relational, physical, verbal, and damage to property) and the correlates of these experiences. Participants were students attending two high schools located in a small, prairie city. School A (N=29 girls) has a small student population and provides an alternate education program for high-risk youth. School B (N=360 girls) is a traditional, academically-oriented high school. Students completed self-report measures of peer victimization, perceptions of classroom climate, feelings of safety at school, depressed affect, and loneliness.

In general, students at both schools experienced low levels of victimization. In School B, boys experienced higher levels of peer victimization compared to girls. However, boys were more likely to experience overt forms of victimization (i.e. physical and verbal) compared to girls. In contrast, girls were more likely to experience relational forms of victimization. No significant differences between boys and girls were found in School A. Correlates for experiences of victimization were largely the same at both schools. In general, higher levels of physical, verbal, and relational victimization were associated with negative perceptions of classroom climate, feeling less safe at school, and depressive experiences. However, these associations were not observed consistently across the two schools. For example, students who experienced higher levels of verbal abuse from their peers at School B also reported feeling supported by their teachers, while students at School A who experienced higher levels of physical and relational victimization also reported lower levels of support from teachers.

While the study results do not directly contradict teachers' observations and perceptions, it is important to note that further research is needed to more clearly understand aggression among girls. The current study is limited in that it focused primarily on self-reported incidents of peer victimization and did not examine more objective measures of peer-based aggression (e.g. peer reports). Moreover, due to lack of baseline data, it was difficult to assess change over time in aggression level among girls at the two schools. Implications of the current study's results and for future directions in research on this topic are discussed.

## INTRODUCTION

A young woman uses a penknife to cut another student during an argument at school and major newspapers and national television news cover the story. Another deeply troubled young woman murders her foster mother and the case becomes the center of a major social policy debate. Citizens are told that there are “girl gangs.” These and other instances suggest that violence is increasingly a means that young women use to respond to their world. For educators, this is a disturbing development.

Two schools in a northern plains city suspect increased aggression in their female students. In conversations with staff and administrators at the two collegiates, it was stated that the young women who attended those institutions seemed more aggressive in their behaviour than the young men. According to administrators, young women presented some of the most serious disciplinary issues. Teachers also commented on how interpersonal relationships between adolescent females had deteriorated in the past decade. Particularly, there was more physical hostility, name calling, and other acts of intimidation.

These themes were expressed at both schools, yet each institution attracts young women with different backgrounds. Collegiate A presents an alternate program to fewer than 250 students who have been referred to the school by previous elementary and high schools. There is an emphasis on work experience and obtaining an alternate school completion certificate. Collegiate B is a more traditional high school of approximately 900 students. It is located in a socio-economically diverse neighborhood and most students are intent on obtaining senior matriculation.

In these seemingly different schools, teachers and administrators have expressed similar concerns about the prevalence and form of aggressive behaviour exhibited by female students. Both schools have identified these concerns for the current project’s research focus. They wish to test generalized perceptions and enhance their understanding of girls’ school experiences. They intend to use information derived from this research to identify and implement responsive programs.

Data used for this report were derived from *Student Profiles* completed at both schools in 2001. The *Student Profile* is a broad based, multi-item questionnaire that asks students about their opinions and needs in a number of domains (e.g. health, justice, education). Descriptive results from these questionnaires have been previously reported within the school. The profile describes student attitudes towards school, their academic progress, personal lives, and health and justice concerns. Survey items examined in this research report focus specifically on various forms of school-based peer victimization.

## LITERATURE REVIEW

Research on peer victimization in schools has a long history. The beginnings of a systematic study of school-based peer victimization can be traced to Dan Olweus in the 1960's (Juvonen and Graham, 2001). Much of this early research focused on overt physical and verbal bullying (Olweus, 2001). This research consistently demonstrated an interesting sex difference. Specifically, boys were identified as both bullies and victims more frequently than girls. However, more recent research has begun to examine the phenomenon referred to as "indirect" (Björkqvist, 1994) or "relational" aggression (Crick and Grotpeter, 1996). Indirect aggression includes activities such as excluding others from groups and activities, getting someone in trouble with their friends, and spreading rumours and gossip. Relational aggression involves damaging another's relationships, either directly or indirectly, with peers, friends, or romantic partners. As Crick (2001) noted, relational aggression violates an individual's need for intimacy and group belonging. Crick and Grotpeter (1995) argued that previously observed sex differences were biased because researchers emphasized overt, easily observable forms of victimization/aggression. However, when the victimization/aggression definition is broadened, relational aggression is more frequently observed in females than males.

Researchers have consistently observed negative correlates associated with peer victimization. Boivin, Hymel, and Bukowski (1995) observed that peer victimization, measured by assessing peer evaluations of overt aggressive acts, influenced feelings of loneliness, and depressed mood consequences over time in school children (ages 9 to 12 years). Similarly, Boulton and Underwood (1992) observed that bullying victims (ages 8 to 12 years), as identified in self-reports of bullying experiences, were most likely to report feeling unhappy and lonely at school and to report having fewer friends compared to other students. Similar results have been obtained when measuring indirect or relational victimization. For example, Crick and Grotpeter (1996) observed that relational aggression victims were more frequently girls, while boys were more frequently overt aggression victims. However, regardless of the bullying form, victims generally scored lower on psychological adjustment measures (e.g. depression and loneliness) compared to non-victims.

There is one important acknowledged limitation of research on peer victimization correlates that is relevant to the current project. Specifically, almost all research conducted in this area has studied elementary school children. Much less is known about the prevalence, nature, and consequences of high school peer victimization experiences. Generally, research has indicated that physical aggression among peers declines, but relational aggression increases, with age (Crick, 2001). Moreover, sex differences in relational aggression among peers have been observed most strongly in older (aged 15 to 17 years), rather than younger (aged 8 to 12 years) students (Owens, 1996). Girls in these older age groups are more likely to engage in indirect aggression than boys. Another

related finding suggested that, although peer victimization among elementary school children generally occurs among same-sex peers, peer victimization among cross-sex peers is more identifiable as individuals enter adolescence (Crick, 2001).

Other research has suggested that high school peer victimization may be associated with more negative outcomes for adolescent girls than boys. In a study of secondary students (Rigby, 1999), high levels of self-reported peer victimization earlier in the school year was a significant predictor of poor physical health for both boys and girls and predicted poor mental health for girls.

Another area in which research is lacking is in understanding motivations for engaging in acts of peer victimization. One qualitative study provides some important insights into adolescent girls' motivations for engaging in relational or indirect aggression (Owens, Shute, and Slee, 2000). In this study, researchers interviewed 54 girls (aged 15 years) randomly selected from their school and grade. The girls participated in small focus groups (n = 6 to 8) in which a hypothetical victimization situation was described. They were asked to interpret what was happening, why it happened, effects of the behaviour, how the victim could recover, and what the school and parents could and should do about it. Interviews were also conducted with pairs of girls and with teachers to learn more about types of victimization experienced by 15 year old girls. Participants' explanations for indirect aggression among girls were coded into two categories: (1) alleviating boredom/creating excitement and (2) friendship and group processes. The most common responses fit the first category (i.e. many girls reported that engaging in indirect aggression, particularly gossiping, was simply a way to fill their time). Responses that fit the second category suggested that some girls used indirect aggression to achieve group membership and close friendship. For example, a girl was put in a position of power by hosting a party and creating the invitation list.

A review of the research on peer victimization clearly points to important observations regarding (1) kinds of victimization experiences expected to occur most frequently among high school students (i.e. indirect or relational more frequently than overt or physical); (2) sex differences in these experiences' frequency (i.e. girls experience relational victimization more frequently than boys); and (3) the correlates associated with these experiences (i.e. higher levels of loneliness and sadness among victimized students).

## **RESEARCH QUESTIONS**

One way to begin understanding peer victimization experiences in the two urban high schools is to examine existing data derived from student profiles to identify the frequency of various types of victimization from peers and these experiences' correlates. Although there are limitations to using self-report data (which will be discussed in a later section),

it can provide insights into the types of peer victimization experienced by boys and girls attending these schools.

For this purpose, sex differences in self-reports of peer victimization experiences in the two high schools will be examined first.<sup>1</sup> It is expected that girls will report higher levels of relational victimization than boys, who will report higher levels of physical or overt victimization. Second, the correlates of self-reports of peer victimization across the high school years will be examined. Specifically, this report will examine the association between experiences of peer victimization and (1) students' perceptions of classroom climate; (2) feelings of safety at school; (3) depressed effect; and (4) feelings of loneliness. Additionally, sex differences in these correlates will be examined. In view of the differences in the forms administered at the two participating schools, it is not appropriate to attempt comparisons between schools. Thus, separate analyses were conducted for each school.

## METHOD

### *PARTICIPANTS*

A total of 115 School A and 713 School B students (48% and 80% participation, respectively) completed the *Student Profile*. Lower attendance rates and a student population less likely to participate in many school activities (as reported by school administration) account for School A's lower participation rate. While School B is a Grade 9 to 12 high school, School A includes students from Grades 8 to 12. School A's administrators cited similarities in age, academic deficits, and social / emotional concerns among students in grades 8 and 9. Therefore, the eleven Grade 8 students who participated in the *Profile* at School A were classified as Grade 9 students. Participants at School B included roughly equal numbers of males ( $n = 353$ ) and females ( $n = 360$ ). However, School A had a much higher proportion of males ( $n = 76$ ) than females ( $n = 29$ ).

### *MEASURES*

Although many of the questions used on each *Student Profile* were similar, there were important differences. For example, School A's survey (17 pages) was shorter than School B's (21 pages). Also, some questions were rewritten to accommodate School A's wider range of reading abilities.

### *EXPERIENCES OF VICTIMIZATION*

A multi-dimensional measure, which has demonstrated validity and internal consistency in previous research, was used to assess secondary students' self-reports of peer victimization at school (Mynard and Joseph, 2000). Students were presented with sixteen items and asked to indicate how frequently they had experienced each incident (Never,

Once, Twice, and Three or more times). Four dimensions of peer victimization were assessed with four items in each subscale: (1) physical (e.g. “punched you to hurt you”); (2) verbal (e.g. “called you names”); (3) relational (e.g. “tried to get you in trouble with your friends”); and (4) property (e.g. “deliberately damaged something of yours”). The current study assessed these scales’ internal consistency using Cronbach’s alpha coefficients. These coefficients ranged from a high of  $\alpha = .87$  for the Property subscale at School A to a low of  $\alpha = .76$  for the Physical subscale at School B.

### ***CLASSROOM CLIMATE***

The Classroom Life Instrument (Johnson and Johnson, 1983) was used as the basis for assessing four elements of classroom climate: (1) perceptions of classroom support from other students; (2) perceptions of classroom support from teachers; (3) feelings of alienation in the classroom; and (4) academic self-esteem. Students were asked to rate each item on a Likert-type scale in which 1 represented “Not very true for me” and 4 meant “Very true for me.” The student support subscale included items such as “Other students help learn,” “Other students really care about me,” and “Other students care about me doing my best.” The teacher support subscale included items such as “Teachers care about me,” “I feel able to ask teachers when I have difficulty,” and “Teachers take time to explain assignments to me.” The classroom alienation subscale included items such as “I often get discouraged in school,” “I get bored in class,” and “I find it hard to speak my thoughts clearly in class.” Finally, the academic self-esteem subscale included such items as “I do a good job of learning in my classes,” “I am a good student,” and “School work is fairly easy for me.” These four scales were found to have adequate internal consistency in the current study, with a ranging from .61 (Classroom Alienation) to .80 (Student Support).

### ***FEELINGS OF SAFETY***

In both questionnaires, students were asked to rate a variety of places and people on a five point scale ranging from 1 (“Very Unsafe”) to 5 (“Very Safe”). Ratings for these places, schools, teachers, and peers were averaged to obtain an overall school safety rating. This measure’s reliability for School A was  $\alpha = .64$  and School B  $\alpha = .69$ .

### ***DEPRESSIVE EXPERIENCES QUESTIONNAIRE FOR ADOLESCENTS (DEQ-A)***

The DEQ-A (Blatt, 1992) is a special adaptation of the Depressive Experiences Questionnaire for adolescents (Blatt, D’Afflitti, and Quinlan, 1976). The DEQ-A assesses the presence of depressed individuals’ common life experiences rather than presence of symptoms associated with clinical depression. Based on previous research, a subset of items from the DEQ-A was used to assess two dimensions of these experiences, Dependency and Efficacy. The Dependency subscale assesses concerns about being

rejected, hurting or offending others, and expressing anger for fear of losing someone. Dependency items include: "I watch carefully for signs of rejection by others," "I am very concerned with how other people react to me," and "I often feel frightened when things change." The Efficacy subscale assesses goal-oriented strivings and feelings of personal accomplishment. Examples of items in the Efficacy subscale are: "Other people expect a lot of me," "I set goals and try to meet them," and "I feel good about myself whether I succeed or fail." Students rated each item on a Likert-type scale in which 1 represented "Not very true for me" and 4 represented "Very true for me."

The Dependency subscale demonstrated good internal consistency at both School A ( $\alpha = .90$ ) and School B ( $\alpha = .85$ ). The Efficacy subscale had adequate reliability at School A ( $\alpha = .68$ ) and School B ( $\alpha = .64$ ).

### ***LONELINESS***

Feelings of loneliness were assessed using a measure derived from Asher and Hymel (1984). This measure included five items, such as "It is hard for me to make friends," "I feel alone," and "I don't have anyone to hang out with." Respondents rated each item on a four point Likert-type scale ranging from 1 ("Not very true for me") to 4 ("Very true for me"). This scale's internal consistency was high at both schools (School A,  $\alpha = .76$  and School B,  $\alpha = .93$ ).

### ***ADMINISTRATION***

Students at both schools were given a consent form that described the *Student Profile's* purpose. Students were informed that the survey would be completed anonymously and that results would only be used for school purposes. They were told that participation was voluntary and that they had the right to withdraw from the study at any time. Participating students were asked to sign a consent form and submit it separately from the completed questionnaire.

At School A, the survey was administered by two teachers who were recognized by administrators as trusted by most students. Students were brought to a classroom (one for each of the administering teachers) in groups of three to five and given an hour to complete the questionnaire. Teachers read questions orally, with time allowed for response. There were three of these sessions per day over the course of five days. The teachers responded consistently to all student inquiries about the questions' meaning.

At School B, the survey was administered in May, 2001 by classroom teachers or a guidance counselor. Students completed the survey individually at their desks during a regularly scheduled class period.

At both schools, questionnaires were collected, sealed in envelopes, and delivered off site for data entry.

## RESULTS

### *SEX DIFFERENCES IN VICTIMIZATION EXPERIENCES*

For each school, a 2 (sex: male/female) X 4 (type of victimization: physical, verbal, relational, property damage) ANOVA was conducted with repeated measures taken on type of victimization experienced by respondents. There was a main effect of type of victimization at School A ( $F = (3, 312) 38.53, p < .001$ ) and a two-way interaction between sex and type of victimization at School B ( $F = (3, 2094) 8.44, p < .001$ ).

Across both schools, results indicated that the frequency of the four forms of peer victimization was quite low. As **Table 1** and **Table 2** demonstrate, each form of victimization was experienced, on average, once in the past school year. For both schools, it appeared that physical victimization was experienced least often, while verbal victimization was experienced most frequently.

It is important to note the variability in responses. The standard deviations presented in **Table 1** and **Table 2** clearly indicate that some students experienced forms of victimization more or less frequently as compared to others students. The question then becomes “what factors may account for this variability?” In this study, “sex of student” was examined to account for this variability. Male students at School B were more likely to experience physical, property, and verbal victimization than female students. In contrast, as expected, female students at School B were more likely to experience relational victimization.

**Table 1. Victimization Subscales in School A**

	Physical Victimization	Relational Victimization	Property Victimization	Verbal Victimization
Mean	1.67	1.96	1.84	2.57
Std. Deviation	.83	.96	.96	1.00

**Table 2. Victimization Subscales by Sex in School B**

Sex		Physical Victimization	Relational Victimization	Property Victimization	Verbal Victimization
Female	Mean	1.33	1.96	1.52	2.39
	Std. Deviation	.59	.93	.67	1.03
Male	Mean	1.66	1.77	1.88	2.79
	Std. Deviation	.82	.86	.89	1.01

## ***CORRELATES OF PEER VICTIMIZATION***

Hierarchical multiple regression analyses were used to investigate the association between dependent variables of interest in this project (e.g. classroom climate, feelings of safety at school, emotional well-being) and independent variables (e.g. different types of peer victimization). By using multiple regression techniques, it can be determined if some forms of victimization have a stronger association to the dependent variables than others. It is important to note that, although multiple regression analysis can reveal the nature of relationships among variables, these statistics do not reveal “causal” effects. For example, a significant correlation between physical victimization and depressive experiences simply indicates that a prediction can be made about one of these variables based on what is known about the other variable. However, it does not mean that victimization *causes* depressive experiences or vice versa. Causation may be explained by another variable influencing both peer victimization and depressive experiences not assessed in the current study.

In the analyses reported below, separate hierarchical regression analyses were conducted for each dependent variable (classroom climate, feelings of safety at school, depressive experiences, and loneliness). A hierarchical approach was used to assess the association between blocks of independent variables (IV) with dependent variables (DV). On the first block, the association between the sex of a student and the DV is assessed. On the second block, the association between each type of peer victimization and the DV is assessed. On the last step of the equation, the interaction between sex and each type of peer victimization experience is examined. Based on the literature review, it is expected that stronger associations will be observed between experiences of relational victimization and DV’s examined for girls compared to boys (i.e. an interaction between sex and relational victimization).

Due to the number of analyses conducted, only significant findings were reported. Also, although some results were statistically significant, the actual amount of variance in the DV accounted for by the IV was too small to be meaningful. Thus, when IV’s accounted for less than 6% of the variance in the DV, these results were not interpreted. Finally, due to the low occurrence of property damage at both schools, it was decided to delete this type of peer victimization from the study and focus only on physical, relational, and verbal forms.

### ***ASSOCIATION BETWEEN PEER VICTIMIZATION AND CLASSROOM CLIMATE***

The first set of regression analyses examined the association between sex, physical victimization, verbal victimization, and relational victimization and the classroom climate subscales (i.e. feeling supported by teachers, feeling supported by fellow students, and

academic self esteem). As noted above, only significant results from these regression analyses will be presented.

At School A, being supported by teachers was associated with verbal victimization, while at School B it was associated with relational and physical victimization. The three victimization subscales' impact on feeling supported by teachers was examined first. This examination's results are reported in **Table 3** (School A) and **Table 4** (School B). Regardless of sex, relational and physical victimization experiences at School A were positively associated with feeling supported by teachers, while the amount of verbal victimization at School B had a negative association. In other words, School B students who reported experiencing more relational and physical victimization also reported receiving less support from teachers. Interestingly, increased frequency of verbal victimization at School A was related to feeling supported by teachers. The strength of the association between feeling supported by teachers and experiencing verbal victimization ( $\beta = .32$ ) at School A was much greater than School B's strength of the association between feeling supported by teachers and experiencing relational victimization ( $\beta = -.14$ ) or physical victimization ( $\beta = -.18$ ).

At School B, student support was associated with relational, verbal, and physical victimization. The analyses indicated a significant negative association between student support and the three measures of victimization. As **Table 5** demonstrates, in general, higher levels of victimization were associated with lower levels of feelings of support from fellow students.

**Table 3. Summary of Hierarchical Regression Analysis for Variables Predicting Teacher Support at School A. (N=115).**

Variable	B	SE B	$\beta$
Step 1			
Sex	-.13	.05	-.09
Step 2			
Relation Victimization	-.10	.03	-.14*
Verbal Victimization	.01	.03	.002
Physical Victimization	-.12	.03	-.18*
Step 3			
Sex interaction with Relational Victimization	-.05	.06	-.10
Sex interaction with Verbal Victimization	.11	.07	.25
Sex interaction with Physical Victimization	-.02	.07	-.06

\* $p < .05$

Note:  $R^2 = .01$  ( $p < .02$ ) for Step 1

$\Delta R^2 = .07$  ( $p < .001$ ) for Step 2

$\Delta R^2 = .004$  ( $p > .05$ ) for Step 3

**Table 4. Summary of Hierarchical Regression Analysis for Variables Predicting Teacher Support at School B. (N=715).**

Variable	B	SE B	$\beta$
Step 1			
Sex	-.15	.15	-.09
Step 2			
Relation Victimization	-.13	.09	-.19
Verbal Victimization	.22	.09	.32*
Physical Victimization	.03	.10	.04
Step 3			
Sex interaction with Relational Victimization	-.06	.21	-.16
Sex interaction with Verbal Victimization	-.04	.27	-.12
Sex interaction with Physical Victimization	-.03	.25	-.07

\* $p < .05$ Note:  $R^2 = .01$  ( $p < .05$ ) for Step 1 $\Delta R^2 = .08$  ( $p < .05$ ) for Step 2 $\Delta R^2 = .004$  ( $p > .05$ ) for Step 3**Table 5. Summary of Hierarchical Regression Analysis for Variables Predicting Feeling Safe at School at School B. (N=715).**

Variable	B	SE B	$\beta$
Step 1			
Sex	-.19	.05	-.13
Step 2			
Relation Victimization	-.07	.03	-.10*
Verbal Victimization	-.09	.03	-.13*
Physical Victimization	-.07	.03	-.10*
Step 3			
Sex interaction with Relational Victimization	-.04	.06	-.09
Sex interaction with Verbal Victimization	.08	.07	.17
Sex interaction with Physical Victimization	-.02	.07	-.05

\* $p < .05$ Note:  $R^2 = .02$  ( $p < .001$ ) for Step 1 $\Delta R^2 = .07$  ( $p < .001$ ) for Step 2 $\Delta R^2 = .002$  ( $p > .05$ ) for Step 3

At School B, feeling alienated from the classroom was associated with relational and verbal victimization. As **Table 6** shows, a positive association between the classroom alienation subscale and both relational and verbal victimization was observed. These results indicate that higher levels of alienation were associated with more frequent

experiences of both verbal and relational victimization.

**Table 6. Summary of Hierarchical Regression Analysis for Variables Predicting Dependency at School B. (N=715).**

Variable	B	SE B	$\beta$
Step 1			
Sex	.07	.05	-.06
Step 2			
Relation Victimization	.08	.03	.13*
Verbal Victimization	.11	.03	.18*
Physical Victimization	.03	.03	.05
Step 3			
Sex interaction with Relational Victimization	.09	.05	.23
Sex interaction with Verbal Victimization	-.04	.06	-.12
Sex interaction with Physical Victimization	-.09	.06	-.24

\* $p < .05$

Note:  $R^2 = .06$  ( $p > .05$ ) for Step 1

$\Delta R^2 = .09$  ( $p < .001$ ) for Step 2

$\Delta R^2 = .01$  ( $p > .05$ ) for Step 3

### *PEER VICTIMIZATION EXPERIENCES AND FEELINGS OF SAFETY AT SCHOOL*

The next set of regression analyses examined the association between the IV’s sex, physical victimization, verbal victimization, and relational victimization and the DV “feeling safe at school.”

At School B, feeling safe at school was associated with relational and physical victimization. As summarized in **Table 7**, the results indicated that relational and physical victimization accounted for a significant proportion of the variance in feeling safe at school. The results suggest that feeling safe at school was negatively associated with physical and relational victimization such that students generally feel less safe at school when relational and physical victimization experiences are more frequent.

### *PEER VICTIMIZATION AND EMOTIONAL WELL-BEING*

The next set of regression analyses examined the association between the IV’s sex, physical victimization, verbal victimization, and relational victimization and DV’s related to depressive experiences (e.g. feeling dependent on others’ feelings, having a sense of efficacy) and feeling lonely.

**Table 7. Summary of Hierarchical Regression Analysis for Variables Predicting Feeling Safe at School at School B. (N=715).**

Variable	B	SE B	$\beta$
Step 1			
Sex	.10	.06	.06
Step 2			
Relation Victimization	-.10	.04	-.13*
Verbal Victimization	-.05	.04	-.07
Physical Victimization	-.12	.04	-.14*
Step 3			
Sex interaction with Relational Victimization	.00	.07	-.001
Sex interaction with Verbal Victimization	.01	.08	.02
Sex interaction with Physical Victimization	-.01	.08	-.03

\* $p < .05$ Note:  $R^2 = .004$  ( $p > .05$ ) for Step 1 $\Delta R^2 = .07$  ( $p < .001$ ) for Step 2 $\Delta R^2 = .00$  ( $p > .05$ ) for Step 3**Table 8. Summary of Hierarchical Regression Analysis for Variables Predicting Dependency at School A. (N=115).**

Variable	B	SE B	$\beta$
Step 1			
Sex	-.22	.14	-.15
Step 2			
Relation Victimization	.17	.08	.26*
Verbal Victimization	.12	.08	.18
Physical Victimization	.00	.09	.00
Step 3			
Sex interaction with Relational Victimization	.04	.18	.12
Sex interaction with Verbal Victimization	-.06	.24	-.18
Sex interaction with Physical Victimization	.10	.22	.27

\* $p < .05$ Note:  $R^2 = .02$  ( $p > .05$ ) for Step 1 $\Delta R^2 = .16$  ( $p < .001$ ) for Step 2 $\Delta R^2 = .00$  ( $p > .05$ ) for Step 3

Being dependent on others' feelings was associated with relational victimization at School A. Results indicated that relational victimization accounted for a significant proportion of variance in self reports of feeling dependent on others (see **Table 8**). These results suggest that higher levels of relational victimization experiences with

peers were associated with higher levels of depressive experiences related to feelings of dependence on others.

## DISCUSSION

The current project was conducted in response to concerns expressed by teachers at the two participating schools. These teachers described their perceptions regarding an increase in female students' aggressive behaviour in school. They wanted to gain insight into this aggressive behaviour's prevalence and nature to help understand the phenomenon and what strategies should be used to deal with it. Data obtained through a *Student Profile* administered in 2001 was used for this purpose.

Data analyzed in this paper were derived from students' self-reports of how frequently in the past year they had experienced four different types of peer victimization: physical, relational (or "indirect"), verbal, and property damage. Additionally, three main correlates of these experiences were examined: (1) classroom climate; (2) feelings of safety at school; and (3) emotional well-being. Due to slight differences in the surveys' wording, separate analyses were conducted for the two participating schools.

Results indicate that, in general, the prevalence of peer victimization experienced by students in the past school year was low. On average, students at both schools reported being victimized only once during the past year. However, it is important to note that average scores can be misleading. What is more important to examine is the variability in responses to these types of questions. This examination clearly suggests that some students at these schools experience higher levels of peer victimization than others. The fundamental question that emerges, then, is what predicts this variability in experience? At School B, one factor that influences variability is the student's sex. However, this factor also varies as a function of the form of victimization experienced.

In general, boys at School B reported slightly higher levels of peer victimization across all forms compared to girls ( $M = 2.0$  for boys vs. 1.8 for girls). However, significant differences between boys and girls emerge only when examining scores within each form of victimization. As **Table 1** illustrates, boys are more likely to experience overt forms of victimization (i.e. physical and verbal) than girls, who, in turn, are more likely to experience relational forms of victimization. These findings are consistent with existing empirical literature and have important implications for teachers and school administrators.

The bullying issue currently dominates the public forum. Parents, disturbed by recent events sensationalized in the mass media, are demanding a response from schools that are already stretched to provide students' basic educational resources. Consequently, there is a veritable cottage industry emerging around anti-bullying and anti-violence interventions that are costly and time-consuming to administer. Most are not founded

upon a theoretical understanding of aggression among children and youth or are based on sound research. Indeed, much of the research on violence and aggression among students in schools is based on observations of elementary school-aged children. Much less is known about these issues in high school except for widely publicized extreme events that create an impression of “out of control” teens. How these media images affect adults’ perceptions of teenagers is of great concern and should be examined carefully when making decisions regarding allocation of financial and personnel resources.

The present study’s results suggest, for example, that overt violence and aggression among peers is not an everyday occurrence for most girls attending these two schools. Rather, they are more likely to experience subtle forms of aggression that are more difficult for teachers and parents (and, indeed, any “outsider” to the group) to detect. Moreover, it is also more difficult to develop an intervention program for these types of behaviours where the goal is to purposefully undermine an individual’s confidence to enable her to understand her situation. Finally, these types of aggressive acts are frequently committed within the context of “friendship” (i.e. a mutually reciprocated relationship in which both individuals indicate “liking” and/or have a sense of commitment to the other). Thus, relational aggression may serve fundamentally different goals when compared to overt forms of aggression. Moreover, these goals may be influenced by developmental changes during adolescence (e.g. puberty, onset of romantic relationships).

The correlational analyses complicate our understanding of girls’ experiences of peer aggression in these two schools. Although girls and boys report differences in frequency of the various forms of peer victimization, correlates of these experiences were largely the same for both girls and boys. In general, higher levels of physical, verbal, and relational victimization were associated with negative perceptions of the classroom climate, feeling less safe at school, and depressive experiences. However, these associations were not consistently observed across the two schools.

Students who experienced higher levels of verbal abuse from their peers at School B also reported feeling supported by their teachers. It is possible that these students sought their teachers’ support in dealing with these overt forms of peer harassment. However, it is also possible that students who were supported by their teachers elicited this behaviour from their peers. It is important to note that this study’s results cannot determine a causal direction of the link between these two school experiences. Moreover, it is difficult to understand this association from the context of this study. Further research is required to understand this association more clearly. For example, it would be useful to assess students’ perceptions of peers who received higher levels of support from their teachers to examine these perceptions’ mediating effects on behaviour. Similarly, it would be useful to identify victimized students to ask them about their relationships with teachers.

In contrast to School B, students at School A who experienced higher levels of relational and physical victimization also reported lower levels of support from teachers. Again, it is not possible to make any firm conclusions from these findings. It could, however, be postulated that students at School A did not derive needed support from teachers when experiencing stressful relationships with peers. This finding should be explored further.

No significant results were obtained when the associations between student support, feelings of alienation, and peer victimization experiences in the School A sample were examined. However, in School B, all three forms of victimization assessed were associated with lower levels of perceived student support. Additionally, in the School B sample, relational and verbal victimizations were associated with greater feelings of alienation. In contrast, depressive experiences (i.e. dependency) were associated with more frequent experiences of relational and physical victimization in the School A sample, but not in the School B sample. Again, these differences are difficult to understand, but may reflect fundamental differences in the two schools' culture. It is possible, for example, that peer relationships at school were generally less influential on School A's student perceptions of classroom climate than in School B. Students at School A may have reported lower levels of student support in general (see means for correlate measures in **Appendix A**).<sup>2</sup> Students at School A may have been more likely to have friends outside of school compared to those at School B. School relationships were consequently less likely to be associated with their feelings of well-being. However, students experiencing depressive symptoms at School A may have generally viewed their relationships more negatively compared to other students. In contrast, depressed students at School B may have derived some support from their friends. Again, these interpretations would need further research and testing. For example, it would be helpful to assess students' social networks to determine if, indeed, there are fundamental differences in students' connections with each other in the two schools.

Understanding relational aggression's complexity among girls requires a multifaceted, systematic, and theoretically grounded approach to research. Currently, there have been important ethnographic and/or qualitative studies conducted to examine the nature of girls' relationships with each other that highlight these interpersonal structures' complexity (for a particularly insightful study, see Hay, 1997). However, much more research is needed. Clearly, teachers and administrators need to be responsive to their students' well-being. It is recommended that "interventions" proceed cautiously in view of the literature's current status.

This study's results do not necessarily contradict teachers' observations and perceptions because its method is limited to self-reports of aggressive experiences with peers. Although the measures used have demonstrated good psychometric properties (i.e. validity and reliability), they only assess one dimension of aggressive behaviour—specifically, the frequency of victimization. Other dimensions of aggressive behaviour

should be considered for future research. For example, it may be useful to identify the individuals within the school who can be identified as aggressors and as victims by their peers, and to assess others' perceptions of their social behaviour. Additionally, it would be extremely useful to obtain longitudinal data of this type. This information could be used to assess: (1) the characteristics of individuals who are more likely to engage in aggressive acts towards others and those more likely to be victimized; (2) these individuals' social networks and their role in behaviour development, maintenance, and extinction; (3) changes in victim/aggressor status across important developmental periods (e.g. onset of puberty, transition into high school); and (4) the effectiveness of any type of program implemented in the school to deal with these behaviours.

Another dimension of girls' aggression not assessed is that which was directed towards or received from teachers. Although the girls in the current study report low levels of aggression among peers, different results might be obtained if other types of relationships in the schools were assessed. In the current *Student Profile*, the only aspect of the teacher/student relationship assessed was the degree to which students felt support from their teachers. No specific questions were asked about students' attitudes or behaviour toward teachers or *vice versa*. Although it is recognized that this is a sensitive issue, these types of questions are necessary to adequately assess teachers' concerns about female students' behaviours and attitudes.

Finally, no data were obtained regarding aggressive behaviour that could be identified as "criminal." Again, there is a popular perception in our society that girls are becoming more violent. However, data supporting this perception are difficult to obtain and often confounded by other societal changes that have occurred in the last 20 to 30 years (e.g. decreased tolerance for aggressive behaviour, tougher attitudes by the courts, more female police officers). Generally, developmental research has demonstrated that as children enter adolescence they become less compliant and more demanding in terms of asserting their independence and autonomy from authority figures. Developmental issues emerging during adolescence complicate teaching high school students. Consequently, one must ask whether changes in perceptions of aggression among girls may be partially due to increased demands on school personnel to participate in young people's socialization without adequate resources to assist them in this challenge.

## NOTES

- 1 Effects of grade were examined in preliminary analyses and were either not statistically significant or very strong. Consequently, these effects were not included in this report.
- 2 It is important to note that these differences were not tested statistically due to differences in the wording of some items of the measures used. Thus, it is also possible that observed results were due to differences in the measures, and not differences in the constructs being assessed.

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**Appendix A. Means and Standard Deviations of Measures of Well-being**

	<b>Dependency</b>	<b>Support Students</b>	<b>Support Teachers</b>	<b>Alienation</b>	<b>Loneliness</b>
School A	2.37 (.66)	2.03 (.78)	3.12 (.68)	2.17 (.79)	1.74 (.63)
School B	2.45 (.59)	2.35 (.72)	2.73 (.70)	2.49 (.63)	2.79 (1.01)

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