

BULLIED TO THE BRINK: AN INVESTIGATION OF STUDENTS AT
RISK FOR DEPRESSION & SUICIDAL IDEATION

by

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ABSTRACT

The purpose of the present study was to gain a clearer understanding of why it is that some adolescents who are involved in bully/victim problems are more negatively impacted than others. Drawing from research in the areas of bullying, suicide, and exposure to violence, two theoretically derived models that seek to explain potential paths between involvement in bullying behaviour and depression and suicidal ideation were investigated. First, it was hypothesized that hopelessness would act as a mediator between victimization and suicidal ideation and second, that perceived social support would interact with involvement in bullying behaviour to predict depression and suicidal ideation. Additionally, it was predicted that witnessing bullying would be positively associated with both depression and suicidal ideation. Students in grades 8 – 10 ($N = 399$) completed self-report measures assessing involvement in bullying (as either a victim, bully, bully-victim or witness), type of bullying (physical, verbal, social and cyber), depressive symptomatology, suicidal ideation, hopelessness (general and social), perceived social support (family and friend) and moral disengagement.

Results indicated that social hopelessness did partially mediate the relation between victimization and suicidal ideation. This finding suggests that a potential mechanism by which victimized students become suicidal is through victimization's impact on social hopelessness and that the more socially hopeless someone becomes the greater their risk for having suicidal thoughts. Findings also revealed that perceived social support had a buffering effect on the relation between victimization and depression/suicidal ideation such that victimized students with higher perceived social

support reported lower levels of depression and suicidal ideation than did students with lower perceived social support. Additionally, results from the present study demonstrated a significant relation between all forms of involvement in cyber bullying (as a victim, bully, bully-victim and witness) and both depression and suicidal ideation. Finally, findings revealed that witnessing bullying was significantly positively associated with both depression and suicidal ideation, however, associations were more robust for those witnessing friends being bullied than those witnessing others being bullied. Taken together, these findings suggest potential risk and protective factors that help explain why some children involved in bully/victim problems are at greater risk for depression and suicidal ideation than other children.

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GLOSSARY

Hopelessness: A system of cognitive schemas in which the common denominator is negative expectations about the future (Beck, Weissman, Lester, & Trexler, 1974).

Moral Disengagement: A cognitive process by which individuals are able to partake in horrible acts against others through cognitive restructuring, minimizing one's agentic role, disregarding/distorting the negative impact of harmful behaviour, and blaming and dehumanizing the victim (Bandura, 1999; 2001; Bandura, Caprara, Barbaranelli, Pastorelli, & Regalia, 2001).

Social Hopelessness: Hopelessness in the social domain encompasses both negative expectations regarding one's future interpersonal relations, and one's ability to deal with their interpersonal relations (Hewitt, Norton, Flett, Callander, & Cowan, 1998).

Suicidal Ideation: "the domain of thoughts and ideas about: death, suicide, and serious self-injurious behaviours, including thoughts related to the planning, conduct, and outcome of suicidal behaviour" (Reynolds, 1988, p.4).

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Chapter 1

Introduction

Bullying is a pervasive problem in our schools, with 8 - 10% of Canadian school-children admitting to bullying on a regular basis, and another 5 - 9% reporting being victimized regularly by their peers (e.g., Craig & Pepler, 1997; Vaillancourt & Hymel, 2001). Bullying is so common that it is virtually viewed as a childhood rite of passage with as many as 64% of students reporting that bullying is a normal part of school life (Bonanno, Rocke Henderson, & Hymel, 2002). Bullying has become so commonplace that some researchers suggest that we need to understand “how teasing and bullying behaviour are a part of normal childhood and adolescent development” (Roberts & Morotti, 2000, p. 148).

Although bullying may be commonplace in children's lives the potential consequences of bullying are not child's play; they are diverse and potentially serious, ranging from academic problems (Juvonen, Nishina, & Graham, 2000; Nansel, Haynie, & Simons-Morton, 2003) to psychosocial maladjustment, including depression, loneliness, anxiety and lowered self-worth (see Hawker & Boulton, 2000 for a review). The consequences of being bullied cannot only endure into adulthood (Olweus, 1993), they can also be fatal, with children taking their own lives in an attempt to escape abuse at the hands of their peers (Marr & Field, 2000; O'Moore, 2000). Recent research has shown that victims are not exclusively at risk for internalizing problems such as depression and suicidal ideation; bullies are as well. Moreover, the group that consistently appears to be at greatest risk for internalizing difficulties is individuals who are both bullies and

victims (Kaltiala-Heino, Rimpela, Marttunen, Rimpela, & Rantanen, 1999; Kaltiala-Heino, Rimpela, Rantanen, & Rimpela, 2000).

Although researchers have been able to document consequences associated with involvement in bullying, there is a paucity of research investigating why it is that some children who are involved in bullying will become depressed and/or contemplate suicide while others will not. Particularly interesting is the fact that although involvement in bullying has been linked to suicide, it appears that very few researchers have drawn from the established literature on suicide when assessing suicidal intent or when investigating factors that differentiate children involved in bullying who have suicidal thoughts from those who do not. Specifically, no known studies have investigated the role that hopelessness plays in the relation between involvement in bullying and suicidal ideation, despite the fact that hopelessness is argued to be the most robust correlate of suicidality (Joiner & Rudd, 1996). Furthermore, when investigating bullying and suicidal intent very few studies have utilized measures of suicidal behaviours that have demonstrated construct validity; instead most have used brief measures (1 to 4 items) of suicidal ideation or intent which are not as psychometrically desirable.

Another interesting omission in the field of bullying is that, despite the fact that peers are present in 85 - 88% of all bullying episodes (Craig & Pepler, 1997; Hawkins, Pepler & Craig, 2001), researchers have almost completely overlooked potential consequences facing this unique group of students - children who witness bullying. Research in the area of exposure to violence has clearly demonstrated that children who witness violence are at equal risk for the same internalizing problems (i.e., depression and anxiety) as are children who are victims of violence (Kliewer, Lepore, Oskin, & Johnson,

1998). Despite the fact that bullying is often referred to as a form of violence (Batsche & Knoff, 1994; Hazler & Carney, 2000), to date no studies have empirically investigated the relation between witnessing bullying and potential risk for serious¹ internalizing difficulties, such as depression and suicidal ideation.

Drawing from research in the areas of bullying, suicide and exposure to violence, as reviewed below, the present study investigates factors that affect the relation between involvement in bullying and internalizing difficulties, such as depression and especially suicidal ideation. Toward this end, an overview of bullying is provided, followed by a brief review of research investigating internalizing problems associated with involvement in bullying (including risk and protective factors). Next, drawing from research in the field of suicide, an argument for investigating the role that hopelessness plays in the relation between involvement in bullying and suicidal ideation is made. Finally, borrowing from the literature on exposure to violence, an argument for expanding the bully/victim continuum to include witnesses is also made.

Following from this review, two theoretically derived models that seek to explain potential paths between involvement in bullying behaviour and depression and suicidal ideation are illustrated. The first model depicts hopelessness as a mediator between victimization and suicidal ideation and the second is a moderator model in which perceived social support interacts with involvement in bullying behaviour to predict depression and suicidal ideation. Next, a statement of the problem and the research hypotheses and methodological procedures that guided this study are presented followed by the results of the present study and their discussion.

¹ Nishina and Juvonen (2005) however did find a relation between witnessing bullying and anxiety in a sample of grade six students. This study will be discussed in more detail in the review of the literature.

Chapter 2

Review of Literature

Bullying

Bullying is a subset of aggressive behaviour that usually takes place within the peer group and is directed at individuals who are unable to defend themselves. The most commonly accepted definition of bullying comes from Dan Olweus, a pioneer in the field of peer harassment. Olweus (1999) states that "bullying is characterized by the following three criteria: (1) it is aggressive behaviour or intentional 'harm doing' (2) which is carried out repeatedly and over time (3) in an interpersonal relationship characterized by an imbalance of power" (p. 10). In the early 1970s, the study of bullying was limited to boys and more direct forms of bullying (i.e., physical and verbal). The study of bullying has evolved over the years to include girls and more indirect forms of bullying, such as spreading false rumours and social exclusion. Currently, bullying is conceptualized to encompass several forms of aggression including physical, verbal, and relational aggression (Crick & Grotpeter, 1995), or social aggression (Galen & Underwood, 1997).

Bullying was first investigated in Scandinavian countries more than three decades ago (Smith & Morita, 1999). However, it is only within the last decade that research on bullying has received international attention as an endemic problem facing school children around the world. International prevalence rates for bullying however can vary considerably, for example, from 11.3% of elementary school children in Finland reporting being victimized to 49.8% reporting victimization in Ireland (see Dake, Price, & Telljohann, 2003 for a review). Unfortunately, comparisons are usually difficult to make due to methodological differences. For example, variability across samples could

be due to factors such as different sources of information (i.e., self report versus peer and/or teacher nominations), different time or reference periods (how often during the past year, the past term, or the past 2 or 3 months) and even whether or not students are provided with a definition of bullying (Solberg & Olweus, 2003). A more valid and recent representation of how Canada's rates of bullying compare to other countries can be derived from data from the 2001-2002 World Health Organization Health and Behaviour Survey of School-Aged Children (HBSC). The HBSC is a cross-sectional survey of health indicators of elementary and high school students in 36 countries. The HBSC is a collaborative effort and countries follow an international protocol that enables valid comparisons to be made. The following is a synopsis of findings pertaining to bullying in Canada as reported by gender.

Bullying in Canada. Recent data from the HBSC show high proportions of Canadian children reporting being a bully or being bullied. Craig and Pepler (2003) report that, in a sample of children from within each province in grades 6 to 10, 54% of boys and 32% of girls reported bullying others in the last six weeks. Victimization reports were slightly lower, with 34% of boys and 27% of girls reporting having been victimized at least once in the last six weeks. With respect to more frequently reported involvement in bullying behaviour, Craig and Pepler found that 10% of boys and 7% of girls reported bullying others at least twice in the last five days. Victimization rates were higher, with 17% of boys and 18% of girls indicating that they had been bullied at least twice in the last five days. In comparison to the other 35 countries surveyed, on average, Canada ranked in the top 10 for reported bullying and in the top 12 countries for reported victimization (Craig & Harel, 2004).

The above prevalence rates clearly indicate that bullying is a problem for both boys and girls in Canadian schools. The seriousness of the problem is further elucidated when we consider the consequences and/or correlates associated with involvement in bullying.

Bullying and Psychosocial Adjustment

In order to draw attention to the fact that outcomes associated with involvement in bullying can vary in complex ways, this section is organized as follows. First, a brief overview of the psychosocial correlates of involvement in bullying as either a bully, victim or bully-victim is provided. Next, research that investigates whether type of aggression or victimization differentially impacts psychosocial adjustment is discussed. Finally, a critical summary of the literature is provided. In reviewing this literature, particular emphasis is placed on delineating what has been done, what still needs to be done, and how the present study addresses these gaps in identifying adolescents at risk for depression and especially suicidal ideation.

Involvement in Bullying: Bullies, Victims, and Bully-Victims. In the investigation of children's experiences with peer aggression, some of the most consistent findings are that bullies are at risk for externalizing problems such as **disruptive behaviour** (Boulton & Smith, 1994), **delinquency** (Khatri, Kupersmidt, & Patterson, 2000) and **physical aggression** (Craig, 1998), whereas victims are likely to exhibit internalizing problems including **loneliness** (Boivin, Hymel, & Bukowski, 1995; Boulton & Underwood, 1992; Graham & Juvonen, 1998; Juvonen, Nishina, & Graham, 2000; Nansel et al, 2001), **anxiety** (Craig, 1998; Graham & Juvonen, 1998), **lower self-worth** (Austin & Joseph, 1996; Graham & Juvonen, 1998; Neary & Joseph, 1994), **depression**

(Craig, 1998; Neary & Joseph, 1994; Slee, 1995; van der Wal, de Wit, & Hirasing, 2003) and **suicidal ideation** (van der Wal et al., 2003).

Another finding that is emerging in the peer victimization literature is that the group at greatest risk for psychosocial maladjustment are children who are both bullies and victims. Findings from several large studies indicate that prevalence rates for adolescents reporting frequent involvement as bully-victims range from a low of approximately 1.5% (Kaltiala-Heino et al., 1999) to a high of 21.5% (Forero & McLellan, 1999) of the adolescents surveyed. This small but not insignificant subgroup has been shown to be particularly vulnerable. For example, in two separate cross-sectional studies consisting of approximately 26,000 Finnish adolescents, Kaltiala-Heino and colleagues (2000) found that bully-victims reported the greatest frequencies of anxiety, depression and psychosomatic symptoms. In a study of 4,263 middle school students, Haynie et al. (2001) found that, in comparison to bullies and victims, bully-victims performed more poorly on all psychosocial and behavioural variables. More specifically, bully-victims reported higher levels of depressive symptoms and problem behaviours, and lower levels of self-control, social competence and school functioning. Similarly, Forero and McLellan (1999) also found that, of 3,918 Australian students in grades 6, 8 and 10, bully-victims had the greatest number of psychological and psychosomatic symptoms.

The high vulnerability of bully-victims is further corroborated by longitudinal investigations. Research conducted by Kumpulainen and colleagues (1998, 1999 & 2000) provided a rare opportunity to prospectively study the effects of involvement in bullying on psychiatric symptoms. In study two (of three) on bullying and psychological disturbances, Kumpulainen, Rasanen, and Henttonen (1999) found that bully-victims

were the most disturbed group at time one. They also found that children involved in bullying at both time points were more psychologically disturbed than other children, and that bully-victims were at greatest risk of remaining involved in bullying over longer periods of time. In their third study, Kumpulainen and Rasanen (2000) found that children who were bully-victims at early ages (8 years) scored higher on concurrent psychiatric symptoms and had more psychiatric symptoms later on (15 years) in life than did non-involved children.

The above studies clearly suggest that bully-victims are at increased risk for internalizing problems. However, very little is known about whether bully-victims are also at greater risk for suicidal ideation. To date, two studies have investigated the relation between involvement in bullying (as either a bully, victim, or bully-victim) and suicidal ideation. In a study of 16,410 adolescents aged 14-16 years, Kaltiala-Heino and colleagues (1999) found that depression was most common among bully-victims but that suicidal ideation was most common among bullies. However, it is important to note that, although the above study used a validated measure of depression (consisting of 13 items), it only used one item to tap suicidal ideation². In a more recent study, Kim, Koh, and Leventhal (2005) investigated the relation between school bullying and suicidal risk among 1,718 Korean middle school students. They found that compared to students not involved in bullying, students who were victim-perpetrators (bully-victims) were at greater risk for both self-injurious behaviour and suicidal ideation. However, consistent with the previous study, the authors only used one item to tap suicidal ideation and one item to tap self-injurious behaviours. The lack of a validated measure of suicidal

² This item was part of their depression measure (a modified version of the Beck Depression Inventory).

ideation³ that is able to capture variations in the severity of suicidal thoughts is problematic. The present study will investigate the relation between involvement in bullying and suicidal ideation using an established measure⁴ that has excellent psychometric properties.

Another limitation of research on bully/victim problems is that conflicting findings exist as to whether and to what degree bullies are at risk for internalizing difficulties. For example, in a study of almost 26,000 Finnish teenagers (ages 14-16 years), Kaltiala-Heino and colleagues (2000) found that anxiety, depression and psychosomatic symptoms were equally common among bullies and victims. In their 1999 study of over 16,000 adolescents (ages 14-16 years) Kaltiala-Heino and colleagues found that both bullies and victims demonstrated severe suicidal ideation⁵; however, when depression was controlled for, suicidal ideation was found to occur most often in bullies, followed by bully-victims, and finally by victims.

In contrast to the Finnish studies just described, research by Australian investigators (Rigby & Slee, 1999; Slee, 1995) suggests that victims are at greatest risk for internalizing difficulties, including suicidal ideation. Specifically, in a study of 220 secondary students, Slee found that victimization was most likely to be associated with severe depression "including suicidal ideation" and anxiety for both genders, whereas bullying others was only associated with negative health outcomes for females. In another study, Rigby and Slee (1999) investigated the relation between involvement in

³ "Suicide ideation includes suicide threats, suicide preoccupations, direct expressions of the wish to die, and indirect indicators of suicide planning" (Beck, 1986). It is unlikely that suicidal ideation, as defined, can be adequately measured by one item.

⁴ Suicidal Ideation Questionnaire (Reynolds, 1987).

⁵ Recall that this severity is based on only one item (from a depression scale) addressing suicidal ideation.

bullying, suicidal ideation and social support within two samples of adolescents ($N = 1103$ and $N = 845$). The first sample relied on self-report measures of involvement in bullying and the second study utilized both self and peer reports. Rigby and Slee found that social support was negatively correlated with suicidal ideation. Thus, students who believed they had access to social support from others had lower levels of suicidal ideation than did other students. Rigby and Slee also found that victims had higher levels of suicidal ideation than did bullies, and the group at greatest risk for suicidal ideation was students who reported having both low social support and frequent victimization. Consistent with the Australian studies, Roland (2002) sampled 2,088 Norwegian grade 8 students, and also found that although bullies and victims scored higher than non-involved children on both depression and suicidal ideation, victims scored significantly higher on depressive symptoms than did bullies.

It is difficult to resolve the discrepancies in results across these studies because the assessment of suicidal ideation was quite limited in all of these investigations. Specifically, Kaltiala-Heino and colleagues (1999), Slee (1995)⁶, Roland (2002), and Kim and colleagues (2005) only used one item to assess suicidal ideation. Rigby and Slee (1999) used a four-item measure of suicidal ideation (taken from the Goldberg Health Questionnaire; Goldberg & Williams, 1988), but they did not provide validity data for these items. Comparisons are also difficult to make across these studies in that some

⁶ The author used a measure that tapped four factors, severe depression being one of them. Within the severe depression factor it appears that one question is used to assess suicidal ideation. Students are asked to report how often they "felt that life isn't worth living". Note that this is different than suicidal ideation.

studies took into consideration perceived social support in determining risk (Rigby & Slee, 1999), while others did not (Roland, 2002). Comparisons are further hindered by the fact that children who are both bullies and victims (bully-victims) are not considered by all studies when assessing who is at greatest risk for internalizing difficulties. These inconsistencies make it difficult to determine whether one group is at greater risk due to their specific involvement in bullying, or whether that particular group is at greater risk due to lack of perceived social support. Given the fact that perceived lack of social support, independent of involvement in bullying, has been demonstrated to be a determinant of suicidal ideation (Rigby & Slee, 1999), it seems logical to investigate its role in the relation between bully/victim problems and internalizing difficulties. More specifically, it is hypothesized that perceived social support will interact with victimization to predict depression and suicidal ideation.

To complicate matters further, more recent research brings into question whether bullies are at any risk for internalizing difficulties relative to students not involved in bullying. In a study of 2,766 children age 9-12 years, Fekkes, Pijpers, and Verloove-Vanhorick (2004) found that bullies were not at any greater risk for depression or psychosomatic complaints than were children who were not involved in bullying. In a study of 1,985 mostly minority 6th graders, Juvonen, Graham, and Schuster (2003) found that bullies were "psychologically strongest" compared to all classmates including students not involved in bullying, on measures of depression, social anxiety and on loneliness. Juvonen and colleagues also found that these teenage bullies had high social status and suggested that it was likely that these bullies did not suffer psychologically because of their high status. Unfortunately, Juvonen and colleagues did not test whether

high status indeed did buffer the effects of bullying on psychological outcomes.

A potential explanation of why bullies may be at risk for depression is put forward by van der Wal et al. (2003). They suggest that one reason why bullies more often report being depressed is due to the fact that they themselves were bullied. Unfortunately, the assumed victimization history of bullies has not yet been empirically demonstrated. In other words, it is not clear that all bullies were previously victims. Moreover, the hypothesis put forward by van der Wal and colleagues is not consistent with research that repeatedly shows that bully-victims are more impacted than either victims or bullies. If the reason that bullies are depressed is merely due to the fact that they too were bullied, then we should not find significant differences between bullies and bully-victims since according to the above hypothesis, they essentially are the same. Also, van der Wal and colleagues make inferences about bullies who are also bullied but do not specifically consider bully-victims as a distinct group. The fact that such inconsistencies exist with respect to whether or why bullies are at risk for internalizing problems clearly suggests the need for more research. The proposed study will investigate whether depression and suicidal ideation vary across bullies, victims, and bully-victims.

Type of Aggression and Victimization. In addition to identifying groups at greatest risk for internalizing difficulties, a few studies have investigated whether different types of victimization and/or aggression are differentially related to internalizing problems. Crick and Grotpeter (1996) were the first to look at both overt and relational forms of victimization and their relation to social-psychological adjustment. The authors developed a self-report measure to assess both overt (e.g., getting pushed or shoved by a

peer) and relational victimization (e.g., having a peer spread lies about you in the peer group). Crick and Grotpeter found that both forms of aggression were related to depression and loneliness in their sample of 474 third through sixth-grade children. The authors also found that most children who were victims of one type of aggression were not likely to be victims of the other.

Prinstein, Boergers, and Vernberg (2001) investigated the relative and combined effects of overt and relational aggression on the social psychological adjustment (depression, loneliness, self-esteem, and externalizing behaviour) of adolescents, and found that relational aggression uniquely contributed to concurrent social psychological adjustment over and above that contributed by overt aggression. Prinstein and colleagues also found that victims of both types of aggression were at greater risk than were victims of only one type of aggression. Consistent with findings by Prinstein and colleagues, Kochenderfer-Ladd and Ladd (2001) also suggest that experiencing multiple forms of peer harassment results in additive effects on psycho-emotional adjustment.

More recent research, however, suggests that the impact of direct versus indirect forms of aggression may also differ as a function of whether one is a bully or a victim. In a study of 4,811 children aged 9 to 13, van der Wal and colleagues (2003) found that the relation between bullying and psychosocial health (e.g., depression, suicidal ideation, and delinquency) differed between direct and indirect forms of bullying. Indirect victimization resulted in a stronger association with depression and suicidal ideation than did direct victimization, whereas direct bullying resulting in increased suicidal ideation for the aggressor. Thus, recent research suggests that type of aggression and victimization should be considered when investigating the impact that involvement in

bullying has on psychosocial health.

Within this research literature, the impact of one relatively new but prevalent type of bullying behaviour, however, has been virtually ignored - cyber based bullying. In an article on cyber-bullying, Joan Leishman (2002) of the CBC news program "The National", reported that 14% of young Canadians reported having been threatened using instant text messaging and 16% had admitted to posting hateful comments. A study of 856 young people in the U.K.⁷ found that more than one in four had been threatened via their computers or cell phones (BBC News Online, 2002). Liz Carnell, director of Bullying Online in the U.K., reported that text bullying is "extremely distressing and some children have become suicidal over it." Jerome and Segal (2003) also report having seen patients who required clinical attention as a result of being bullied via the Internet.

Despite anecdotal reports suggesting that electronic or cyber bullying is associated with psychological well being, to date, only one study has empirically investigated the relation between cyber-bullying and psychosocial difficulties. Ybarra and Mitchell (2004) investigated the relation between internet harassment and *psychosocial challenge* including depression in a sample of 1,501 regular internet users between the ages of 10 and 17 years. Ybarra and Mitchell found that 19% of the young people surveyed reported involvement in online aggression, and that aggressor-targets (bully-victims) were at greatest risk for depressive symptomatology. The above study, however, did not assess the relation between involvement in cyber bullying and suicidal ideation. The proposed study extends the peer victimization literature by investigating the relation between involvement in cyber bullying, as either a victim or a bully, and its relation to depression and suicidal ideation.

Summary. As can be seen in the preceding review, research indicates clear links between involvement in bullying and internalizing difficulties. However, these links vary in complex ways in terms of which group (bullies, victims, or bully-victims) is most impacted and which form of aggression/victimization is most detrimental (physical, verbal, relational or cyber). Specifically, bullies who use direct forms of bullying (physical and verbal) reported more suicidal ideation, whereas victims who lack social support (Rigby & Slee, 1999) or who are bullied through indirect means (ignoring, excluding and backbiting) reported more suicidal ideation (van der Wal et al., 2003). Thus, in the present study it is important to evaluate internalizing outcomes such as depression and suicidal ideation (using reliable and valid measures) as a function of type of involvement (bully, victim and bully-victim) and type of bullying (physical, verbal, relational, and cyber).

Factors Impeding our Understanding of Who is at Risk

Unfortunately, when it comes to understanding what factors place students involved in bullying at risk for depression and suicidal ideation, the field is limited by two important omissions. **First**, and perhaps most importantly, very few studies have investigated the relation between bullying and suicidal behaviours, and even fewer have drawn from the established literature on suicide when assessing suicidal intent. For example, as indicated earlier, few studies have utilized established measures of suicidal ideation when studying its relation with involvement in bullying in normative samples⁸. Furthermore, despite the fact that hopelessness is an established predictor of suicidal

⁷ Research was commissioned by the Children's charity NCH.

⁸ Prinstein, Boergers, Spirito, Little & Grapentine (2000) did utilize a validated measure of suicidal ideation on a small psychiatric sample of adolescents.

behaviour (Joiner & Rudd, 1996), to date no known studies have specifically looked at the role hopelessness has in the relation between involvement in bullying and suicidal ideation. In the following section possible reasons for this lack of research are put forward followed by arguments underscoring the urgent need for theoretically based research investigating the links between involvement in bullying and suicidal intent within a Canadian adolescent population.

Second, researchers in the field have almost completely ignored another group of students involved in bullying - students who witness bullying. In a subsequent section I review research on the impact of exposure to violence on children, and bring attention to comparisons made between bullying and violence, making a case for investigating the relation between witnessing bullying and internalizing difficulties.

Bullying and Suicidal Behaviour. Despite the fact that the impetus for early research in the field of peer harassment was the tragic deaths of three young boys who committed suicide, “in all probability as a consequence of severe bullying by peers ” (Olweus, 1993, p.2), very little research has been devoted to investigating the relation between bullying and suicidal behaviour. As is evident from the preceding literature review, significantly more research has been devoted to investigating the relation between bullying and variables such as anxiety, loneliness and depression, than has been devoted to investigating the relation between bullying and risk for suicidal behaviours. Some researchers have even used items designed to tap “severe depression” as a proxy for suicidal ideation (Slee, 1995) rather than use items specifically designed to assess suicidal intent.

The paucity of research specifically investigating bullying and suicidal behaviours in children and adolescents could in part be due to the fact that conducting research on this topic (in a normative sample) is more difficult from an ethical perspective. A common fallacy is that discussing suicide can lead to thoughts about suicide⁹. This, coupled with the fact that some research has found depression to be a predictor of suicidal behaviour in young inpatients (Marciano & Kazdin, 1994), may make using depression as a proxy for suicidal thoughts a less controversial and more viable alternative. Unfortunately, risk for suicide cannot be adequately determined by depression. Even though depression has been shown to be the most common antecedent to suicide (McLean & Taylor, 1998), simply identifying children who are depressed is not sufficient for identifying all children who are at risk for suicide, in that roughly 30% of suicidal youth are not depressed (Reynolds & Mazza, 1990).

In the following section two arguments are made. First, using statistics on suicide among Canadian adolescents, and information from psychological autopsies, an argument for investigating the relation between bullying and risk for suicidal ideation among Canadian adolescents is put forward. Second, based on research in the field of suicidal behaviour, a case for investigating the role hopelessness plays in the relation between involvement in bullying and risk for suicidal ideation is also put forward.

Suicide and Canadian Youth

Suicide is the second leading cause of death for youth aged 10-24, and of 23 countries surveyed, Canada ranked third highest in suicide rates for youth aged 15-19, following New Zealand and Finland (SIEC, 1999). The paucity of research investigating

⁹ This may result in parents being reluctant to give consent for their children to participate in studies that ask questions about suicide.

the link between involvement in bullying and suicide is curious when we consider findings from a report released in January 2001 by the British Columbia Children's Commission investigating the deaths of 22 children in the province. Of the 22 deaths investigated, 15 were suicides. The report revealed that of the 15 suicides, bullying or teasing by peers had been listed as a potential contributing factor in one third of the suicides. Moreover, in a recent comprehensive survey of over 30,000 students from British Columbia, The McCreary Center Society (2003) found that of the students surveyed, 16% had seriously thought about suicide, 11% had actually planned a suicide, and 7% had actually attempted suicide in the past year alone. Taking into consideration the aforementioned prevalence rates of both suicidal behaviour and bullying (Craig & Pepler, 2003; Craig & Harel, 2004), combined with the established links between bullying and suicidal ideation (Kaltiala-Heino et al., 1999; Rigby & Slee, 1999; Slee, 1995; Roland, 2002; van der Wal et al., 2003), it is clear that peer harassment poses a potentially serious mental health concern to Canadian youth, one that certainly requires attention. The proposed research is the first to investigate the relation between types of involvement in bullying behaviour (e.g., as a bully, victim, bully-victim or witness) and suicidal ideation in a Canadian adolescent sample.

Hopelessness. Hopelessness is defined as a system of cognitive schemas in which the common denominator is negative expectations about the future (Beck et al, 1974). Within the literature on suicidal behaviour, feelings of hopelessness have been shown to be significantly related to suicidal ideation among adolescents (Terzi-Unsal & Kapci, 2005), and to be a better predictor of suicide or suicidal ideation in adolescents and adults than depression (Maris, 1992). Prospectively, hopelessness has been shown to

be a better predictor of suicide than even suicidal ideation (Beck, Steer, Kovacs, & Garrison, 1985).

Hewitt and colleagues have refined the concept of hopelessness by considering a more domain-specific form of hopelessness - social hopelessness (e.g., Hewitt, Norton, Flett, Callander, & Cowan, 1998). Unlike global measures of hopelessness, hopelessness in the social domain encompasses both negative expectations regarding one's future interpersonal relations, and one's ability to deal with their interpersonal relations. Recent research has demonstrated that social hopelessness is not only associated with suicidal ideation but that it is able to discriminate between high and low ideating groups when general hopelessness failed to do so (Heisel, Flett, & Hewitt, 2003). Given that the nature of bullying is highly interpersonal and that it can damage interpersonal relations, it seems logical to look at its relation to social hopelessness. In fact, given the heightened importance for adolescents to feel like they belong (Hamm & Faircloth, 2005), social hopelessness may be a more salient form of hopelessness for adolescents than is general hopelessness.

Within the literature on bullying, it is recognized that some victimized children may feel hopeless (Swearer, Grills, Haye, & Cary, 2004) and at least one study has demonstrated that victimized children score higher on measures of hopelessness than non-victimized children (Coggan, Bennett, & Hooper, 2003). Extending this research, the present study investigates the hypothesis that feelings of hopelessness, especially social hopelessness, are a primary or mitigating factor in the relation between peer victimization and suicidal behaviours, with the goal of better understanding why it is that some students involved in bully-victim problems are at risk for suicide and others are not.

Specifically, in the present study it is hypothesized that hopelessness will mediate the relation between victimization and suicidal ideation. In other words, proposed is a potential mechanism by which victimized students become suicidal, whereby victimization contributes to hopelessness and hopelessness in turn contributes to suicidal ideation. This model is consistent with suggestions put forward by Beck and colleagues (1985) proposing that hopelessness is the mediator of the relation between “source” variables and suicidal behaviours.

Expanding the Bully/Victim Continuum

Research on bully/victim problems has predominately focused on four unique groups of students involved in bullying - bullies, victims, bully-victims and a group that is sometimes referred to as other, non-involved, comparison and even bystanders. Unfortunately, this last group of students has almost been completely overlooked with respect to whether they are negatively impacted on by witnessing bullying. This is particularly surprising, given the frequency with which bullying occurs (approximately every 7 minutes on the playground; Craig & Pepler, 1997), the finding that 89% of students are indeed reporting witnessing bullying (Bonanno, Hymel, & Rocke Henderson, 2001), and the fact many students report watching bullying as upsetting. For example, Charach, Pepler, and Ziegler (1995) found that 86% of children reported that watching bullying was somewhat or very unpleasant. Craig and Pepler (1997) coded the peer group as uncomfortable in 24% of bullying episodes. Boulton and Underwood (1992) found that 20% of students surveyed reported being upset a lot at the thought of children bullying others. If we consider the above findings in conjunction with research that shows children who witness violence are at risk for distress and depression (Martinez

& Richters, 1993), it seems logical that witnessing bullying may also result in internalizing difficulties. A brief overview of recent research investigating the impact that witnessing violence has on children is provided below, followed by a rationale for investigating witnessing bullying in similar lines of inquiry as to witnessing other forms of violence.

Witnessing Violence. Recent research has shown that the more exposure to violence a child experiences the greater their risk for internalizing problems. For example, in a study of 95 elementary school children, Friedman, Gonzales, Fox, and Yun-Tein (2001) found that greater exposure to violence (including witnessing, victimization and total exposure) was associated with more internalizing symptomatology as reported by both teachers and children. Interestingly, the literature on exposure to violence has also demonstrated that less direct involvement in violence (i.e., witnessing alone) can result in internalizing problems that are very similar to those experienced by victims. Indeed, in a study of 99 children aged 8 to 12 years, Kliewer, Lepore, Oskin, and Johnson (1998) found that witnessing and victimization account for very similar proportions (12% & 13%) of the explained variance in internalizing symptoms including anxiety and depression. In a study of 165 children between the ages of 6 and 10 years, Martinez and Richters (1993) also found that witnessing and victimization did not differ with respect to child rated distress and depression. In a study that specifically looked at the association between suicide risk and peer-related violent behaviours and victimization, Evans, Marte, Betts, and Silliman (2001) found exposure to peer-related violence, as either a perpetrator, victim or witness, increased one's risk for suicide. Furthermore, some researchers have even suggested that witnessing violence towards

others is another form of victimization that can lead to negative outcomes that are similar to those experienced by victims (Beresin, 1999).

Bullying as Violence. The argument for investigating the impact of witnessing bullying (as a form of violence) is further supported when you consider the parallels made by researchers regarding bullying and violence. Indeed, many researchers investigating peer victimization refer to bullying as a form of violence. For example, Batsche (1997) suggests that bullying may be the most common form of school violence. Hazler and Carney (2000) suggest that if violence against others and self lay on a continuum, bullying and harassment would be at the lower end, and school assaults, murder and suicide would be at the higher end. Other research has even shown a link between bullying and more violent behaviour including weapon carrying and frequent fighting (Nansel, Overpeck, Haynie, Ruan, & Scheidt, 2003).

Perhaps the most convincing argument for investigating bullying as a form of violence comes from children's own perceptions of violence. In a recent study of 50 at risk children, aged 8 to 12 years, Sheehan, Kim, and Galvin (2004) found that children consistently reported that bullies commit violent acts, and that bullying itself is a violent act. This perception is not limited to physical bullying alone; children also consider indirect forms of bullying as violence, and in fact, worry about this form of violence more than physical violence. For example, in a survey of more than 1000 students in grades 5 through 12, students reported that the form of violence that most impacts their lives is emotional violence (CNN, 2002). The above findings clearly demonstrate that bullying is considered a form of violence, by both researchers and the children themselves, and as such, underscores the need to extend the research on exposure to

violence to include the impact of repeated exposure to bullying as a witness, not just as a victim.

Despite the fact that a great deal of research has investigated the negative impact that witnessing violence has on children, very little has been done with respect to investigating the impact of witnessing bullying. In fact, since Hazler (1996) first brought attention to the fact that bystanders were essentially being overlooked, especially with respect to potential negative consequences associated with witnessing bullying, a decade ago (Hazler, 1996), to date, only three studies have examined the possibility that bullying may be harmful to the observer. One study indirectly investigated the potential negative impact that witnessing bullying has on the bystander; another study examined the physiological impact of witnessing repetitive abuse experiences; and the most recent study investigated the impact of daily reports of witnessing peer harassment. In the first study, Carney (2000) found no significant differences between victims' and bystanders' ratings of perceived suicidal behaviour for a fictional character of bullying. Carney suggests that the above finding "points to the impact of peer abuse not only on the victims but also on bystanders" (p.219). Unfortunately, the design of the above study doesn't enable us to conclude that observers of bullying are directly negatively impacted, in that participants were asked to indicate how often each statement applied to a fictional victim of bullying. Thus, all participants (self-reported bystanders and victims) took on the perspective of the fictional victim. It is clear that both bystanders and victims demonstrated that they were able to empathize with the fictional victim, but unfortunately one cannot conclude from the above research that being a bystander places children at risk for internalizing difficulties.

Taking a more innovative approach, Janson and Hazler (2004) investigated the physiological impact, as measured by both perspiration and heart rate, of repeated abuse (including bullying, racism, homophobia, corporal punishment and sexual harassment) in 77 college students. Participants were interviewed twice, once recollecting their experiences as a victim, and a second time recollecting their experiences as bystanders of repetitive abuse. Janson and Hazler found that for reports of either victimization or witnessing, participants demonstrated increases in physiological reactivity. Unfortunately, aside from the timing of the interviews, it does not appear that the authors controlled for the impact of victimization when assessing the impact of witnessing. It is thus not clear what effect witnessing has independent of that of victimization.

Nishina and Juvonen (2005) investigated the impact of daily exposure to peer harassment in two samples of grade six students and found that witnessing peer harassment was associated with increases in daily anxiety and school dislike. Increases in anxiety were similar for students regardless of whether they were involved only as victims of bullying, or only as witnesses to bullying. Furthermore, unlike the above two studies, Nishina and Juvonen also investigated the potential beneficial effects of witnessing and found that witnessing buffered against increases in humiliation, anger and negative self-perceptions.

Research to date has considered children who witness bullying as a primary focus for intervention, with interest in increasing the likelihood that bystanders will act to defend victims against bullying rather than supporting such behaviour either actively or passively (e.g., Salmivalli, 1999). Each of the above three studies is important in that they demonstrate that the impact of witnessing bullying is not as unremarkable as once

thought. The present study extends the literature by being the first to investigate the relation between witnessing bullying (of both friends and others) and more serious internalizing outcomes such as depression and suicidal ideation in an adolescent population while controlling for the impact of both prior involvement as a victim or a bully.

Another interesting finding in the area of children exposed to violence is that some children actually justify their violent behaviour. For example, in a study of 4,458 children ages 5-12, Guerra, Huesmann, and Spindler (2003) found that witnessing community violence predicted older children's aggressive behaviour and social cognitions including normative beliefs¹⁰ about aggression. Having normative beliefs about violence desensitizes children to its consequences and can result in increased aggressive behaviour. Other researchers have even suggested that these normalizing cognitions can lead to pathologic adaptation to violence whereby young people exposed to violence protect themselves psychologically by morally disengaging from it, which in turn contributes to them being more aggressive (Ng-Mak, Salzinger, Feldman, & Stueve, 2002). In fact, Ng-Mak, Salzinger, Feldman, & Stueve (2004) were eventually able to show that 6th graders who were exposed to high levels of community violence were more aggressive but reported less psychological distress. It is, however, important to note that Ng-Mak and colleagues did not assess the degree to which these children morally disengaged or had normative beliefs about violence.

¹⁰ "These cognitions normalize violence and, hence, help children adapt to the stress and trauma of witnessing violent events" (Guerra et al., 2003, p. 1563).

The former finding is consistent with recent research on bullying and moral disengagement¹¹. For example, Menesini, Sanchez, Fonzi, Ortega, Costabile, and Lo Feudo, (2003) investigated the relation between involvement in bullying and moral disengagement, and found that bullies reported higher levels of moral disengagement that enabled them to “justify negative and detrimental behaviour” (p. 524). However, to date no research has investigated whether moral disengagement or normative beliefs about bullying serves as an adaptive/protective function such as that proposed by Ng-Mak and colleagues (2002). The present study extends the peer victimization literature by being the first to investigate whether bullies who perceive bullying as normative (or who otherwise morally disengage from their behaviour) differ with respect to reported levels of depression and suicidal ideation from bullies who report less moral disengagement.

Problem Statement

In recent years there have been several well publicized incidents of Canadian teens committing suicide in response to being victimized by their peers. These tragedies clearly demonstrate the devastating consequences that bullying can have on its victims. Furthermore, research from around the world has shown significant links between both victimization and bullying and internalizing difficulties such as anxiety, depression, psychosomatic symptoms (Kaltiala-Heino et al., 2000), and even suicidal ideation (Kaltiala-Heino et al., 1999; Rigby & Slee, 1999). Given the relation between involvement in bully/victim problems and internalizing difficulties, it becomes important to underscore the fact that not all children who are bullied or who bully others become

¹¹ A cognitive process by which individuals are able to partake in horrible acts against others through cognitive restructuring, minimizing one's agentive role, disregarding/distorting the negative impact of harmful behavior, and blaming and dehumanizing the victim (Bandura, 1999; 2001; Bandura, Caprara, Barbaranelli, Pastorelli, & Regalia, 2001).

depressed and/or suicidal. Unfortunately, there is a paucity of research investigating why it is that some children involved in bullying will become depressed and/or contemplate suicide while others will not. Within this small area of research, two particularly interesting omissions exist. First, few studies have drawn from the established literature on suicide when assessing suicidal intent or when considering factors that place adolescents at greatest risk for suicidal behaviour. Second, despite research showing that peers are present in upwards of 88% of all bullying episodes (Hawkins et al., 2001), to date no studies have investigated the relation between witnessing bullying and more serious internalizing difficulties, such as depression and suicidal ideation.

The proposed study extends the peer victimization literature in three important ways by investigating: (1) the relation between different types of involvement in bullying (as a bully, victim, or bully-victim), the different types of bullying and victimization (e.g., verbal, physical, relational and cyber) and their relation to depression and suicidal ideation; (2) the roles that hopelessness, perceived social support and moral disengagement have in the relation between involvement in bully/victim problems and depression and suicidal ideation and (3) the relation between witnessing bullying and depression and suicidal ideation.

Based on literature reviewed above, the present study posits that hopelessness is a risk factor that mediates the relation between victimization and suicidal ideation and that perceived social support is a protective factor that moderates the relation between victimization and depression/suicidal ideation. These models are illustrated in Figures 1 and 2. In addition, the role of moral disengagement in the relation between

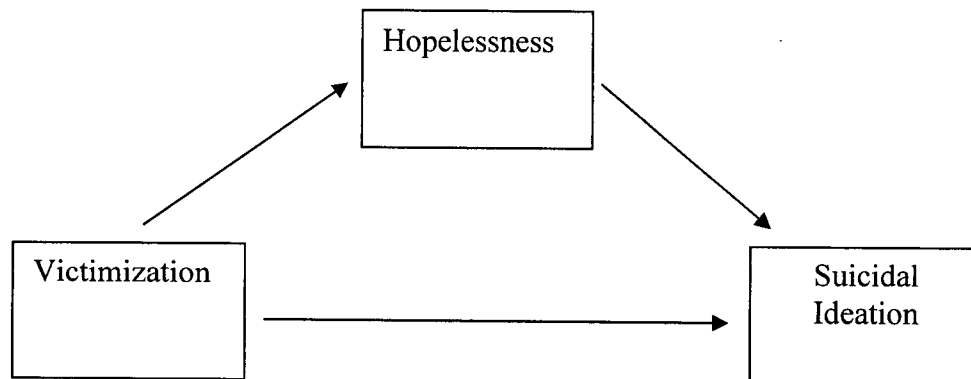


Figure 1. Conceptual Model of Hopelessness Mediating the Relation Between Victimization and Suicidal Ideation.

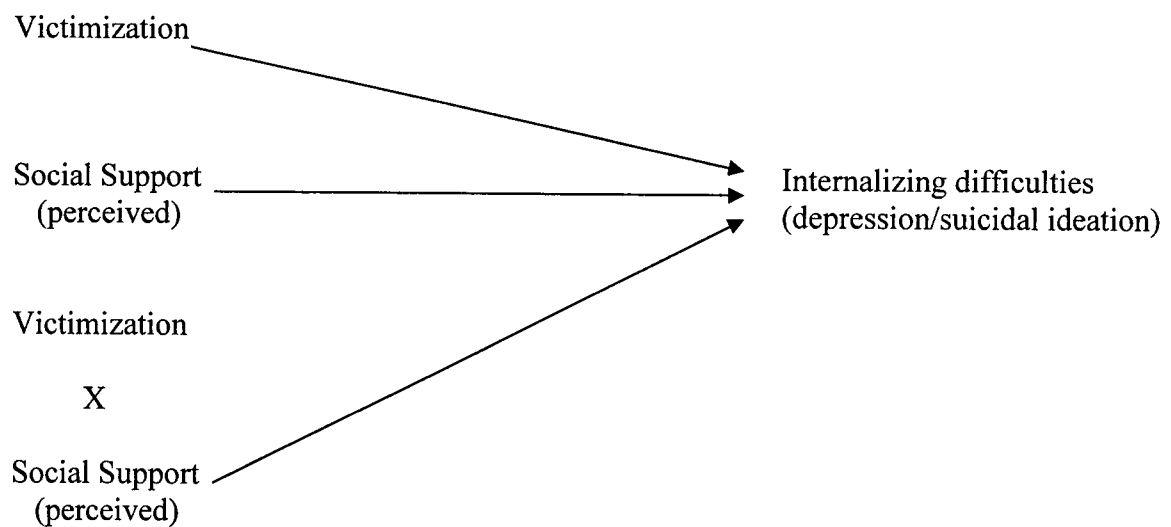


Figure 2. Model Depicting Social Support Moderating the Relation Between Victimization and Depression/Suicidal Ideation.

bullying and depression and suicidal ideation is explored in order to determine whether moral disengagement buffers the relation between bullying and internalizing outcomes. Finally, the experience of witnessing bullying is hypothesized to be associated with depression and suicidal ideation, beyond the impact of being involved as either a victim or a bully.

The primary goal of the present study was to investigate factors that place students involved in bully/victim problems at greatest risk for depression and suicidal ideation. In an attempt to gain a clearer understanding of why it is that some children who are involved in bully/victim problems are more negatively impacted than others, a series of hypotheses and exploratory research questions were proposed, based on the preceding literature review. Hypotheses are presented as follows: type of involvement, type of bullying, risk factors, protective factors, and witnessing bullying.

Hypotheses

Type of Involvement

1. In comparison with victims, bullies, and non-involved students, bully-victims will report higher levels of depression and suicidal ideation.

Type of Bullying

2. Cyber bullying and cyber victimization will be positively related to depression and suicidal ideation. Furthermore,
 - a) Cyber bullying and cyber victimization will independently contribute to depression and suicidal ideation.

Risk Factors

3. Hopelessness will partially mediate the relation between victimization and suicidal ideation.

Protective Factors

4. Perceived social support will moderate the relation between victimization and depression/suicidal ideation.
5. Bullies who report higher levels of moral disengagement will report lower levels of depressive symptomatology and suicidal ideation than bullies who report lower levels of moral disengagement.

Witnessing Bullying

6. Witnessing bullying will be positively associated with depression and suicidal ideation.

In addition, the following three exploratory research questions were posed:

- a) Does witnessing bullying account for similar amounts of the explained variance in depression and suicidal ideation as does victimization?
- b) Does the experience of witnessing bullying uniquely contribute to reported depression and suicidal ideation above and beyond that of bullying and victimization?
- c) Do the different types of bullying (physical, verbal, social and cyber) witnessed independently contribute to depression and suicidal ideation?

In the following chapter I describe the participants, measures, and procedures that comprised the present study.

Chapter 3

Methodology

Participants

Participants were 399 students (228 female, 171 male) in grades 8 to 10 attending an urban community inner city high school in British Columbia, Canada. Participants ranged in age from 12 to 17 years, with a mean age of 14.2 ($SD = .91$) years. See Table 1 for the distribution of participants by grade, gender and age. The sample was predominantly Asian Canadian (62%), followed by White (22%) and Mixed (6%) descent. The majority of students came from intact families, living with both of their parents (69.7%), followed by single parent households (15.3%). Information provided by the school board indicate that the students' socio-economic backgrounds ranged from needy to middle and upper middle class.

Table 1

Distribution of Participants by Grade, Gender, and Mean Age

Grade	Number of Girls	Number of Boys	Mean Age
Grade 8	62	46	13 years
Grade 9	78	57	14 years
Grade 10	87	68	15 years
Total	227	171	14.16years

Note. One student was taking both grade eight and nine classes and thus is not included in the above summary.

Procedures

Following approval from The University of British Columbia Behavioural Ethics Research Board (see Appendix A) and the Vancouver School Board Research Committee, the author met with teachers and counsellors from a local school to explain the study, to address any questions, and to identify the native languages of students from ESL families so that parental consent letters could be appropriately translated. Letters of consent were translated into Chinese (both traditional and simplified), Vietnamese and Spanish. The author, along with trained research assistants, went into 20 individual classrooms to explain the purpose of the study to students (Appendix B) and to distribute parental consent forms (Appendix C). Students were informed that participation in the study was entirely voluntary, and that withdrawal from the research study or refusal to participate would not jeopardize them in any way. Students were also informed that their individual responses to questions would remain strictly confidential and would not be available to students, teachers, parents or any other school personnel. No names appeared on any of the questionnaires; instead numerical codes were assigned to each student. This was done in order to ensure that students who may benefit from further evaluation could be identified. All students who returned completed parental consent forms (regardless of whether consent was given) were entered into a draw for a \$25 gift certificate from a local music store. One gift certificate per class was awarded.

Ninety-one percent of students who received parental consent also gave their assent (Appendix D). Fully 76% of all eligible grade 8 to grade 10 students from this particular school participated in the present study. Students completed the survey packet which consisted of several self-report measures during a single period group testing

session. Teachers arranged for students who did not participate in the study to have class material to work on quietly while their peers participated in the study. When individual students finished their survey packet (see Appendix E) they were instructed to put it back into its envelope and to continue to work quietly on their homework. When all surveys were completed, researchers provided students with an information resource handout (see Appendix F) that contained the contact information of various youth crisis hotlines that provide services to adolescents that might be feeling distressed or need to talk to someone regarding issues that they may be facing. This resource handout was made available to the entire class, not just students who participated in the study.

In addition, participating students were also given the opportunity to receive additional support from their school counsellor¹² by completing the last page of their surveys (see page 127). Students were informed that the last page was optional and that they could fill it out if they *“are being bullied, feeling depressed, or if you are thinking of hurting yourself, and you would like some help, please let us know below. If you tell us that you would like help and you write your name below, then we will pass your name and request for help on to your counsellor.”* At the end of every testing session all surveys were carefully checked for students requesting help. Completed request for help pages were immediately given to the appropriate grade counsellor.

Measures

All instruments used for the present study were paper-and-pencil, self-report measures that have been previously used with youth of this age. A copy of all measures

¹² All school counsellors agreed ahead of time to be involved in this study. Counsellors were provided with an information packet that contained facts on bullying, depression, and suicidal ideation among adolescents. Counsellors were also provided with a list of additional resources available within the community.

can be found in Appendix E. The use of a self-report measure for involvement in bully/victim behaviour is supported by recent research (Rigby & Slee, 1999) that achieved consistent findings using both self-report and peer nominations in their investigations of bully/victim problems and suicidal ideation. A total of six measures were used for the purposes of the present study to tap the constructs listed below. The total time required to complete all of the instruments was approximately 55 minutes.

Bullying. The Bullying Questionnaire is a 32-item instrument developed by the author in consultation with local school staff to measure students' perceptions of their experiences with both generic ("*Overall, how often have you*"...) and specific forms of bullying, victimization and witnessing including physical, verbal, social and cyber bullying. Responses to the items are made on a 5-point likert type scale, ranging from 1 ("not at all") to 5 ("many times a week"). Higher scores reflected more frequent involvement in bullying.¹³ The following definition of bullying is provided at the beginning of the survey. "There are lots of different ways to bully someone, but a bully wants to hurt the other person (it's not an accident), and does so repeatedly and unfairly (the bully has some advantage over the victim). Sometimes a group of students will bully another student." A description of the different behaviours that characterize each of physical, verbal, social and cyber bullying was also included at the beginning of the survey (see page 112). Students were told to keep in mind these different forms when responding to general questions pertaining to bullying.

Depression. The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) was used to assess symptoms of depression. The 20-item scale (see page

¹³ Types of involvement assessed: as a victim, as a bully or as a witness. Students responded to both general and specific questions regarding different types of involvement.

121) was developed to assess levels of depressive symptomatology and has been extensively used in previous research with adolescents (Prinstein, Boergers, & Vernberg, 2001; Roberts, Andrews, Lewinsohn, & Hops, 1990; Roberts, Lewinsohn, & Seeley, 1991). Participants were asked to respond to a list of statements indicating some of the ways they may have felt or behaved during the last week. Responses were made on a four-point scale ranging from 0 (*rarely or none of the time*) to 3 (*all of the time*). A total depression score was computed for each student, based on the sum of the 20 items, with scores ranging from 0 to 60. Higher scores on the CES-D reflect greater depressive symptomatology. The CES-D has good reliability. The above studies reported internal consistencies that ranged from .87 to .92 for their samples.

Suicidal Ideation. Fortunately, suicide completions are rare, according to the Suicide Information and Education Centre. On average 294 Canadian youth commit suicide each year (SEIC, 1999). Thus, research aimed at predicting suicide per se is of limited value (Maris, 1992). One aspect of suicidality that has potential as a “precursor to more serious suicidal behaviour” is suicidal ideation (Reynolds, 1991, p.1). “Suicidal ideation is defined as the domain of thoughts and ideas about: death, suicide, and serious self-injurious behaviours, including thoughts related to the planning, conduct, and outcome of suicidal behaviour” (Reynolds, 1988, p.4).

In the present study, suicidal ideation was assessed using the Suicidal Ideation Questionnaire-JR (Reynolds, 1987). The SIQ is available in three versions, the Adult SIQ (25 items), the SIQ (30 items) for adolescents in grades 10-12, and the SIQ-JR (15 items) for adolescents in grades 7-9. For the purposes of maintaining consistency across participants the SIQ-JR was used for all grades (8-10) in this study. The 15 items (see

page 120) contained in the SIQ-JR are also contained in the SIQ, thus ensuring that normative data are available across all grades. Also, the author of the scale has indicated that the SIQ-JR may be used with older adolescents (Reynolds & Mazza, 1994). Respondents were asked to rate how often they have had particular suicidal thoughts during the past month, ranging from 0 (*never*) to 6 (*almost everyday*). Scores range from 0 – 90 with higher scores indicating greater suicidal ideation. The SIQ-JR has an internal consistency reliability coefficient of .93 - .94. In a study assessing the reliability and validity of the SIQ-JR, Reynolds and Mazza (1999) found the measure to have good psychometric properties demonstrating both high internal consistency (.91) and test-retest reliability (.89). The SIQ-JR was also found to be significantly related to suicidal ideation as measured by a semi-structured clinical interview, supporting the scale's criterion-related validity.

Hopelessness. General Hopelessness was assessed using the Beck Hopelessness Scale (BHS; Beck, Weissman, Lester, & Trexler, 1974). The BHS measures the extent of adolescents' and adults' negative attitudes about their perceived short and long-term future. The BHS is a 20-item true/false measure (see page 119) that asks respondents to indicate whether a set of statements describes their attitude during the past week. Scores range from 0-20, with higher scores indicating greater hopelessness. Beck et al. (1974) reported an internal consistency of .93, and concurrent validity of .60 with other scales of hopelessness.

Hopelessness in the social domain was assessed using the Social Hopelessness Questionnaire-SHQ (Flett, Hewitt, & Gayle, 1993). The SHQ is a 20-item scale (see page 123) measuring negative expectancies about outcomes in the social domain. Respondents

were asked to indicate the extent of their agreement or disagreement with a set of statements regarding their impending social or interpersonal relationships. Responses were made on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Scores range from 20 – 100 with higher scores indicating greater social hopelessness. Previous research has found that social hopelessness is an important discriminating factor in the prediction of suicidality in college students (Heisel, Flett, & Hewitt, 2003).

Social Support. Perceived social support was assessed using the Relational Provisions Loneliness Questionnaire (RPLQ; Hayden-Thomson, 1989). The RPLQ is a 28-item, multi-dimensional scale that measures children's and adolescents' perceptions of the social support that they receive from peers and family members. The RPLQ indirectly assesses a child's loneliness by assessing their perceived lack of support (Terrell-Deutsch, 1999). The scale consists of 14 items measuring perceived social support from friends (see page 124) and 14 comparable items measuring perceived social support from family (see page 125). Respondents were asked to evaluate on a five-point scale the extent to which each statement was true or not true for them by circling statements ranging from 1 (*NO; not at all*) to 5 (*YES; always yes*). Scores range from 14 – 70 with higher scores indicating greater perceived social support. The RPLQ coefficient alpha reliabilities range from .82-.93 (Hayden-Thomson, 1989) which demonstrate high internal consistency.

Moral Disengagement. Moral disengagement was assessed using 13 items (see page 117) designed to tap students' attitudes and beliefs about bullying. These items reflect the following four broad categories of moral disengagement as outlined by Bandura (2001): Cognitive restructuring, minimizing agency, distorting negative impact,

and blaming/dehumanizing the victim. Respondents were asked to evaluate on a four-point scale the extent to which each statement was true or not true for them by circling statements ranging from 1 (*NO; not at all true*) to 4 (*YES; definitely true*). Mean scores range from 1 – 4, with higher scores indicating more positive attitudes and beliefs about bullying. These items have yielded acceptable internal consistency ($\alpha = .81$) in previous research (Hymel, Bonanno, Rocke Henderson, & McCreith, 2002).

Chapter 4

Results

Data Analyses

Data Screening. Following procedures outlined by Tabachnick and Fidell (2001) the data were screened for accuracy of data entry, missing data, and the assumptions of multivariate analysis (normality, linearity, homoscedasticity and multicollinearity). The data were keyed and verified (100%) in order to ensure accuracy. Furthermore, descriptive statistics were run to check for items that were out of the applicable scale range. Out of range items were replaced with the correct data from the original survey. Missing data were not deemed to be problematic for the present study; less than .25% of the data in total were missing with no pattern of missing data being detected and no more than 3% of any one variable having missing data. Given the low occurrence of missing data, the variable mean was used for imputation purposes (Tabachnick & Fidell, 2001).

The data were screened for univariate outliers by examining box plots and standardized scores for each of the variables. Although box plots did not reveal extreme scores that were outside of normal expectations, examination of standardized scores did reveal a few variables with outliers.¹⁴ Closer inspection of each outlier demonstrated that none was due to procedural error and that each was plausible and thus representative of the population from which it came and hence no univariate outliers were deleted¹⁵.

¹⁴ Hair, Black, Babin, Anderson and Tatham (2006) indicate that univariate outliers are z-scores with an absolute value equal to or larger than four.

¹⁵ Hair and colleagues (2006) argue that outliers should only be deleted when proven not to be representative of the population, and that unnecessary deletion of outliers will limit the generalizability of findings.

While assessing univariate normality, several of the variables were found to be potentially problematic by demonstrating mild to severe skewness ($1 < 3$). Given that the nature of the phenomena of bullying behaviour and internalizing difficulties is such that the majority of individuals are not involved in bullying (as a bully or a victim) and are not afflicted with depressive symptomatology and/or suicidal thoughts, it was anticipated that some of the data would be positively skewed and would require transformations. Six variables did not meet the conditions of normality¹⁶ and did not improve following transformations and were thus dichotomized. The following variables were dichotomized into “not involved = 0” and “involved a few times or more this year = 1”: physical victimization, cyber victimization, physical bullying, cyber bullying, witness friend cyber bullied and witness other cyber bullied. The dichotomized versions of the above variables were used for subsequent analyses.

Transformations were also performed on variables with mild to moderate skewness but resulted in findings similar to analyses conducted prior to transformations. For ease of interpretation the findings are presented without transformations. Also, research suggests that multiple regression is not only robust with respect to modest violations of the assumptions of regression (Pedhazur, 1982), but that ill-distributed data lend themselves to detecting interactions whereas transformations of such data reduce the magnitude of such effects (Stone & Hollenbeck, 1989) which is not desirable for the present study given the goal of testing for moderation and the well known difficulty that exists in detecting interactions (McClelland & Judd, 1993).

For correlational analyses, bivariate scatterplots were used to assess linearity and homoscedasticity. Examination of the scatterplots revealed no curvilinear relationships

¹⁶ absolute values of less than three for skew and less than eight for kurtosis (Kline, 2005)

and no evidence of heteroscedasticity. Multicollinearity was assessed with bivariate correlations and was not found to be problematic. Multivariate normality, linearity and homoscedasticity were assessed by examining the scatterplots of the predicted scores against the residuals. No significant violations of these assumptions were evident. Each regression analysis was examined for instances of multivariate outliers using Cook's Distance measure and standardized residuals. Ten multivariate outliers were detected and removed from regression analyses predicting suicidal ideation from bullying and victimization.¹⁷

Preliminary Analysis

Descriptive Statistics. The means, standard deviations and scale reliabilities for the measures of victimization, bullying, witnessing friends, witnessing others, depression, suicidal ideation, general hopelessness, social hopelessness, moral disengagement, perceived social support from friends and family are presented in Table 2. All measures were found to have strong internal consistencies.

In addition to asking students about their overall involvement in bullying as a victim, bully, and witness (to friend and others being bullied), students were asked about their experiences with specific types of victimization, bullying, and witnessing (i.e., physical, verbal, social and cyber). The means and standard deviations for involvement in specific types of victimization, bullying and witnessing can be found in Appendix G. The proportion of students reporting involvement in bullying at least a few times or more this year are presented in Figure 3.

¹⁷ Multivariate outliers with standardized residuals exceeding 3.3 and Cook's $D > .10$ are considered to be problematic and have the potential to decrease R^2 and increase the mean square error (Tabachnick & Fidell, 2001). Excluding the multivariate outliers results in a regression solution that provides a more accurate fit for the remaining cases.

Table 2

Means, Standard Deviations and Alpha Coefficients for Victimization, Bullying, Witness Friend, Witness Other, and Outcome Variables ($N = 399$).

Variable	Mean	Standard Deviation	Cronbach's α
Overall Victimization	1.43	.75	-
Overall Bullying	1.44	.63	-
Overall Witness Friends	1.72	.89	-
Overall Witness Others	2.38	1.01	-
Depression CES-D	15.97	9.47	.87
Suicidal Ideation	10.04	12.42	.94
General Hopelessness	5.29	3.83	.82
Social Hopelessness	53.19	14.59	.90
Moral Disengagement	1.83	.48	.85
Perceived Social Support Family	50.98	13.31	.95
Perceived Social Support Friend	52.98	10.51	.92

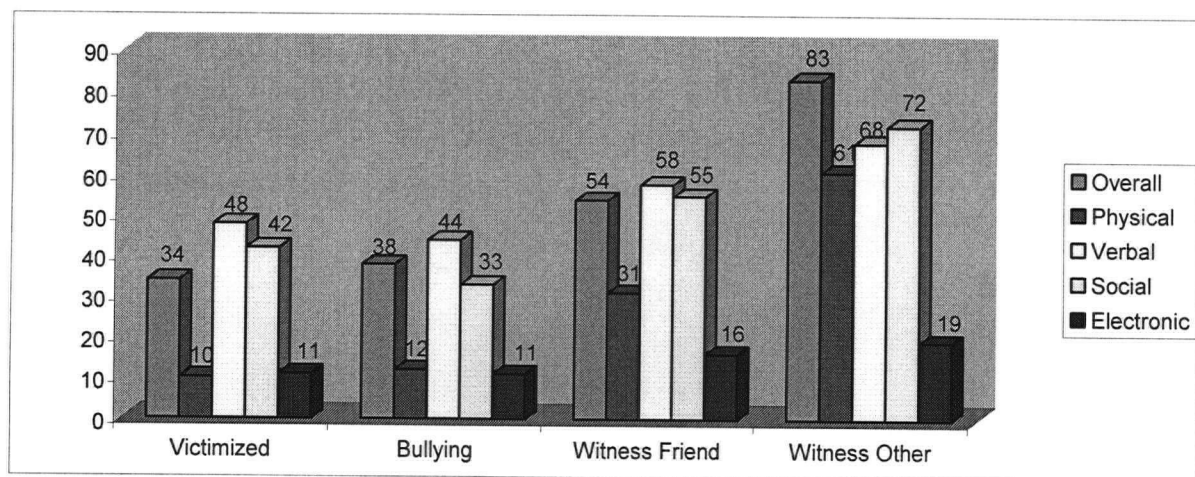


Figure 3. Percentage of Students Involved in Bullying as Either a Victim, Bully or Witness (Friend and Other) “at least a few times this year”.

Approximately 34% of students reported that they had been bullied overall; 38% reported that they had bullied others; 54% reported that they had witnessed a friend being bullied and fully 83% of students reported that they had witnessed other students being bullied at least a few times or more this year. The above frequencies of involvement as a bully or a victim are consistent with those reported by Craig and Harel (2004) who found that overall, 34% of students reported that they had been bullied at least once during the previous couple of months and 35% reporting bullying others at least once during the previous couple of months. With respect to reported witnessing, no known studies have collected data on witnessing friends versus witnessing others being bullied. However, frequencies of overall reported witnessing are similar to other studies conducted by the author who found that 89% of students reported witnessing bullying at least a few times or more in a year (Bonanno et al., 2001).

Zero order correlations performed to assess the interrelations among overall indices of victimization, bullying, witnessing friends, witnessing others and outcome variables are presented in Table 3. With respect to internalizing difficulties, significant positive correlations were found between victimization, bullying, witnessing friend, witnessing others and depression. Significant positive correlations were also found for all forms of involvement in bullying and suicidal ideation. It is important to note, however, that the magnitude of these relations was small to moderate which suggests that involvement in bullying is only one of the factors contributing to depression and suicidal ideation among adolescents. As anticipated, social hopelessness was significantly related to all overall indices of involvement in bullying. However, contrary to what was

Table 3

Zero-order Correlations for General Questions of Victimization, Bullying, Witness Friend, Witness Other, and Outcome Variables ($N = 399$).

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. General Victimization	—										
2. General Bullying	.391**	—									
3. General Witness Friends	.565**	.355**	—								
4. General Witness Others	.308**	.379**	.422**	—							
5. Depression CES-D	.265**	.181**	.251**	.191**	—						
6. Suicidal Ideation	.242**	.156*	.176**	.081*	.610**	—					
7. General Hopelessness	.054	.008	.021	.040	.562**	.439**	—				
8. Social Hopelessness	.244**	.142*	.224**	.081*	.609**	.428**	.482**	—			
9. Moral Disengagement	.121*	.375**	.189**	.253**	.123*	.161**	.117*	.156*	—		
10. Social Support Family	-.110*	-.197**	-.119*	-.072	-.469**	-.363**	-.416**	-.442**	-.214**	—	
11. Social Support Friend	-.262**	-.026	-.049	-.031	-.320**	-.188**	-.351**	-.416**	-.036	.328**	—

* $p < .05$, ** $p < .001$

expected, general hopelessness was not related to any of the overall indices of involvement in bullying and thus will not be considered further in any analyses.

Zero-order correlations assessing the interrelations among specific types (physical, verbal, social and cyber) of victimization, bullying, witnessing friends, witnessing others, and the outcome variables used in the present study can be found in Appendices H – K, respectively. Pearson correlations were used in all cases except where variables had to be dichotomized due to extreme skewness, which then necessitated the use of point biserial correlations.

One-way analyses of variance were conducted to examine mean differences for predictor and outcome variables across gender and grade. Statistically significant differences were found between males and females, with males reporting significantly more physical victimization $F(1, 397) = 16.773, p < .001$, verbal victimization $F(1, 397) = 16.73, p < .001$, physical bullying $F(1, 397) = 16.60, p < .001$, verbal bullying $F(1, 397) = 15.93, p < .001$, seeing friends getting physically bullied $F(1, 397) = 25.16, p < .001$, and moral disengagement $F(1, 397) = 33.53, p < .001$ than females. Females reported having more social support from friends $F(1, 397) = 21.61, p < .001$, and more depressive symptomatology $F(1, 397) = 11.09, p = .001$ than males. Given these differences, gender was controlled for in all subsequent analyses. No significant differences were found across grade for any predictor or outcome variables, hence subsequent analyses were not separated by grade.

Testing of Hypotheses

Type of Involvement

1. In comparison with victims, bullies, and non-involved students, bully-victims will report higher levels of depression and suicidal ideation.

The means and standard deviations for depression and suicidal ideation by type of involvement are presented in Table 4. Overall, bully-victims scored highest on measures of depression and suicidal ideation followed by victims, bullies and non-involved students. A series of 2 X 4 ANOVAs were conducted in order to evaluate the effects of the four types of involvement (non-involved, victim, bully, or bully-victim¹⁸) and gender on depression and suicidal ideation.

For depression, the results of the ANOVA indicated no significant interaction between type of involvement and gender, $F(3, 240) = .433, p = .729$, but significant main effects for type of involvement, $F(3, 240) = 7.61, p < .001$, and gender, $F(1, 240) = 6.99, p = .009$. The gender main effect indicated that females reported higher scores of depressive symptomatology than did males. Follow-up analyses were conducted using the Games-Howell test to evaluate pairwise differences among the 4 types of involvement and revealed that bully-victims scored significantly higher than bullies and non-involved students on depression. Victims were also found to score significantly higher on depression than did non-involved students.

With respect to suicidal ideation, the results of the ANOVA indicated no significant interaction between type of involvement and gender, $F(3, 240) = .221, p =$

¹⁸ Bully-victims are students who reported being involved in bullying as both a bully and a victim at least a few times this year. Non-involved students are neither bullies, victims, bully-victims nor witnesses. The effect of witnessing will be reported in a subsequent section.

.882, and no significant main effect for gender, $F(1, 240) = .878, p = .350$. A significant main effect was however found for type of involvement, $F(3, 240) = 3.47, p = .017$.

Follow-up tests revealed that bully-victims scored higher on suicidal ideation than both bullies and non-involved students.

Table 4

Means and Standard Deviations of Depression, Suicidal ideation, and Perceived Social Support as a Function of Type of Involvement and Gender.

		Depression	Suicidal Ideation	Social Support Family	Social Support Friend
1. Not involved	M	12.0	7.7	53.6	51.5
	(SD)	(8.2)	(10.7)	(13.9)	(10.9)
	N	49	49	49	49
2. Victim	M	18.0	11.6	52.6	48.3
	(SD)	(8.2)	(11.5)	(14.9)	(12.0)
	N	47	47	47	47
3. Bully	M	15.1	8.5	48.7	55.2
	(SD)	(8.3)	(9.4)	(13.3)	(9.1)
	N	64	64	64	64
4. Bully-Victim	M	19.51	14.1	47.4	50.7
	(SD)	(10.9)	(16.7)	(12.5)	(11.0)
	N	88	88	88	88
Post-hoc Summary ¹⁹		4 > 1, 3 2 > 1	4 > 1, 3	1 > 4	3 > 2, 4
Gender					
Female		17.70*	11.29	48.52	53.56*
Male		14.51	9.68	52.77*	49.18

*denotes significant gender differences

¹⁹ The Games-Howell test was used for post-hoc comparisons in that it is suitable for use with unequal sample sizes and unequal variances (Toothaker, 2003).

In addition to comparing groups on depression and suicidal ideation, groups were also compared on perceived social support from family and friends. With respect to perceived social support from family the results of the ANOVA indicated no significant interaction between type of involvement and gender, $F(3, 240) = .237, p = .870$, but significant main effects for type of involvement, $F(3, 240) = 3.29, p = .021$, and gender, $F(1, 240) = 5.82, p = .017$. The gender main effect indicated that males tended to report higher perceived social support from family than did females. Although bully-victims reported the lowest levels of perceived social support from family, follow-up analyses revealed that statistically significant differences only existed between bully-victims and non-involved students.

With respect to perceived social support from friends, the results of the ANOVA indicated no significant interaction between type of involvement and gender, $F(3, 240) = .398, p = .754$, but significant main effects for type of involvement, $F(3, 240) = 4.77, p = .003$, and gender, $F(1, 240) = 10.04, p = .002$. The gender main effect indicated that females report significantly higher levels of perceived social support from friends than did males. Post-hoc comparisons revealed that bullies reported significantly higher levels of perceived social support from friends than did victims and bully-victims. In conclusion, it is interesting to note that the group reporting the highest levels of depressive symptomatology and suicidal ideation (bully-victims) is also the group reporting the lowest levels of perceived social support from family and friends.

Given that some researchers (van der Wal et al., 2003) have suggested that the link between bullying and depression is likely due to the fact that bullies were themselves victimized, hierarchical regression analyses were performed in order to explore whether

bullying predicted unique variance in depression and suicidal ideation beyond the effects of victimization. In each of the these regression analyses, gender and victimization were entered in Steps 1 and 2, respectively, to control for their contributions to depression and suicidal ideation. Bullying was entered in Step 3. Overall, the results indicated that gender, victimization and bullying accounted for 11.5% of the variance in depression [$F(3, 395) = 17.1, p < .001$] and 14.3% of the variance in suicidal ideation [$F(3, 385) = 21.4, p < .001$]. As can be seen in Table 5, bullying uniquely contributed to the explained

Table 5
Hierarchical Regression Analyses Showing Amount of Unique Variance in Depression and Suicidal Ideation Accounted for by Bullying

Variable	R ²	R ² change	B	F change	df
Depression					
Step 1	.027	.027		11.09*	1,397
Gender			.165*		
Step 2	.105	.078		34.36**	1,396
Victimization			.280**		
Step 3	.115	.010		4.48*	1,395
Bullying			.109*		
Suicidal Ideation					
Step 1	.015	.015		5.70*	1,387
Gender			.120*		
Step 2	.126	.112		49.43**	1,386
Victimization			.336**		
Step 3	.143	.016		7.34*	1,385
Bullying			.139*		

* $p < .05$ ** $p < .001$

variance in both depression (1%) and suicidal ideation (1.6%), above and beyond that predicted by gender and victimization, suggesting that prior victimization does not fully account for the relation between bullying and depression and suicidal ideation.

Type of Bullying

2. Cyber bullying and cyber victimization will be positively related to depression and suicidal ideation.

In the present sample, approximately 16.8% of students reported being involved a few times or more this year in cyber bullying, with 5.8% being involved only as a victim, 6.0% being involved only as a bully, and other 5.0% being involved as both a victim and a bully. Zero-order correlational analyses conducted to examine the relations between involvement in cyber bullying and depression and suicidal ideation are presented in Table 6. Results indicated that involvement in cyber bullying as either a victim or a bully was significantly positively related to both depression and suicidal ideation ($df = 397$; all p 's $< .001$ unless otherwise indicated). The associations between cyber victimization and depression and suicidal ideation were $r = .186$ and $r = .242$, respectively, whereas the associations between cyber bullying and depression and suicidal ideation were $r = .192$ and bully $r = .212$, respectively. Steiger's Z-Tests revealed no significant differences between involvement as a cyber bully or a cyber victim and degree of association with depression or suicidal ideation. Furthermore, no group differences in depression and suicidal ideation were found between cyber victims, cyber bullies and cyber bully-victims.

Table 6
Zero-order Correlations Between Cyber Victimization, Cyber Bullying, Depression and Suicidal Ideation ($N = 399$).

Variable	1.	2.	3.	4.
1. Cyber Victimization	—			
2. Cyber Bullying	.394**	—		
3. Depression	.186**	.192**	—	
4. Suicidal ideation	.242**	.212**	.610**	—

** $p < .001$

a) Cyber bullying and cyber victimization will independently contribute to depression and suicidal ideation.

Separate simultaneous regression analyses²⁰ were conducted to determine the relative contribution of the different types of victimization and bullying to each of depression and suicidal ideation. Depression was regressed on the various forms of victimization. The overall regression was found to be statistically significant, $F(4, 393) = 18.14, p < .001$, with the various forms of victimization predicting 15.2% of the variance in depression. Results showed that social victimization ($b = 2.74, \beta = .22, p < .001$), followed by verbal victimization ($b = 2.06, \beta = .19, p = .001$), and cyber victimization ($b = 3.38, \beta = .11, p = .019$) contributed the most to depression, whereas physical victimization ($b = -.21, \beta = -.01, p = .892$) did not have a statistically significant effect on depression. The overall regression of various forms of victimization predicting suicidal ideation was also statistically significant, $F(4, 384) = 40.23, p < .001$, with the various

²⁰ Keith (2006) states that simultaneous regression is the best method for determining the relative influence of each of the independent variables on the dependent variables. "The regression coefficients [standardized] are used to determine the magnitude of effect of each variable (controlling for the other variables)..."p77.

forms of victimization predicting 29% of the variance in suicidal ideation. However, only verbal victimization ($b = 5.67, \beta = .51, p < .001$) and cyber victimization ($b = 5.46, \beta = .17, p < .001$) had a statistically significant effect on suicidal ideation whereas physical ($b = .12, \beta = .00, p = .938$) and social victimization ($b = -.45, \beta = -.03, p = .492$) did not.²¹

With respect to the impact of the various forms of bullying on depression and suicidal ideation, both of the overall regressions were statistically significant with the various forms of bullying predicting 10.5% of the variance in depression ($F[4, 393] = 11.91, p < .001$) and 9.8% of the variance in suicidal ideation ($F[4, 385] = 10.71, p < .001$).²² Verbal bullying ($b = 3.02, \beta = .23, p < .001$) and cyber bullying ($b = 5.18, \beta = .17, p = .001$) each had a statistically significant impact on depression whereas physical ($b = -2.05, \beta = -.07, p = .183$) and social bullying ($b = 1.45, \beta = .09, p = .073$) did not. Verbal bullying ($b = 3.22, \beta = .240, p < .001$) and cyber bullying ($b = 4.55, \beta = .145, p = .004$) also significantly predicted suicidal ideation, whereas physical ($b = -.19, \beta = -.01, p = .907$) and social bullying ($b = .71, \beta = .04, p = .392$) did not.

Risk Factors

3. Hopelessness will partially mediate the relation between victimization and suicidal ideation.

Partial mediation can be established if it is shown that hopelessness accounts for part of the association between victimization and suicidal ideation. Following guidelines outlined by Baron and Kenny (1986), regression analyses were used to evaluate the

²¹ Gender was entered separately in step 1 and was found to explain 2.7% of the variance in depression and 1.5% of the variance in suicidal ideation.

²² Gender was entered separately in Step 1 and was found to explain 2.7% of the variance in depression and 1.8% of the variance in suicidal ideation.

impact of hopelessness on the relation between victimization and suicidal ideation. In order to establish evidence for the proposed mediational model four conditions must be met. The independent variable (victimization) must be significantly related to both the mediator (hopelessness) and the dependent variable (suicidal ideation). The mediator must also be significantly related to the dependent variable while controlling for the impact of the independent variable and finally, the effect of the independent variable on the dependent variable (controlling for the mediator) should result in a reduction of the effect of the independent variable on the dependent variable. Given that victimization was not found to be significantly related to general hopelessness, general hopelessness could not be considered a mediator of the relation between victimization and suicidal ideation. Instead, regression analyses were run using social hopelessness as a mediator.

As can be seen in Figure 4, social hopelessness did indeed partially mediate the relation between victimization and suicidal ideation²³. In order to determine whether the above effect was statistically significant, a Sobel's test of significance was conducted. The Sobel test is used to determine whether the indirect effect of X on Y (via the mediator) is significantly different from zero (Preacher & Hayes, 2004). Results indicated that the association between victimization and suicidal ideation was significantly reduced by the inclusion of the social hopelessness (Sobel $Z = 4.33, p < .001$).

Protective Factors

4. Perceived social support will moderate the relation between victimization and depression/suicidal ideation.

²³ The addition of social hopelessness reduced the association between victimization and suicidal ideation from .242 to .146.

Specifically, it was expected that the relation between victimization and depression or suicidal ideation would vary as a function of perceived social support.

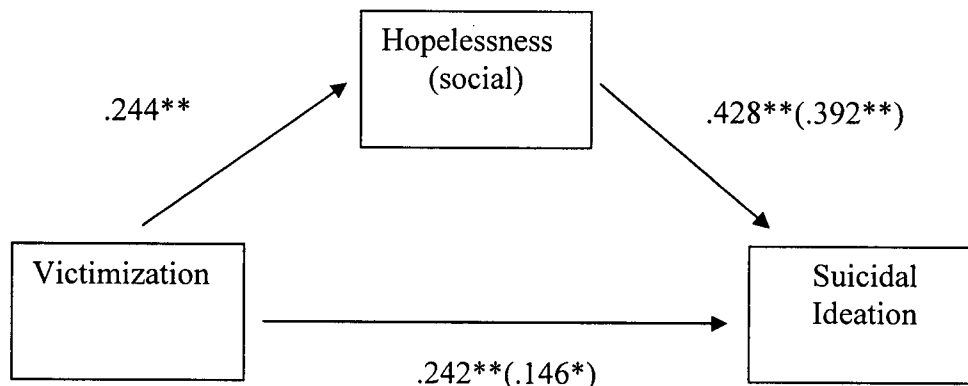


Figure 4. Standardized Regression Coefficients for the Relation Between Victimization and Suicidal Ideation as Mediated by Social Hopelessness²⁴.

* $p < .05$ ** $p < .001$

Note: The standardized regression coefficients for partial effects are in parentheses.

Hierarchical regression analyses were conducted in order to determine whether perceived social support buffered the relation between victimization and depression or suicidal ideation. Given that two forms of perceived social support were measured (social support from family and social support from friends), four separate analyses were run, two predicting depression and two predicting suicidal ideation.

Prior to conducting the analyses all independent variables and interaction terms were centered in order to reduce the risk of multicollinearity (Aiken & West, 1991). The effect of gender was controlled for by entering gender in step 1 of all the analyses.

²⁴ Gender was not found to be significant and was thus trimmed from the final model.

Victimization and social support were entered in step 2 and the interaction terms of victimization X social support were entered in step 3. Evidence for a moderation model is demonstrated if the interaction term is found to be statistically significant.

As can be seen in Table 7, perceived social support from family (but not friends) was found to moderate the relation between victimization and suicidal ideation. As well, perceived social support from friends (but not family) was found to moderate the relation between victimization and depression. To examine the nature of the above significant interactions, simple slopes were plotted for values of 1 standard deviation above the mean, the mean, and 1 standard deviation below the mean²⁵ of perceived social support and can be found in Figures 5 and 6. Furthermore, post hoc statistical testing²⁶ was conducted to determine whether the slope of each regression line differed from zero.

Overall, the significant interaction terms signify that the regressions of depression and suicidal ideation on victimization vary across the range of perceived social support.²⁷ More specifically, victimized students with higher perceived social support reported less depressive symptomatology and suicidal ideation than did victimized students with lower levels of perceived social support.

²⁵ Based on procedures outlined by Aiken and West (1991).

²⁶ "The t-test for whether a simple slope differs from zero is simply the value of the simple slope divided by its standard error, with $(n - k - 1)$ degrees of freedom..." (Aiken & West, 1991, p. 16).

²⁷ Indicating that the "simple slopes of Y on X differ from one another as a function of the value of Z" (Aiken & West, 1991, p. 21).

Table 7

Hierarchical Regression Analyses for the Interaction of Victimization and Perceived Social Support from Family vs. Perceived Social Support from Friends to Predict Depression and Suicidal Ideation.

Variable	Depression					Suicidal ideation				
	R ²	R ² change	B	F change	Df	R ²	R ² Change	B	F change	df
Step 1	.027	.027		11.09*	1,397	.021	.021		8.44*	1,388
Gender			.165*					.146*		
Step 2	.293	.266		74.29**	2,395	.249	.228		58.47**	2,386
Victimization			.230**					.279**		
Family Social Support			-.437**					-.357**		
Step 3	.293	.000		.016	1,394	.264 ^a	.015		7.96*	1,385
Victimization X Family Social Support			.005					-.127*		
Step 1	.027	.027		10.89*	1,394	.007	.007		2.90	1,397
Gender			.164*					.085		
Step 2	.218	.191		47.84**	2,392	.094	.086		18.83**	2,395
Victimization			.210**					.210**		
Friend Social Support			-.354**					-.165*		
Step 3	.226 ^b	.008		3.90*	1,391	.095	.001		.555	1,394
Victimization X Friend Social Support			.101*					.041		

* $p < .05$ ** $p < .001$

^a $F(4, 385) = 34.53, p < .001$. ^b $F(4, 391) = 28.47, p < .001$

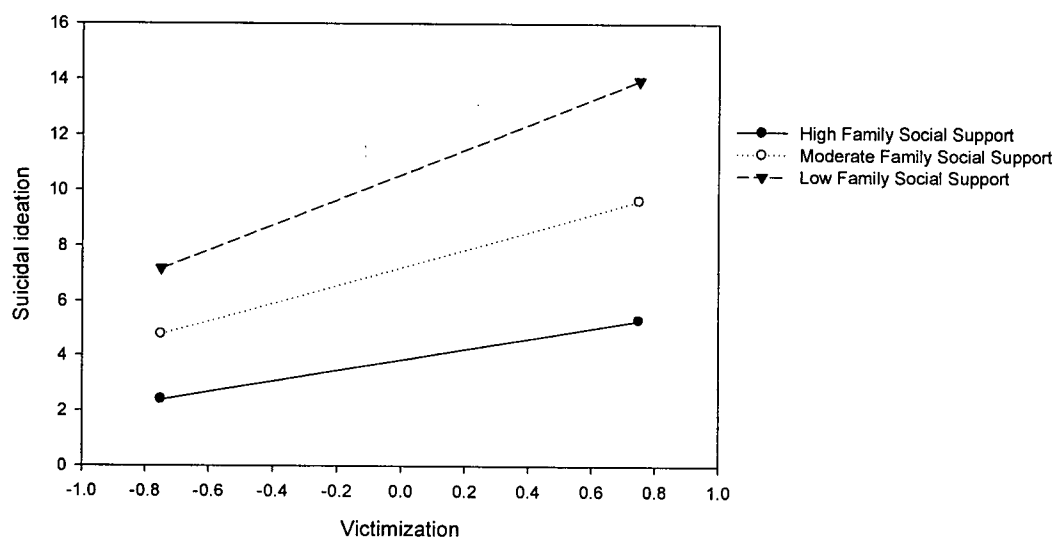


Figure 5. Graph Depicting Interaction Between Victimization and Perceived Social Support (Family) to Predict Suicidal Ideation.

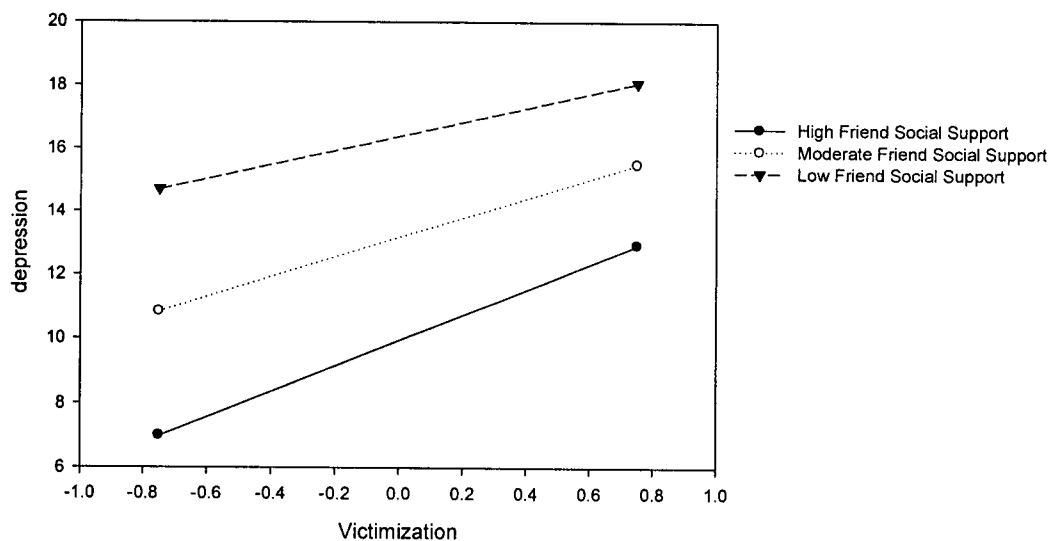


Figure 6. Graph Depicting Interaction Between Victimization and Perceived Social Support (Friend) to Predict Depression.

With respect to the regression of suicidal ideation on victimization (Figure 5), results of the post hoc probing revealed that the simple slopes for 1SD below the mean [$t(385) = 6.86, p < .001$] at the mean [$t(385) = 5.66, p < .001$], and 1SD above the mean [$t(385) = 2.46, p = .014$] of perceived social support (family) were all significantly different from zero. Results of the simple slope analysis indicate that victimization was more strongly related to suicidal ideation under low levels of perceived social support from family; more specifically, victimized students who reported low levels of perceived social support from family were at greatest risk for suicidal ideation.

With respect to regression of depression on victimization (Figure 6), results of the post hoc probing determined that the simple slopes for 1SD below the mean [$t(391) = 3.87, p < .001$] at the mean [$t(391) = 4.95, p < .001$], and 1SD above the mean [$t(391) = 4.36, p < .001$] of perceived social support (friend) were all significantly different from zero. The results of probing the interaction between victimization and perceived social support from friends to predict depression, suggest a buffering effect. More specifically, victimized students reporting high levels of perceived social support from friends were buffered against the effects of victimization and reported the lowest levels of depressive symptomatology.

5. Bullies who report higher levels of moral disengagement will report lower levels of depressive symptomatology and suicidal ideation than bullies who report lower levels of moral disengagement.

Results from questions 1 and 2 clearly show that students who bully other students are at risk for both depression and suicidal ideation. However, it is also clear that not all students who bully other students become depressed or have suicidal thoughts.

The above hypothesis is put forward in an attempt to better understand why it is that some bullies are at risk while others are not. Consistent with previous research, bullying was found to be significantly associated with moral disengagement ($r = .375, p < .001$), with greater moral disengagement being associated with higher levels of reported bullying. In order to determine whether bullies who report higher levels of moral disengagement differ on reported depression/suicidal ideation from bullies who morally disengage to a lesser degree, bullies were categorized into low and high moral disengagers. Given that none of the students in the current sample were at the extreme high end of moral disengagement,²⁸ high moral disengagers were thus classified as bullies who scored 1SD above the group mean on moral disengagement, and low moral disengagers were classified as bullies who scored 1SD below the group mean of moral disengagement.

Thirty eight percent ($N = 152$) of students admitted that they were involved in bullying other students at least a few times or more this year. Of those students, 27 were classified as low on moral disengagement and 32 as high on moral disengagement. As can be seen in Table 8, bullies high on moral disengagement did differ from those low on moral disengagement but not in the expected direction. Bullies classified as high on moral disengagement reported higher levels of depressive symptomatology and suicidal ideation than those classified as low on moral disengagement.²⁹ T – tests indicated that high and low moral disengaging bullies only statistically differed on suicidal ideation, $t(43.9)^{30} = -2.08, p = .04$; however, the above findings do not support research suggesting

²⁸ The scale range for moral disengagement was 1 – 5, the sample mean was 1.82 (.476) with min – max scores of 1 – 3.62. The mean score on moral disengagement for bullies was 2.05 (.48).

²⁹ Results are not separated by gender in that a 2 x 2 ANOVA revealed no gender main effects and no gender by level of moral disengagement interaction.

³⁰ Equal variances are not assumed.

that normative beliefs about aggression can be adaptive by desensitizing children to the psychological consequences associated with aggression.

Table 8

Means and Standard Deviations of Depression and Suicidal ideation for Bullies Low and High on Moral disengagement.

		Bullies Low on Moral Disengagement	Bullies High on Moral Disengagement
Depression	M	15.48	19.11
	SD	(9.01)	(10.80)
Suicidal ideation	M	7.33	14.70
	SD	(7.89)	(18.09)

Witnessing Bullying

The final issue addressed was the impact of witnessing bullying. Descriptive findings are presented first, followed by correlational analyses demonstrating the associations between witnessing and depression and suicidal ideation. Overlap between reported involvement in bullying and witnessing are then described followed by hierarchical multiple regression analyses testing for witnessing's unique contribution to the explained variance in depression and suicidal ideation. Finally, simultaneous multiple regression analyses are performed to determine the relative effect that different forms of witnessing have on depression and suicidal ideation.

6. Witnessing bullying will be positively associated with depression and suicidal ideation.

Descriptive statistics for witnessing and internalizing outcomes are presented in Table 9. Zero-order correlational analyses were conducted to examine the relations between witnessing and depression and suicidal ideation. Results indicated that witnessing was significantly related to depression and suicidal ideation ($df = 397$; all p 's

< .001 unless otherwise indicated), although the associations were more robust for witnessing friends than witnessing others. The strongest associations were found between witnessing and depression (friends, $r = .25$; others, $r = .19$). Slightly weaker associations were found between witnessing and suicidal ideation (friends, $r = .22$; others, $r = .08$, $p = .05$). Steiger's Z-Tests revealed that witnessing friends had significantly stronger associations with suicidal ideation [$Z(396) = 1.78$, $p < .05$] than did witnessing others.

Table 9
Zero-order Correlations and Descriptive Statistics for Witnessing Friends, Witnessing Others, Depression and Suicidal Ideation ($N = 399$)

	1	2	3	4
1. Witness Friend	1.00	.42**	.25**	.18**
2. Witness Other		1.00	.19**	.08 ($p = .05$)
3. Depression			1.00	.61
4. Suicidal Ideation				1.00
Mean	1.70	2.40	15.90	10.00
S.D.	.89	1.10	9.50	12.42

** $p < .001$

- a) Does witnessing bullying account for similar amounts of the explained variance in depression and suicidal ideation as does victimization?

In an attempt to replicate findings from the exposure to violence literature demonstrating that witnessing accounts for similar amounts of explained variance in internalizing difficulties as does victimization, six separate hierarchical regression analyses were run, three predicting depression and three predicting suicidal ideation. Modelling an analytical approach similar to that taken by Kliewer and colleagues (1998),

sex was entered in step 1 and type of involvement (as either a witness or victim) was entered in step 2. Differences in the explained variances of witnessing versus victimization were then compared. The present study differs from the study by Klierer and colleagues in that two forms of witnessing were assessed, witnessing friends being bullied and witnessing others being bullied.

As can be seen in Table 10, victimization and witnessing friends (when considered separately) contributed similarly to the explained variance in depression (7.8% and 6.8% respectively), but not to the explained variance in suicidal ideation. Victimization contributed 10.3% of the explained variance in suicidal ideation but witnessing friends only explained 3.7% of the variance in suicidal ideation. Also interesting was the finding that although contributing significantly to the explained variance in both depression and suicidal ideation, witnessing others contributed less than did witnessing friends.

Table 10

Comparing the Contribution of Victimization and Witnessing to the Explained Variance in Depression and Suicidal Ideation.

Variable	Depression R ²	R ² change	B	F change	Df	Suicidal ideation R ²	R ² Change	B	F change	df
Step 1	.027	.027		11.09*	1,397	.016	.016		6.36*	1,388
Gender			.165*					.127*		
Step 2	.105	.078		34.36**	1,396	.119	.103		45.34	1,387
Victimization			.280**					.322**		
Step 1	.027	.027		11.09*	1,397	.018	.018		6.96*	1,389
Gender			.165*					.133*		
Step 2	.096	.068		29.95**	1,396	.055	.037		15.242**	1,388
Witness Friends			.262**					.193**		
Step 1	.027	.027		11.09*	1,397	.016	.016		6.25*	1,388
Gender			.165*					.126*		
Step 2	.068	.040		17.14	1,396	.036	.020		8.17*	1,387
Witness Others			.201**					.143*		

* $p < .05$ ** $p < .001$

Next, descriptive statistics were calculated for involvement in bullying, taking into consideration the overlap between reported bullying, victimization and witnessing. When asked about their involvement in bullying during the current school year, only 12.3% of students reported that they were completely uninvolved, *never* being bullied, *nor* bullying others and *never* witnessing bullying. Reported witnessing, however, overlapped considerably with the experience of bullying others or being bullied “at least a few times” or more this year. Indeed, less than 1.5% of students reported being involved as a bully, victim, or bully-victim, independent of witnessing bullying “at least a few times” or more this year. Nearly 38% of students reported that their only involvement was as a witness; however, as can be seen in Figure 7, the majority of students had dual or multiple involvement as either a victim-witness (11.3%), bully-witness (15.5%) or bully-victim-witness (21.8%). These findings suggest that in order to establish a clear link between witnessing and depression/suicidal ideation, one must first control for bullying and victimization.

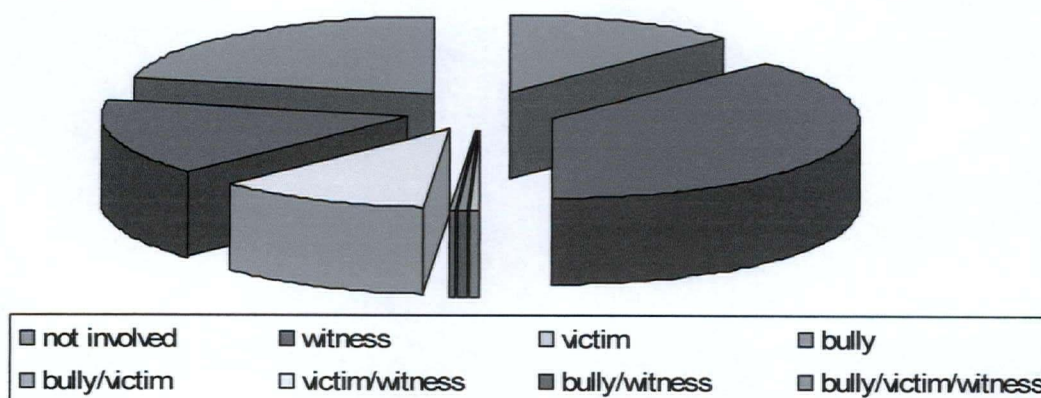


Figure 7. Overlap between Bullying, Victimization & Witnessing “a few times or more this year”

b) Does the experience of witnessing bullying uniquely contribute to reported depression and suicidal ideation above and beyond that of bullying and victimization?

Hierarchical multiple regression analyses were performed to determine whether witnessing bullying contributed to depression and suicidal ideation over and above the explained variance accounted for by bullying and victimization. As seen in Table 11, witnessing explained a significant portion of the explained variance in depression [$\Delta R^2 = .017$, $F(2,393) = 3.84$, $p = .02$] after controlling for gender, victimization, and bullying, with witnessing friends contributing more to the explained variance than did witnessing others. Witnessing did not contribute uniquely to the explained variance in suicidal ideation. Suicidal ideation was therefore omitted from further analyses.

When a second hierarchical regression was run, adding witnessing friends then witnessing others separately to the model, it becomes clearer that witnessing friends indeed contributed more to depression [$\Delta R^2 = .012$, $F(1,394) = 5.55$, $p = .019$] than did witnessing others, which did not significantly predict depression above and beyond the contributions of gender, victimization and bullying. These findings are consistent with research on exposure to violence, which suggests differences between distress associated with witnessing violence against familiar persons versus strangers (Martinez & Richters, 1993).

Table 11

Unique Contribution of Witnessing Bullying to the Prediction of Depression and Suicidal Ideation

Variable	Depression					Suicidal Ideation				
	R ²	R ² change	B	F change	df	R ²	R ² Change	β	F change	df
Step 1	.027	.027		11.09*	1,397	.016	.016		6.36*	1,388
Gender			.165**					.127*		
Step 2	.115	.088		19.57**	2,395	.134	.118		26.20**	2,386
Victimization			.238**					.273**		
Bullying			.109*					.131*		
Step 3	.132	.017		3.84*	2,393	.136	.022		.516	2,384
Witness Friend			.112					.062		
Witness Other			.078					-.020		

* $p < .05$ ** $p < .001$

c) Do the different types of witnessing friends (physical, verbal, social and cyber) independently contribute to depression?

Finally, to determine the relative effect that different forms of witnessing friends has on depression, simultaneous multiple regression analyses were performed. Gender, victimization and bullying were all held constant in these analyses³¹. Results showed that the different types of witnessing contributed an additional 6.8% of the explained variance in depression [$F(4, 389) = 8.15, p < .001$], with witnessing friends being cyber bullied ($b = 4.87, \beta = .193, p < .001$) followed by witnessing friends being verbally bullied ($b = 1.34, \beta = .139, p = .031$) having a statistically significant effect on depression, while witnessing friends being physically ($b = .18, \beta = .014, p = .802$) or socially bullied ($b = .42, \beta = .042, p = .479$) did not.

³¹ Gender, victimization and bullying were entered in step 1 and contributed 12.1% to the explained variance in depression.

Chapter 5

Discussion

The purpose of the present study was to gain a clearer understanding of why it is that some adolescents who are involved in bully/victim problems are more negatively impacted than others. Toward this end, the present study provides an original investigation of the complexities of the phenomena of bullying by considering both the type of involvement (as a bully, victim, or bully-victim) and type of bullying (physical, verbal, social, and cyber), both risk and protective factors and, finally, the impact of witnessing bullying. The following is a discussion of how each of these aspects contributes to our understanding of potential factors that place students involved in bully/victim problems at greater risk for depression and suicidal ideation.

Type of Involvement

Consistent with previous research that has found that bully-victims are at greater risk for depression (Kaltiala-Heino et al., 2000) and suicidal ideation (Kim et al., 2005), the present study also found that, overall, bully-victims had higher mean scores on depression and suicidal ideation than did victims, bullies or non-involved students. However, significant differences were only found between bully-victims, bullies and non-involved students, suggesting that bully-victims and victims are at similar risk for depression and suicidal ideation. Findings also indicate that the groups reporting the lowest levels of depressive symptomatology and suicidal ideation are non-involved students followed by bullies³². These findings are consistent with research by Fekkes and

³² In the total sample, non-involved students and bullies did not differ significantly from each other on depression and suicidal ideation.

colleagues (2004) who found that bullies are not at any greater risk for depression than are non-involved students.

Another interesting finding is that, in addition to reporting the highest levels of depressive symptomatology and suicidal ideation, bully-victims and victims also reported the lowest levels of perceived social support from friends. In contrast, the two groups reporting the lowest levels of depression and suicidal ideation (non-involved students and bullies) were the groups reporting the highest levels of perceived social support from friends. The above findings are consistent with research from Rigby and Slee (1999) who found that social support was negatively correlated with suicidal ideation and that the group at greatest risk for suicidal ideation were students low in social support and high in victimization.

The fact that bully-victims were found to be more similar to victims than bullies challenges van der Wal and colleagues' (2003) suggestion that bullies were previously victims. It seems more plausible that bully-victims are victims who are trying to escape/change their status in the peer group to a more desirable one. After all, adolescents perceive bullies as having power, as being popular and having lots of friends (Bonanno et al., 2002). The fact that bully-victims report lower levels of social support from friends suggests that their attempt to transition to a more desirable status has been unsuccessful. Being an unsuccessful bully, coupled with experiences of victimization, may partly explain why bully-victims reported the highest levels of depression and suicidal ideation.

Despite the fact that cross-sectional research prevents us from making causal statements, the above research suggests that one potential mechanism/tool that may be

beneficial in reducing the negative effects associated with involvement in bullying might be improving students' (especially bully-victims) sense of perceived social support from peers, possibly through enhancing actual social support from peers.

Type of Bullying

Results from the present study were not only able to replicate previous research which has demonstrated a link between involvement in cyber bullying and depression (Ybarra & Mitchell, 2004), but it also extends the literature in the field of bullying by demonstrating an association between involvement in cyber bullying and suicidal ideation. As predicted, both cyber victimization and cyber bullying were significantly related to both depression and suicidal ideation. These findings are consistent with anecdotal evidence suggesting that students who are victimized via electronic forms have become "suicidal over it" (BBC News Online, 2002). However, unlike results from Ybarra and Mitchell, the present study did not find that cyber bully-victims were at any greater risk for depression or suicidal ideation than were cyber victims or cyber bullies. These differences could be due to the fact that results from the present study are based on a smaller sample (399 vs. 1501), or due to the fact that the studies used different measures to assess both involvement in cyber bullying and depression. Differences aside, the results from the present study are nonetheless important in that they suggest that involvement in cyber bullying is both prevalent (approximately 1 in 6 students report being involved) and that it has potentially serious consequences for all students involved.

The seriousness of the impact of involvement in cyber bullying is further corroborated by the fact that the present study found that while controlling for all other forms of bullying (physical, verbal, and social), cyber bullying and cyber victimization

each consistently predicted both depression and suicidal ideation. In fact, the only other type of bullying that was consistently³³ a better predictor of depression and suicidal ideation was verbal victimization/bullying. Given the fact that students in the present study reported approximately four times more involvement in verbal victimization (48% vs. 11%) and verbal bullying (44% vs. 11%)³⁴ than in cyber victimization/bullying, results from the present study clearly demand that closer attention be paid to students reporting involvement in cyber bullying. Given the ever increasing rate of accessibility to technology in both schools and homes, coupled with the anonymity factor of this form of harassment (Beckerman & Nocero, 2003), the problem of cyber bullying has the potential to escalate exponentially unless it is tackled (with respect to both research and intervention) with the same rigour that conventional forms of bullying are.

Risk Factors

Although other studies have demonstrated links between victimization and suicidal ideation (Kaltiala-Heino et al., 1999; Kim et al., 2005; Rigby & Slee, 1999; Roland, 2002; Slee, 1995; van der Wal et al., 2003), none appear to have specifically investigated whether this relation is mediated by hopelessness. More specifically, the present study tested the hypothesis that victimization contributes to students' development of social hopelessness, which in turn contributes to the development of suicidality, including suicidal ideation. The fact that this link has not been investigated in the peer victimization literature is surprising given that in the field of suicidology, hopelessness has been found to be a better predictor of suicide or suicidal ideation in older adolescents and adults than is depression (Maris, 1992). Also, Beck and colleagues

³³ Social victimization was a slightly better predictor of depression than was verbal or cyber victimization, whereas physical victimization did not significantly predict either depression or suicidal ideation.

(1985) have even suggested that hopelessness may be the mediator between “source” variables and suicidality (Joiner & Rudd, 1996).

Despite the fact that general hopelessness was not significantly related to victimization and thus could not be considered a mediator, the present study extends the peer victimization literature by demonstrating that **social hopelessness** indeed does partially mediate the relation between victimization and suicidal ideation. Suggesting that a potential mechanism by which victimized students become suicidal is through victimization’s impact on social hopelessness and that the more socially hopeless the youth becomes, the greater their risk for having suicidal thoughts. The former findings are consistent with research that has demonstrated that social hopelessness was able to discriminate between high and low ideating groups whereas general hopelessness failed to do so (Heisel et al., 2003).

The above findings also suggest that when it comes to victimized adolescents, social hopelessness may be a more salient form of hopelessness given the importance of social relationships to adolescents and the instrument’s ability to assess one’s expectations regarding one’s future interpersonal relationships and one’s perceived efficacy to deal with those relationships. With respect to helping students who have been victimized, giving these students the opportunity to feel more efficacious in their current and future social relationships, through empowerment programs like Safe Teen and “Go Girls” or through peer support efforts that increase actual peer support, may indeed reduce these students’ risk for suicidal behaviour by reducing their social hopelessness.

³⁴ Refer to Figure 3: “Percentage of students involved in bullying...”

Protective Factors

Based on research which has shown a link between social support and suicidal ideation (Rigby & Slee, 1999), it was hypothesized that victimized students who reported higher levels of perceived social support would report less depression and suicidal ideation than students who perceived themselves as having less perceived social support. Consistent with results from Rigby and Slee, perceived social support was found to be significantly negatively associated with both depression and suicidal ideation. Students who reported having higher social support were less likely to be depressed or ideate than students reporting lower levels of perceived social support. As predicted, but contrary to Rigby and Slee who failed to find an interaction, the present study also found that social support had a buffering effect in the relation between victimization and depression and suicidal ideation. Although perceived social support was found to interact with victimization to predict internalizing difficulties, different interactions were found depending on type of perceived social support (family vs. friend) and type of internalizing difficulty (depression vs. suicidal ideation). Specifically, perceived social support from friends was found to moderate the relation between victimization and depression whereas perceived social support from family was found to moderate the relation between victimization and suicidal ideation. These findings suggest that when it comes to depression, which has been shown to be the most common antecedent (McLean & Taylor, 1998) to the more serious problem of suicidal ideation, perceived social support from peers plays an important role in reducing risk for depression among victimized students. However, when it comes to the more serious problem of suicidality, perceived social support from family was more important in reducing risk for suicidal

ideation than was perceived social support from friends. The above results clearly point to the importance of perceived social support to victimized children, suggesting that when it comes to identifying victimized students at greatest risk for depression and suicidal ideation that special attention should be paid to victimized students who indicate that they are lacking social support.

With respect to identifying factors that might protect aggressive children from developing internalizing difficulties, one potential area worthy of further investigation is moral disengagement. Researchers in the area of exposure to violence have suggested that children justify violent behaviour as an adaptive/protective way of dealing with exposure to community violence (Guerra et al., 2003). In addition to increasing aggressive behaviour, recent research suggests that these normalizing cognitions may actually psychologically protect these aggressive children from internalizing problems (Ng-Mak et al., 2002). Although the theory of pathologic adaptation is not known to have been specifically tested in the literature on bullying, researchers have found that bullies are able to morally disengage from and justify their negative behaviour (Menesini et al., 2003; Hymel et al., 2002). Consistent with previous research, the present study found that bullying was indeed significantly related to moral disengagement.

Further investigation, however, revealed that higher levels of moral disengagement among bullies was related to higher levels of depressive symptomatology and suicidal ideation rather than lower levels. This finding could be due to the fact that in the present study no instances of extreme moral disengagement were found to exist. In fact, the mean score of moral disengagement for bullies was only 2 out of a possible high score of 5. It may be that the pathologic adaptation model proposed by Ng-Mak and

colleagues (2002) is better suited to students who have reached higher levels of normalizing cognitions than those reported by students in the present study. Students reporting lower levels of moral disengagement may actually still be internally struggling with both their behaviour and their attempts to justify their behaviour. This dissonance may actually contribute to higher levels of internalizing difficulties rather than lower levels of internalizing difficulties which might explain the significant association in the present study between moral disengagement and both depression and suicidal ideation. Also, given the fact that Ng-Mak and colleagues (2004) did not specifically measure normalizing cognitions in their study, one cannot conclusively attribute this inoculative effect to normalizing cognitions. There may be some other mechanism involved that is responsible for reducing the risk of internalizing difficulties in the children they studied. These discrepancies suggest that more research investigating the relation between moral disengagement and internalizing difficulties such as depression and suicidal ideation is clearly needed.

Witnessing Bullying

One of the primary goals of the present study was to bring attention to potential negative effects associated with witnessing bullying. Witnesses, or as more commonly referred to in the literature – bystanders, have recently received a lot of international attention. Unfortunately, the primary focus has been on their potential to reduce bullying via intervening behaviours (Rigby & Johnson, 2005), rather than on determining whether they too are at risk for the same problems as students who are directly victimized. Earlier in this paper an argument was made to study witnessing bullying along similar lines of inquiry as witnessing other forms of violence, which have found that not only is

witnessing community violence associated with internalizing difficulties in children, but that it accounts for similar proportions of the explained variance in anxiety and depression (Kliewer et al., 1998).

Consistent with research in the field of exposure to violence, the present study did indeed find significant associations between witnessing bullying and depression and suicidal ideation. Closer examinations revealed that more robust associations were found between witnessing friends being bullied and depression and suicidal ideation than witnessing others being bullied. These findings are consistent with research on exposure to violence, which suggests differences between distress associated with witnessing violence against familiar persons versus strangers (Martinez & Richters 1993). With respect to determining the relative effect of witnessing different types of bullying it was found that witnessing friends being cyber bullied followed by witnessing friends being verbally bullied each consistently predicted depression but that witnessing friends being physically or socially bullied did not. These findings are similar to those reported earlier regarding the relative impact of different types of victimization and bullying on depression and suicidal ideation, and once again point to the importance of further investigating the problem of cyber bullying, including witnessing cyber bullying.

Given the fact that many of the adolescents in the current study had dual or multiple involvement in bullying as either a victim-witness, bully-witness or bully-victim-witness it was decided that in order to establish a clear link between witnessing bullying and depression/suicidal ideation that one must first control for the contribution of victimization and bullying on depression/suicidal ideation. Results demonstrated that even after controlling for the effects of gender, victimization and bullying, witnessing

(especially witnessing friends) uniquely contributed to the explained variance in depression. Although the amount of explained variance may seem modest (1.2%), it is important to note two facts. First, entering witnessing into the regression last was the most conservative approach one could take in that items entered first would account for more of the explained variance than items entered last. In fact, if we were to have entered witnessing into the model first on the argument of temporal precedence; in all likelihood witnessing occurs first in that by far it is the most common form of involvement, we would have found that witnessing would contribute even more to the explained variance in depression and suicidal ideation. Furthermore, when considering each type of involvement (victimization and witnessing) separately, it was found that victimization and witnessing friends contributed similarly to the explained variance in depression. These findings are consistent with those found by Kliewer and colleagues (1998).

Second, even seemingly small amounts of variance are important. In his discussion on the problems with R^2 as a measure of effect, Keith (2006) points to the fact that smoking only explains 1% to 2% of the explained variance in lung cancer (Gage, 1978), but stresses that smoking is nonetheless important to our understanding of factors contributing to lung cancer. Thus, one should not trivialize the importance of witnessing bullying when it comes to identifying risk factors for depression and suicidal ideation. Results from the present study clearly suggest that if we are to have a more comprehensive understanding of factors that place children involved in bullying at risk for internalizing difficulties then we must expand the bully/victim continuum to include witnesses.

Limitations of this Study

There are three main limitations in the current study that must be addressed. The first deals with the cross-sectional nature of the present study; the second is concerned with shared method and source variance; and the third surrounds issues regarding the generalizability of the findings from the present study. Each limitation is discussed below.

Although many of the findings from the present study imply a directional relationship, the cross-sectional nature of the present study prevents us from concluding, for example, that victimization leads to depression and/or suicidal ideation. In fact, it could be argued that having depressive symptomatology and/or suicidal thoughts contributes to children being victimized. However, recent longitudinal research has indeed demonstrated that peer victimization and poor social relationships predict the onset of anxiety and depression in adolescents, and not the other way around (Bond, Carlin, Thomas, Rubin, & Patton, 2001). Previous research aside, prospective studies would better test causal statements regarding factors that place students involved in bullying at greatest risk for depression and/or suicidal ideation, and plans to conduct longitudinal research are currently being cultivated.

Due to the fact that all variables of interest in the present study were assessed using self-report measures it is possible that the associations between these variables will be overestimated due to shared method and source variance. As indicated earlier in this paper, Rigby and Slee (1999) found consistent findings using both self-report and peer nominations in assessing involvement in bully/victim behaviours. Unfortunately, no such research exists with respect to assessing the emotional states of hopelessness, depression and suicidal ideation that were assessed in this study. Since we cannot assume teachers, peers or even parents are sentient to a child's inner most thoughts, the use of self-report measures is

warranted and necessary. The use of self-report measures in this study is further substantiated by research by Ladd and Troop-Gordon (2003) which suggests that self-report measures are among the most reliable sources of information for emotional states. In addition, it is also important to note that for the purpose of this study it is the participants' subjective experience of these emotional states that was of interest and not the identification of these emotional states by others. Finally, the problems associated with shared method and source variance are minimized in the present study given the fact that the majority of analyses used controlled for the effects of other variables (e.g., hierarchical and simultaneous regression).

Lastly, two cautionary notes must be made with regard to the generalizability of findings from the present study. First, it is important to recognize that the ethnic composition (predominantly Asian) of this sample may limit the generalizability of findings from the present study to students with similar ethnic backgrounds. That said, given the fact that nearly 76% of all eligible grade 8 through grade 10 students from this school participated in the present study, I feel confident that the present sample is a reasonable representation of the majority of students from this school and other schools in the neighbouring area. Second, excluded from the sample were approximately 15 – 20 students with learning disabilities. The decision to not involve these students was made by school counsellors who felt that the survey may be too difficult and thus frustrating for these students. Consequently, these students, who have been shown to be vulnerable to both victimization and aggressive behaviour (Mishna, 2003), were not represented in this sample. The exclusion of these students is problematic in that it potentially reduces the true magnitude of bullying at this school, and results in findings that may not generalize to students with learning disabilities.

Strengths and Contributions to the Field

Despite the above limitations, the present study has several methodological strengths and contributes to the field of bullying in important ways. First, the present study drew from three related but distinct literatures to build theoretically based models of risk. In doing so I was able to 1) identify that social hopelessness is a potential mediator in the relation between victimization and suicidal ideation, and 2) identify and utilize a well established and psychometrically sound measure to assess suicidal intent. Using the SIQ-JR enabled me to capture variations in severity that exist in the domain of suicidal intent. This was extremely important in that most of the studies investigating suicidal ideation in the peer victimization literature have used limited item measures or measures that are intended to capture severe depression and not suicidal ideation; which is a related but distinct construct. Allowing for greater variation reduces problems associated with measures that have a restricted range.

The present study was also able to demonstrate the buffering effect of perceived social support on the relation between victimization and suicidal ideation. Although this relation had been postulated by Rigby and Slee (1999), they were unable to find a significant interaction. Another important way that the present study extends the literature on bullying is by being the first to demonstrate an association between all forms of involvement in cyber bullying (as a victim, bully, bully-victim and witness) and both depression and suicidal ideation. Additionally, although previous research has shown that witnessing peer harassment is associated with increases in daily anxiety and school dislike (Nishina & Juvonen, 2005), the present study is unique in that it is the first to demonstrate a link between witnessing bullying and internalizing difficulties (i.e.,

depression and suicidal ideation) that are usually reserved for explaining the negative outcomes associated with being either a bully, victim or bully-victim. The present study was also able to demonstrate the importance of assessing type of relationship to the person being bullied (friend or other) when assessing the impact of witnessing bullying, by demonstrating that witnessing friends was more important than witnessing others in determining risk for depression and suicidal ideation.

Educational Implications

Despite the fact that bullying is commonplace in the vast majority of schools, there exists a real danger in subscribing to the notion that bullying is a normal part of growing up and going to school. The consequences of bullying are varied and range from loss of opportunity to loss of life. For example, Slee (1995) found that 17.6% of students indicated that they had thought of staying away from school because of bullying, and 6.5% had actually stayed away. According to the National Education Association, every day an estimated 160,000 children miss school due to fear of attack or intimidation by other students. The more time children spend worrying about their safety the less time they have to spend on their studies, and missed school is missed learning opportunities.

However, what is most distressing is the fact that at least one child a month tries to commit suicide because of the fear of school (Dean, 1993). Understanding potential risk and protective factors that impact on children's ability to cope with bullying situations will enable us to more effectively design interventions for protecting and enhancing the well-being of children involved in bully/victim problems. Re-evaluating the scope of the problem of bullying to include all children involved, not just bullies, victims and bully-victims but also those children who are involved as witnesses, will

provide for a better understanding of the full impact that bullying has on the student population. This broader understanding will enable us to better help the different groups of adolescents involved in bullying problems, and will hopefully compel everyone involved to reconsider the acceptability of the notion of bullying as a “normal” phenomenon.

Future Directions

Results from the present study highlight several exciting avenues that should be explored, especially with respect to witnessing bullying. First, it is important to assess whether the impact of witnessing bullying is simply a short-term manifestation or whether witnessing bullying has potential long-term consequences. Second, research is needed to determine whether the above associations are also tenable with more ethnically and geographically (urban versus rural) diverse samples and with slightly younger groups of students (ages 10 – 12 years). It is, however, important to note that studies with students younger than ten would not be prudent in that research suggests that suicidal ideation is not common in children under the age of ten (Reynolds & Mazza, 1994). Nonetheless, when studying the relation between witnessing bullying and other internalizing difficulties it would be very interesting to see whether differences (in frequency and perceived impact) exist between children in elementary, middle and high-school. Finally, in addition to more research assessing the direct impact of witnessing bullying, research investigating whether witnessing bullying interacts with involvement in bullying to predict depression/suicidal ideation is also needed. Further reports will indeed address this issue.

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Appendices

Appendix A

University of British Columbia Behavioral Ethics Research Board Approval

Appendix B
Letter of Introduction



Dear student:

You have been invited to participate in a research project that we are conducting at your school called **"Students' Social Relationships and Their Well Being"**. The purpose of this study is to investigate how the social relationships of students in grades 8 through 10 impact on their psychological health and well being.

If you decide to participate in this study, you will be asked to fill out a set of questionnaires that will take you approximately 55 minutes of your class time. Some of the questions will ask you about your background and others will ask you about your social relationships including bullying at your school. The remaining questions will ask you about how you feel about yourself. This is not a test, there are no right or wrong answers; the only answers we are looking for are honest ones.

Your name will not be recorded anywhere on the questionnaire, so all of your answers will be completely confidential. This means that your answers **will not** be available to anyone at your school, including your teachers or your parents. It is important to note however, that although your specific answers will not be available to anyone, they may indicate that you are experiencing problems and that you might benefit from some help. In this case, your parent/guardian will be notified and suggestions for further evaluation will be offered to you. Also, your school counsellor will be prepared to work with you and to provide you with appropriate follow-up information if you and your family choose to do so.

Being in this project will not affect your grades and schoolwork in any way. If you choose not to participate in this study, you will be given something else to do in your class related to your regular classroom instruction. All students who return completed consent forms, whether consent is provided or not, will have the opportunity to win a \$25.00 gift certificate for a local music store. One student's name from each participating class will be randomly selected and awarded the gift certificate.

We would be extremely pleased if you decide to participate. If you have any further questions please feel free to call Dr. Shelley Hymel (daytime: _____) or Rina Bonanno (_____). In order for you to participate in this study, you will need to take home the attached permission slip and give it to your parent or guardian so that they may sign it. Please do your best to return the permission slip to your teacher by **tomorrow**. Thank you for considering this request. We hope that you agree to participate.

Sincerely,

Shelley Hymel, Ph.D. & Rina Bonanno

Appendix C
Parental Consent Form



December, 2004

Faculty of Education

Department of Educational & Counselling Psychology
& Special Education

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Vancouver, BC, Canada V6T1Z4

PARENT/GUARDIAN CONSENT FORM

STUDENTS' SOCIAL RELATIONSHIPS AND THEIR WELL BEING

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Faculty of Education, UBC
Phone: (604) 822-2207

Please note: This study will be completed to fulfill the dissertation requirements for Doctor of Philosophy in the Department of Educational & Counselling Psychology & Special Education

Dear Parent or Guardian,

We are writing to ask permission for your son or daughter to participate in a research project that we are conducting at their school entitled "Students' Social Relationships and Their Well Being". We hope that all students can take part, but only those students who receive parent permission to participate and who agree themselves will be involved. To help in this decision, we offer a description of the project below.

Purpose:

The purpose of this study is to investigate how students' social relationships impact on their psychological health and well being. Since research in this area using Canadian youth is very limited, your child's participation in this study will help us better understand the factors contributing to the psychological health of students in grades 8 through 10. We also hope that the results of this study will help educators at your child's school better understand the psychological needs of their students, thereby facilitating an optimal educational environment.

Study Procedures:

Only those students who receive parental permission will be invited to participate in the study. Students who participate in this study will be asked to fill out a set of questionnaires in their classrooms that will take approximately 55 minutes to complete during class time. One set of questions asks students to provide information about their background, such as their age, grade, gender and ethnicity. As well, students are

asked about their social relationships including questions about bullying at their school. The questionnaire also includes some questions about suicidal thoughts. The other questionnaires assess general emotional well being. Students who do not participate will continue with regular classroom work during the sessions. Of course, student participation is entirely voluntary and students may withdraw from the study at any time. Students' class standing, marks, or schoolwork are not affected in any way by whether or not they participate in this project.

Due to the nature of this study, a small number of students may exhibit levels of well being that warrant further investigation. The parents/guardians of these students will be individually contacted by one of the study's investigators, and suggestions for further evaluation will be offered. Your child's scores and original questionnaires will **not be** made available to anyone. However, the school counsellor will be available to work individually with these students and to provide appropriate follow-up information if the student and family choose to do so.

Confidentiality:

All information collected will be strictly confidential and will not be available to students, teachers, parents or any other school personnel. No individuals other than the investigators of this study will have access to the information collected from the students. No names will appear on any of the questionnaires; instead numerical codes will be assigned to each student. This is done in order to ensure that students who may benefit from further evaluation can be identified.

Remuneration/Compensation:

All students who return consent forms, whether consent is provided or not, will have the opportunity to win a \$25.00 gift certificate for a local music store. One student from each participating class will be randomly selected as the winner.



We would be extremely pleased if your daughter or son decides to participate and if you are willing to give her or him permission to do so. To inform us of your decision, please fill out the attached permission slip and have your daughter/son return it as soon as possible. **We ask that you have your daughter or son return the permission slip regardless of whether you do, or do not give permission.** Please keep this request for your records.

If you have any questions about the project, feel free to call Dr. Shelley Hymel ((604) 822-6022 daytime, () evenings) or Rina Bonanno (). If you have any questions about your child's rights and treatment as a research participant, please contact the Research Subject Information Line in the UBC Office of Research Services at (604) 822-8598.

Thank you for considering our request.

Sincerely,

Shelley Hymel

Rina A. Bonanno

PLEASE KEEP FOR YOUR RECORDS



PARENT/GUARDIAN CONSENT FORM
PLEASE RETURN THIS SLIP TO THE SCHOOL

Study Title: Students' Social Relationships and Their Well Being

Principal Investigator: Shelley Hymel, Ph. D., Professor, Faculty of Education, University of British Columbia.

Co-Investigator: Rina A. Bonanno, Ph.D. candidate, Faculty of Education, University of British Columbia.

Consent: I have read and understood the attached letter of request for participation in the study entitled "Students' Social Relationships and Their Well Being". I understand that I may keep the letter of request for my own records. I also understand that my child's participation in this study is entirely voluntary and that she/he may refuse to participate or withdraw from the study at any time without any consequences or impact on her/his schoolwork. My decision regarding my daughter/son's participation in this study is indicated below:

☐ **YES**, my daughter/son has my permission to participate.

☐ **NO**, my daughter/son DOES NOT have my permission to participate.

Daughter/Son's Name: _____ Grade: _____
Parent or Guardian Signature _____ Date: _____

PLEASE RETURN THIS SLIP TO THE SCHOOL

Appendix D
Student Assent Form

STUDENT CONSENT FORM



Dear student:

You have been invited to participate in a research project that we are conducting at your school called **"Students' Social Relationships and Their Well Being"**. The purpose of this study is to investigate how the social relationships of students in grades 8 through 10 impact on their psychological health and well being.

If you decide to participate in this study, you will be asked to fill out a set of questionnaires that will take you approximately 55 minutes of your class time. Some of the questions will ask you about your background and others will ask you about your social relationships including bullying at your school. The remaining questions will ask you about how you feel about yourself. This is not a test, there are no right or wrong answers; the only answers we are looking for are honest ones.

Your name will not be recorded anywhere on the questionnaire, so all of your answers will be completely confidential. This means that your answers **will not** be available to anyone at your school, including your teachers or your parents. It is important to note however, that although your specific answers will not be available to anyone, they may indicate that you are experiencing problems and that you might benefit from some help. In this case, your parent/guardian will be notified and suggestions for further evaluation will be offered to you. Also, your school counsellor will be prepared to work with you and to provide you with appropriate follow-up information if you and your family choose to do so.

Being in this project will not affect your grades and schoolwork in any way. If you choose not to participate in this study, you will be given something else to do in your class related to your regular classroom instruction. All students who return completed consent forms, whether consent is provided or not, will have the opportunity to win a \$25.00 gift certificate for a local music store. One student's name from each participating class will be randomly selected and awarded the gift certificate.

We would be extremely pleased if you decide to participate. If you have any further questions please feel free to call Dr. Shelley Hymel (daytime: 604-822-6022, evenings: _____ or Rina Bonanno _____). If you would like to participate in this project please print and sign your name below to let us know that you understand what the study is about, and that you wish to be involved. Thank you very much for your help.

Shelley Hymel, Ph.D. & Rina Bonanno

DATE _____ GRADE _____

NAME: (Please print) _____

SIGNATURE: _____

Appendix E
Questionnaires

ID# _____



Students' Social Relationships and their Well Being Survey

ID# _____

TELL US ABOUT YOURSELF

We are interested in learning a little about your background.

Please follow the directions carefully, and answer all of the questions.

**REMEMBER, YOUR ANSWERS WILL REMAIN PRIVATE
AND WILL BE SEEN ONLY BY THE RESEARCHERS.**

1. Are you female or male? (Check one) Female _____ Male _____
2. How old are you? _____ (years)
3. What is your date of birth (day) _____ (month) _____ (year) _____
3. What **GRADE** are you in? (Check one) 8th _____ 9th _____ 10th _____
4. What kinds of grades do you usually get in school (check one)
mostly As _____ As and Bs _____ mostly Bs _____ Bs and Cs _____ mostly Cs _____ Cs and lower _____ less than Cs _____
5. How would you describe yourself in terms of racial or ethnic heritage? (Check one)
_____ White (Anglo, Caucasian, European descent, etc.)
_____ Latin (Spanish, Mexican, South American, Portuguese, etc.)
_____ Black (African, Haitian, Jamaican, Caribbean, etc.)
_____ Aboriginal/Native People (North American Indian, Metis, Inuit, etc.)
_____ Asian (Chinese, Japanese, Korean, Vietnamese, Taiwanese, etc.)
_____ South Asian (Indian, Indonesian, Pakistani, etc.)
_____ Middle Eastern (Arabic, Iranian, Kuwaiti, Persian, etc.)
_____ Mixed (more than one racial or ethnic background)
_____ Not sure.
_____ Other ethnic or cultural group(s) Please describe: _____

6. What is your first language (the first one you learned to speak)? _____ English _____ Other (please specify) _____
7. Which of these **ADULTS** do you live with **MOST OF THE TIME?** (Check one)
_____ Both my parents.
_____ My mother only.
_____ My father only.
_____ My mother and my stepfather.
_____ My father and my stepmother.
_____ $\frac{1}{2}$ time with Mother, $\frac{1}{2}$ time with Father
_____ Grandparents.
_____ Other adults (describe): _____

ID# _____

BULLYING AND HARASSMENT AT SCHOOL

There are lots of different ways to bully someone, but a bully wants to hurt the other person (it's not an accident), and does so repeatedly and unfairly (the bully has some advantage over the victim). Sometimes a group of students will bully another student.

Bullying takes many forms:

- | | |
|---|---|
| <ul style="list-style-type: none">• <u>Physical bullying</u> -when someone hits, shoves, kicks, spits, or beats up on others
-when someone damages or steals another student's property | <ul style="list-style-type: none">• <u>Social bullying</u> -excluding others from the group
-gossiping or spreading rumors about others
-setting others up to look foolish
-making sure others don't associate with the person |
| <ul style="list-style-type: none">• <u>Verbal bullying</u> -name-calling, mocking, hurtful teasing
-humiliating or threatening someone
-making people do things they don't want to do | <ul style="list-style-type: none">• <u>Electronic bullying</u> -using computer or email or cell phone messages or pictures to
-threaten or hurt someone's feelings
-single out, embarrass or make someone look bad
-spread rumors or reveal secrets about someone |

The following are a series of questions about bullying at your school

When you answer these questions, think about this school year.

Please consider all the different types of bullying listed above when answering the following 4 questions

1. Overall, how often have you **BEEN BULLIED** this year?

Check one:

- ☐ Not at all
☐ Only a few times this year
☐ Every month
☐ Every week
☐ Many times a week

2. Overall, how often have you **BULLIED OTHERS** this year?

Check one:

- ☐ Not at all
☐ Only a few times this year
☐ Every month
☐ Every week
☐ Many times a week

3. Overall, how often have you **SEEN YOUR FRIENDS** getting bullied this year?

Check one:

- ☐ Not at all
☐ Only a few times this year
☐ Every month
☐ Every week
☐ Many times a week

4. Overall, how often have you **SEEN OTHER STUDENTS** getting bullied this year?

Check one:

- ☐ Not at all
☐ Only a few times this year
☐ Every month
☐ Every week
☐ Many times a week

ID# _____

This section asks about **DIFFERENT** ways you may have been bullied

5. How often have you been physically bullied this year?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

6. How long did the physical bullying last?

Check one:

- ☐ I haven't been physically bullied
- ☐ it lasted less than a week
- ☐ it lasted about a month
- ☐ it lasted all term
- ☐ it lasted about a year
- ☐ it has gone on for several years

7. How often have you been verbally bullied by insults or threats?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

8. How long did the verbal bullying last?

Check one:

- ☐ I haven't been verbally bullied
- ☐ it lasted less than a week
- ☐ it lasted about a month
- ☐ it lasted all term
- ☐ it lasted about a year
- ☐ it has gone on for several years

9. How often have you been socially bullied by exclusion, rumors, or someone making you look bad?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

10. How long did the social bullying last?

Check one:

- ☐ I haven't been socially bullied
- ☐ it lasted less than a week
- ☐ it lasted about a month
- ☐ it lasted all term
- ☐ it lasted about a year
- ☐ it has gone on for several years

11. How often have you been electronically bullied using computer, email, or cell phone messages or pictures?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

12. How long did the electronic bullying last?

Check one:

- ☐ I haven't been electronically bullied
- ☐ it lasted less than a week
- ☐ it lasted about a month
- ☐ it lasted all term
- ☐ it lasted about a year
- ☐ it has gone on for several years

ID# _____

This section asks about **DIFFERENT** ways you may have bullied others

13. How often have you taken part in physically bullying other students?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

14. How long did the physical bullying last?

Check one:

- ☐ I haven't physically bullied other students
- ☐ it lasted less than a week
- ☐ it lasted about a month
- ☐ it lasted all term
- ☐ it lasted about a year
- ☐ it has gone on for several years

15. How often have you taken part in verbally bullying other students by insults, put downs or threats?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

16. How long did the verbal bullying last?

Check one:

- ☐ I haven't verbally bullied other students
- ☐ it lasted less than a week
- ☐ it lasted about a month
- ☐ it lasted all term
- ☐ it lasted about a year
- ☐ it has gone on for several years

17. How often have you taken part in socially bullying other students by exclusion, rumours, or making someone look bad?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

18. How long did the social bullying last?

Check one:

- ☐ I haven't socially bullied other students
- ☐ it lasted less than a week
- ☐ it lasted about a month
- ☐ it lasted all term
- ☐ it lasted about a year
- ☐ it has gone on for several years

19. How often have you electronically bullied others using computer, email or cell phone messages or pictures?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

20. How long did the electronic bullying last?

Check one:

- ☐ I haven't electronically bullied other students
- ☐ it lasted less than a week
- ☐ it lasted about a month
- ☐ it lasted all term
- ☐ it lasted about a year
- ☐ it has gone on for several years

ID# _____

This section asks about **DIFFERENT** types of bullying you may have **SEEN**

21. How often have you **seen** YOUR FRIENDS getting physically bullied?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

22. How often have you **seen** OTHER STUDENTS getting physically bullied?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

23. How often have you **seen** YOUR FRIENDS getting verbally bullied by insults, put downs, or threats?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

24. How often have you **seen** OTHER STUDENTS getting verbally bullied by insults, put downs, or threats?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

25. How often have you **seen** YOUR FRIENDS getting socially bullied by exclusion, rumours or someone making them look bad?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

26. How often have you **seen** OTHER STUDENTS getting socially bullied by exclusion, rumours or someone making them look bad?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

27. How often have you **seen** YOUR FRIENDS getting electronically bullied using computer, email or cell phone messages or pictures?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

28. How often have you **seen** OTHER STUDENTS getting electronically bullied using computer, email or cell phone messages or pictures?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

ID# _____

29. How often have you tried to help another student who was being bullied at school?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

30. This school year, have you stayed away from school, or tried to stay away, in order to avoid being bullied?

Check one:

- ☐ Not at all
- ☐ Only a few times this year
- ☐ Every month
- ☐ Every week
- ☐ Many times a week

31. Why do you think **you** have been bullied?

(Please check all answers that apply.)

- ☐ a. I have never been bullied
- ☐ b. Because of physical characteristics (weight, height, features)
- ☐ c. Because of ethnicity, culture or religion
- ☐ d. Because of a physical handicap or learning disability
- ☐ e. Because of sexual orientation
- ☐ f. For no reason
- ☐ g. Other reasons (please describe) _____

32. Why do you think **other students** get bullied?

(Please check all answers that apply.)

- ☐ a. I don't know
- ☐ b. Because of physical characteristics (weight, height, features)
- ☐ c. Because of ethnicity, culture or religion
- ☐ d. Because of a physical handicap or learning disability
- ☐ e. Because of sexual orientation
- ☐ f. For no reason
- ☐ g. Other reasons (please describe) _____

ID# _____

For the following questions please read each statement and then decide if the statement is true or not true. If you think the statement is not true, circle one of the "no" answers. If you think that the statement is true, circle one of the "yes" answers.

Circle "NO" in all capital letters if the sentence is not at all true or never true.

Circle "no" in lower case letters if the sentence is not really true or usually not true.

Circle "yes" in lower case letters if the sentence is sort of true or mostly true.

Circle "YES" in all capital letters if the sentence is definitely true or always true.

- | | | | | |
|---|----|----|-----|-----|
| ♦1). It's okay to join in when someone you don't like is being bullied. | NO | no | yes | YES |
| ♦2). Bullying is a criminal offence. | NO | no | yes | YES |
| ♦3). Sometimes it's okay to bully other people. | NO | no | yes | YES |
| ♦4). Bullying gets kids to understand what is important to the group. | NO | no | yes | YES |
| ♦5). Some kids get bullied because they deserve it. | NO | no | yes | YES |
| ♦6). Bullying is just a normal part of being a kid. | NO | no | yes | YES |
| ♦7). It is okay to pick on losers. | NO | no | yes | YES |
| ♦8). Getting bullied helps to make people tougher. | NO | no | yes | YES |
| ♦9). Some kids need to be picked on just to teach them a lesson. | NO | no | yes | YES |
| ♦10). Bullying can be a good way to solve problems. | NO | no | yes | YES |

ID# _____

11). It's my responsibility to intervene or do something when I see bullying. NO no yes YES

♦12). In my group of friends, bullying is okay. NO no yes YES

♦13). Most students who get bullied bring it on themselves. NO no yes YES

14). When I see another kid getting bullied, there's nothing I can do to stop it. NO no yes YES

♦15). If certain kids didn't cry or give in so easily they wouldn't get bullied so much. NO no yes YES

♦16). Some kids get bullied because they hurt other kids. NO no yes YES

17). Kids get bullied because they are different. NO no yes YES

18). Adults at school should be responsible for protecting kids from bullies. NO no yes YES

19). Does it bother you when other students bully you? NO no yes YES

20). Does it bother you when other students get bullied? NO no yes YES

♦ Denotes items that comprised the moral disengagement scale.

ID# _____

The material on this page has been removed because of copyright restrictions. Originally contained on this page (119) was the Beck Hopelessness Scale (BHS; Beck, Weissman, Lester, & Trexler, 1974). The BHS is designed to assess the extent of adolescents' and adults' negative attitudes about their perceived short and long-term future.

Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism: The hopelessness scale. Journal of Consulting and Clinical Psychology, 42(6), 861-865.

The Beck Hopelessness Scale is published by Harcourt Assessment, Inc. All rights reserved. "BHS" is a trademark of Harcourt Assessment, Inc. registered in the United States of America and/or other jurisdictions.

ID# _____

The material on this page has been removed because of copyright restrictions. Originally contained on this page (120) was the Suicidal Ideation Questionnaire – JR (SIQ-JR; Reynolds, 1987). The SIQ-JR. is designed to assess suicidal ideation in young adolescents.

Reynolds, W.M. (1987). Suicidal Ideation Questionnaire Jr. Odessa, FL: Psychological Assessment Resources Inc., 16204 North Florida Avenue, Lutz, Florida 33549.

ID# _____

(CES-D)

Below is a list of some of the ways you may have felt or behaved. Please indicate how often you have felt this way during the past week: *(circle one number on each line).*

During the past week...	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	All of the time (5-7 days)
1. I was bothered by things that usually don't bother me.	0	1	2	3
2. I did not feel like eating; my appetite was poor.	0	1	2	3
3. I felt that I could not shake off the blues even with help from my family.	0	1	2	3
4. I felt that I was just as good as other people.	0	1	2	3
5. I had trouble keeping my mind on what I was doing.	0	1	2	3
6. I felt depressed.	0	1	2	3
7. I felt that everything I did was an effort.	0	1	2	3
8. I felt hopeful about the future.	0	1	2	3
9. I thought my life had been a failure.	0	1	2	3
10. I felt fearful.	0	1	2	3
11. My sleep was restless.	0	1	2	3
12. I was happy.	0	1	2	3
13. I talked less than usual.	0	1	2	3
14. I felt lonely.	0	1	2	3
15. People were unfriendly.	0	1	2	3
16. I enjoyed life.	0	1	2	3
17. I had crying spells.	0	1	2	3
18. I felt sad.	0	1	2	3
19. I felt that people disliked me.	0	1	2	3
20. I could not "get going".	0	1	2	3

ID# _____

The Goals Scale

Directions: Read each item carefully. Using the scale shown below, please circle the number that best describes how you think about yourself right now. Please take a few moments to focus on yourself and what is going on in your life at this moment. Once you have this "here and now" mindset, go ahead and answer each item according to the following scale:

	Definitely False	Mostly False	Somewhat False	Slightly False	Slightly True	Somewhat True	Mostly True	Definitely True
1. If I should find myself in a jam, I could think of many ways to get out of it.	1	2	3	4	5	6	7	8
2. At the present time, I am energetically pursuing my goals.	1	2	3	4	5	6	7	8
3. There are lots of ways around any problem that I am facing now.	1	2	3	4	5	6	7	8
4. Right now I see myself as being pretty successful.	1	2	3	4	5	6	7	8
5. I can think of many ways to reach my current goals.	1	2	3	4	5	6	7	8
6. At this time, I am meeting the goals that I have set for myself.	1	2	3	4	5	6	7	8

ID# _____

SHQ

The following scale contains statements about what people think about their social worlds. Please circle a number that shows how much you agree or disagree with each of the statements. Circle a "1" if you disagree strongly with the statement, a "3" if you neither agree nor disagree with the statement, and a "5" if you agree strongly with the statement.

	Strongly Disagree	Slightly Disagree	Neither agree nor disagree	Slightly Agree	Strongly Agree
1. I will always be powerless to get away from the people who bother me.	1	2	3	4	5
2. I sometimes can't help thinking that I will never be able to regain or replace the people I have lost in my life.	1	2	3	4	5
3. I will always have a hard time coping with some people.	1	2	3	4	5
4. People are bound to get angry at me, no matter what I do.	1	2	3	4	5
5. I will never be able to do things as well as other people can.	1	2	3	4	5
6. I sometimes feel that certain people will never want to help me.	1	2	3	4	5
7. I sometimes feel certain that I am destined to have few friends.	1	2	3	4	5
8. Some people do little to inspire hope in me.	1	2	3	4	5
9. When it comes to matching my friends' accomplishments, I am pessimistic about my chances.	1	2	3	4	5
10. In the future, people will probably take advantage of me more than they should.	1	2	3	4	5
11. I sometimes feel that no one will ever truly understand my problems.	1	2	3	4	5
12. I will always find it hard to get along with some people.	1	2	3	4	5
13. I am bothered by the fact that some people will never change their negative views of me.	1	2	3	4	5
14. My world will always be full of unfair people.	1	2	3	4	5
15. I am pessimistic about my chances of ever "falling in love" with Someone special.	1	2	3	4	5
16. It is unlikely that I will ever be the "life of the party".	1	2	3	4	5
17. I expect that some people will always be mean to me.	1	2	3	4	5
18. My social relationships will never be as good as I would like them to be.	1	2	3	4	5
19. It is impossible for me to avoid being hurt by others.	1	2	3	4	5
20. I sometimes have the feeling that other people will never be able to help me with my problems.	1	2	3	4	5

ID# _____

My Friends, Family & School

INSTRUCTIONS:

Think about yourself and students your age when you answer the following 14 questions. Please decide if EACH statement is true or not true by circling one of the following: **NO** (not at all), **no** (mostly no), **sometimes**, **yes** (mostly yes), or **YES** (always yes).

1). I feel like part of a group of friends that do things together.	NO	no	sometimes	yes	YES
2). There is someone my age I can turn to.	NO	no	sometimes	yes	YES
3). I have a lot in common with other students.	NO	no	sometimes	yes	YES
4). There is someone my age I could go to if I were feeling down.	NO	no	sometimes	yes	YES
5). I feel in tune with other students.	NO	no	sometimes	yes	YES
6). I have at least one really good friend I can talk to when something is bothering me.	NO	no	sometimes	yes	YES
7). I feel like other students want to be with me.	NO	no	sometimes	yes	YES
8). I have a friend who is really interested in hearing about my private thoughts and feelings.	NO	no	sometimes	yes	YES
9). I feel that I usually fit in with other students around me.	NO	no	sometimes	yes	YES
10). I have a friend I can tell everything to.	NO	no	sometimes	yes	YES
11). When I want to do something for fun, I can usually find friends to join me.	NO	no	sometimes	yes	YES
12). There is somebody my age who really understands me.	NO	no	sometimes	yes	YES
13). When I am with other students, I feel like I belong.	NO	no	sometimes	yes	YES
14). There is a friend I feel close to.	NO	no	sometimes	yes	YES

ID# _____

Instructions: Think of your **FAMILY** when you answer the next 14 questions.

- | | | | | | |
|---|----|----|-----------|-----|-----|
| 1). In my family, I feel part of a group of people that do things together. | NO | no | sometimes | yes | YES |
| 2). There is someone in my family I can turn to. | NO | no | sometimes | yes | YES |
| 3). I have a lot in common with people in my family. | NO | no | sometimes | yes | YES |
| 4). There is someone in my family I could go to if I were feeling down. | NO | no | sometimes | yes | YES |
| 5). I feel in tune with the people in my family. | NO | no | sometimes | yes | YES |
| 6). I have at least one person in my family I can talk to when something is bothering me. | NO | no | sometimes | yes | YES |
| 7). I feel like the people in my family want to be with me. | NO | no | sometimes | yes | YES |
| 8). I have someone in my family who is really interested in hearing about my private thoughts and feelings. | NO | no | sometimes | yes | YES |
| 9). I feel that I usually fit in with my family. | NO | no | sometimes | yes | YES |
| 10). I have someone in my family I can tell everything to. | NO | no | sometimes | yes | YES |
| 11). When I want to do something for fun, I can usually find people in my family to join me. | NO | no | sometimes | yes | YES |
| 12). There is someone in my family who really understands me. | NO | no | sometimes | yes | YES |
| 13). When I am with my family, I feel like I belong. | NO | no | sometimes | yes | YES |
| 14). There is someone in my family I feel close to. | NO | no | sometimes | yes | YES |

ID# _____

For the following questions please read each statement and then decide if the statement is true or not true. If you think the statement is not true, circle one of the "no" answers. If you think that the statement is true, circle one of the "yes" answers.

Circle "NO" in all capital letters if the sentence is not at all true or never true.

Circle "no" in lower case letters if the sentence is not really true or usually not true.

Circle "yes" in lower case letters if the sentence is sort of true or mostly true.

Circle "YES" in all capital letters if the sentence is definitely true or always true.

Instructions: Think of your **SCHOOL** when you answer the next 8 questions.

- | | | | | |
|---|----|----|-----|-----|
| 1). I feel special at my school. | NO | no | yes | YES |
| 2). I am needed by my friends. | NO | no | yes | YES |
| 3). When I am away from school, people miss me. | NO | no | yes | YES |
| 4). When I talk, my classmates try to understand what I'm saying. | NO | no | yes | YES |
| 5). Kids at my school notice how I feel. | NO | no | yes | YES |
| 6). My classmates give me credit when I do well. | NO | no | yes | YES |
| 7). Other kids notice when I need help. | NO | no | yes | YES |
| 8). At my school, I matter. | NO | no | yes | YES |

ID# _____

***** THIS PAGE IS OPTIONAL *****
THIS MEANS THAT YOU ONLY NEED TO FILL IT OUT IF YOU WANT TO

If you are being bullied, feeling depressed, or if you are thinking of hurting yourself,
and you would like some help, please let us know below.

If you tell us that you **would** like help and you write your name below, then we will pass
your name and request for help on to your counsellor.

☐ I would like help and I understand that my school counsellor will contact me. (**PLEASE CHECK BOX IF THIS IS TRUE**).

Name: (**PLEASE PRINT**) _____

Grade: _____

Counsellor's Name: _____

We will rip this page off and give your counsellor your name.
After that, this page will be destroyed, but we will keep the rest of the questionnaire (without names).

Appendix F
Resource Information Sheet

INFORMATION SHEET

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If you or someone you know is being bullied, feeling depressed, or are thinking of hurting yourself/them self, please know that you do not have to face this alone; you can get help.

You can talk to your parents or other family members; they may have some ideas that you have not yet thought of. Remember, there are many different ways to cope with problems.

At school, you can talk to your school counsellor. They care about you and they are here to help you.

If you would like help from someone outside of the school, you could call one of the following help lines:
(*1-800 numbers can be called FREE from any phone, including payphones)

BC Crisis Centre: 604-872-3311

BC Crisis Centre (toll free): *1-866-661-3311

24-hour support and crisis counselling

Help Line for Children: 604-310-1234

24- hour emergency services and support for youth and children

Kids Help Phone: *1-800-668-6868

24-hour confidential and anonymous counselling, referral and information service for children and youth

Youth Against Violence *1-800-680-4264

A safe and confidential way to report problems related to youth crime, such as fights, threats, bullying, intimidation and other violence-related issues

OR YOU CAN GET HELP ON-LINE AT:

WWW.YOUTHINBC.COM

Appendix G

Means and Standard Deviations for Specific Types of Victimization, Bullying, Witnessing Friends and Witnessing Others.

Variable	Mean	Standard Deviation
How often have you been physically bullied?	1.13	.45
How often have you been verbally bullied?	1.64	.88
How often have you been socially bullied?	1.53	.76
How often have you been electronically bullied?	1.13	.39
How often have you taken part in physically bullying other students?	1.13	.37
How often have you taken part in verbally bullying other students?	1.52	.71
How often have you taken part in socially bullying other students?	1.37	.60
How often have you taken part in electronically bullying other students?	1.13	.42
How often have you seen your friends getting physically bullied?	1.38	.71
How often have you seen your friends getting verbally bullied?	1.81	.96
How often have you seen your friends getting socially bullied?	1.78	.91
How often have you seen your friends getting electronically bullied?	1.20	.50
How often have you seen other students getting physically bullied?	1.81	.87
How often have you seen other students getting verbally bullied?	2.38	1.19
How often have you seen other students getting socially bullied?	2.20	1.11
How often have you seen other students getting electronically bullied?	1.26	.62

Appendix H

Zero-order Correlations for Specific Types of Victimization and Outcome Variables ($N = 399$).

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Physical Victim	—										
2. Verbal Victim	.344**	—									
3. Social Victim	.277**	.473**	—								
4. Electronic victim	.175**	.187**	.206**	—							
5. Depression CES-D	.100*	.275**	.346**	.186**	—						
6. Suicidal Ideation	.132*	.395**	.233**	.242**	.610**	—					
7. Beck Hopelessness	.019	.073	.062	.081	.562**	.439**	—				
8. Social Hopelessness	.056	.208**	.281**	.137*	.609**	.428**	.482**	—			
9. Moral Disengagement	.132**	.220**	.106*	.140*	.123*	.161**	.117*	.156*	—		
10. Social Support Family	-.063	-.146*	-.206**	-.091*	-.469**	-.363**	-.416**	-.442**	-.214**	—	
11. Social Support Friend	-.180**	-.161**	-.110*	-.024	-.320**	-.188**	-.351**	-.416**	-.036	.328**	—

* $p < .05$, ** $p < .001$

Appendix I

Zero-order Correlations for Specific Types of Bullying and Outcome Variables ($N = 399$).

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Physical Bully	—										
2. Verbal Bully	.402**	—									
3. Social Bully	.195**	.312**	—								
4. Electronic Bully	.263**	.216**	.156**	—							
5. Depression CES-D	.044	.224**	.194**	.192**	—						
6. Suicidal Ideation	.085*	.183**	.143*	.212**	.610**	—					
7. Beck Hopelessness	.068	.098*	.013	.106*	.562**	.439**	—				
8. Social Hopelessness	-.004	.103*	.114*	.123*	.609**	.428**	.482**	—			
9. Moral Disengagement	.347**	.412**	.249**	.271**	.123*	.161**	.117*	.156*	—		
10. Social Support Family	-.041	-.130*	-.128*	-.137*	-.469**	-.363**	-.416**	-.442**	-.214**	—	
11. Social Support Friend	-.071	-.051	.087*	-.029	-.320**	-.188**	-.351**	-.416**	-.036	.328**	—

* $p < .05$, ** $p < .001$

Appendix J

Zero-order Correlations for Specific Types of Witness Friends and Outcome Variables ($N = 399$).

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Witnessing friends being:											
1. Physical Bullied	—										
2. Verbal Bullied	.502**	—									
3. Socially Bullied	.338**	.589**	—								
4. Electronic Bullied	.146*	.135*	.203**	—							
5. Depression CES-D	.143*	.266**	.247**	.227**	—						
6. Suicidal Ideation	.140*	.137*	.100*	.195**	.610**	—					
7. Beck Hopelessness	.086*	.078	.043	.044	.562**	.439**	—				
8. Social Hopelessness	.044	.220**	.147*	.111*	.609**	.428**	.482**	—			
9. Moral Disengagement	.267**	.182**	.190**	.175**	.123*	.161**	.117*	.156*	—		
10. Social Support Family	-.098*	-.093*	-.088*	-.081	-.469**	-.363**	-.416**	-.442**	-.214**	—	
11. Social Support Friend	-.100*	-.175**	-.037	.030	-.320**	-.188**	-.351**	-.416**	-.036	.328**	—

* $p < .05$, ** $p < .001$

Appendix K

Zero-order Correlations for Specific Types of Witness Others and Outcome Variables ($N = 399$).

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Witnessing others being:											
1. Physical Bullied	—										
2. Verbal Bullied	.580**	—									
3. Socially Bullied	.479**	.718**	—								
4. Electronic Bullied	.184**	.150**	.272**	—							
5. Depression CES-D	.151*	.214**	.232**	.163**	—						
6. Suicidal Ideation	.095*	.068	.078	.128*	.610**	—					
7. Beck Hopelessness	.062	.057	.053	.070	.562**	.439**	—				
8. Social Hopelessness	.053	.147*	.112*	.128*	.609**	.428**	.482**	—			
9. Moral Disengagement	.297**	.210**	.170**	.189**	.123*	.161**	.117*	.156*	—		
10. Social Support Family	-.078	-.151*	-.060	-.017	-.469**	-.363**	-.416**	-.442**	-.214**	—	
11. Social Support Friend	-.012	-.082	-.070	.044	-.320**	-.188**	-.351**	-.416**	-.036	.328**	—

* $p < .05$, ** $p < .001$