

**Correlates and Outcomes of Severe Bullying:
Internalizing Maladjustments of Adolescent Bullies, Victims and Bully-Victims**

by

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Abstract

The current study examined the association between involvement in bullying and victimization and internalizing difficulties such as self-esteem, social anxiety, depression and body image. Possible gender differences were also examined. The participants, high school students from Southern Ontario (N=533), were drawn from a larger, data set as part of a study that was completed by the Youth Lifestyle Choices: Community Research Alliance (YLC-CURA). The students completed a self-report questionnaire on a number of measures; including, bullying, victimization, self-esteem, social anxiety, depression and body image. The results of this study suggest that those students who self-identified as victims and bully-victims also report higher levels of anxiety and depression than controls and bullies. Severe victims and bully-victims had a lower body image than severe bullies and controls, whereas severe bullies seem to have a higher body image score than controls. These results are relevant when considering treatments and interventions for students experiencing adjustment difficulties who may also be at risk for bullying victimization. The results also suggest that particular attention needs to be focused on those adolescents who play multi-roles in bullying situations (i.e., bully-victims), since these students may come to the attention of the school system for externalizing behaviours, but may also need assistance for internalizing maladjustments.

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CHAPTER ONE

INTRODUCTION AND GENERAL OBJECTIVES

Although educators and parents have long suspected that bullying behaviours can have a negative effect on both the bullies and victims, only recently have researchers focused their attention on issues related to outcomes (Bernstein & Watson, 1997; Fosse & Holen, 2002; Kumpulainen, Rasanen and Henttonen, 1999; Kumpulainen & Rasanen, 2000; Mahady Wilton, Craig, & Pepler, 2000; Marini, Spear & Bombay, 1999; Nansel, Overpeck, Pilla, Ruan, Simons-Morton, & Scheidt, 2001; Perry, Kusal & Perry, 1988; Rigby, 2000; Roecker Phelps, 2001). It is estimated that over 20% of school-aged children are involved in bullying as a bully, victim or both (Bernstein & Watson, 1997; Grills & Ollendick, 2002; Graham & Juvonen, 1998). Most studies have examined the effects of victimization on the victim, predominantly internalizing outcomes. Thus consequences of bullying have been reported to include anxiety, depression, fear of going to school, somatic symptoms, poor self-esteem, poor peer relations and in extreme cases suicidal or homicidal behaviour (Bernstein & Watson, 1997; Fosse & Holen, 2002; Kumpulainen, Rasanen and Henttonen, 1999; Kumpulainen & Rasanen, 2000; Mahady Wilton, Craig, & Pepler, 2000; Marini, Spear & Bombay, 1999; Nansel, Overpeck, Pilla, Ruan, Simons-Morton, & Scheidt, 2001; Perry, Kusal & Perry, 1988; Rigby, 2000; Roecker Phelps, 2001).

The intent of this thesis was to address an important aspect of children's lives by examining a number of issues related to bullying and victimization. Five objectives were pursued. First, this study aimed to make a unique contribution by expanding on the number of internalizing problems analyzed by other researchers to include a variable relatively unexamined, namely body image. The second objective was to analyze a relatively understudied age group

such as adolescents, since most bullying studies tend to focus on children and pre-adolescents. The third objective of this study was to examine different types of bullying. That is, this study not only assessed bullying and victimization in a general context, but also focused on direct and indirect forms of bullying. In addition, it also examined the four separate components of bullying (i.e., physical, cognitive, social and emotional). A review of the literature revealed that this type of precise analysis has not been carried out to date. In fact, the importance of examining the separate types of bullying behaviours has been suggested by researchers such as Rigby (2002) and Mynard, Joseph and Alexander (2000) who suggest that “the psychosocial consequences of bullying may be dependent upon the form of aggression involved” (pp. 816). The fourth objective was to examine possible gender differences. The fifth and final objective was to analyze the role of the participants (i.e., bullies, victims and bully-victims) to obtain a clearer picture of the association between bullying involvement and adjustment difficulties.

In the rest of the thesis, a review of the literature will include a presentation of the different types of bullying and the major participants, followed by a review of self-esteem, social anxiety, depression, and disordered body image. The objectives and hypotheses of this study will then be outlined, followed by a review of participants and procedure. Finally, results from t-tests and correlational data analysis on the sample used in this study will be presented, followed by some general conclusions and discussion of these results.

CHAPTER TWO

LITERATURE REVIEW

Bullying: Definitional Issues

It is important to note that several terms are used in reference to bullying behaviour throughout the literature. For the purpose of this paper, the term “bullying” refers to both peer aggression (bully role) and peer harassment (victim role). Bullying is defined by Marini, Spear and Bombay (1999) as “the abuse of physical and psychological power for the purpose of intentionally and repeatedly creating a negative atmosphere of severe anxiety, intimidation and chronic fear in victims” (p.33). Andreou (2001) and Nansel et al. (2001) also define bullying as an imbalance of power and harassment that happens repeatedly. Baldry and Farrington (2000), Kumpulainen et al. (1999), and Kumpulainen, Rasanen and Puura (2001) note that the attack by the bully must be repeated and intended to cause fear, distress or harm to the victim (physically or psychologically). Bjorkqvist (2001) also adds that the bullying must be a conscious and willful act.

It is also important to clarify that although there are several forms of aggression, bullying is only one particular form of aggression, and thus, will be the only type of aggression examined in this research. Bullying behaviors can range from mild (i.e., typically occurring only once or twice during the school year) to “severe” (i.e., typically occurring on a monthly or weekly basis during the school year). For the purpose of this study, only those involved in severe bullying will be assessed.

Types of bullying

Marini, Fairbairn and Zuber (2001) have outlined four categories of peer bullying as illustrated in Figure 1. There are two general categories of bullying behaviour, as outlined in the above Figure 1. The first is referred to as “direct” bullying and is an observable cover form of bullying. Direct bullying is further divided into physical and cognitive. Physical bullying involves direct physical attacks with the intent to produce harm. Examples are kicking, punching, spitting, use of a weapon, and any other direct physical act. Cognitive bullying involves predominantly verbal or emotional attacks. It is important to note that cognitive bullying does not involve physical contact, but instead involves intimidation and threat, such as name calling, daring, menacing glances and threatening glances (Marini et al., 1999).

Direct bullying is also referred to as overt bullying by Crick and Bigbee (1998) and relates to the harm that is done through physical damage and/or threats of physical damage to a person or his/her possessions. This has been found to be more common in boys, where physical power is a social goal (Bosworth, Espelage & Simon, 1999; Callaghan & Joseph, 1995; Crick & Bigbee, 1998, Grills & Ollendick, 2002; Nansel et al., 2001; Rigby & Slee, 1992).

Indirect bullying is the second category, which involves secretive bullying. Indirect bullying is divided into social and emotional bullying. Social bullying involves a group of students. In this situation, the bully may not participate, but instead, dares or instigates others to pick on the victim. This type of bullying is common in gangs as the bully may coax or encourage the bullying by other students. Emotional bullying involves secretive attacks with the intent of socially isolating and excluding the victim from the peer group. Examples are attacking the victims’ reputation through anonymous rumors and untrue stories, unsigned notes, and obscene phone calls (Marini et al., 1999).

Indirect bullying can include (but not be limited to) a type of “relational aggression” (see Crick & Bigbee, 1998) in that peer relationships or friendships are manipulated by others, who intend to inflict harm on the victim(s) (e.g., excluding someone from a group). Relationally aggressive behaviors have been found to be frequent and violent and more common in adolescent females, where the social goals are most important and relational aggression has been suggested to be more distressful and upsetting to girls than boys (Bjorkqvist, 2001; Bosworth et al., 1999; Crick & Bigbee, 1998; Grills & Ollendick, 2002; Nansel et al., 2001; Olafsen & Viemero, 2000; Roecker Phelps, 2001).

In a study of 383 fourth and fifth grade students, victims of relational aggression experienced significant social-psychological adjustment problems, especially girls. In fact, every rejected child identified by relational aggression in this study was a girl (Crick & Bigbee, 1998). Another study by Bijttebier and Vertommen (1998) studied 329 Flemish children from grades four to grade six and reported that more boys than girls were identified as bullies and victims due to a greater tendency to use physical and verbal aggression. The same authors concluded that girls preferred to harm peers by relational bullying such as the intentional exclusion from a peer group.

Characteristics of the Three Major Participants: Bullies, Victims and Bully-Victims

Bullies

Bullies tend to be physically larger and older than their victims. As well, bullies have been described as having high dominance needs, a positive view of aggression, lacking empathy, a negative view of peers and lacking self-control (Duncan, 1999b; Haynie, Nansel, Eitel, Crump, Saylor, Yu, & Simons-Morton, 2001; Johnson & Lewis, 1999). They are often described by teachers and peers as being aggressive and disruptive and are often rated as somewhat popular

with average to above average self-esteem (Duncan, 1999b; Haynie et al., 2001; Johnson & Lewis, 1999).

Victims

Victims are the recipients of the aggression/harassment by the bully. Bernstein and Watson (1997) stated that victims tend to be clumsy and have poor motor coordination. They have also been found to be smaller and weaker than other children, and to be rated as less attractive by teachers and peers. Victimization was also found to be higher in children with odd mannerisms or physical disabilities such as tourettes syndrome and wearing glasses or using a wheelchair. In general, individuals with disabilities are victimized at twice the rate as non disabled individuals (Marini et al, 2001). Victims tend to exhibit poor social functioning and seem to be quite socially sensitive with a strong fear of negative evaluations from others (Bernstein & Watson, 1997; Haynie et al., 2001).

Generally, there are two types of victims. The first type includes passive or low-aggressive victims. These victims are generally submissive and insecure. They do not provoke the bully, but rather respond in a way (crying, etc.) that escalates the bullying behaviour. Since passive victims do not fight back, they are seen as an easy target and as a result frequently experience peer rejection (Andreou 2001; Bernstein & Watson, 1997; Carney & Merrell, 2001; Mahady Wilton et al., 2000; Marini et al., 1999; Perry, Kusal & Perry, 1988).

While passive victims tend to be cautious and unassertive, the second type of victims, aggressive victims tend to be hyperactive and hot-tempered (Bernstein & Watson, 1997). Aggressive victims provoke the bully as they respond to others in an aggressive manner, which is likely to irritate the bully. Both types of victims may be over-sensitive to the comments and actions of others, but passive victims may be prone to internalize the comments/action and blame

themselves, whereas aggressive victims may externalize the comments/action and blame others, and lash out at the bullies (and possibly non-bullies or neutral children). Aggressive victims are also anxious and have trouble concentrating, which may lead to their distracting behaviours. They also tend to be more rejected than passive victims (Bernstein & Watson, 1997; Carney & Merrell, 2001; Mahady Wilton et al., 2000; Marini et al., 1999; Perry et al., 1988).

Bully-Victims

It is also important to note that some children may be both bullies *and* victims. These children were reported by Duncan (1999a) and Nansel et al. (2001) to display negative behaviors (e.g., disruptive in class, aggressive towards others), have lower levels of academic confidence, social acceptance, self-worth, and show high levels of depression. These children also reported the highest levels of psychopathology and 75% of these children (as reported by Duncan, 1999a) were found to be victims of physical and/or verbal aggression in the home. Thus, victims can also be bullies, and this group demonstrated the most psychological and behavioural problems when compared to bullies and victims only. As well, bully-victims tend to be the most rejected of all children (Duncan, 1999a; Haynie et al., 2001).

In a study by Kumpulainen, Rasanen, Henttonen, Almqvist, Kresanov, Sirkka-Liisa, Moilanen, Piha, Puura and Tamminen (1998), those Elementary School Children who were involved in bullying (as a bully or a victim) were more likely than controls to be referred for psychiatric counseling. Another study by Kumpulainen et al. (2001) found that children reporting bully/victim problems were more likely to have used mental health services and to have psychiatric disorders. These studies provide support for the hypothesis that involvement in bullying, particularly in multiple roles (i.e., bully-victims), can produce or intensify psychological disturbances in the participants.

It must be noted that although there is a fourth group of participants involved in bullying called “bystanders”, their interactions will not be discussed or assessed in this study (see Marini, McWhinnie & Lacharite, 2004).

Correlates of Bullying

Self-esteem

Although low self-esteem may be an outcome of victimization (Andreou, 2000), literature reviewed on this topic suggests that low self-esteem may also be a predictor of both victimization and bully behaviours. Self-esteem is defined by Shaffer (1996) as the evaluation of one’s worth as a person based on assessment of the qualities that make up the self-concept (a person’s perceptions of his/her unique attributes or traits). One consistently reported “*outcome*” of bullying is a reduction in self-esteem. A study by Boulton and Underwood (1992), found that 80% of the children surveyed reported that they had felt better about themselves (i.e., had higher levels of life satisfaction and self-esteem) *prior* to the onset of bullying. This finding is reinforced in a study by Bosworth et al. (1999), as their study of 558 students (grades 6-8) concluded that a lack in confidence (self-esteem) was associated with higher levels of bullying. Graham and Juvonen (1998) reported that over time, low self-esteem is both an antecedent and a consequence of victimization.

Hodges and Perry (1999) reported that victimization contributes to and is influenced by internalizing difficulties (low self-esteem, anxiety, depression) and rejection by peers. O’Moore and Kirkham (2001) surveyed 8,249 Irish children and found that victims, bullies and bully-victims had significantly lower global self-esteem than uninvolved children. There was also a correlation in which increased victimization was related to lowered self-esteem, with bully-victims reporting the lowest self-esteem. Bullies were found to be the least anxious in the study

and scored the same as uninvolved children on physical attractiveness and popularity, but lower on measures of intellectual status, happiness and life satisfaction (O'Moore & Kirkham, 2001). Thus, bullying may have a domain specific relationship to self-esteem, and the low anxiety and positive attitude to physical attractiveness and popularity may help explain why bullies are often thought to have high self esteem (O'Moore & Kirkham, 2001).

Another study by Rigby and Slee (1999) found that 48.8% of male students, and 62.5% of female students with pre-existing low self-concepts reported feeling worse after being bullied at school. These percentages, as well as the reports of feeling sad and avoiding school increased according to the frequency of the bullying. It is interesting that low self-esteem has been well supported in the literature for victims, however, the research is unclear as to whether the reduced self-esteem occurs before exposure to bullying or is an outcome of exposure to bullying. It appears, however, that those children with pre-existing low self-esteem may be at-risk for victimization (i.e., viewed as targets who may not defend themselves) (Rigby & Slee, 1999). The social relationships of bully-victims and victims are often poorly developed (e.g., few friends), as bully-victims tend to be anxious and socially awkward with others. Because of this, they tend to have fewer opportunities to interact with peers and are more likely to experience peer rejection when they do. This may cause a reduction in self-esteem, which could result in further social isolation (Grills & Ollendick, 2002; Hodges, Malone & Perry, 1997; Hodges & Perry, 1999; Marini et al., 1999; Nansel et al., 2001).

Continuous negative evaluations by peers may cause the victims to falsely believe that there is something wrong with them. As a result, victims tend to view themselves as unattractive, not very intelligent, and low on domains of social acceptance and competency (Graham & Juvonen, 1998; Salmivalli, 1998). More specifically, Graham and Junoven (1998)

found that children who view themselves as victims experienced more intrapersonal consequences (social anxiety, low self-esteem). In contrast, children who were rated as victims by peers experienced more interpersonal consequences (peer rejection).

It is possible that bullies and victims may ultimately differ in the way they process social information and how they devise solutions to social situations (Bjorkqvist, 2001; Duncan, 1999b; Johnson & Lewis, 1999; Tritt & Duncan, 1997). For instance, bullies are noted to have average to above-average popularity, and are likely to use aggression, coercion, humiliation and to create an atmosphere of fear in their social interactions. This may cause other children to befriend bullies, if only as a protective factor, which may inadvertently increase the self-esteem of the bullies. The act of dominating a peer may boost the bully's sense of self-worth, as bullies have traditionally been thought to have average to above average self-esteem (Bjorkqvist, 2001; Duncan, 1999b; Johnson & Lewis, 1999; Tritt & Duncan, 1997).

In a study of 245 adolescents, Johnson and Lewis (1999) concluded that the bullies in their study demonstrated average to good self-esteem. In fact, bullies provided a positive response to the "perceived goodness" item on the self-esteem measure. The authors suggest that the reported high levels of self-esteem may result as the bullies in their study did not seem to have the same awareness of what is right and wrong as the other children in their study. Similarly, Boulton and Underwood (1992) reported that victims had lower self-esteem levels than bullies and those not involved in bullying, with bullies having comparable levels to not involved children (Grills & Ollendick, 2002).

Another study found that self-esteem and the ability to make friends was negatively related to peer victimization, but was positively related to bullying others (Nansel et al., 2001). In a study of possible mechanisms, Borg (1998) reported that male victims felt vengeful, whereas

female victims felt “self-pity.” Vengefulness may cause the disturbed self-concept to be externalized, thus the victim may become a bully-victim, whereas self-pity may cause the disturbed self-concept to be internalized, thus the victims’ low self-esteem may in turn invite further victimization (Hazler, 2000). However, a study of 181 children in Greece, ranging from 8 to 12 years in age, found that children who are bullies *and* victims have a negative view of themselves and others. Andreou (2001) has also noted that highly aggressive bullies tend to lack a positive concept of themselves.

Social Anxiety

Anxiety is another common correlate among bullying participants, especially among children experiencing repeat victimization. A specific type of anxiety that has been reported by victims is “social” anxiety, which will be measured in this study. This type of anxiety is relatively stable and defined by Watson and Friend (1969; as cited in Slee, 1994) as marked and persistent distress, discomfort and fear in “social” situations. The fact that the anxiety only occurs during current or pending “social” situations/ interactions makes it distinct from general anxiety or phobias. Social anxiety has been found to interfere with academic functioning, impede peer interactions and lead to social isolation and peer rejection (Slee, 1994). This fear of interpersonal evaluation is associated with withdrawn, inhibited and self-protective behaviours in socially anxious children (Slee, 1994). Children suffering from social-evaluative anxiety tend to report the highest levels of peer rejection in primary school (Slee, 1994). Since a high number of rejected children also report bullying problems, this research suggests that social anxiety may in fact “precede” the bullying. Another study by Schwartz, McFadyen-Ketchum, Dodge, and Pettit (1999) also reported that anxious-depressive behaviour may be a risk factor for peer victimization. Children with a high social anxiety were found to perceive their self-worth to be

low and reported more negative interactions with peers (e.g., teasing by peers) than children with low social anxiety, in a study by Ginsburg, Greca and Silverman (1998). Victims of bullying were found to have higher levels of social anxiety than bullies and non-victims. This may be due to a cycle of avoidance of social activities due to internalized social anxiety, thus denying these children the opportunity for normal socialization experiences (Grills & Ollendick, 2002). These findings were more prominent with female participants and a study by Kupulainen et al. (2001) found that anxiety was twice as common among the victims in their study, than for bullies or bully-victims.

In other research, the degree of peer victimization has been noted as a factor relating to the psychological functioning of a child. This would suggest that the *general anxiety* of the child may be a possible “*outcome*” of the bullying. For example, victims of a severe assault by a peer have been reported to display significant levels of post-traumatic stress disorder (PTSD, a concept that describes a range of symptoms commonly seen after traumatic events) similar to that of sexually abused children (Duncan, 1999b). Another study by Carney (2000) noted that 20% of middle school students involved in bullying felt that they were severely traumatized by the abuse from their peers. Mynard, Joseph and Alexander (200) surveyed 331 adolescents and concluded that peer victimization was associated with lower self-esteem and higher levels of posttraumatic stress and anxiety. Specifically, Mynard et al. (200) found that verbal victimization was associated with low self worth and suggest that the psychosocial consequences of peer victimization may depend on the type of aggression used.

Weaver (2000) describes the case of a 14 year old female, referred to as “J” who was found to experience high anxiety, depression and symptoms of PTSD after being bullied (teasing and name calling) by peers at a new school. Following the bullying, J’s self-esteem was lower

and she easily became tearful and upset. Finally, she began to experience visual and auditory hallucinations (i.e., an indication that she was re-living the trauma of the bullying episodes) and felt as if someone was trying to kill her. Those involved in her treatment explained that she was experiencing a mixture of depression and anxiety, which they felt had been precipitated by the bullying experiences (Weaver, 2000). This case study not only validates that anxiety is related to bullying, but also suggests that it can be seen as a severe consequence to bullying in adolescents.

A study by Bond, Carlin, Thomas, Rubin and Patton (2001) found that victimization in grade eight was significantly associated with symptoms of anxiety and depression in grade nine. Shields and Cicchetti (2001) also suggest that victims experience elevated levels of anxiety. As well, they suggest that children who expect to be victimized may exhibit fear and hyperarousal, thus presenting an anxious vulnerability and increasing their risk of further victimization. Another study of 904 adolescents, by Salmon and James (1998), found victims to be more anxious than their peers, but bullies to be equally or less anxious than their peers.

Craig (1998) describes a general cycle of anxiety that may lead to repeated victimization. First, these victims may exhibit an anxious demeanor that makes them vulnerable to victimization. These children may already be anxious (possibly as the result of victimization by a sibling or a general disposition towards anxiety), and with each experience of victimization these children may heighten their feelings of anxiety. This in turn, may lead to depression and feelings of helplessness (Craig, 1998). Children who feel socially inept, disliked and left out are prone to become anxious, emotionally deregulated and submissive in peer conflicts, thus placing them at risk for future peer victimization (Egan & Perry, 1998; Mahady Wilton et al., 2000; Shields & Cicchetti, 2001). Since most children are prone to threats from peers at some point in

their lives, it may be that children with high self-esteem and low social anxiety do not tolerate the attacks and defend themselves more assertively than other children (Egan & Perry, 1998). This may explain why children with pre-existing social anxiety and low self-esteem show a cycle of victimization, whereas others do not.

Ginsburg et al. (1998) also refer to a cycle of anxiety in that negative peer interactions (such as peer bullying) may lead to social anxiety. Social anxiety, in turn, may lead to avoidant and inhibited behaviors which decrease social interaction and may cause these children to be less assertive with peers as they may perceive themselves as less socially acceptable. This may lead to future negative interactions with peers and thus, the cycle of victimization and social anxiety would continue and self-esteem would decrease with each episode. This interpretation has also been advanced by Crick and Bigbee (1998) as they suggest that peer interactions may serve as a social database to evaluate the self and others. Negative peer interactions may result in negative evaluations of the self and others, thus lowering self-esteem and increasing social anxiety.

In regard to bullies, Carney and Merrell (2001) have reviewed much literature on this topic and have found inconsistencies as to whether bullies experience high or low levels of anxiety. On one hand, bullies have been found to have average to below average levels of anxiety and insecurity and feel their behaviors are justified and make them feel good. Bullying behaviour, however, may also be caused by a sense of inadequacy or anxiety that he/she is compensating for by bullying others. Shields and Cicchetti (2001) suggest that bullies may experience restricted emotions (emotion dysregulation) and show a limited capacity for guilt, remorse and anxiety.

Depression

As with anxiety and self-esteem, depression may be a predictor or consequence of

bullying, and research is consistent that victims of peer aggression can experience depression and feelings of suicidal ideation as an outcome of bullying. Although criteria for assessing depression in children is not well established, several measures of depression have been adapted from the adult literature and assessment tools. For instance, Wicks-Nelson and Isreal (1997) suggest that the most common symptom of childhood depression is a sad or unhappy demeanor and unprovoked crying. Other symptoms include the loss of experience of pleasure, social withdrawal, lowered self-esteem, somatic complaints, sleeping, eating difficulties and an inability to concentrate and poor schoolwork (Wicks-Nelson & Israel, 1997). According to Olweus (1994) there tends to be a causal relation between feelings of maladjustment and high levels of depression to victimization. Even victims of minor assaults reported more sadness and levels of depression than non-victims in a report by Duncan (1999b). Studies by Callaghan and Joseph (1995), and Matsui, Kakuyama, Tsuzuki and Onglatco (1996) found that victimized children displayed lower self-esteem scores and higher levels of depression. Another study by Boivin, Hymel and Bookwork (1995) concluded that negative peer relationships and victimization by peers had a unique contribution to the prediction of loneliness and a depressed mood.

A study by Mahady and colleagues observed children in grades 1 through 6 during free play over a 3 year period (Mahady, Wilton et al., 2000). They suggest that emotion regulation problems may be a factor in bullying and victimization. Sadness was among the top 6 emotional displays of bullies and victims, but were more frequent in victims. The authors suggest that since victimization is associated with loss, the displays of sadness may hinder the further pursuit of goals, thus creating further suffering (lower self esteem, increased anxiety and depression) and a failure to confront the bully, which may increase the likelihood of further victimization

(Mahady, Wilton et al., 2000). Rudolph and Clark (2001) also support this notion and suggest that depression and negative views of the self may be due to both skill deficits and cognitive distortions in aversive social circumstances.

Moreover, bully-victims were found by Kaltiala-Heino, Rimpela, Rantanen and Rimpela (2000) to have the highest levels of depression (66.9%), whereas victims and bullies experienced similar levels (42.0% and 38.5% respectively). Another study by Kumpulainen et al. (2001) also found that bully-victims had the highest levels of depression, as 17.7% of the bully-victims in their study had depression, whereas only 12.5% of bullies, and 9.6% of victims had depression. Salmon and James (1998) also reported that high levels of depression were related to being a bully.

In a study of 52 psychiatric outpatient adolescents, 38% had a history of being bullied. Over 70% of those adolescents that had been bullied, had a diagnosis of depression, with half of them also presenting with deliberate self-harm (Salmon, James, Lisheen-Cassidy & Javaloyes, 2000). Kumpulainen and Rasanen (2000) found from a longitudinal study that children who were bullied in early adolescence (ages 8 and 12) showed the highest rates of psychiatric symptoms at 15 years of age. A longer duration of bullying was associated with higher levels of depression and lower self-regard over time.

Another longitudinal study of Finish students assessed at age 8 and again at age 16, found that bullying and victimization were often associated with emotional and behaviour problems. Being a bully or victim at age 8 was associated with the same roles at age 16. High levels of depressive symptoms at age 8 were associated with both bullying and victimization at age 16, which may also reflect poor self-esteem and poor problem-solving skills. In addition, at age 16, mental health services had been used by 18% of bullies and 15% of victims (Sourander, Helstela,

Helenius, & Piha, 2000). The authors also reported that only a minority of children received any kind of mental health care, so these rates may be an underestimation. Another study of 75 prison inmates aged 16-21 found that higher levels of both anxiety and depression were reported in those reporting victimization by peers, than those reporting as bullies or not involved in bullying (Biggam & Power, 1999). Inmates who were victims of bullying also showed higher levels of hopelessness and this level was comparable to a group of previously suicidal inmates as reported in a study by Smyth and Ivanoff (1994; as cited in Biggam & Power, 1999).

Victimization was also found by Olweus (1994) to be a causal factor in depression and suicidal behaviour when a nationwide campaign against bullying was launched in Norway after three children committed suicide as the apparent result of severe peer victimization (Bjorkqvist, 2001; Fose & Holen, 2002; Kumpulainen & Rasanen, 2000; Olweus, 1994). Another study by Elliot (1992; as cited by Borg, 1998) reported that 8% of children indicated that bullying had caused them to attempt suicide. The authors of this study, however, did not specify whether these children were bullies, victims or bully-victims. More specifically, Kumpulainen et al. (2001) noted that suicidal ideation was quite high among male bullies. Carney (2000), Hazler (2000), and Mynard et al. (2000) also noted that victimization may be an important causal factor in adolescent suicidal behaviour, as the same characteristics that put a student at risk for being bullied (e.g., hopelessness, helplessness, isolation, low self-esteem) also increase a student's risk for suicide potential. However, the research by Kaltiala-Heino and Rimpela (1999) suggested that bullies may be at risk for depression as self-reported levels of high self-esteem and popularity in bullies may simply be a show to cover low self-esteem and feelings of depression.

Body Image

Although research linking bullying experiences to a distorted body image and the onset

of an eating disorder (anorexia nervosa and/or bulimia nervosa) is sparse, there have been several studies linking the development of disordered eating/poor body image to higher levels of depression, anxiety and low self-esteem (Kostanski & Gullone, 1998; Lehoux, Steiger & Jabalpurlawa, 2000), and these same psychological difficulties, in turn, have been linked to bullying experiences. Due to the high pressure that society places on thinness, the increased social concerns and suicidal thoughts could relate to the development of an eating disorder (Tanofsky-Kraff, Wilfley, & Spurrell, 2000). For example, one study by Graber and Brooks-Gunn (2001) compared adolescent females with depression, an eating disorder, or both and found that that females in all groups had poor body images. Another study by Corcos, Fament, Giraud, Paterniti, Ledoux, Atger and Jeammet (2000) concluded that problems with interacting with peers, having few close childhood friends, depression, social withdrawal and isolation, and negative self-evaluation were significantly more common in the history of the bulimic girls in their study. The same authors also noted that early psychological distress (possibly as the result of bullying) precedes the onset of an eating disorder, and that a negative body image was linked to a variety of psychological problems (Corcos et al, 2000).

Once again, it is unclear if distorted body image is a predictor or outcome of bullying behaviours. Although children may be victimized for being overweight (i.e., obesity) or underweight (i.e., thin), they may not have a poor body image prior to the victimization. Unfortunately, there are very few studies that directly explore the link between distorted body image and bullying. A notable exception is a study by Kumpulainen et al., (1998) who reported that the body image of the Elementary School Children they surveyed was negatively correlated with bullying experiences (low body image with a high number of bullying experiences). The highest correlation was among victims, followed by bullies, and the lowest with bully-victims.

Another study examined specifically the occurrence of anorexia nervosa and bulimia nervosa in Finnish adolescents involved in bullying. Nine per cent of girls and seventeen percent of boys were involved in bullying on a weekly basis, and eating disorders and negative body image were associated with involvement in bullying in any role for females, but only for male bully-victims (Kaltiala-Heino et al., 2000). Results from this study support the concern that children involved in bullying may have a disturbed body image and may be at an increased risk for the development of an eating disorder.

Research Questions and Hypotheses

Research Questions

This thesis focused on two general research questions. The first, examined how the role that high school students play in bullying situation (i.e., bully, victims, bully-victims, and uninvolved (controls)) is related to their self-esteem, anxiety, depression, and body image, and whether it varies according to gender?

The second general research question focused on a more detailed analysis related to the type of bullying and victimization. Using the quadrant proposed by Marini, et al. (2001), this thesis investigated whether a particular type of bullying (e.g.- direct (physical and cognitive), Indirect (social and emotional)) occurs more frequently among victims, bullies or bully-victims. In addition, this study investigated whether one or more of the variables used in the primary research question (e.g. - anxiety, etc.) was associated with one type of bullying or another. From these general questions, seven specific hypotheses were developed and tested.

Hypotheses

- 1) Students self-assessed as victims will report lower self-esteem scores, higher scores of social anxiety and depression and body image distortion, than those not involved in bullying.

- 2) Students self-assessed as bullies will report higher self-esteem scores, higher scores of social anxiety and depression, and a healthy body image, than those not involved in bullying.
- 3) Students self-assessed as a bully *and* a victim will report the lowest self-esteem scores, and the highest scores of social anxiety and depression, and body image distortion, of all of the groups.
- 4) The comparison group will report higher scores on self-esteem, lower scores on social anxiety and depression, and a healthy body image, than those involved in bullying.
- 5) There will be a higher proportion of males involved in bullying in any group, except indirect bullying roles, as consistent with the literature reviewed.
- 6) There will be differences in direct and indirect bullying/victimization for each bullying type (victim, bully, bully-victim, comparison), in regards to self-esteem, social anxiety, depression and body image.
- 7) There will be differences in physical, cognitive, social and emotional bullying/victimization for each bullying type (victim, bully, bully-victim, comparison) in regards to self-esteem, social anxiety, depression and body image.

CHAPTER THREE

METHODOLOGY

Participants

A total sample of 533 students was obtained from the YLC-CURA data set. These include 113 students classified as severe bullies, 133 students classified as severe victims, 137 students classified as both bullies and victims, and 150 comparison (students who did not report involvement in bullying). A breakdown of gender and grade is presented in Appendix A.

Procedure

Members of YLC-CURA administered a questionnaire (see next section) to students in a number of schools in Southern Ontario during 2001. Although the questionnaire covered a variety of areas relevant to youth, the information requested for this thesis was specific to bullying involvement. The original participants were randomly selected (dependent on parental/student consent), and the questionnaire was ethically administered as described in the 2001/02 YLC-CURA report. The original YLC-CURA study assessed over 7,000 adolescents grades 9 to OAC. This set of data was part of a longitudinal study that will be repeated on the same students every 2 years. For the purpose of this study, only the first wave of data collection had been completed, thus access to longitudinal data was not available.

Permission was obtained to access the relevant data after an application process which included ethical approval. Because the purpose of this study was to investigate severe bully and victim roles in adolescents, very specific data was requested. The criteria used were adopted to make sure that students who were selected did indeed experienced “repeated” bullying (i.e., a few times a month) and excluded those students whose may have experience “occasional”

bullying (i.e., a few times a year). In addition, for the purpose of this study only those students who reported at least “twice” an involvement level of “a few time a month” were selected. Specifically, 25 males and 25 females from grades 9, 11, OAC from each group of severe victims (scoring 3 (i.e., “a few time a month”) or above on two or more items in the victim scale only), severe bullies (scoring 3 or above on two or more items in the bully scale only), severe bully-victims (scoring 3 or above on two or more items in both the victim and bully scales), and controls, that is, those not involved in bullying (scoring less than 2 on all items in both the victim and bully scales, thus resulting in low to absent levels of bullying behaviours).

Instrumentation

The bully and victim scale was created by Zopito Marini, and was outlined in Marini (1998). Both the bully and victim scales consisted of 12 items each and were measured on a 5-point Likert scale to determine how many times each item was performed or received by the participants (never, a few times a year, a few times a month, a few times a week, every day) in the last school year. Both scales measured direct and indirect form of bullying and victimization, as well as specific physical, cognitive, social and emotional forms of bullying. The bully scale began with how many times have “you done” these things during the last school year? This included 12 items such as: pushed and shoved someone at school, excluded someone from joining an activity, and teased and ridiculed someone. The victim scale began with how often have these things been “done to you” during the last school year, and included 12 items such as: been pushed and shoved, been excluded from joining an activity, and been teased and ridiculed. These items were entered into the computer using a 1-5 range with 1 representing “never” and 5 representing “every day”.

The Rosenberg Self Esteem Scale was used to measure self-esteem in this study. This

scale measures global self-esteem and emphasizes personal worthiness, appearance and social competence. This scale had a cronbach's alpha of .83 for the YLC-CURA study. There were 10 items in this scale, such as "I feel that I have a number of good qualities," "I take a positive attitude toward myself," and "I am able to do things as well as most people." This measure used a 5 point Likert scale to determine how the participant felt about him/herself (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree). These items were entered into the computer using a 1-5 range with 1 representing "strongly disagree" and 5 representing "strongly agree".

The measure for social anxiety was taken from Ginsburg, LaGreca and Silverman, (1998). This scale examines how anxious or uncomfortable students feel in social situations and how this affects engagement in social situations. Three subscales in the original version of this scale include the fear of negative evaluation, social avoidance and distress (new situations), and social avoidance and distress (general). There were a total of 14 items used on the scale in the YLC-CURA questionnaire and questions were answered on a 4-point Likert scale including almost never or never, sometimes, often and almost always or always. For data analysis, these were rated from 1 (almost never or never) to 4 (almost always or always). Examples of questions from this scale include: "I'm afraid to invite other people my age to my house because they might say no," "I feel shy even with other people my age I know well," and "I worry about being teased."

The source for the scale measuring depression was from The Centre for Epidemiological Studies Depression Scale (CESD), National Institute of Mental Health, USA, (1972). This scale was used to assess the depressive symptoms that students may have experienced over the past two weeks and assessed the various symptoms of depression (depressed mood, hopelessness,

sleep and appetite changes, feeling worthless, etc.) The scale consists of 20 items that are rated on a 5-point Likert scale. The responses ranged from none of the time (less than 1 day), rarely (1-2 days), some of the time (3-5 days), occasionally (6-9 days), and most of the time (10-14 days). For analysis, answers were coded from 1 (none of the time) to 5 (most of the time). The YLC-CURA scale reported a Cronbach's alpha of .85. Examples of questions asked included: "I thought my life had been a failure," "people were unfriendly," and "my sleep was restless."

The body image portion consisted of only one question: "How good looking would you say you are?" This question represented body image and was taken from a section in the YLC-CURA that focused on nutritional health. Answers were presented on a 4-point Likert scale from very good looking, good looking, somewhat good looking and not good looking. For analysis, answers were coded from 1 (not good looking) to 5 (very good looking).

While it is usually the practice to include a copy of the research instrument in the appendix of the thesis, given that the present study is part of an ongoing longitudinal investigation, the full version of the instrument was not available.

CHAPTER FOUR

RESULTS

Data Analysis

Each measure used in this study was first examined for reliability. YLC-CURA reported good reliability (cronback alpha $>.80$) for most measures on the original complete survey. Since this study requested a very specific sample of the original survey, it was important to run separate reliability tests on the measures requested.

Each measure in the present, specific sample requested, showed good reliability, with all having an alpha level of .80 or above. More specifically, the measure for bullying had an alpha level of .90, the measure for victimization had an alpha level of .87, the measure for self-esteem had an alpha level of .90, the measure for social anxiety had an alpha level of .94, and the measure for depression had an alpha level of .83. The reliability of the measure for body image could not be conducted, as there was only one question in this measure.

The measure for victimization was divided into direct as indirect, and further divided into physical, cognitive, social and emotional components. For the specific sample that was used in this study, the 8 items assessing direct victimization had an alpha level of .83, and indirect victimization had an alpha level of .79. Each of the more specific components consisted of four items. Thus, physical victimization had an alpha level of .64; cognitive victimization had an alpha level of .78; social victimization had an alpha level of .79; and motional victimization had an alpha level of .58.

A similar cronback analysis for internal consistency was carried out for the bullying

items, and for the specific sample that was used in this study, direct bullying had an alpha level of .86, and indirect bullying had an alpha level of .84. Physical bullying had an alpha level of .76; cognitive bullying had an alpha level of .78; social bullying had an alpha level of .80; and emotional bullying had an alpha level of .72.

Following reliability analysis, frequencies and descriptive statistics were performed. The results are displayed in Table 1 and Figure 2. Independent t-tests were used to identify differences in gender and type of bullying and victimization. A series of independent t-tests were also performed to compare severe bullies, victims, bully-victims and controls to detect if each group differed on self-reported measures of correlates. As well, additional t-tests were performed on the four correlates (self-esteem, social anxiety, depression, body image), direct and indirect bully and victim roles, and the four specific types of bullying (physical, cognitive, social and emotional) for both victims and bullies.

Correlations and multiple regression analyses were also performed to assess associations between the various measures used in this study. Specifically, correlations and multiple regressions were performed on each of the categories (severe bully, severe victim, severe victim and bully, control group) to the levels of the four correlates of bullying (self-esteem, social anxiety, depression, body image). The results from these correlations are displayed in Table 2. The positive correlations between each category were expected and are likely the result of the specific nature of selecting the participants. Thus, being in one category significantly increased a participant's chances of being in a different group. As well, being a severe bully was associated to increased levels of body image, and being a severe victim was associated with increased social anxiety and depression scores, and decreased self-esteem and body image scores.

Hypothesis #1. *Students self-assessed as victims will report lower self-esteem scores, higher*

scores of social anxiety and depression and body image distortion, than those not involved in bullying.

When comparing only those participants scoring as severe victims to all others in the sample, there were significant differences on all measures, except self-esteem. Specifically, victims scored significantly higher on the measures of social anxiety ($t[111]=2.38, p=.018$), depression ($t[99]=3.03, p=.003$), and significantly lower on the measures of body image ($t[117]=-3.42, p=.001$). Severe victims also scored higher on all types of victimization, and lower on all types of bullying. This provides support for the first hypothesis, with the exception that victims reported no significant difference in self-esteem (see Table 1 and Figure 2).

There was a mild negative correlation between victimization and self-esteem and body image, and a mild positive correlation to social anxiety and depression (see Table 2). Thus, it appears that as victimization increased, rates of self-esteem and body image decreased, whereas social anxiety and depression increased. In a regression analysis of victim score for victims only regressed on self-esteem, social anxiety, depression and body image, the model was not significant.

Hypothesis #2. *Students self-assessed as bullies will report higher self-esteem scores, higher scores of social anxiety and depression, and a healthy body image, than those not involved in bullying.*

When comparing only those participants scoring as severe bullies to all others in the sample, there were significant differences on all measures except self-esteem and depression. Specifically, bullies scored significantly higher on the measures of body image ($t[89]=4.29, p<.001$), and significantly lower on the measures of social anxiety ($t[71]=-2.92, p=.004$). Thus, it appears that the bullies in this study scored higher on the measure of body image and lower on

social anxiety, but there were no differences in the scores on the measure of self-esteem or depression. Severe bullies also scored higher on all types of bullying, and lower on all types of victimization. This provides support for the second hypothesis except for the fact that social anxiety was lower than expected for this group (see Table 1 and Figure 2).

Bullying showed only a significant mild positive correlation to body image. Thus, as bullying rates increased, rates of body image also increased (see Table 2). A significant correlation with self-esteem, social anxiety or depression was not found.

A regression analysis of bully score for bullies only regressed on self-esteem, social anxiety, depression and body image was completed and results are displayed in Table 3. The entire model accounted for 20.0% ($F_{4,52} = 3.259, p = .019$) of the variance in bully score for the bully only group. Of the four variables entered, only the self-esteem variable was significant (see Table 3). By looking at the squared semi-partial, we can conclude that self-esteem accounted for 1.5% ($t_{56} = 3.140, p = .003$) of the variance in the bully score of bullies only, over and above the effects of social anxiety, depression and body image. The B-weight tells us that for every unit increase in self-esteem, there was an increase of .30 in the bullying score.

Hypothesis #3. Students self-assessed as bully-victims will report the lowest self-esteem scores, and the highest scores of social anxiety and depression, and body image distortion, of all of the groups.

When comparing the group of severe bully-victims to the other groups, there were significant differences in all variables, except self-esteem and body image. The bully-victim group scored significantly higher on measures of anxiety ($t[116] = 2.44, p = .015$) and depression ($t[116] = 2.66, p = .008$), and higher on all types of bullying and victimization. There was not a significant difference for self-esteem and body image. This partially supports the third

hypothesis that bully-victims would score higher on anxiety and depression. It was unexpected that they did not score differently on self-esteem and body image (see Table 1 and Figure 2).

Hypothesis #4. *The control group will report higher scores on self-esteem, lower scores on social anxiety and depression, and a healthy body image, than those involved in bullying.*

When comparing the control group to the other groups, there were significant differences in all variables, except self-esteem, social anxiety and body image. In accordance with the aforementioned results, the control group (rated as neither bullies or victims) scored significantly lower on the measures of depression ($t[150]=-3.91, p<.001$), and on all types of bullying and victimization.

Hypothesis #5. *There will be a higher proportion of males involved in bullying in any group, except indirect bullying roles, as consistent in the literature reviewed.*

A series of independent t-tests were performed to detect gender differences on all measures. The results indicate that there were no gender differences in age, grade or role (severe victim, severe bully, severe bully and victim, controls). There were also no significant gender differences on the measures of self-esteem, social anxiety, body image, indirect victimization, cognitive victimization, social victimization, cognitive bullying or emotional bullying. However, males did score significantly higher on measures of direct victimization ($t[272]=2.2, p=.024$), physical victimization ($t[272]=4.09, p<.001$), direct bullying ($t[272]=3.57, p<.001$), indirect bullying ($t[272]=2.18, p=.030$), physical bullying ($t[272]=5.12, p<.001$), and social bullying ($t[272]=2.70, p=.007$). Females scored significantly higher on the measures of depression ($t[211]=-4.50, p<.001$) and emotional victimization ($t[261]=-2.72, p=.007$) (see Figure 3). Gender had a mild negative correlation to both direct and indirect bully roles, as well as to the direct bully role, but was not significantly associated with the indirect victim role (see Table 4).

More specifically, gender had a mild negative correlation to physical victim role, a mild positive correlation to the emotional victim role, and no significant correlation to the cognitive or social victim role (see Table 5). Gender also had mild negative correlations to physical, cognitive and social bully roles, but was not significantly correlated to the emotional bully role (see Table 6).

This supports the hypotheses that evolved from the current literature suggesting males have higher rates of bullying than females. It is also interesting that females scored higher on only emotional victimization as this type of victimization correlates to the theory of indirect or relational bullying, which has been detected to be higher in adolescent females.

Hypothesis #6. *There will be differences in direct and indirect bullying/victimization for each bullying type (victim, bully, bully-victim, not involved), in regards to self-esteem, social anxiety, depression and body image.*

To detect an association between direct and indirect bully and victim roles, each was correlated to the four correlates (self-esteem, social anxiety, depression, body image). These correlations are displayed in Table 4

Self-esteem had a mild positive correlation to the indirect victim role. Self-esteem was not significantly correlated to direct victim or bully roles. Both social anxiety and depression had a mild positive correlation to both direct and indirect victim roles, but were not significantly correlated to either direct or indirect bully roles. Body image had a mild positive correlation to both direct and indirect bully roles, had a mild negative correlation to direct victimization, but did not have a significant correlation to indirect victim role (see Table 4 and Figure 4). Social anxiety and depression were not associated with the bully role, but showed a positive association to both direct and indirect victim roles. These correlations suggest that as victimization increases, so does the level of social anxiety and depression. It is important to note, however,

that although not significant, direct and indirect bully roles showed a mild negative correlation to social anxiety, whereas both showed a mild positive correlation to depression. Body image was not associated to indirect victimization, but was negatively associated to direct victimization. Thus, as direct victimization increases, body image decreases. As well, there was a positive association between body image and both direct and indirect bullying, suggesting that as bullying increases, there is also an increase in body image.

Self-Esteem

Regression analysis was performed on each category (bully, victim, bully-victim, non-victim) for the variable self-esteem. None of these regressions were significant for the self-esteem variable.

Social Anxiety

Regression analysis was performed on each category (bully, victim, bully-victim, non-victim) for the variable social anxiety. In the multiple regression analysis of social anxiety score for the bully-victim group regressed on direct and indirect victimization and bullying scores, the entire model accounted for 8.4% ($F_{4,111} = 2.555, p=.043$) of the variance in social anxiety for the bully-victim group. Of the four variables entered, only the indirect victimization and indirect bullying variables were significant (see Table 7). After examining the squared semi-partials, we can conclude that indirect victimization accounted for 5.5% ($t_{115} = 2.581, p=.011$) of the variance in the social anxiety of bully-victims, over and above the effects of direct victimization, direct bullying and indirect bullying. The B-weight tells us that for every unit increase in indirect victimization, there was an increase of .28 in the social anxiety score. We can also conclude that indirect bullying accounted for 3.0% ($t_{115} = -1.916, p=.058$) of the variance in the social anxiety of bully-victims, over and above the effects of direct victimization, indirect

victimization, and direct bullying. The B-weight tells us that for every unit increase in indirect bullying, there was a decrease of .24 in the social anxiety score.

Depression

Regression analysis was performed on each category (bully, victim, bully-victim, non-victim) for the variable depression. In the multiple regression analysis of depression score for victims only regressed on direct and indirect victimization scores, the entire model accounted for 9.1% ($F_{2,96} = 4.783, p = .010$) of the variance in the depression score for the victim only group. Neither of the variables entered were individually significant (see Table 8).

In the multiple regression analysis of depression score for bully-victims regressed on direct and indirect victimization and bullying scores, the entire model accounted for 8.6% ($F_{4,111} = 2.615, p = .039$) of the variance in depression scores for the bully-victim group. Of the four variables entered, only the indirect victimization variable was significant (see Table 9). By looking at the squared semi-partial, we can conclude that indirect victimization accounted for 3.3% ($t_{115} = 2.009, p = .047$) of the variance in the depression scores of bully-victims, over and above the effects of direct victimization, direct bullying and indirect bullying. The B-weight tells us that for every unit decrease in indirect victimization, there was an increase of .19 in the depression score.

Body Image

In the multiple regression analysis of body image score for bullies only regressed on direct and indirect bullying scores, the entire model accounted for 11.0% ($F_{2,86} = 5.301, p = .007$) of the variance in body image for the bully only group. Of the two variables entered, only the direct bully variable was significant (see Table 10). The squared semi-partial indicates that direct bullying accounted for 9.2% ($t_{88} = 2.987, p = .004$) of the variance in the body image of

bullies only, over and above the effects of indirect bullying. The B-weight tells us that for every unit increase in body image, there was an increase of .63 in the direct bullying score.

In the multiple regression analysis of body image score for victims only regressed on direct and indirect victimization scores, the entire model accounted for 8.7% ($F_{2,114} = 5.301$, $p = .006$) of the variance in body image for the victim only group. Of the two variables entered, both the direct and indirect victim variables were significant (see Table 11). An examination of the squared semi-partials reveals that direct victimization accounted for 7.8% ($t_{116} = -3.128$, $p = .002$) of the variance in the body image of victims only, over and above the effects of indirect victimization. The B-weight tells us that for every unit increase in direct victimization, there was a decrease of .42 in the body image score. We can also conclude that indirect victimization accounted for 5.9% ($t_{116} = 2.713$, $p = .008$) of the variance in the body image of victims only, over and above the effects of direct victimization. The B-weight tells us that for every unit increase in indirect victimization, there was an increase of .59 in the body image score.

Hypothesis #7. *There will be differences in physical, cognitive, social and emotional bullying/victimization for each bullying type (victim, bully, bully-victim, not involved) in regards to self-esteem, social anxiety, depression and body image.*

In addition to direct vs. indirect bully and victim roles, the specific type of victim role (physical, cognitive, social, emotional) was correlated to each of the correlates (self-esteem, social anxiety, depression, body image). These results are displayed in Table 5 and Figure 5.

Self-esteem showed a significant mild positive correlation to cognitive and emotional victim roles, but was not significantly correlated to physical or social victim roles. Both anxiety and depression had a significant mild positive associated to all four types of victimization. Body image had a significant mild negative correlation to physical and cognitive victimization, but was

not significantly associated to social or emotional victimization (see Table 5 and Figure 5).

While cognitive and emotional victim role are positively correlated with self-esteem, it must be remembered that the strength of the correlation is considered to be in the low range, thus any interpretation has to be carried out very cautiously. Physical and social victim roles were not significantly associated to self-esteem, but both also showed a mild positive association. Both social anxiety and depression were positively associated with all four victim roles. Thus, it appears that social anxiety and depression scores increased with involvement in physical, cognitive, social and emotional victimization. A decrease in body image was associated with physical and cognitive victim roles, but was not significantly associated with the social or emotional victim role, but both also showed a mild negative association. In addition to victim roles, the specific type of bully role (physical, cognitive, social, emotional) was correlated to each of the four suspected correlates (self-esteem, social anxiety, depression, body image). These correlations are displayed in Table 6.

Self-esteem, anxiety and depression were not significantly correlated to any type of bully role. Body image had a significant mild positive correlation to physical, cognitive and emotional bully roles, but was not significantly associated to the social bully role (see Table 6 and Figure 6). Thus, it appears that self-esteem, social anxiety and depression were not associated with any of the four bully roles. Although not significant, however, self-esteem showed a mild positive association to all four correlates, social anxiety showed a mild negative association to all four correlates, and depression had a mild positive association to cognitive, social and emotional bullying, and a mild negative association to physical bullying. An increase in body image was significantly associated with physical, cognitive and emotional bully roles, but was not significantly associated with the social bully role. Thus, as most types of bullying increases so

does positive body image.

Self Esteem

Regression analysis was performed on each category (bully, victim, bully-victim, non-victim) for the variable self-esteem. None of the regression analyses were significant for self-esteem.

Social Anxiety

Regression analysis was performed on each category (bully, victim, bully-victim, non-victim) for the variable social anxiety. None of the regression analyses were significant for social anxiety.

Depression

Regression analysis was performed on each category (bully, victim, bully-victim, non-victim) for the depression variable. In the multiple regression analysis of depression score for victims only regressed on physical, cognitive, social and emotional victimization scores, the entire model accounted for 20.2% ($F_{4,94}=5.932, p<.001$) of the variance in the depression score for the victim only group. Of the four variables entered, only the social and emotional victimization variables were significant (see Table 12). The squared semi-partial data suggests that social victimization accounted for 4.6% ($t_{98}=4.050, p<.001$) of the variance in the depression score of victims only, over and above the effects of all other variables entered in this analysis. The B-weight tells us that for every unit increase in social victimization, there was a decrease of .35 in the depression score. We can also conclude that emotional victimization accounted for 13.9% ($t_{98}=-2.320, p=.023$) of the variance in the depression score of victims only, over and above the effects of all other variables entered in this analysis. The B-weight tells us that for every unit increase in emotional victimization, there was an increase of .49 in the

depression score.

Body Image

In a multiple regression analysis of body image score for bullies only regressed on physical, cognitive, social and emotional bullying scores, the entire model accounted for 24.1% ($F_{4,84}=6.675$, $p<.001$) of the variance in the body image score for the bully only group. All four of the variables entered were significant (see Table 13). The squared semi-partial reveals that physical bullying accounted for 4.7% ($t_{88}=2.284$, $p=.025$) of the variance in the body image score of bullies only, over and above the effects of all other variables entered in this analysis. The B-weight tells us that for every unit increase in physical bullying, there was an increase of .32 in the body image score. We can conclude that cognitive bullying accounted for 1.2% ($t_{88}=3.705$, $p<.001$) of the variance in the body image score of bullies only, over and above the effects of all other variables entered in this analysis. The B-weight tells us that for every unit increase in cognitive bullying, there was an increase of .50 in the body image score.

We can also conclude that social bullying accounted for 15.0% ($t_{88}=1.940$, $p=.056$) of the variance in the body image score of bullies only, over and above the effects of all other variables entered in this analysis. The B-weight tells us that for every unit increase in social bullying, there was a decrease of .64 in the body image score. Emotional bullying accounted for 3.4% ($t_{88}=-4.072$, $p<.001$) of the variance in the body image score of bullies only, over and above the effects of all other variables entered in this analysis. The B-weight tells us that for every unit increase in emotional bullying, there was an increase of .27 in the body image score.

In the multiple regression analysis of body image score for victims only regressed on physical, cognitive, social and emotional victimization scores, the entire model accounted for 10.0% ($F_{4,112}=3.126$, $p=.018$) of the variance in the body image score for the victim only group.

All of the variables entered, except emotional victimization was significant (see Table 14). By examining the squared semi-partial, we can conclude that physical victimization accounted for 3.3% ($t_{116} = -2.023$, $p = .045$) of the variance in the body image score of victims only, over and above the effects of all other variables entered in this analysis. The B-weight tells us that for every unit increase in physical victimization, there was a decrease of .20 in the body image score. We can also conclude that cognitive victimization accounted for 4.4% ($t_{116} = -2.346$, $p = .021$) of the variance in the body image score of victims only, over and above the effects of all other variables entered in this analysis. The B-weight tells us that for every unit increase in cognitive victimization, there was a decrease of .25 in the body image score. We can also conclude that social victimization accounted for 4.5% ($t_{116} = 2.360$, $p = .020$) of the variance in the body image score of victims only, over and above the effects of all other variables entered in this analysis. The B-weight tells us that for every unit increase in social victimization, there was an increase of .36 in the body image score.

CHAPTER FOUR

DISCUSSION

The results of this thesis support past research as they establish an association between bullying involvement, self-esteem, social anxiety and depression. In addition, the results also suggest a relationship between bullying involvement and body image. Finally, the results of this study support the notion that the specific type of bullying may have a different effect on the internalizing correlates. That is, a student who is physically, cognitively, socially or emotionally bullied (or who has bullied others) may experience different outcomes, depending on the type of bullying involved.

The first hypothesis that self-assessed victims will report lower self-esteem and body image scores, and higher levels of social anxiety and depression was only partially supported as t-test results showed that victims did display significantly higher levels of social anxiety and depression, and lower body image, but did not differ in rates of self-esteem. Increased victimization was also associated with decreased self-esteem, which supports the first hypothesis and previous research. This decrease was not significant enough, however to be detected by t-test comparisons. It is important to note that self-esteem was not significant in any of the regression analyses.

These results are useful as they support previous research which suggests that victimization by a peer is associated with higher levels of anxiety and depression and lower body image. This is important as it helps to solidify the notion that peer victimization is harmful to those involved, and brings a new dimension to previous research in that “adolescents” also seem

to experience these internalizing problems while experiencing current victimization. As noted in previous research, high levels of depression have been linked to suicidal ideation and completion in youth, and past or present bullying involvement may be an overlooked factor in explaining the high rate of suicide in the adolescent population.

Since adolescence is an emotional time for most teens (due to social, educational and moral pressures), teens who are also victimized may be more vulnerable to the everyday stresses of teenage life and are therefore at an increased risk of school drop-out and psychological difficulties. It is interesting; however, that the results from this study did not find that peer victimization was associated with lower levels of self-esteem as reported in other studies (Grills & Ollendick, 2002). There could be two reasons for these unexpected results. One, it could be the characteristics of the small sample size. The second reason could be that self-esteem might prove to be quite variable in this age group. These results definitely provide encouragement for further research on this topic with adolescents.

An association with increased body image is also interesting as many teens are very susceptible to the pressures to be thin (for females) or muscular (for males), so a decreased body image may in fact reflect an aspect of low self-esteem and it is important to note that adolescent victims may be at risk of an eating disorder due to the association to poor body image, and high anxiety and depression. This warrants a need for interventions in High Schools as well as Elementary Schools.

The second hypothesis that self-assessed bullies will report higher self-esteem, body image, social anxiety and depression scores was only partially supported as t-test results showed that bullies scored significantly higher on body image, but lower on social anxiety, and no different on self-esteem or depression. Correlations showed that increased bullying behaviours

were associated with increased body image, but was not significantly correlated to any of the other variables.

It is interesting, however, that in a regression analysis, self-esteem, social anxiety, depression and body image accounted for 20.0% of the variance in the bully score for this group, with self-esteem accounting for 1.5% of this variance over and above the effects of the other internalizing problems. It is also interesting that although body image was the only significant variable in the t-test and correlation analyses, all four variables taken together significantly accounted for a small amount of the regression score, and that self-esteem alone accounted for a very small amount of this variance.

These results suggest that adolescent bullies may have a real or imagined vision of themselves as confident and happy and non-anxious. The association with a higher body image is also interesting, and should be explored further. It could be speculated that adolescent bullies who participated in bullying are inadvertently rewarded by those around them, thus boosting their self-esteem, and consequently they may feel empowered and better about themselves and are not depressed or anxious regarding their actions. During the difficult social time of adolescence, peers may be more attracted to the bully to increase their own confidence and avoid victimization themselves, and hence, bullies may tend to have many people around them who directly or indirectly support their behaviours.

The third hypothesis that self-assessed bully-victims will report the lowest self-esteem and body image scores, and highest levels of social anxiety and depression was also partially supported as t-tests showed that bully-victims reported significantly higher rates of social anxiety and depression, but the differences in self-esteem and body image were not significantly lower.

This supports previous research in that bully-victims tend to experience the most severe

internalizing problems of all youth involved in bullying. The fact that this group of adolescents experienced the highest levels of social anxiety and depression confirms the notion that this group are not only at risk in childhood, but that this increased risk continues into adolescence. Thus, further interventions should be continued into the high school years to help provide coping skills and possible psychological treatment for these students.

It is interesting; however, that once again this study did not support previous research in that bully-victims did not experience abnormally lower levels of self-esteem or body image. As with the victim group, this may simply reflect characteristics of the sample, and also requires further research.

The fourth hypothesis that the control (or comparison) group (i.e., non bullies or victims) would report higher self-esteem and body image scores, and lower levels of social anxiety and depression was mildly supported as t-tests showed that the control group only scored significantly lower on the depression variable, but was not significantly different on the self-esteem, social anxiety or body image variables.

Those not involved in bullying did appear to be happier as they reported lower depression scores than those involved in bullying, and this finding is supported by previous research. The fact that they did not differ in levels of body image, self-esteem or social anxiety may simply reflect the unique nature of this sample. It may also be the case that most adolescence experience varying levels of insecurity and social fears as part of “general” teenage life. These findings require further qualitative and quantitative research. The results also suggest that interventions and educational support for social and affective education in high schools should be in place to help all teens deal with this troublesome time period.

The fifth hypothesis that more males will be involved in all bullying behaviours, except

indirect bullying was partially supported as t-tests showed that males scored significantly higher on direct victimization, physical victimization, direct bullying, and physical bullying. However, they also scored higher on indirect bullying and social bullying, which was not predicted. Females, scored significantly higher on depression and emotional victimization. None of the other variables showed a significant difference in regards to gender.

Thus, it does appear that overall, adolescent males are more involved in bullying than adolescent females, and supports previous research that adolescent females are more involved in emotional victimization, but not bullying, at this age group. The fact that males also reported higher levels of direct victimization and bullying suggests that males continue to use physical bullying and victimization in the high school years, but also begin to use emotional types of bullying as well. This is important when looking at how bullying patterns change as children progress through the grades. In addition, it also suggests that intervention programs need to reflect this changing pattern.

The sixth hypothesis that there will be differences in direct and indirect bullying and victimization for each bully role and internalizing problem provided interesting results. Correlations showed that as direct victimization increased, so did social anxiety and depression, but was associated with a decrease in body image and was not significantly associated to self-esteem. As well, as indirect victimization increased, so did self-esteem, social anxiety and depression, but body image was not significantly correlated to indirect victimization. For bullying, correlations showed that increases in direct and indirect bullying were associated to increased body image, but neither were significantly associated to self-esteem, social anxiety or depression.

Regression analyses were performed on all four internalizing correlates, and self-esteem

was not significant for any of the bullying groups. However, social anxiety was significant for the bully-victim group as social anxiety accounted for a small amount (8.4%) of the variance in the direct and indirect bully and victim scores. Both of the indirect variables (bullying and victimization) had an individual contribution, with indirect bullying uniquely accounting for 3.0% of this variance, and indirect victimization uniquely accounting for 5.5% of this variance. Thus, social anxiety seems to be more closely related to indirect forms of bullying in students self-rated as bully-victims.

Depression showed a significant regression for both the victims only group, accounting for 9.1% of the variance in both direct and indirect victimization, and for the bully-victim group. The latter group also accounted for a small amount (8.6%) of the variance in the depression score in regards to direct and indirect bullying and victimization. The indirect victimization variable uniquely accounted for 3.3% of this variance. Thus, depression seems related to direct and indirect forms of bullying and victimization for students self-rated as both victims and bully-victims.

Body image was also regressed on direct and indirect bullying and victimization and was significant for the bully only group, accounting for 11.0% of the variance in the depression score (in regards to direct and indirect bullying), with direct bullying uniquely accounting for 9.2% of this variance. As well, the victim only group was significant and accounted for 8.7% of the variance in the depression score (in regards to direct and indirect victimization), with direct victimization uniquely accounting for 7.8% of this variance, and indirect victimization uniquely accounting for 5.9% of this variance. Thus, body image seems related to direct and indirect forms of bullying and victimization for students self-rated as both bullies and victims, with direct forms being unique contributors for both groups.

The results of this research suggest that social anxiety may be more closely related to indirect forms of bullying in students self-rated as bully-victims, whereas depression may be related to direct and indirect forms of bullying and victimization for students self-rated as both victims and bully-victims. As well, body image may be related to direct and indirect forms of bullying and victimization for students self-rated as both bullies and victims, with direct forms being unique contributors for both groups. Self-esteem did not show any significant results in this analysis. Thus, it appears that the type of internalizing difficulties is related to the specific type of bullying and victimization, be it direct or indirect. While more research is required in this area, these results suggest that there are differences in the outcome of direct and/or indirect types of bullying and victimization. Thus, to increase the effectiveness of an anti-bullying program, it may be advisable to survey the students in the target school, assess the type of bullying they are likely to experience, and adjust the intervention accordingly.

The seventh hypothesis that there will be differences in physical, cognitive, social and emotional bullying and victimization for each bully role and internalizing problem was partially supported. Indeed, some of the findings proved to be unexpected. For instance, correlations showed that as physical victimization increased, so did anxiety and depression, whereas body image decreased, and self-esteem was not significantly related. As rates of cognitive victimization increased, so did self-esteem, anxiety and depression, whereas body image decreased. As rates of social victimization increased, so did anxiety and depression, but was not significantly related to self-esteem or body image. As rates of emotional victimization increased, so did self-esteem, anxiety and depression, but body image was not significantly related. Thus, it appears that most of the specific forms of victimization were related to the internalizing outcomes to some degree.

In regard to bullying, only body image was significantly and positively associated with increases in physical bullying. There were no significant correlations to cognitive, social and emotional bullying. Thus, it appears that apart from body image and physical bullying, none of the specific forms of bullying were related to the internalization outcomes.

Body image was also significant for both the bullies only and victims only groups. When regressed on the four specific forms of bullying (physical, cognitive, social, and emotional) for the bullies only group, accounting for 24.1% of the variance in the body image score for the bullies only group. Each of the specific types of bullying were individually significant with physical bullying uniquely accounting for 4.7% of the variance, cognitive bullying uniquely accounting for only 1.2% of the variance, social bullying uniquely accounting for 15.0% of the variance, and emotional bullying uniquely accounting for 3.4% of the variance. Thus, all types of bullying were individually significant for the bullies only group.

Body image was also significant when regressed on the four specific forms of bullying (physical victimization, cognitive victimization, social victimization, emotional victimization) for the victims only group, accounting for 10.0% of the variance in the body image score. Of the specific types of bullying, emotional victimization was the only variable that was not individually significant. However, physical victimization uniquely accounted for 3.3% of the variance, cognitive victimization uniquely accounted for 4.4% of the variance, and social victimization uniquely accounted for 4.5% of the variance in body image for the victims only group. Thus, it appears that all types of bullying were individually significant for the victims only group, except emotional victimization.

Overall, these results suggest that self-esteem and social anxiety were not individually associated with a type of internalizing problem, but body image appeared to have a specific

connection to bullying and victimization. This may turned out to be an important “initial” finding, as there is relatively little research on the topic of body image and bullying. However, given that the present analysis only involved one question, caution must be exercised and more studies carried out involving measures of body image comprised of numerous questions.

Summary of Discussion

In an effort to provide a comprehensive view of the results and the numerous issues arising from them, it may be helpful to provide charts summarizing the findings. The first chart illustrates the major findings related to the first research question regarding bullying role and internalizing adjustment.

Chart 1: Bullying Role and Internalizing Adjustment

	Social Anxiety	Depression	Self-Esteem	Body Image
Bully	low	Average	Average	High
Victim	high	High	Average	Low
Bully-victim	high	High	Average	Average
Control	average	Low	Average	Average

As the above summary chart illustrates, it appears that there is a differential association between bullying involvement and social anxiety, depression and body image. In particular, bullies reported experiencing low social anxiety, high body image and similar levels of depression and self-esteem. Victims reported high levels of social anxiety and depression, a low body image and average self-esteem. Bully-victims reported high levels of social anxiety and depression, average self-esteem, but also an average body image. Thus, the results of this study support the notion that different bullying roles can have a differential effect on the internalizing

adjustment of the person involved. These adjustment difficulties are especially true for victims and bully-victims.

The next two summary charts are related to the second research question where it appears that the specific types of bullying involvement (e.g., direct (physical & cognitive) vs indirect (social & emotional)) may have a differential effect on the internalizing adjustments. In regards to direct and indirect bullying and victimization, the second chart below demonstrates an association between direct and indirect bullying and an increase in body image, but neither type of bully was associated with anxiety, depression or self-esteem.

Chart 2: Type of Bullying and Internalizing Adjustment

	Social Anxiety	Depression	Self-Esteem	Body Image
Direct Bully	not sig.	not sig.	not sig.	increase
Indirect Bully	not sig.	not sig.	not sig.	Increase
Direct Victim	increase	Increase	not sig.	decrease
Indirect Victim	increase	Increase	low increase	not sig.

Both direct and indirect victimization was associated predominantly with an increase in social anxiety and depression, and a decrease in body image while indirect victimization was associated with an increase in social anxiety and depression, and a decrease (or no effect) in body image.

In regards to the more specific types of bullying and internalizing adjustment, as can be seen from the summary chart below, only physical bullying showed an association, and this was an increase in body image.

Chart 3: Summary of the Results for the Second Research Question Regarding Specific Types of Bullying (physical, cognitive, social & emotional) and Internalizing Adjustments

	Social Anxiety	Depression	Self-Esteem	Body Image
Physical Victim	increase	increase	not sig.	decrease
Cognitive Victim	increase	increase	Low Increase	decrease
Social Victim	increase	increase	not sig.	not sig.
Emotional Victim	increase	increase	Low Increase	not sig.
Physical Bully	not sig.	not sig.	not sig.	Increase

All four types of victimization showed associations to an increase in social anxiety and depression. As well, physical victimization was associated with a decrease in body image, but was not associated to self-esteem. Cognitive victimization was also associated with a decrease in body image, but also with an increase in self-esteem. Social victimization was not associated to either body image or self-esteem, whereas emotional victimization was associated with an increase in self-esteem, but was not associated to body image. Although not included in the table, depression and body image did have an individual association to bullying and victimization, but self-esteem and social anxiety were not individually associated with a type of internal adjustment.

In regard to the second research question, it also appears that the specific sub-type of bullying involvement (i.e., direct vs indirect) may have a differential effect on the internalizing adjustment of bullies, victims and bully-victims.

Thus, a student may experience different adjustment difficulties depending not only on the type of role he/she takes (e.g., bully, victim, bully-victim), but also according to whether the bullying is direct (physical, cognitive) or indirect (social, emotional).

Implications

This thesis has attempted to provide an examination of the lived internal experience of adolescents involved in bullying behaviours. The results of this thesis are of importance to educators and professionals who work with victimized and aggressive individuals. Furthermore, by examining whether specific types of victims, bullies and bully-victims experience heightened anxiety and depression, lowered self-concepts and are prone to body image distortions, more targeted interventions can be developed and implemented for these students. As well, these results will provide impetus for further research to investigate whether these attributes are an outcome of, or a precursors of involvement in bullying for both the victim and the bully. This would provide a better understanding of children/adolescents involved in both categories.

A possible implication resulting from this thesis, is that of “screening” children for potential involvement as a bully, victim or bully-victim when they enter the school setting at a young age. An investigation on the viability of this concept could be carried out by implementing a longitudinal study that would measure the internal adjustment of children as they enter kindergarten and measure any changes in these factors, as well as bullying involvement at the end of every school year until the child reaches adolescence. It would be important to obtain peer, teacher and parent ratings of the children involved as well. The research would involve questionnaires and individual interviews with the children. Full class workshops on the identification of feelings and on the definition of bullying could also be administered to ensure that the children understand exactly what is referred to in the questionnaires. This research could help identify whether internalizing maladjustments precede or are a consequence of bullying involvement, and thus, provide a primary intervention to help children at risk to be bullies and victims or both.

Through the identification of these common traits and specific types of bullying, an enhanced understanding of why some children become victims and/or bullies may be attained. This understanding will be useful in the implementation of interventions to increase self-esteem, and assertiveness skills aimed at developing resiliency in the victims. These could be introduced in the school, home or in a therapeutic setting. While reduced social skills seem to be common in bullies (Bjorkqvist, 2001; Duncan, 199b; Graham & Junoven, 1998; Johnson & Lewis, 1999; Tritt & Duncan, 1997), in order to avoid possible stigmatization, it would be important to introduce social skills (i.e., making friends, sharing, and empathy training) to all students in the early years and reinforce these skills at both the pre-adolescent and adolescent levels.

In addition to social skills, therapists could be introduced to schools through a referral system where bully-victims could be assessed and treated for depression and social anxiety. These treatments would be more specific than general social skills and self-esteem enhancement, but also involve anger management, emotion regulation and cognitive-behavioural therapy. It may be possible that some of the more general aspects of these therapeutic techniques could also be integrated into the curriculum (i.e., journal of feelings, thoughts and actions, etc.). These would be especially beneficial for the bully-victims as they would need anger management and emotion regulation to address both the bullying and victimization experienced by this group.

Although the results of this study did not support the notion that adolescents involved in bullying experience abnormal levels of self-esteem, past research does support the notion that younger children do experience decreased self-esteem (Andreou, 2000; Graham & Jonoven, 1998; Grills & Ollendickand; Hodges & Perry, 1999; O'Moore & Kirkham, 2001). Programs that teach both healthy lifestyles and positive self-image should be introduced at all age levels. For those children directly involved in bullying, small group programs could be developed to

develop specific aspects of self-esteem. Since body image is closely related to self-esteem, creating a positive body image could easily be incorporated into a self-esteem enhancement program at both the Elementary and High School levels.

The results from this study provide some insights into the social and affective links of bullying behaviours and may provide information on how to make school a happier and productive place for children. A good start would be to try to understand why the behaviours are occurring and how they effect those involved and the entire school environment. By teaching all children the consequences of bullying (all four types), a better understanding of the range of consequences may be acquired. In addition, bullies must understand the harm that they cause. For instance, if children understand that you can be a bully by excluding someone out and that simply giving a dirty look can harm another child, they may be more likely to reflect and think about their intentions as well as their action. By reducing bullying, teachers will be able to spend more time teaching, rather than handling bullying situations and will be more available to help children learn and develop. Similarly, those children previously involved in bullying would be better able to concentrate on their school work, rather than living in fear or displaying aggression.

To be effective, interventions must be implemented early in the educational process, should be comprehensive, and must involve creating opportunities to develop self-confidence. Although secondary interventions (e.g., treating those involved in bullying) are essential to creating a better future for bullies and victims, prevention of bullying at a primary level (e.g., teaching children social skills and consequences of bullying before it becomes a problem) is a key component of a solution to the problem of bullying as well. That is, early interventions would be more effective than later intervention in reducing the negative impact that so many

bullies and victims of peer harassment experience.

Limitations

Despite the promising results of the current thesis there are some limitations that should be noted. As with any self-report measure, this can be problematic and caution must be used when interpreting the results. In a self-report measure, it may be possible that a participant will over or under estimate his/her role in bullying or degree of self-esteem, social anxiety, depression and body image. While past research suggests that self-reports are an acceptable method for gathering data, it would be interesting to replicate this study and include peer and teacher ratings of each student involved, on each scale used.

Another possible limitation could be related to test fatigue. The initial questionnaire was quite lengthy and covered a number of different issues. The measures of self-esteem, social anxiety, depression and body image were presented closer to the end of the questionnaire and simple fatigue may explain some of the missing data points on some items. Since SPSS does have missing data procedures, it is expected that the analysis and results were not significantly affected. However, anytime a missing data procedure is used, the data must be interpreted carefully and the results considered with a level of caution.

Another limitation concerns the use of only one question in the body image scale. Although other studies have been successful in using a one question measure, it would be interesting to complete a more in depth study of this variable and the relationship to bullying. Using a scale with more items would be useful as it would increase the reliability of the measure. Possibly administering a similar questionnaire as that used in this study, or a qualitative interview with adolescents diagnosed with a body image disorder to determine their bullying experiences would be useful.

Although looking specifically at an adolescent population is a unique quality of this study, it may also be the reason for some of the unusual results, such as the self-esteem findings not being similar to previous research. Whereas this could be considered problematic, it also supports the unique nature of this study as previous results were based on preadolescent participants and hence, these results could reflect the unique nature of adolescent life, rather than simply conflict with previous research findings. One could speculate that the similar levels of self-esteem across the groups may be due to the general problems of being an adolescent, and the unique trials of high school life and puberty, regardless of whether bullying and victimization is involved

Finally, it is important to note that when the sample for the study was requested, it was difficult to obtain 25 males and 25 females from each grade level, as in some cases, there were not enough students in some of the categories to meet the requested sample. Thus, we can assume that rates for this sample specifically were relatively low, and even the severe bullies and victims from this sample did not score as high as reported in other studies (Olweus, 1993). A follow-up study would be valuable.

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Table 1

Means and standard deviations, for each type of bullying role, in regards to self-esteem, social anxiety, depression and body image (n= 533)

Bully Category	Self-Esteem (-)1-5(+)	Social Anxiety (+)1-4(-)	Depression (+)1-5(-)	Body Image (-)1-4(+)
Bully Only				
Mean	2.4839	1.4930	2.2931	2.9101
SD	1.0182	.7620	.7576	.8480
N	87	71	65	89
Victim Only				
Mean	2.5537	1.8629	2.5606	2.3333
SD	.8383	.6908	.7342	.7428
N	121	111	99	117
Bully and Victim				
Mean	2.6183	1.8541	2.5172	2.4884
SD	.7704	.6255	.5447	.8580
N	126	116	116	129
Control (not a bully or a victim)				
Mean	2.4467	1.6457	2.2400	2.6027
SD	1.0586	.5883	.4618	.8427
N	150	150	150	146
Entire Sample				
Mean	2.5248	1.7293	2.3966	2.5634
SD	.0422	.6664	.6186	.8445
N	484	448	430	481

Table 2

Correlations for bully status and the four correlates involving the entire sample

Variables	Correlations					
	1	2	3	4	5	6
1. Severe bully	----	+.220**	+.083	-.062	+.010	+.122**
2. Severe victim		----	-.095*	+.115*	+.145**	-.155**
3. Self-esteem			----	+.183**	+.085	-.142**
4. Social Anxiety				----	+.205**	-.232**
5. Depression					----	-.124**
6. Body Image						----

**p>.001, *p>.05

Table 3

Summary of the multiple regression analysis of bully score for bullies only regressed on self-esteem, social anxiety, depression and body image

	Variable	B	R^2	R^2_{Δ}	F_{Δ}	Df	Sig
Step 1	Self esteem	.303*					
	Social anxiety	-.205					
	depression	-.007					
	Body image	.138	.200	.139	3.259	4,52	.019

*p<.05

Table 4

Correlations for correlates and direct vs. Indirect bully or victim roles for the entire sample

Variables	Correlations			
	Direct Victim	Indirect Victim	Direct Bully	Indirect Bully
1. Gender	-.098*	+.058	-.153**	-.094*
2. Esteem	+.085	+.103*	+.077	+.076
3. Anxiety	+.200**	+.198**	-.042	-.080
4. Depression	+.245**	+.278**	+.012	+.006
5. Body Image	-.193**	-.067	+.110*	+.117*

**p>.001, *p>.05

Table 5

Correlations for correlates and type of victim role for the entire sample

Variables	Correlations			
	Physical Victim	Cognitive Victim	Social Victim	Emotional Victim
1. Gender	-.175**	-.020	-.019	+.117**
2. Esteem	+.064	+.089*	+.071	+.112*
3. Anxiety	+.161**	+.204**	+.155**	+.199**
4. Depression	+.195**	+.253**	+.163**	+.334**
5. Body Image	-.149**	-.202**	-.039	-.081

**p>.001, *p>.05

Table 6

Correlations for correlates and type of bully role for the entire sample

Variables	Correlations			
	Physical Bully	Cognitive Bully	Social Bully	Emotional Bully
1. Gender	-.217**	-.077**	-.116**	-.050
2. Esteem	+.061	+.081	+.087	+.051
3. Anxiety	-.063	-.177	-.064	-.084
4. Depression	-.029	+.046	+.006	+.004
5. Body Image	+.092*	+.111*	+.084	+.134**

**p>.001, *p>.05

Table 7

Summary of the multiple regression analysis of social anxiety score for bully- victims
regressed on direct and indirect victimization and bullying scores

	Variable	B	R^2	R^2_{Δ}	F_{Δ}	df	sig
Step 1	Direct victimization	.040					
	Indirect victimization	.278*					
	Direct bullying	-.025					
	Indirect bullying	-.240*	.084	.051	2.555	4,111	.043

*p<.05

Table 8

Summary of the multiple regression analysis of depression score for victims only regressed on direct and indirect victimization scores

	Variable	B	R^2	R^2_{Δ}	F_{Δ}	Df	sig
Step 1	Direct victimization	.108					
	Indirect victimization	.276	.091	.072	4.783	2,96	.010

* $p < .05$

Table 9

Summary of the multiple regression analysis of depression score for bullies and victims
regressed on direct and indirect victimization and bullying scores

	Variable	B	R^2	R^2_{Δ}	F_{Δ}	df	Sig
Step 1	Direct victimization	-.023					
	Indirect victimization	.187*					
	Direct bullying	-.165					
	Indirect bullying	.022	.086	.053	2.615	4,111	.039

*p<.05

Table 10

Summary of the multiple regression analysis of body image score for bullies only regressed on direct and indirect bullying scores

	Variable	B	R^2	R^2_{Δ}	F_{Δ}	df	sig
Step 1	Direct Bully	.634*					
	Indirect Bully	-.294	.110	.089	5.301	2,86	.007

* $p < .05$

Table 11

Summary of the multiple regression analysis of body image score for victims only regressed on direct and indirect victimization scores

	Variable	B	R^2	R^2_{Δ}	F_{Δ}	Df	sig
Step 1	Direct victimization	-.421*					
	Indirect victimization	.381*	.087	.071	5.422	2,114	.006

*p<.05

Table 12

Summary of the multiple regression analysis of depression score for victims only regressed on physical, cognitive, social and emotional victimization scores

	Variable	B	R ²	R ² _Δ	F _Δ	df	sig
Step 1	Physical victimization	.104					
	Cognitive victimization	.083					
	Social victimization	-.355*					
	Emotional victimization	.495*	.202	.168	5.932	4,94	<.001

*p<.05

Table 13

Summary of the multiple regression analysis of body image score for bullies only regressed on physical, cognitive, social and emotional bullying scores

	Variable	B	R^2	R^2_{Δ}	F_{Δ}	df	sig
Step 1	Physical bullying	.323*					
	Cognitive bullying	.503*					
	Social bullying	-.639*					
	Emotional bullying	.268*	.241	.205	6.675	4,84	<.001

*p<.05

Table 14

Summary of the multiple regression analysis of body image score for victims only regressed on physical, cognitive, social and emotional victimization scores

	Variable	B	R^2	R^2_{Δ}	F_{Δ}	df	sig
Step 1	Physical victimization	-.205*					
	Cognitive victimization	-.248*					
	Social victimization	.358*					
	Emotional victimization	.078	.100	.068	3.126	4,112	.018

*p<.05

Figure 1

Types of bullying behavior

<i>Modes of Attack</i>	Types of Aggression	
	Physical	Psychological
Direct	Physical Pushing, hitting, punching, spitting, hair pulling, assaults with weapons	Cognitive Name calling, ridiculing, taunting, menacing glance, verbal threats, hand signaling, swearing
Indirect	Social Instigating a fight without directly participating, daring someone to assault a victim, initiation rituals to become part of a group or to prove loyalty to that group, directly ordering someone to carry out an attack	Emotional Spreading rumors, Sending unsigned letters, obscene phone calls, posting signs with special meaning

*taken from Marini, Fairbairn and Zuber (2001)

Figure 2

Raw scores for internalizing problems per bully type

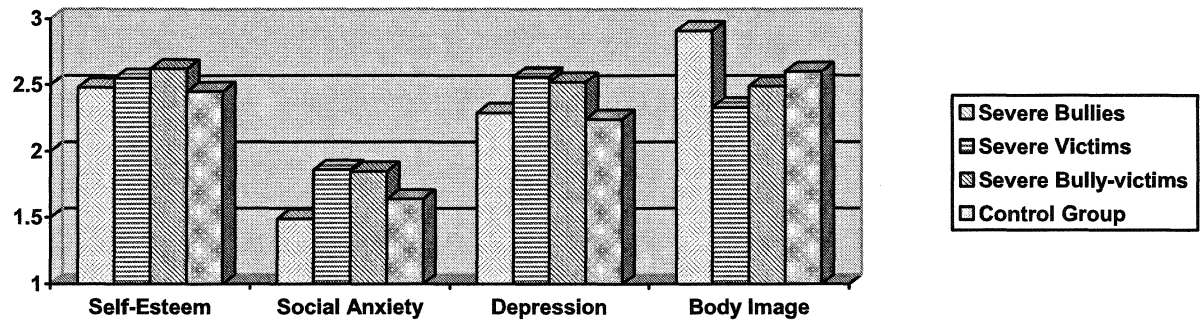


Figure 3

Raw scores for gender differences in total sample scores of internalizing problems and
bully type

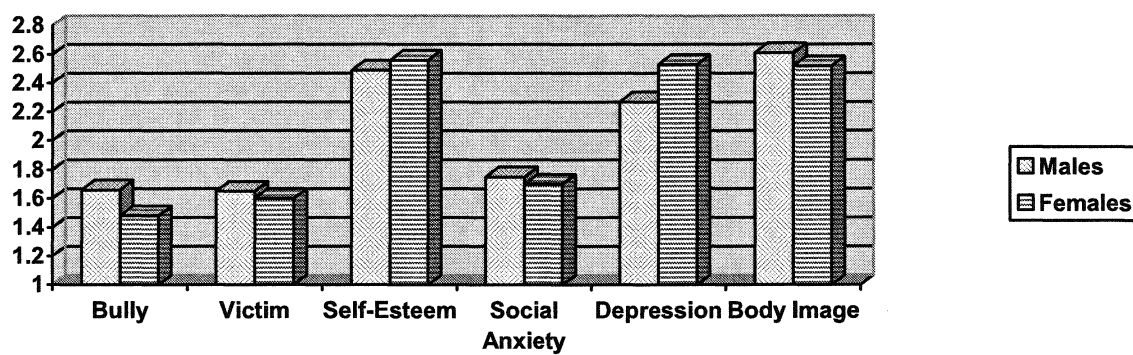


Figure 4

Raw scores for direct and indirect bullying and victimization per bully type

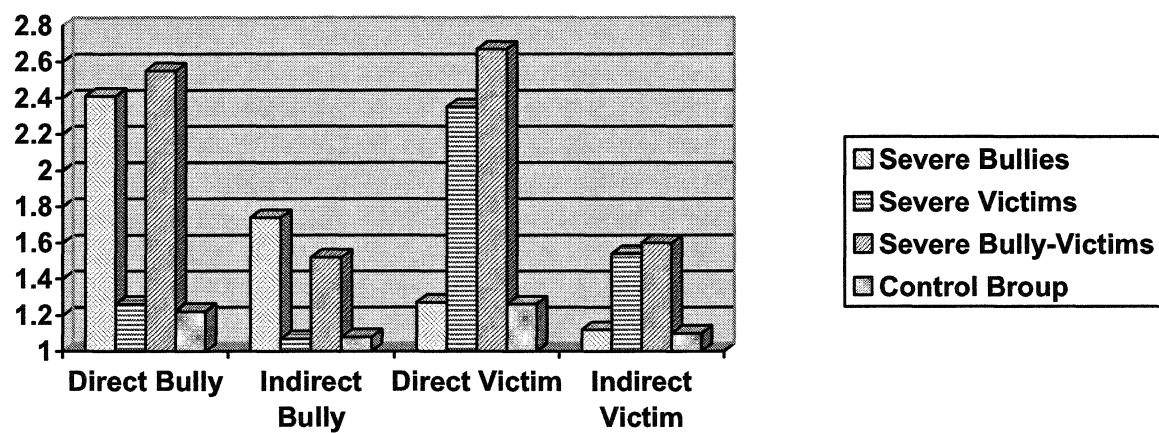


Figure 5

Raw scores for physical, cognitive, social and emotional victimization per bully type

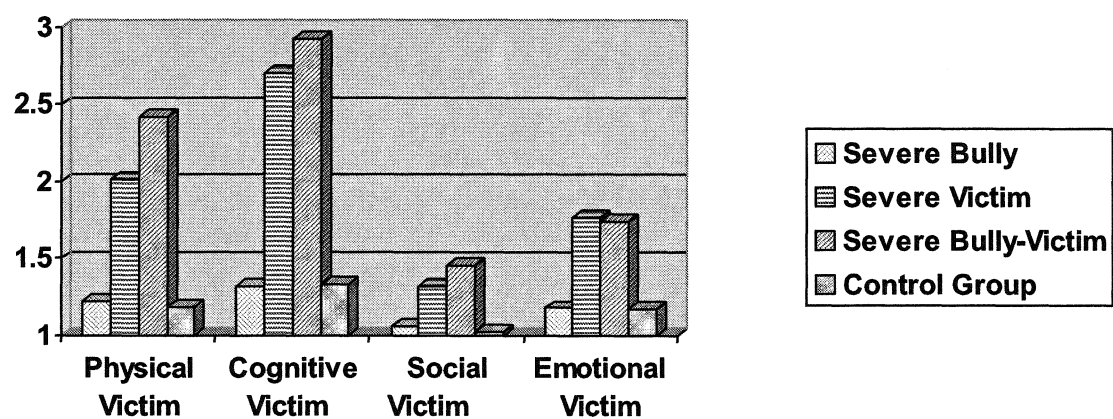
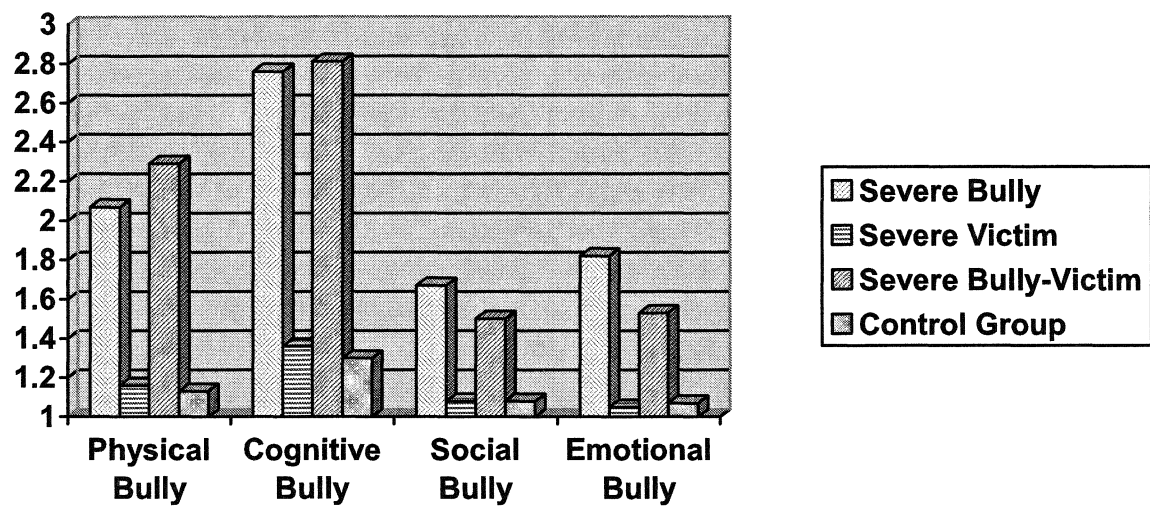


Figure 6

Raw scores for physical, cognitive, social and emotional bullying per bully type



Appendix A

Detailed Outline of the Participants by Grade and Gender (N= 533)

Bullies (n= 113)

scored 3+ on 2 or more items from the bully category, but did not score above 2 on any item in the victim category

	grade 9	grade 11	OAC
males	25	25	10
females	25	23	5

Victims (n= 133)

scored 3+ on 2 or more items from the victim category, but did not score above 2 on any item in the bully category

	grade 9	grade 11	OAC
males	25	25	12
females	25	25	21

Bullies and Victims (n= 137)

scored 3+ on 2 or more items from both the bully category *and* the victim category

	grade 9	grade 11	OAC
males	25	25	25
females	25	25	12

Control Group (n= 150)

scored 2 or less on both the bully category *and* the victim category

	grade 9	grade 11	OAC
males	25	25	25
females	25	25	25