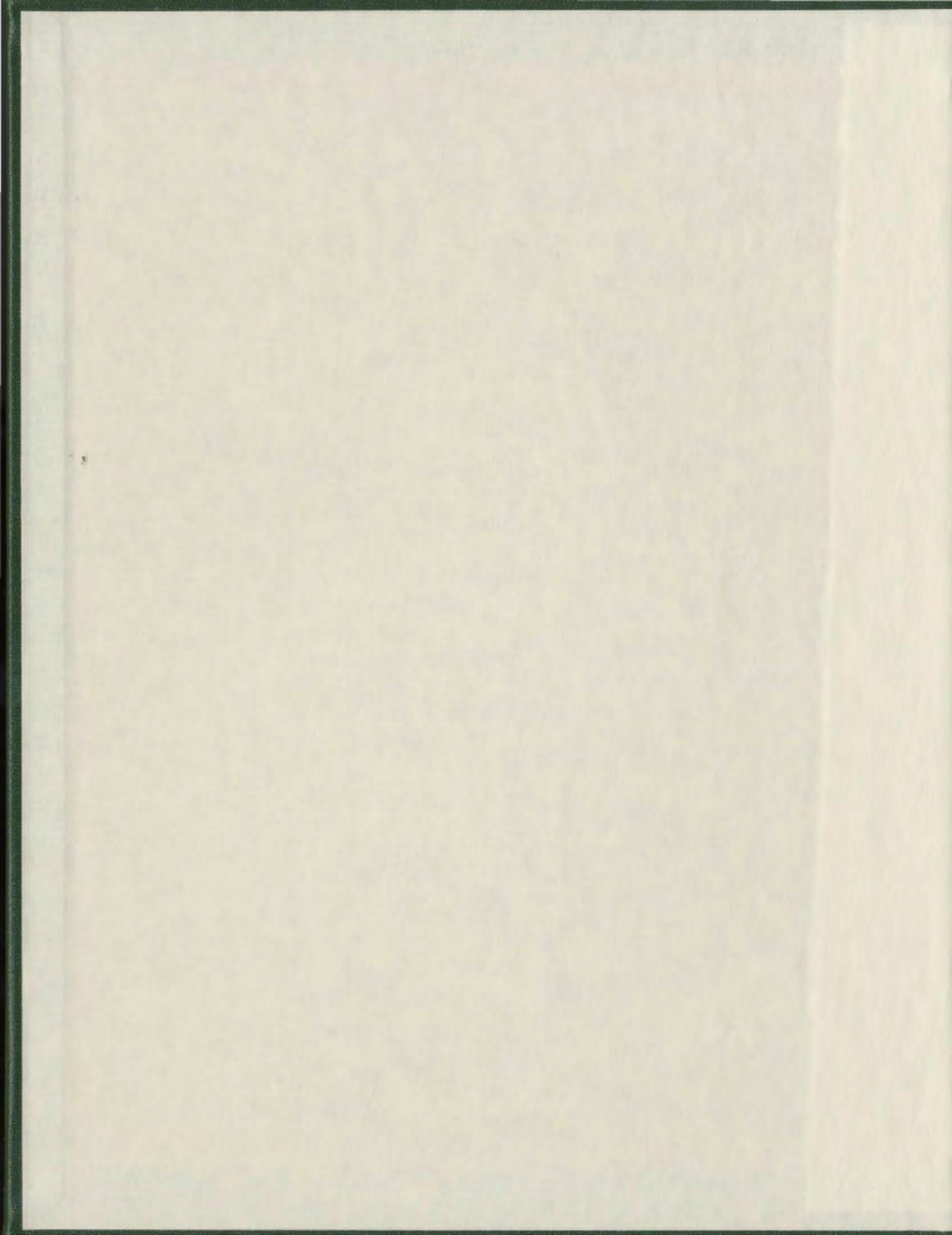


MIDDLE SCHOOL STUDENTS AND BULLYING
BEHAVIOR

REGINALD DURDLE



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By

Reginald Durdle, B.A., B.Ed.

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ABSTRACT

The purpose of the study was to determine if the likelihood of middle school students engaging in physical or verbal bullying behaviors (specifically, breaking other people's things, trying to hurt or bother people, teasing other students, fighting with other students, and talking back to teachers) can be predicted by examining personal and school related factors, such as belief in pro-social norms, level of social integration, commitment to school, attachment to school, peer drug modeling, attitudes against substance use, self esteem, positive peer modeling, age, grade and gender.

The data for this study was archival, having been originally collected by the researcher in 2004 to assess the impact of the Drug Abuse Resistance Education (D.A.R.E.) program in a rural Newfoundland and Labrador school. Logistic Regression Analysis was used to analyze the responses of 107 students in grades six to eight on the "You and Your School" questionnaire.

The current study indicates that both physical and verbal bullying is influenced by gender and age. Self-esteem was also revealed as an important factor as were level of social integration, positive peer support and commitment to school. Implications for these findings are discussed in the context of creating a positive school environment. Limitations and recommendations are also discussed.

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CHAPTER I

INTRODUCTION

The Problem

All over the world, bullying and victimization are common in elementary and secondary schools (Espelage & Swearer, 2003). Once thought of as a rite of passage for school age children or the notion that boys will be boys, bullying has taken on much more importance in schools and in the public. Recent high profile cases in England, the United States and here in Canada have served to heighten awareness of the issue which some call the number one problem facing schools today (Nansel, Craig, Overpeck, Saluja & Ruan, 2004). While these cases are classified as high-level violence and are often sensationalized by the media they are, thankfully, not common and not typical of bullying behaviour. Unfortunately they are often the culmination of unaddressed or unrecognized bullying behaviour that may have been going on for months or years (PREVNet, 2007, CBC News Online, 2005). This low-level violence, such as name calling, pushing, fighting, destruction of personal property and social ostracism can be described as bullying. It is this type of behaviour that is such a problem in schools today. The estimated rates of bullying and victimization range from 10% to 35% in Australia, Finland, Germany, Norway, Scotland, the United States and Canada (Craig, 2004).

Bullying has long lasting effects on bullies, victims and those that passively participate in bullying by watching and not intervening. Eron and Huesmann (1984) reported in a 22-year longitudinal study of 8 year-old bullies that most of them had at

least one criminal record in their adulthood. Olweus (1994) reported that 60 per cent of bullies in Grades 6 to 9 had been arrested at least once and 35 per cent to 40 per cent had been arrested three or more times by the age of 24. Victims are at increased risk of depression and lower self-esteem in adulthood. Victims of bullying typically respond with avoidance behaviours such as skipping school and staying away from certain places in school. There is often a decline in academic performance and a loss of self-esteem. In extreme cases, they may run away, commit suicide or kill bullies (Ma, Stewin & Mah, 2001). Nesbit, notes that bullying does not only affect the bullied child. Children can carry scars of bullying into adulthood even if they were only witness to the violence; not intervening can create feelings of shame, guilt and helplessness that can interfere with later development (Nesbit, 1999).

Purpose of the Study

In recent years there has been an increased effort on behalf of schools to be more proactive in creating and maintaining safe and caring school environments. It is recognized that if students are to achieve to their fullest potential, they require supportive and nurturing places in which to learn and grow. “Building a safe, respectful, caring and positive learning environment has to be the foundation of any provincial, district or school policy” (Government of Newfoundland and Labrador, 2007). Obviously bullying is contrary to this goal. If teachers and administrators, in collaboration with school districts and governments are working toward building peaceful schools, they need to address the issue of bullying.

While the prevalence of bullying varies by school, district and country it is a serious problem. However in many schools it is not addressed. Other than obvious forms of violence such as fighting or arguing, much of the bullying behaviour taking place in school is usually a very covert activity and most teachers are not trained to recognize it. Even the obvious forms usually take place when adults are not around. Administrators often fail to see it as a problem in their schools by underestimating its occurrence (PREVNet, 2007). Sometimes it is recognized as a problem but schools are unsure of the best plan of action to address it. The question then becomes how can schools create safe and caring environments if as many as 30% or more of students are experiencing some type of bullying.

There is a consensus in the literature that the earlier prevention and intervention methods are used the more success they have since student behaviour patterns are very susceptible to change (Rigby, 2004). Olweus (1993) also suggests that involving the whole school community is important.

While many researchers have investigated and identified the typical characteristics of bullies and victims (Nesbit, 1999) there is a gap in the literature in the area of the factors which contribute to bullying. For example, there is a dearth of empirical evidence about the effects of the school setting on bullying, particularly how school climate affects students involved in bullying. It is also unclear which aspects of school climate might preserve the bullying dynamic. Without this data, researchers cannot provide educators and administrators with empirically-based interventions for improving school policies that discourage bullying in school (Ma, 2002). Additionally

there is little evidence on what personal factors increase or decrease the likelihood of a student engaging in bullying behaviour? Furthermore, is there an interaction among these factors and if so is it affected by the age or sex of the bully? Understanding the factors which lead to bullying, or conversely discourage it will be an important aspect of addressing bullying and helping make school environments safer.

This study uses data from 150 grade 5 – 8 students in one rural Newfoundland and Labrador community. Students completed a modified version of the “You and Your School” questionnaire on which they responded to a variety of items about themselves and their school. A logistical regression analysis was used to determine if the likelihood of a person engaging in specific physical and verbal bullying behaviours can be predicted by examining specific school and personal related factors.

Research Questions

The following questions will be addressed in this study:

1. Can the likelihood of engaging in bullying behaviour be predicted from a belief in pro social norms?
2. Can the likelihood of engaging in bullying behaviour be predicted from a student’s level of social integration?
3. Is level of commitment to school a predictor of engaging in bullying behaviour?
4. Is a student’s level of attachment to school a predictor of engaging in bullying behaviour?
5. Is drug use by peers (peer drug modeling) a predictor of bullying behaviour?

6. Does possessing attitudes against substance abuse decrease the likelihood of engaging in bullying behaviour?
7. Is level of self-esteem a predictor of engaging in bullying behaviour?
8. Does positive peer support (Positive Peer Modeling) decrease the likelihood of engaging in bullying behaviour?
9. Is there a relationship between these factors and age and gender?

Definition of Terms

Prosocial norms are defined by such things as telling the truth, not cheating on tests, not using drugs, not stealing, and being loyal to friends. (Catalano, Berglund, Ryan, Lonczak & Hawkins, 1998). The assumption is that the higher the score on this scale the less likely a person would be to engage in bullying behaviour. This is supported by Berthold (1996) who described the characteristics of bullies in Grades 4 to 6 in detail - they tend to smoke and drink, cheat on tests, bring weapons to school, and are home without adult supervision for more than two hours after school each day.

Level of social integration has to do with the degree to which a person feels accepted by friends and family and that his or her opinion counts. (Harmon, 1993). One would assume that like prosocial norms, a high score on this scale would result in a person less likely to bully. However, the literature is conflicting on this point. Mouttapa (2004) found that aggressive victims as well as bullies tended to have aggressive peers. They went on to suggest that the existence of aggressive friends was associated with participation in aggression, whereas the existence of non-aggressive friends was

associated with less participation in aggression. A student can have a high level of social integration with aggressive peers just as they can with non-aggressive peers.

Commitment to school is defined by how motivated a student is toward completing school work and performing well (Harmon, 1993). This is different than attachment to school, which has more to do with liking the school building, curriculum, teachers, and administrators. Again the assumption is made that if a student is committed to being successful in school and likes going to school, that student will be less likely to be involved in aggressive behavior that conforms to the definition of bullying. These two variables are considered school climate factors. There is a common belief that positive school environment disallows bullying and harassment to flourish. Effective schools encourage students to have positive interactions with each other, teachers and administrators and set up tougher sanctions against bullying (Barone, 1997; King, Vidourek, Davis, & McClellan, 2002) argue that positive school, peer, and family connections represent protective factors against youth involvement in risky behavior.

Peer drug modeling is defined as the types of behaviors engaged in by a student's peers concerning smoking, drinking and drug use (Harmon, 1993). The assumption is that the more a student interacts with peers involved in deviant behaviour, the more likely he or she is to engage in similar behaviour. In their review of the literature on peer group effects on aggression, Espelage, Holt and Henkle (2003) found that the majority of delinquent adolescents affiliate with deviant peers.

Attitudes against substance use is the degree to which a student believes it is wrong to take drugs (Harmon, 1993).

Self esteem refers to such things as a student's perception of performance on school tasks, athletic ability, and in general how good a person feels about himself or herself (Harmon, 1993).

Assertiveness is the ability to stand up for yourself, ask for help if needed, express opinions or speak out against an injustice (Harmon, 1993).

Positive peer modeling can be defined as having friends who keep their promises, are loyal, and have similar interests (Harmon, 1993).

Bullying is defined as a repeated aggression in which one or more persons intend to harm or disturb another person physically, verbally, or psychologically (Olweus, 1993). Examples of physical bullying are hitting, kicking, pushing, and the taking of personal belongings; examples of verbal bullying are name calling and threatening; and examples of psychological bullying are excluding, isolating, and gossiping

For the purpose of this study the following 5 types of behaviours are categorized as school bullying:

1. breaking other people's things;
2. trying to hurt or bother people (by tripping, hitting or throwing things);
3. teasing other students;
4. fighting with other students; and
5. talking back to teachers.

Summary

All over the world, bullying and victimization are common in elementary and secondary schools. Some research puts the incidence as high as 35%. (Craig, 2004). Once thought of as a rite of passage for school age children or the notion that boys will be boys, bullying has taken on much more importance in schools and in the public. This chapter attempts to put the problem of school bullying in context and outline the purpose for this study. While the media often focuses on extreme cases of bullying which end in serious injury, death or suicide, these are rare. However these are often the culmination of other bullying behaviour that has been going on over an extended period of time. Bullying is goes beyond name calling, pushing, fighting, or destruction of property. What distinguishes bullying behaviour is the addition of a relationship component in which there is an imbalance of power. It is repeated aggression in which one or more persons intend to harm or disturb another person physically, verbally, or psychologically. It is this repeated abuse over time which has lasting implications for the victim (Olweus, 1993)

This study uses data from 150 grade 5 – 8 students in one rural Newfoundland and Labrador community. A logistical regression analysis was used to determine if the likelihood of a person engaging in specific physical and verbal bullying behaviours can be predicted by examining specific school and personal related factors.

CHAPTER II

REVIEW OF THE LITERATURE

This review focuses on bullying as it occurs in school. School bullying among children and adolescents has been the focus of many international studies over the last 30 years. In his seminal research, Norwegian scholar Daniel Olweus, (cited in Espelage & Swearer, 2003) coined bullying as "mobbing," and defined it as an individual or a group of individuals harassing, teasing, or pestering another person (p. 366). However, it was not until 1982 that school officials in Norway turned their attention to school bullying, and did so only after three 14-year-old boys committed suicide as a result of extreme harassment from classmates (Olweus, 1993). Following these events, the Ministry of Education in Norway launched a national campaign against bullying in which a prevention program was implemented in every primary and secondary school. Indeed, many other countries have recognized bullying as a serious concern, including England, Italy, Japan, the United States, and Australia, to name just a few.

In Canada, similar high profile bullying related cases in Mission, Taber, Victoria and Toronto (Spevak, 2006) have served to heighten the seriousness of bullying and have led to the establishment of initiatives such as safe school policies being adopted by most school districts. Federal and provincial government programs address youth violence, an example of which is the National Crime Prevention Strategy (N.C.P.S., 2002). As an example, in March 2005, the Social Science and Humanities Research Council of Canada (S.S.H.R.C.) announced a \$1-million grant to Hamilton's McMaster University to study

how to tackle bullying and to make it stop. In 2006 the Government of Newfoundland and Labrador announced its Safe Schools Policy which mandated that every school in the province have a safe school committee. In the past five years there has been a growth in the quantity and quality of online resources to deal with bullying. In 2007, the Promoting Relationships and Eliminating Violence Network launched its new website, PREVNet, which is a coalition of Canadians concerned about bullying. "The primary goal of PREVNet is to translate and exchange knowledge about bullying to enhance awareness, to provide assessment and intervention tools, and to promote policy related to the problems of bullying" (PREVNet, 2007).

In her review of the literature on bullying in Canada, Spevak (2006) cites the following which shows the significance of school bullying in the Canadian education system.

In a literature review written for Alberta Education, Schultz and da Costa (2005) describe several of the violence prevention programs being implemented in Alberta schools. The authors do not evaluate program success but rather provide a summary of program resources and strategies. They also address the added complexity of evaluating anti-bullying programs in light of inconsistent definitions and measures of bullying used.

In an extensive report written for Health Canada on the health and well-being of young people in Canada, an entire chapter is devoted to bullying and fighting, and another section reports on the emotional health of youth (Boyce, 2004). Current Canadian research is reviewed and a number of recommendations are set forth in response to the findings.

Another report written for Health Canada by Craig (2004) looks at the extent of the various types of bullying within the Canadian context. Approximately 6,500 Canadian students from grades 6 to 10 were surveyed as part of a larger international study across 34 countries. Findings include victimization and bullying rates and the types of bullying that are most common. (p. 4)

With such initiatives bullying is finally being recognized for the serious problem that it presents.

Incidence of Bullying

As already noted much of the early research on bullying has emerged out of studies in Europe and later Australia. However, it is recognized as a worldwide problem. In their review of the literature, Veenstra, Lindenberg, Oldehinkel, De Winter, Verhulst and Ormel (2004) noted that:

All over the world, bullying and victimization are common in elementary and secondary schools. The estimated rates of bullying and victimization range from 15% to 25% in Australia (Rigby & Slee, 1991), Austria (Klicpera & Gasteiger Klicpera, 1996), England (Whitney & Smith, 1993; Wolke, Woods, Stanford, & Schulz, 2001), Finland (Kumpulainen et al., 1998; Kumpulainen & Rasanen, 2000), Germany (Wolke et al., 2001), Norway (Olweus, 1978, 1993b), and the United States (Nansel et al., 2001). (p. 672)

In recent years, research has emerged out of the United States and more recently Canada. Canadian researchers began collecting data in the early 1990s to determine the prevalence of bullying in Canadian schools. These studies generally concluded that Canadian students, like students in other countries around the world, suffer from bullying at school at rates and frequencies that cannot be ignored. In its report on school bullying, the Government of Canada referenced a study conducted by the World Health Organization, which surveyed the health behaviors of school aged children around the world, and found that Canada ranked in the middle of 35 countries studied for level of bullying (Public Safety Canada, 2006).

In her review of the literature for *The Society For Safe and Caring Schools and Communities*, Spevak (2006) noted that:

A number of other studies have been conducted on the prevalence of bullying in Canadian schools (Craig, 2004; Nansel, 2004; Spevak, 2003; Beran & Tutty, 2002; Pepler & Craig, 2000; O'Dea & Loewen, 1999; Pepler, Craig & Roberts, 1998; Craig & Pepler, 1997; Charach, Pepler & Ziegler, 1995; MacDonald, 1995; Pal & Day, 1991).

Of almost 1000 junior and senior high school students surveyed in Calgary, approximately 37% reported that they had been slapped or kicked, 42% had been threatened and 56% had something stolen (Smith, Bertrand & Hornick, 1995). Another Calgary study found over one quarter of elementary students had experienced physical and verbal bullying (Beran & Tutty, 2002). In a study of 850 Ontario students in grades 6-9, 45% reported that there was some to a lot of violence in their schools, and 29% said that they felt safe sometimes or not at all while at school (Ryan, Matthews & Banner, 1993). A study by Macdonald (1995) found that over 50% of the 231 junior high school students surveyed had experienced physical forms of violence in their school. In a study investigating bullying in elementary school playgrounds in Toronto, Craig and Pepler (1997) observed approximately one incident every seven minutes. They calculated that 12% of the children were bullied by 20% of their peers. (pp. 6-7)

There are plausible reasons different researchers report varying rates of bullying. These may include anonymous self-reporting questionnaires versus peer and/or teacher nominated questionnaires, using Likert scales versus simple yes no responses to bullying behaviors, and varying definitions of what comprises bullying. Given some of the problems associated with the collecting of data, the fact remains that bullying is taking place at unacceptable levels and is making school a very unpleasant experience for many individuals.

Defining Bullying

Perhaps the most challenging aspect of conducting research on bullying is defining it. Espelage et al. (2003) stated:

A number of definitions exist in the literature; however, although these conceptualizations differ semantically, many of them have one similarity: Bullying is a subset of aggression (Dodge, 1991; Olweus, 1993; Rivers & Smith, 1994; Smith & Thompson, 1991).

The following definitions are commonly found in the literature: A person is being bullied when he or she is exposed, repeatedly over time, to negative actions on the part of one or more other students (Olweus, 1993, p. 9).

A student is being bullied or picked on when another student says nasty and unpleasant things to him or her. It is also bullying when a student is hit, kicked, threatened, locked inside a room, sent nasty notes, and when no one ever talks to him (Smith & Sharp, 1994, p. 1). Bullying is longstanding violence, physical or mental, conducted by an individual or group and directed against an individual who is not able to defend himself in the actual situation (Roland, 1989, p. 143). Thus, bullying is defined in the literature as a repeated behavior (including both verbal and physical behaviors) that occurs over time in a relationship characterized by an imbalance of strength and power (Olweus, 1994). Given this imbalance of strength and power, it is difficult for the person being bullied to defend himself or herself.

The varying definitions of bullying are cited by many researchers as a major reason for different rates of bullying being reported in different jurisdictions.

In addition to a definition of bullying, most researchers distinguish between types of bullying. Lajoie, McLellan, and Seddon (1997) have identified what they feel are four kinds of bullies:

1. **Physical Bullies:** This type of bullying includes hitting or kicking the victim, or, taking or damaging the victim's property. This is the least sophisticated type

of bullying because it is so easy to identify. Physical bullies are soon known to the entire population in the school.

2. Verbal Bullies: This type of bullying includes name-calling, insulting, making racist comments and constant teasing. This type of bullying is the easiest to inflict on other children. It is quick and to the point. It can occur in the least amount of time available, and its effects can be more devastating in some ways than physical bullying because there are no physical scars.

3. Relational Bullies: Relational or relationship bullies try to convince their peers to exclude or reject a certain person or people, and cut the victim off from their social connections. This type of bullying is linked to verbal bullying and usually occurs when children (most often girls) spread nasty rumors about others or exclude an ex-friend from the peer group. The most devastating effect with this type of bullying is rejection by the peer group at a time when children most need their social connections.

4. Reactive Victims: Reactive victims straddle a fence of being a bully and/or victim. They are often the most difficult to identify because at first glance they seem to be targets for other bullies. However, reactive victims often taunt bullies, and bully other people themselves. (pp. 16-17)

PREVNet (2007) points out that bullying takes on many forms, including verbal, physical, racial, social, sexual, disability, and religious. The Canadian Children's Rights Council and others have identified another type which has emerged with the use of technology - cyber bullying. Through email, instant messaging, Internet chat rooms, and electronic gadgets like camera cell phones, cyber bullies forward and spread hurtful

images and/or messages. Bullies use this technology to harass victims at all hours, in wide circles, at warp speed (Canadian Children's Rights Conference, 2006).

The Prevalence of Bullying

There are differing views in the literature as to when bullying is most prevalent. Olweus (1993) indicated that there is a greater instance of bullying in primary grades but it tends to decline as students move toward elementary school. This decline continues as students move into junior high. However, Banks (1997) found that bullying "seems to increase in elementary years, peak in middle / junior high school, and decline during high school years," (p. 1). While there is some disagreement about when it is most prevalent, there is a consensus that the older students are when they engage in bullying, the more severe it is and the more resistant they are to intervention.

Traditionally, bullying has taken place in the absence of adult supervision. Mellor (1997) indicated that the playground is the most common place for bullying to occur followed by hallways and classrooms. Smith and Sharp (1994) reported that for most students the playground is the most common location for bullying. The Anti-Bullying Network based at the University of Edinburgh references studies from England, Ireland and Germany, all with similar findings. However, as mentioned above bullying is going beyond the school grounds to cyberspace. While this is recognized as a problem the researcher was unable to find any research based studies relating to its impact other than anecdotal reports on anti-bullying websites. No doubt this problem is becoming more serious and is worthy of future investigation.

Impact of Bullying

The consequences of bullying can be long lasting, both for the bully and the victim. Veenstra et al., (2004) state that:

Bullying presents a serious threat to a healthy development during the school career. Bullies are at increased risk of becoming involved in delinquency, crime, and alcohol abuse (Kaltiala-Heino, Rimpela, Rantanen, & Rimpela, 2000; Locher & Dishion, 1983; Nansel et al., 2001, 2004; Olweus, 1993a, 1993b). Haynie et al. (2001) concluded that “bullying might allow children to achieve their immediate goals without learning socially acceptable ways to negotiate with others, resulting in persistent maladaptive patterns”. (p. 31)

Eron and Huesmann (1984) reported in a 22-year longitudinal study of 8 year-old bullies that most of them had at least one criminal record in their adulthood. They followed bullies identified early in school and found that 25 per cent had a criminal record by the age of 30. Olweus (1994) showed that 60 per cent of bullies in Grades 6 to 9 had been arrested at least once and 35 per cent to 40 per cent had been arrested three or more times by the age of 24.

Long-term negative consequences have also been documented for victims. In general, victims are at increased risk of depression and lower self-esteem in adulthood. Victims of bullying typically respond with: (a) avoidance behaviors (such as skipping school and staying away from certain places in school); (b) a decline in academic performance; (c) a loss of self-esteem; and (d) in extreme cases, running away, committing suicide and killing bullies (Ma et al. 2001).

There is another group that is impacted by bullying, that of the bystander. These individuals watch but do not intervene. In her summary of the bullying literature,

Mulrooney (2001) points out that “bystanders generally remain on the sidelines because they don’t know what they should do. They are fearful of becoming the brunt of attacks by bullies or they might do the wrong thing that causes even more problems. The emotionally safest route generally looks like the avoidance of getting involved and is by far the most common route taken” (p. 30). Nesbit (1999) notes that bullying not only affects the bullied child; children can carry scars of bullying into adulthood even if they were only witnesses to the violence. Not intervening can create feelings of shame, guilt and helplessness that can interfere with later development.

The Profile of the Bully

Olweus (1993) described bullies as impulsive, aggressive, dominating, non-empathetic, and physically strong; they have a positive attitude toward using violence to get what they want and a favourable self-image. Keltikangas-Jarvinen & Pakasiahti (1999) characterized them as permanently aggressive offenders in both childhood and adolescence, as having aggressive strategies of problem solving and as lacking constructive alternatives of problem solving.

Nesbit (1999) stated that family dynamics play a part in whether a child grows up to be a bully. Bullies are from families in which parents: are authoritarian (preferring physical means of discipline); are often hostile and rejecting; are inconsistent in their parenting (being both rejecting and permissive); are poor social problem-solvers; and emphasize striking back at minor provocation (Ma et al., 2001). Oliver, Hoover, and Hazler (1994) added other family characteristics of bullies, stating they often come from

a cold emotional environment with a lack of family structure and poor child management skills.

Berthold (1996) described characteristics of bullies in Grades 4 to 6 in detail. These individuals tended to smoke and drink, cheat on tests, bring weapons to school, and are home without adult supervision for more than two hours after school each day. Bullies never admit that victims are weaker than they are, and they believe that they act because they are provoked. Bullies are often overly sensitive, considering normal actions of others as hostile and provocative.

Victim Characteristics

Wilson (as cited in Mulrooney, 2001) found that victims tend to have the following common characteristics: they are more anxious, insecure, cautious, sensitive, and physically weaker than non victims. They also have a negative view of themselves and their situation. They see themselves as failures and feel stupid, ashamed and unattractive. Olweus (1993) classifies victims into two groups. There is a passive group, with similar characteristics as Wilson's definition and a provocative group, who are quick-tempered, anxious and defensive. These victims often bully themselves and are referred to in the literature as responsive victims or bully-victims, who are both bully in some situations and victims in others.

In their review of the literature Ma et al. (2001) found that victims often do not report bullying incidents, providing two reasons: fear of retaliation and experience of inadequate support from adults when they do ask for help. Olweus (1995) reported that

40 per cent of primary school children and 60 per cent of junior high school children indicated that educators took little action to help them when they reported bullying incidents. Sometimes, victims of bullying receive even less attention from educators than their bullies (Bosacki, Marini, & Dane, 2006).

Age and Gender

Bullying also has discernible patterns when it comes to age and gender. Physical bullies are mostly always males, while females are more involved in relational bullying (Salmivalli, 2002). Younger children are more likely to be victimized. Olweus (1993) reported that on average 11 per cent of students are bullied in Grades 2 to 6 in comparison to 5 per cent in Grades 7 to 9. He then suggested that the youngest children in school are at most risk of being bullied. Victims seem to have a tendency to be victimized over time. He found that male victims at age 13 are still victims at age 16. Slee and Rigby (1994) reported that 28 per cent of victims are bullied for a period varying from a few months to more than half a year.

In general, males are more likely to get involved in bullying others than females. Males are also more likely than females to target the same victim repeatedly (Craig, 1993). Males bully both males and females, but females often bully females only. Olweus (1995) reported that 60 per cent of female victims in Grades 5 to 7 are bullied by male bullies, and an additional 15 per cent to 20 per cent are bullied by males and females acting together. Overall, 80 per cent of male victims are bullied by males. Others argue that females are just as likely as males to get involved in bullying others if considering the multiple forms that bullying takes such as social ostracism in which females

participate more frequently. Male bullies are three to four times more likely than female bullies to use direct, physical abuse (Eron et al., 1987) whereas female bullies are more likely to use indirect, verbal abuse (Hoover, Oliver, & Hazler, 1992). Similarly, labeling physical attacks as direct bullying and social isolation and exclusion from the group as indirect bullying, Olweus (1993) indicated that males are more likely to engage in direct bullying whereas females engage in indirect bullying.

Salmivalli et al. (1999) distinguished differential participant roles in bullying such as victim, bully, bystander, reinforcer of the bully, helper of the bully and defender of the victim. Their study indicated significant gender differences in participant roles in bullying. While males are more often in the roles of bully, reinforcer and helper, females more frequently play the roles of bystander and defender.

Self-Esteem

The literature is conflicting on the topic of self-esteem and bullying. One position holds that bullies suffer from low self-esteem and engage in aggressive behaviour as a means of compensation. In their review of the literature Salmivalli et al. (1999) report that “so far, there is no clear evidence that either high or low (self-reported) self-esteem as such is connected to hostile and aggressive behaviour” (p. 1269).

Others report that high self-esteem buffers against bullying. In the school environment, high levels of self-esteem increase the likelihood that youth will connect positively to peers, teachers, and the school as a whole, which are important determinants of academic success. In a study to investigate the effects of a self-esteem enhancement

program King, Vidourek, Davis and McClellan (2002) found that high self-esteem serves as a protective factor to youth involvement in risky health behavior. High self-esteem is associated with high academic achievement, more involvement in sport and physical activity, and development of effective coping and peer pressure resistance skills. Conversely, low self-esteem is associated with youth involvement in alcohol, tobacco, and other drug use, depression, suicide, violence, early sexual activity, teenage pregnancy, and poor peer relationships. Students in the study were significantly less likely to be depressed or involved in bullying and fighting at posttest than at pretest. (King et al., 2002).

Some even argue that bullies themselves have normal or higher than average levels of self-esteem. Bullies view themselves as being popular among their peer group. They often self reported high scores on scales of social and physical self concept (Fishman et al., 2002).

Social Dynamic

Bullying does not take place in a vacuum; rather, it can be viewed as the interaction of roles in a specific environment. While general discussions around bullying tend to frame the relationship as one between a powerful perpetrator and a weaker victim, studies have shown that the peer group is a significant factor in determining whether bullying will occur. Eighty five percent of the bullying incidents observed in the Craig and Pepler (1997) playground study involved the peer group in some capacity (Ma et al., 2001). Interest has been increasing among researchers in studying and understanding bystanders of bullying in school, with an emphasis on their reactions to bullying

activities. For example, O'Connell et al. (1999) examined the peer processes that occur during bullying episodes. In their study, peers viewed bullying and each one was coded for actively joining the bully, passively reinforcing the bully, and actively intervening on behalf of the victim. With data from primary school students from grades 1 to 6, they reported that 54 per cent of peers reinforce bullies such as passively watching bullies bullying, 21 per cent of peers model bullies for example actively joining bullies, and 25 per cent of peers intervene on behalf of victims. These researchers believed that peers play an important role in the bullying process around the school playground.

Salmivalli et al. (1999) argued that studying bystanders in bullying in school is important given that peers are involved in bullying activities in different ways. She suggested that bullying in school should be studied in the social context of the peer group, viewing bullying as a group phenomenon that is largely enabled and sustained by peers in school. Spevak (2006) also noted that peers take on different participant roles in bullying, such as bystanders, reinforcers, helpers and defenders, and peer actions are powerful moderators of bullying in school:

In 81% of the bullying episodes, peers actually reinforced the negative behaviors, while intervening in only 13% of the episodes (Craig & Pepler, 1997). When they did intervene, it was usually in a socially inappropriate manner. In addition, peers were found to be significantly more respectful toward bullies (74% of bullying incidents) than victims (23% of bullying incidents), highlighting the tendency for children to take the side of the bully. This type of peer support seems to influence the balance of power even more in favor of the bully (p. 11).

For these reasons, it is important to recognize that all students have the potential to prevent bullying, regardless of whether or not they typically play a direct role.

Summary

School bullying among children and adolescents has been the focus of many international studies over the past thirty years. However, it was not until 1982 that school officials in Norway turned their attention to school bullying, and did so only after three 14-year-old boys committed suicide as a result of extreme harassment from classmates (Olweus, 1993). Since then, similar events in other countries, including Canada, have forced governments to look at the problem of school bullying. Research into the incidence of bullying has revealed that it is, indeed, a worldwide problem. For example, in a report by the World Health Organization, which surveyed the health behaviors of school aged children around the world found that Canada ranked in the middle of 35 countries studied for level of bullying (Public Safety Canada, 2006).

While there appears to be a common understanding of the concept of bullying, exact definitions often vary depending on the study. This, combined with the fact that researchers use different data collection and analysis methods to study it, make determining the exact incidence of bullying difficult. In general, school bullying can be conceptualized in three broad categories: physical, verbal and social ostracism with each having varying degrees of seriousness. A fourth category, reactive victims, have emerged. These victims of bullying bully other individuals verbally, physically or relationally (Lajoie, McLellan, & Seddon, 1997).

When studying bullying, researchers often examine ages at which it is most prevalent. While there is some disagreement about when it is most prevalent, there seems to be a consensus that the older students are when they engage in bullying, the more

severe it is and the more resistant they are to intervention (Banks, 1997). Whether bullying occurs more in primary, elementary, middle or secondary school, there is little doubt that it has lasting implications both for the victim and the bully. Bullies often have trouble with relationships later in life and many of them become involved with the criminal justice system. Victims often suffer lower self esteem later in life (Ma et al., 2001). The research also identifies another group of people affected by bullying, that of the by-stander. If a person witnesses bullying and does not intervene it can create feelings of shame, guilt and helplessness that can interfere with later development (Nesbit, 1999).

Studies involving bullying seem to have reached a consensus regarding the profiles of a typical bully and a typical victim. Bullies can be described as impulsive, aggressive, dominating, non-empathetic, and physically strong; they have a positive attitude toward using violence to get what they want and a favorable self-image (Olweus, 1993). Victims on the other hand are more anxious, insecure, cautious, sensitive, and physically weaker than non-victims. They often have a negative view of themselves and their situation (Olweus, 1993).

Other factors also emerge when examining bullying behaviour. A distinction is usually observed in the type of bullying involving males and females. While males are more prone to engage in physical bullying, females tend to use verbal bullying and social ostracism as their preferred methods. Females often tend to bully other females while males will bully both males and females (Olweus, 1995). Bullying is a complex and serious social problem in schools today. However, research is helping us to understand

where, when and why it happens. It also provides us with insights on how to best address it and make our schools safer places for all.

CHAPTER III

METHODOLOGY

Data Source

Findings for this study are based on interpretations from a secondary data source which was readily available to the researcher. Information was obtained from a questionnaire originally administered by the researcher in 2004 to students in grades five to eight in one school in a rural Newfoundland and Labrador community. At the time of the original data collection the school was under the jurisdiction of the former Avalon East School Board. This school was one of the first two schools to offer the Drug Abuse Resistance Education (D.A.R.E.) program in the province. The purpose of the D.A.R.E. program is to give students the skills they need to avoid involvement in drugs, gangs, and violence.

At that time, the then grade eight students were the first group to complete the program. They went through the program three years previous when they were in grade five which was the grade level the D.A.R.E. program was delivered in. At the time of administering the questionnaire all students in grades five to eight had completed the program with the exception of three students who had transferred in from out of province.

A total of 150 students in grades 5 to 8 took part in the original survey. Tables 2 and 3 show the breakdown by age and grade. Table 1 shows the gender of 107 students selected for this study. For reasons explained below, the grade 5 class was omitted from the current analysis. It is worthy to note that there is an unequal distribution of males and females with females comprising more than 60% of the students.

Table 1
Gender of students in the study

Gender	Number	Percentage
Female	65	60.7
Male	42	39.3

Table 2
Age of students in the study

Age	Number	Percentage
10	20	13.3
11	35	23.3
12	34	22.7
13	40	26.7
14	21	14.0

Table 3
Grades of students in the study

Grade	Number	Percentage
5	43	28.7
6	31	20.7
7	34	22.7
8	42	28.0

Ethical Assurances

Since this study involved research with human subjects, prior to the initial collection of the data, this researcher secured the appropriate approval from the Avalon East School District. Parental permission was obtained and a questionnaire was administered anonymously to all students in grades five to eight. For the purpose of this study the original data was used as a secondary source and permission to use it as such was obtained from the administration at school.

This study made every attempt to comply with the ethical standards for conducting research with human subjects.

Description of Instrument

While this instrument was originally used by the researcher for other purposes, namely to assess the effectiveness of the D.A.R.E. program it did provide a source of data which could be used for other purposes such as the focus of this study which is predicting the likelihood of being engaged in bullying behaviour by examining school and personal related factors.

The “You and Your School” (See Appendix A) questionnaire was used to measure D.A.R.E. objectives and other factors associated with later drug use. You and Your School was a preliminary version of What About You? (Gottfredson, 1990), a questionnaire designed to measure drug involvement and risk factors for later drug use.

You and Your School consists of 10 scales and 4 sets of individual questions designed to measure the dependent variables. The ten scales used in the study are:

1. Belief in Prosocial Norms
2. Social Integration
3. Commitment to School
4. Rebellious Behavior
5. Peer Drug Modeling
6. Attitudes Against Substance Use
7. Attachment to School
8. Self-Esteem
9. Assertiveness
10. Positive Peer Modeling

Research Design

Five items on the questionnaire from the rebellious behaviour subscale were used to classify bullying behaviour based on the definitions above. Specifically, they related to physical bullies and verbal bullies (Lajoie, McLellan, & Seddon, 1997). No items on the scale were specific to, relational bullies, reactive bullies, or cyber bullies. The specific items were:

41. breaking other people's things;
42. tries to hurt or bother people (by tripping, hitting or throwing things);
43. teases other students;
44. fights with other students; and
45. talks back to teachers.

The original questionnaire used a 5 point Likert scale ranging from never to often. For the purpose of this study responses were recoded to reflect a dichotomous response of either never engaged in the behaviour or sometimes and often.

Variables

Each of the nine subscales was treated as independent variables in this study.

For the purposes of the analysis, the scales were grouped into three categories.

1. School Factors, comprising commitment to school, attachment to school, social integration and positive peer support.
2. Attitude Factors, comprising attitudes toward drug abuse, belief in pro-social norms and peer drug modeling.
3. Personal Factor – Self-Esteem.

Assertiveness was not included because of its low correlation. Grade and gender were also included as independent variables in each model.

The dependent variables were the five types of bullying behaviors: (1) breaking other people's things, (2) trying to hurt or bother people (by tripping, hitting or throwing things), (3) teasing other students (4) fighting with other students, and (5) talking back to teachers. Fifteen Logistic Regression Models were then created and analyzed.

Data Analysis Method

Table 4 shows the scale reliabilities by grade level. For grade 5 only one scale, social integration, shows a high level of internal consistency. For the other grades the scales range from poor to very good. Only one scale, assertiveness proved to be poor for all grades. As a result of the poor scale reliabilities for grade 5 they were excluded from the logistic analyses. Likewise, the assertiveness subscale was also omitted from the analysis.

Table 4
Scale reliabilities by grade level

Scales	Grade 5	Grade 6	Grade 7	Grade 8
Commitment to school	.458	.408	.645	.748
Attachment to school	.416	.588	.844	.654
Social integration	.817	.873	.866	.893
Positive peer modelling	.576	.672	.637	.779
Prosocial norms	.315	.748	.515	.828
Peer drug modeling	.521	.546	.567	.890
Attitudes against drug use	.620	.592	.753	.789
Self-esteem	.361	.567	.911	.831
Assertiveness	.520	.593	.378	.584

Correlations for the five types of bullying and the independent variables in this study were conducted. Finally a logistical regression model was used to predict the likelihood of being involved in bullying behaviours based on scores on the school and attitude related scales.

Using Logistic Regression Analysis

It should be noted that as with other statistical methods, logistic regression needs to ensure that specific assumptions are not violated. However, one of the many strengths of logistics regression is that it is not prone to the many restrictions that apply to ordinary least squares regression. These assumptions include that it does not assume a linear relationship between the dependents and independents, the dependent variable need not be normally distributed, the dependent variable need not be homoscedastic for each level of dependent and it does not require that the independents be interval.

A situation that calls for logistic regression, rather than an anova or t-test, is when the values of the measurement variable are set by the experimenter, while the values of the attribute variable are free to vary. With logistic regression, the response variable is an indicator of some characteristic, that is, a 0/1 variable. Logistic regression is used to determine whether other measurements are related to the presence of some characteristic (Dallal, 2007). In this study specific independent variables were selected and the probability of a person engaging or not engaging in one of the five types of bullying behaviors was calculated.

Limitations of the Current Study

There are some limitations with the current study which may prevent making generalizations beyond the community in which it was conducted. First, the study used a secondary data source which was available to the researcher but whose original purpose was to examine the impact of an anti-drug program not an examination of bullying. Only with complicated statistical procedures and some recoding of the data was an examination of bullying in the school possible.

Second, the population size is small, $n = 107$. When the data was examined at a grade level, the size became even smaller, grade 6, $n = 31$, grade 7, $n = 34$ and grade 8, $n = 42$.

Finally, the data was collected from one school in one community, limiting the reliability of any generalizations

CHAPTER IV

RESEARCH FINDINGS AND DISCUSSION

As mentioned previously, students originally responded to the bullying related questions using a five point Likert scale. However for the purpose of this study they were recoded to reflect a dichotomous response. Students either engaged in the behaviour, sometimes or often, or did not do it at all. Table 5 shows the level of bullying taking place in the school.

Table 5
Responses to bullying related questions.

Question	Never	N	Sometime or often	N
Break other peoples things.	76.6	82	23.4	25
Try to hurt or bother people (by tripping, hitting, or throwing things).	73.8	79	26.2	28
Tease other students.	72.0	77	28.0	30
Fight with other students.	70.1	75	29.9	32
Talk back to the teacher.	68.2	73	31.8	34

Table 6 provides the correlations for the five types of bullying and the independent variables in this study. Most correlations are significantly different at the $p < .05$ level.

Table 6

Bullying behaviour correlated with independent variables

	Break other peoples things.	Try to hurt or bother people (by tripping, hitting, or throwing things).	Tease other students.	Fight with other students.	Talk back to the teacher.		
Grade	.193	.364	.353	.239	.336		
Gender	.280	.305	.223	.227	.109	1.39	.491
Commitment to school	-.333	-.399	-.502	-.389	-.636	18.58	1.89
Attachment to school	-.335	-.267	-.437	-.477	-.422	13.13	2.24
Social integration	-.243	-.289	-.207	-.421	-.264	27.79	
Positive peer relations	-.297	-.250	-.369	-.324	-.308	28.82	2.79
Prosocial norms	-.166	-.382	-.334	-.289	-.414	31.63	2.76
Peer drug modelling	-.200	-.337	-.298	-.322	-.318	14.88	2.43
Attitudes towards drug abuse	-.275	-.433	-.430	-.366	-.446	23.37	2.63
Self-esteem	-.241	-.188	-.496	-.517	-.525	26.56	3.54
Assertiveness	.016	.122	-.003	.060	.187	14.75	2.20

Note. Bullying questions coded 0 Never, 1 Sometimes or often.

Gender 1 Female 2, Male. Higher scores are more positive on the scale scores.

Analysis

Question 41: Breaking other people's things

Results for the logistic analysis for predicting the likelihood of someone breaking other people's things by grade, gender, commitment to school, attachment to school, social integration and positive peer support are shown in Table 7. Nagelkerke's R-Square is a further modification of the Cox and Snell coefficient to assure that it can vary from 0 to 1. That is, Nagelkerke's R² divides Cox and Snell's R² by its maximum in order to achieve a measure that ranges from 0 to 1. Therefore Nagelkerke's R-Square will normally be higher than the Cox and Snell measure. It is part of the SPSS output and is the most-reported of the R-squared estimates. (Nagelkerke, 1991). The Nagelkerke R² is .39 indicating a large effect. The overall classification is 87.6% with 47.1% being classified as bullying sometimes or often and the never breaking someone's things 97.2%. Only one variable was found to be significant among the predictors, positive peer support at $p=.030$. The odds ratio at .746 indicates that those having greater positive peer support are less likely to break other people's things.

Table 7

Predicting the likelihood of someone breaking other people's things by grade, gender, commitment to school, attachment to school, social integration and positive peer support.

Regression model summary	-2 Log likelihood		Cox & Snell R Square	Nagelkerke R Square	Effect size	
	61.76		0.25	0.39		
Classification	Sometime or often		Never	Overall		
	47.1		97.2	87.6		
Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Grade(8)			5.024	2	.081	
Grade(6)	-1.459	1.282	1.295	1	.255	.232
Grade(7)	1.045	.816	1.637	1	.201	2.842
Gender(F)	-.432	.669	.416	1	.519	.649
Commitment to school	.106	.208	.259	1	.611	1.112
Attachment to school	-.292	.102	2.228	1	.130	.747
Social integration	-.076	.102	.552	1	.458	.927
Positive peer support	-.297	.137	4.731	1	.030	.746
Constant	9.344	4.328	4.660	1	.031	11425.44

Note. Grade 8 is the reference group and males are the reference group for gender. Bullying questions coded 0 Never, 1 Sometimes or often. Higher scores are more positive on the scale scores.

Results for the logistic analysis for predicting the likelihood of someone breaking other people's things by grade, gender, pro-social norms, peer drug modeling and attitudes towards drug abuse is shown in Table 8. The Nagelkerke R^2 is .31 indicating a large effect. The overall classification is 80.0% with 33.3% being classified as bullying sometime or often and the never breaking someone's things 93.2%. Only one variable

was found to be significant among the predictors, positive gender at $p = .009$. The odds ratio at .208 indicates that females are much less likely than males to break other people's things.

Table 8

Predicting the likelihood of someone breaking other people's things by grade, gender, prosocial norms, peer drug modeling and attitudes towards drug abuse.

Regression model summary		-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	Effect size	
		78.67	0.20	0.31		
Classification	Sometime or often		Never	Overall		
	33.3		93.2	80.0		
	B	S.E.	Wald	df	Sig.	Exp(B)
Grade(8)			5.452	2	.065	
Grade(6)	-.968	.998	.940	1	.332	.380
Grade(7)	.976	.747	1.709	1	.191	2.653
Gender(F)	-1.569	.600	6.834	1	.009	.208
Prosocial norms	-.052	.133	.152	1	.697	.950
Peer drug modeling	-.034	.169	.042	1	.838	.966
Attitudes towards drug abuse	-.161	.142	1.277	1	.258	.851
Constant	5.146	3.287	2.450	1	.118	171.72

Note. Grade 8 is the reference group and males are the reference group for gender. Bullying questions coded 0 Never, 1 Sometimes or often. Higher scores are more positive on the scale scores.

Predicting the likelihood of someone breaking other people's things by grade, gender, and self-esteem is shown in Table 9. The overall classification is 80.4% with

30.4% being classified as bullying sometime or often and the never breaking someone's things 94.4%. None of the variables were found to be significant among the predictors.

Table 9

Predicting the likelihood of someone breaking other people's things by grade, gender, and self-esteem

Regression model summary	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	Effect size		
	88.24	0.18	0.28			
Classification	Sometime or often	Never	Overall			
	30.4	94.9	80.4			
	B	S.E.	Wald	df	Sig.	Exp(B)
Grade(8)			4.672	2	.097	
Grade(6)	-2.130	1.113	3.663	1	.056	.119
Grade(7)	.250	.568	.194	1	.660	1.284
Gender(F)	-1.017	.543	3.506	1	.061	.362
Self-esteem	-.126	.071	3.153	1	.076	.881
Constant	2.853	1.775	2.582	1	.108	17.34

Note. Grade 8 is the reference group and males are the reference group for gender. Bullying questions coded 0 Never, 1 Sometimes or often. Higher scores are more positive on the scale scores.

Question 42: Trying to hurt or bother other people (by tripping, hitting, or throwing things)

Results for predicting the likelihood of a student trying to hurt or bother other people (by tripping, hitting, or throwing things) by grade, gender, commitment to school, attachment to school, social integration and positive peer support is shown in Table 10.

The model is significant, $\chi^2 = 26.01$, $df = 7$, $p = .001$. The overall classification is 79.8% with 38.1% being classified as bullying sometime or often and the never breaking someone's things 92.6%. None of the predictor variables were found to be significant at $p < .05$.

Table 10

Predicting the likelihood of a student trying to hurt or bother other people (by tripping, hitting, or throwing things) by grade, gender, commitment to school, attachment to school, social integration and positive peer support.

Regression model summary		-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	Effect size	
		71.25	.25	.38		
Classification		Sometime or often	Never	Overall		
		38.1	92.6	79.6		
Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Grade(8)			3.603		.165	
Grade(6)	-2.255	1.190	3.594	2	.058	.105
Grade(7)	-.417	.722	.334	1	.563	.659
Gender(F)	-.754	.636	1.403	1	.236	.471
Commitment to school	-.266	.188	2.006	1	.157	.766
Attachment to school	.128	.188	.461	1	.497	1.136
Social integration	-.135	.096	1.992	1	.158	.874
Positive peer support	-.178	.127	1.951	1	.163	.837
Constant	10.878	3.997	7.405	1	.007	52972.77

Note. Grade 8 is the reference group and males are the reference group for gender. Bullying questions coded 0 Never, 1 Sometimes or often. Higher scores are more positive on the scale scores.

Results for the logistic analysis for predicting the likelihood of a student trying to hurt or bother other people (by tripping, hitting, or throwing things) by grade, gender, pro-social norms, peer drug modeling and attitudes towards drug abuse is shown in Table 11. The model is significant, $X^2 = 30.99$, $df = 6$, $p = .000$. The Nagelkerke R^2 is .41 indicating a large effect. The overall classification is 78.9% with 37.5% being classified as bullying sometimes or often and the never breaking someone's things 93.0%. Only one variable was found to be significant among the predictors, grade 6 at $p = .022$. The odds ratio at .067 indicates that those in grade 6 are much less likely than those in grade 8 to try and hurt or bother other people.

Table 11

Predicting the likelihood of a student trying to hurt or bother other people (by tripping, hitting, or throwing things) by grade, gender, pro-social norms, peer drug modeling and attitudes towards drug abuse.

Regression model summary	-2 Log likelihood		Cox & Snell R Square	Nagelkerke R Square	Effect size	
	76.40		.28	.41		
Classification	Sometime or often		Never	Overall		
	37.5		93.0	78.9		
	B	S.E.	Wald	df	Sig.	Exp(B)
Grade(8)			5.242	2	.073	
Grade(6)	-2.704	1.182	5.232	1	.022	.067
Grade(7)	-.457	.690	.438	1	.508	.633
Gender(F)	-1.015	.612	2.749	1	.097	.363
Prosocial norms	-.107	.144	.553	1	.457	.898
Peer drug modelling	.037	.172	.046	1	.831	1.04
Attitudes towards drug abuse	-.255	.143	3.190	1	.074	.775
Constant	8.772	3.754	5.461	1	.019	6453.36

Note: Grade 8 is the reference group and males are the reference group for gender. Bullying questions coded 0 Never, 1 Sometimes or often. Higher scores are more positive on the scale scores.

Results for the logistic analysis for predicting the likelihood of a student trying to hurt or bother other people (by tripping, hitting, or throwing things) by grade, gender and self-esteem is shown in Table 12. The model is significant, $X^2 = 24.73$, $df = 4$, $p = .000$. The Nagelkerke R^2 is .22 indicating a large effect. The overall classification is 79.4% with 34.6% being classified as bullying sometime or often and 94 % as never breaking

someone's things. Two variables were found to be significant among the predictors, grade 6 at $p = .003$. The odds ratio at .037 indicates that grade 6's are much less likely than grade 8's to try to hurt or bother other people. The other variable found to be significant among the predictors was gender at $p = .004$. The odds ratio at .203 indicates that females are much less likely than males to try to hurt or bother other people.

Table 12

Predicting the likelihood of a student trying to hurt or bother other people (by tripping, hitting, or throwing things) by grade, gender and self-esteem.

Regression model summary		-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	Effect size	
		91.08	.22	.32		
Classification		Sometime or often	Never	Overall		
		34.6	94.7	79.4		
	B	S.E.	Wald	df	Sig.	Exp(B)
Grade(8)			9.516	2	.009	
Grade(6)	-3.301	1.126	8.588	1	.003	.037
Grade(7)	-.988	.574	2.963	1	.085	.372
Gender(F)	-1.594	.559	8.141	1	.004	.203
Self-esteem	.015	.070	.045	1	.833	1.015
Constant	.299	1.752	.029	1	.865	1.348

Note. Grade 8 is the reference group and males are the reference group for gender. Bullying questions coded 0 Never, 1 Sometimes or often. Higher scores are more positive on the scale scores.

Question 43: Teasing other students

Results for the logistic analysis for predicting the likelihood of teasing other students by grade, gender, commitment to school, attachment to school, social integration and positive peer support are shown in Table 13. The model is significant, $\chi^2 = 34.88$, $df = 7$, $p = .000$. The Nagelkerke R^2 is .47 indicating a large effect. The overall classification is 82.0% with 58.3% being classified as bullying sometime or often and the never breaking someone's things 90.8%. However, when looking at the predictor variables, none were significant, although positive peer support approached significance.

Table 13

Predicting the likelihood of teasing other students by grade, gender, commitment to school, attachment to school, social integration and positive peer support.

Regression model summary		-2 Log likelihood 68.88	Cox & Snell R Square .32	Nagelkerke R Square .47	Effect size	
Classification		Sometime or often 58.3	Never 90.2	Overall 82.0		
Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Grade(8)			3.953	2	.139	
Grade(6)	-1.774	1.215	2.130	1	.144	.170
Grade(7)	.504	.733	.473	1	.492	1.656
Gender(F)	-.449	.649	.479	1	.489	.638
Commitment to school	-.256	.202	1.604	1	.205	.774
Attachment to school	-.191	.183	1.093	1	.296	.826
Social integration	-.051	.106	.228	1	.633	1.052
Positive peer support	-.257	.138	3.488	1	.062	.773
Constant	11.151	4.348	6.578	1	.010	69605.248

Note. Grade 8 is the reference group and males are the reference group for gender. Bullying questions coded 0 Never, 1 Sometimes or often. Higher scores are more positive on the scale scores.

Results for the logistic analysis for predicting the likelihood of teasing other students by grade, gender, pro-social norms, peer drug modeling and attitudes towards drug abuse are shown in Table 14. The model is significant, $X^2 = 32.05$, $df = 6$, $p = .000$. The Nagelkerke R^2 is .41 indicating a large effect. The overall classification is 80.0% with 51.9% being classified as bullying sometime or often and the never breaking someone's things 91.2%. Three variables were found to be significant among the predictors, grade 6 at $p = .019$. The odds ratio at .099 indicates that grade 6's are much less likely than grade 8's to tease other students. The second variable found to be significant among the predictors was, gender $p = .035$. The odds ratio at .284 indicates that females are much less likely than grade 8's to tease other students. The third variable found to be significant among the predictors was, attitudes toward drug abuse $p = .004$. The odds ratio at .653 indicates that grade six students are much less likely than grade 8's to have negative attitudes towards using drugs.

Table 14

Predicting the likelihood of teasing other students by grade, gender, pro-social norms, peer drug modeling and attitudes towards drug abuse.

Regression model summary	-2 Log likelihood		Cox & Snell R Square	Nagelkerke R Square	Effect size	
	81.63		.29	.41		
Classification	Sometime or often		Never	Overall		
	51.9		91.2	80.0		
	B	S.E.	Wald	df	Sig.	Exp(B)
Grade(8)			6.166	2	.046	
Grade(6)	-2.314	.987	5.502	1	.019	.099
Grade(7)	-.164	.696	.055	1	.814	.849
Gender(F)	-1.259	.597	4.445	1	.035	.284
Prosocial norms	-.019	.137	.020	1	.888	.981
Peer drug modelling	.190	.169	1.263	1	.261	1.209
Attitudes towards drug abuse	-.427	.150	8.101	1	.004	.653
Constant	7.924	3.480	5.184	1	.023	2763.902

Note. Grade 8 is the reference group and males are the reference group for gender. Bullying questions coded 0 Never, 1 Sometimes or often. Higher scores are more positive on the scale scores.

Predicting the likelihood of teasing other students by grade, gender, and self-esteem is shown in Table 15. The model is significant, $X^2 = 30.23$, $df = 4$, $p = .000$. The Nagelkerke R^2 is .26 indicating a large effect. The overall classification is 80.4% with 55.2% being classified as bullying sometime or often and the never likelihood of teasing other students is 90.4%. Two variables were found to be significant among the

predictors, grade 6 at $p = .019$. The odds ratio at .128 indicates that grade 6's are much less likely than grade 8's to tease other students. The final variable found to be significant among the predictors was, self-esteem at $p = .003$. The odds ratio at .804 indicates that those with high self-esteem are less likely than low self-esteem to tease other students.

Table 15

Predicting the likelihood of teasing other students by grade, gender, self-esteem.

Regression model summary	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	Effect size		
	91.56	.26	.39			
Classification	Sometime or often	Never	Overall			
	55.2	90.4	80.4			
	B	S.E.	Wald	df	Sig.	Exp(B)
Grade(8)			6.747	2	.034	
Grade(6)	-2.059	.840	6.011	1	.014	.128
Grade(7)	-.915	.596	2.357	1	.125	.400
Gender(F)	-.974	.546	3.182	1	.074	.377
Self-esteem	-.218	.074	8.651	1	.003	.804
Constant	6.040	1.939	9.698	1	.002	419.722

Note. Grade 8 is the reference group and males are the reference group for gender. Bullying questions coded 0 Never, 1 Sometimes or often. Higher scores are more positive on the scale scores.

Question 44: Fighting with other students

Results for the logistic analysis for predicting the likelihood of fighting with other students by grade, gender, commitment to school, attachment to school, social integration and positive peer support is shown in Table 16. The model is significant, $\chi^2 = 36.73$, $df = 6$, $p = .000$. The Nagelkerke R^2 is .49 indicating a large effect. The overall classification is 83.1% with 60.0% being classified as bullying sometime or often and never fighting with other students 92.2%. Only one variable, social integration, was found to be significant among the predictors at $p = .014$. The odds ratio at .798 indicates that those students with high levels of social integration are much less likely than those with low levels of integration to fight with other students.

Table 16

Predicting the likelihood of fighting with other students by grade, gender, commitment to school, attachment to school, social integration and positive peer support.

Regression model summary		-2 Log likelihood 68.87	Cox & Snell R Square .34	Nagelkerke R Square .49	Effect size	
Classification		Sometime or often 60.0	Never 92.2	Overall 83.1		
Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Grade(8)			2.822	2	.244	
Grade(6)	-.477	.959	.248	1	.619	.621
Grade(7)	.904	.799	1.278	1	.258	2.469
Gender(F)	-.364	.629	.336	1	.562	.695
Commitment to school	-.281	.193	2.113	1	.146	.755
Attachment to school	-.233	.192	1.481	1	.224	.792
Social integration	-.226	.092	6.014	1	.014	.798
Positive peer support	-.174	.139	1.565	1	.211	.840
Constant	17.413	4.493	15.022	1	.000	36520987.00

Note. Grade 8 is the reference group and males are the reference group for gender. Bullying questions coded 0 Never, 1 Sometimes or often. Higher scores are more positive on the scale scores.

Results for the logistic analysis for predicting the likelihood of fighting with other students by grade, gender, prosocial norms, peer drug modeling and attitudes towards drug abuse is shown in Table 17. The model is significant, $X^2 = 22.23$, $df = 6$, $p = .001$. The Nagelkerke R^2 is .30 indicating a large effect. The overall classification is 76.8% with 37.9% being classified as bullying sometime or often and the likelihood of fighting

with other students is 93.9%. None of the predictor variables were found to be significant at $p < .05$.

Table 17

Predicting the likelihood of fighting with other students grade, gender, prosocial norms, peer drug modeling and attitudes towards drug abuse.

Regression model summary	-2 Log likelihood		Cox & Snell R Square	Nagelkerke R Square	Effect size	
	94.67		.21	.30		
Classification	Sometime or often		Never	Overall		
	37.9		93.9	76.8		
	B	S.E.	Wald	df	Sig.	Exp(B)
Grade			2.850	2	.240	
Grade(1)	-.410	.782	.275	1	.600	.644
Grade(2)	.702	.669	1.102	1	.294	2.017
Gender	-.789	.522	2.287	1	.130	.454
Prosocial norms	-.045	.127	.124	1	.725	.956
Peer drug modelling	-.232	.165	1.968	1	.161	.793
Attitudes towards drug abuse	-.164	.130	1.598	1	.206	.849
Constant	8.119	3.527	5.300	1	.021	3358.512

Note. Grade 8 is the reference group and males are the reference group for gender. Bullying questions coded 0 Never, 1 Sometimes or often. Higher scores are more positive on the scale scores.

Predicting the likelihood of fighting with other students by grade, gender, and self-esteem is shown in Table 18. The model is significant, $X^2 = 35.06$, $df = 4$, $p = .000$. The Nagelkerke R^2 is .42 indicating a large effect. The overall classification is 82.4%

with 51.7% being classified as bullying sometime or often and never the likelihood of fighting with other students is 94.5%. One variable self-esteem, was found to be significant among the predictors $p = .000$. The odds ratio at .702 indicates that those with high self-esteem are less likely than low self-esteem to fight with other students.

Table 18

Predicting the likelihood of fighting with other students grade by grade, gender, and self-esteem.

Regression model summary	-2 Log likelihood		Cox & Snell R Square	Nagelkerke R Square	Effect size	
	86.71		.29	.42		
Classification	Sometime or often		Never	Overall		
	51.7		94.5	82.4		
	B	S.E.	Wald	df	Sig.	Exp(B)
Grade(8)			1.785	2	.410	
Grade(6)	-.886	.764	1.345	1	.246	.412
Grade(7)	.103	.641	.026	1	.873	1.108
Gender(F)	-.776	.559	1.932	1	.165	.460
Self-esteem	-.354	.088	16.033	1	.000	.702
Constant	8.899	2.274	15.308	1	.000	7321.492

Note. Grade 8 is the reference group and males are the reference group for gender. Bullying questions coded 0 Never, 1 Sometimes or often. Higher scores are more positive on the scale scores.

Question 45: Talking back to teacher

Results for the logistic analysis predicting the likelihood of talking back to the teacher by grade, gender, commitment to school, attachment to school, social integration and positive peer support is shown in Table 19. The model is significant, $\chi^2 = 37.26$, $df = 6$, $p = .000$. Nagelkerke R^2 is .48 indicating a large effect. The overall classification is 82.0% with 63.0% being classified as bullying sometime or often and the never breaking someone's things 90.3%. Only one variable was found to be significant among the predictors, commitment to school at $p = .011$. The odds ratio at .519 indicates that those students with high levels of commitment to school are much less likely than those with low levels of commitment to talk back to a teacher.

Table 19

Predicting the likelihood of talking back to the teacher by grade, gender, commitment to school, attachment to school, social integration and positive peer support.

Regression model summary		-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	Effect size	
		71.98	.34	.48		
Classification		Sometime or often	Never	Overall		
		63.0	90.3	82.0		
Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Grade(8)			.775	2	.679	
Grade(6)	-.763	.873	.764	1	.382	.466
Grade(7)	-.346	.719	.231	1	.630	.707
Gender(F)	.499	.693	.518	1	.472	1.647
Commitment to school	-.657	.259	6.429	1	.011	.519
Attachment to school	-.105	.189	.307	1	.580	.901
Social integration	-.060	.093	.419	1	.517	.942
Positive peer support	-.143	.136	1.120	1	.290	.866
Constant	17.638	5.052	12.188	1	.000	45719846.00

Note. Grade 8 is the reference group and males are the reference group for gender. Bullying questions coded 0 Never, 1 Sometimes or often. Higher scores are more positive on the scale scores.

Results for the logistic analysis, shown in Table 20, predict the likelihood of talking back to the teacher by grade, gender, commitment to school, attachment to school, social integration and positive peer support. The model is significant, $\chi^2 = 25.56$, $df = 6$, $p = .000$. The Nagelkerke R^2 is .33 indicating a large effect. The overall classification is 75.8% with 46.7% being classified as bullying sometime or often and the never breaking

someone's things 92.2%. None of the predictor variables were found to be significant at $p < .05$.

Table 20

Predicting the likelihood of talking back to the teacher by grade, gender, prosocial norms, peer drug modeling and attitudes towards drug abuse.

Regression model summary	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	Effect size		
	92.92	.24	.33			
Classification	Sometime or often	Never	Overall			
	46.7	89.2	75.8			
	B	S.E.	Wald	df	Sig.	Exp(B)
Grade			1.8842	2	.398	
Grade(1)	-.767	.701	1.197	1	.274	.464
Grade(2)	-.795	.656	1.467	1	.226	.452
Gender	-.056	.549	.010	1	.919	.946
Prosocial norms	-.125	.127	.975	1	.323	.882
Peer drug modelling	-.203	.166	1.505	1	.220	.816
Attitudes towards drug abuse	-.153	.129	1.405	1	.236	.858
Constant	10.227	3.696	7.655	1	.006	27641.591

Note. Grade 8 is the reference group and males are the reference group for gender. Bullying questions coded 0 Never, 1 Sometimes or often. Higher scores are more positive on the scale scores.

Results for the logistic analysis for predicting the likelihood of talking back to the teacher by grade, gender and self-esteem is shown in Table 21. The model is significant, $\chi^2 = 38.39$, $df = 4$, $p = .000$. The Nagelkerke R^2 is .44 indicating a large effect. The

overall classification is 80.4% with 54.5% being classified as bullying sometime or often and the never talking back to the teacher 92.8%. Two variables were found to be significant among the predictors, grade 7 at $p = .016$. The odds ratio at .188 indicates that grade 7's are much less likely than grade 8's to talk back to the teacher. The other variable found to be significant among the predictors was self-esteem, $p = .000$. The odds ratio at .701 indicates that those with high self-esteem are less likely than low self-esteem to talk back to the teacher.

Table 21

Predicting the likelihood of talking back to the teacher by grade, gender, and self-esteem .

Regression model summary	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	Effect size		
	90.03	.31	.44			
Classification	Sometime or often	Never	Overall			
	54.5	92.8	80.4			
	B	S.E.	Wald	df	Sig.	Exp(B)
Grade(8)			6.912	2	.032	
Grade(6)	-1.103	.641	2.965	1	.085	.332
Grade(7)	-1.671	.691	5.841	1	.016	.188
Gender(F)	-.346	.560	.383	1	.536	.707
Self-esteem	-.355	.085	17.484	1	.000	.701
Constant	9.511	2.261	17.689	1	.000	13503.518

Note. Grade 8 is the reference group and males are the reference group for gender. Bullying questions coded 0 Never, 1 Sometimes or often. Higher scores are more positive on the scale scores.

Summary

When looking at the five types of bullying behaviors selected for this study, the incidence of bullying shows that over 20 percent indicate having bullied someone by breaking other people's things (23.4%), trying to hurt or bother people (26.2%), teasing (28.0%), fighting with other students (29.9%) or talking back to a teacher (31.8%). These rates are reflective of the level of bullying being reported in Canadian Schools (Public Safety Canada, 2006; Nesbit, 1999).

The results show that both grade and gender are positively related to bullying, indicating that males are more likely to bully. This is consistent with the literature on physical and verbal bullies (Olweus, 2003; 2006; Nesbit, 1999; Rigby, 2004).

The results also indicate that as grade level goes up, so does bullying. This is consistent with Banks (1997) who found that bullying seems to increase throughout the elementary years, peaking at the junior high level (Charach, Pepler, & Ziegler, 1995) found that among students aged 4 to 14, those in Grades 5 and 6 are more likely to be involved in bullying. Branwhite (1994) reported more incidents of bullying in secondary school than in elementary school. Therefore, bullies tend to bully more when they grow older but bullying often takes the form of verbal abuse. There is some evidence now that when bullies grow older, they rely less on direct, physical bullying, but verbal bullying remains consistently high over time (Boulton & Underwood, 1992). This is in contrast to Olweus (1993) who reported that bullying is higher in primary and elementary school than it is in middle school and junior high.

Question 41: Breaking other people's things

Table 7 shows that the odds ratio at .746 indicates that those having greater positive peer support are less likely to break other people's things. From Table 8 only one variable was found to be significant among the predictors, positive gender at $p = .009$. The odds ratio at .208 indicates that females are much less likely than males to break other people's things. This is consistent with the literature on gender and physical bullying. Banks (1997) described female bullies as more often using indirect subtle tactics like spreading rumours and socially isolating their female peers. Boys tended to use more direct strategies which involved physical bullying. Compared to females, males are more often involved in physical forms of bullying such as kicking and pushing (Mouttapa et al., 2004).

Question 42: Trying to hurt or bother other people - by tripping, hitting, or throwing

Table 11 shows the logistical analysis for predicting the likelihood of a student trying to hurt or bother other people (by tripping, hitting, or throwing things) by grade, gender, pro-social norms, peer drug modeling and attitudes towards drug abuse. The odds ratio at .067 indicates that those in grade 6 are much less likely than those in grade 8 to try and hurt or bother other people. This is contrary to Olweus' (1993) findings where he suggests that bullying tends to peak in elementary school and decline as students move into middle school and junior high.

When looking at self-esteem, grade and gender in Table 12, both grade and gender are significant among the predictors. The odds ratio at .037 indicates that grade

6's are much less likely than grade 8's to try to hurt or bother other people. The odds ratio at .203 indicates that females are much less likely than males to trying to hurt or bother other people.

Question 43: Teasing other students

The logistical regression models for this question found in Tables 13, 14 and 15 revealed that students in grade six are less likely to tease than those in grade eight.

Females are also less likely to tease students than male students. This is consistent with the literature in that females tend to use more covert types of bullying such as ostracizing rather than physical or verbal forms. Unlike the models for the previous two questions this model showed that self-esteem was also a predictor of bullying. Students with high self-esteem are less likely to tease than students with low self esteem.

The literature is conflicting on the topic of self-esteem and bullying. One position holds that bullies view themselves as being popular among their peer group. They often self report high scores on scales of social and physical self-concept (Fishman, Gustavo Mesch and Eisikovits, 2002). On the other hand, there is the idea that bullies suffer from low self-esteem and engage in aggressive behaviour as a means of compensation. In their review of the literature Salmivalli, Kaukiainen, Kaistaniemi, and Lagerspetz (1999) report that "so far, there is no clear evidence that either high or low (self-reported) self esteem as such is connected to hostile and aggressive behaviour" (p. 1269).

Question 44: Fighting with other students

With an odds ratio at .798, Table 16 indicates that those students with high levels of social integration are much less likely than those with low levels of integration to fight with other students. Table 18, revealed that students with high self-esteem are less likely to fight with students than those with low self-esteem. Once again, high self-esteem seems to be a counter to engaging in bullying behaviour.

Question 45: Talking back to the teacher

At first, it would appear that talking back to a teacher would not be considered bullying behaviour. However, applying the criteria of persistent or repeated verbal abuse, threats or insults to seek power and control over another individual, it can be viewed as bullying behaviour. A 2006 report by the Ontario Elementary Teachers Federation indicated that Seventy-nine percent of the respondents indicated that they had witnessed a violent incident in 2004-2005. It went on to say that verbal abuse from students and parents was quite common. All teacher participants in a 2005 qualitative study by Younghusband cited disruptive behaviour as a major stressor (Atlantic Networks for Prevention Research, 2007). There were examples of being cursed at, threatened, examples of vandalism, criminal behaviors and bullying. A report for the Ontario Teachers Federation stated 38 per cent of all teachers and education workers in Ontario have been bullied by a student (Canadian Teachers' Federation, 2007).

With this rationale, talking back to the teacher was considered an important question for consideration in the analysis. Tables 19, 20 and 21 show the regression models for question 45. Table 19 shows that when predicting the likelihood of talking back to the teacher by grade, gender, commitment to school, attachment to school, social integration and positive peer support, it was found that students with high levels of commitment to school are much less likely than those with low levels to talk back to the teacher. When predicting the likelihood of talking back to the teacher by grade, gender and self-esteem, both grade and self-esteem were important predictors. Grade 8's were more likely to talk back to the teacher while students with high self esteem were less likely to talk back to the teacher than those with low levels of self esteem.

CHAPTER V

CONCLUSIONS

The intent of this study was to determine:

1. whether or not the likelihood of engaging in bullying behaviour can be predicted from a belief in pro social norms;
2. whether or not the likelihood of engaging in bullying behaviour can be predicted from a student's level of social integration;
3. whether or not level of commitment to school is a predictor of engaging in bullying behaviour;
4. whether or not a student's level of attachment to school is a predictor of engaging in bullying behaviour;
5. whether or not drug use by peers (peer drug modeling) is a predictor of bullying behaviour;
6. whether or not possessing attitudes against substance abuse decreases the likelihood of engaging in bullying behaviour;
7. whether or not level of self-esteem is a predictor of engaging in bullying behaviour;
8. whether or not positive peer support (Positive Peer Modeling) decreases the likelihood of engaging in bullying behaviour; and
9. whether or not there is a relationship between these factors and age and gender.

An analysis of the logistic regression models for each type of bullying behaviour reveals that those students who have a greater likelihood to be engaged in bullying behaviour seem to have certain factors in common, some of which are consistent with the

literature on bullying. First, physical and verbal bullying, for the most part, seem to be gender specific in that males are much more likely to be involved in physical forms of bullying such as hitting, kicking, pushing and verbal bullying. Girls were less likely to break other people's things or tease other students. From these results it appears that the likelihood of bullying tends to increase with age as grade eight students were more likely to try and hurt or tease other students and talk back to the teacher.

As stated previously, the link between self esteem and bullying in the literature is conflicting. However, self-esteem does seem to be an important factor in the present study. Students with high self-esteem are less likely to tease other students, are less likely to fight with other students and are less likely to talk back to the teacher.

Other factors perceived to be important toward reduced bullying were level of social integration, positive peer support and commitment to school. Attachment to school, peer drug modeling and attitudes against substance use were not found to be significant predictors.

These findings can have an impact on programs to address bullying in schools. Programs fall into one of two types, they either provide intervention or prevention. Intervention programs are used to address identified existing bullying problems in a school environment. Prevention programs on the other hand are aimed at providing students with the skills necessary to avoid bullying behaviors and to handle bullies appropriately if confronted. Since the literature suggests that bullying is an issue to some degree in all schools, programs aimed at addressing bullying should include both preventive and intervention methods. A description of such programs is beyond the scope

of this specific research but two good recent references for further reading are Spevak's 2006 review of the literature in *Bullying and violence prevention in schools* and the 2004 book, *Bullying in schools : How successful can interventions be* edited by Peter K. Smith, Debra Pepler, and Ken Rigby.

Both of these references suggest that early prevention and intervention are crucial for successful anti-bullying programs. The findings of this report would seem to support this, as the level of bullying increased with age. Starting early before bullying behaviour patterns become established would allow students to develop essential pro social skills.

The findings from this study also underscore the importance of high self-esteem. Students with higher scores on measures of self-esteem are less likely to engage in bullying behaviors. This would seem to support the idea that high self-esteem buffers against bullying. In the school environment, high levels of self-esteem increase the likelihood that youth will connect positively to peers and teachers. High self-esteem is associated with high academic achievement, more involvement in sport and physical activity, and development of effective coping, and peer pressure resistance skills, which emphasize the importance of having programs that incorporate increasing self-esteem. Students also need to feel a sense of commitment to school. Having a school climate that encourages belonging and a sense of ownership should also help decrease bullying related behaviors.

Recommendations

As a result of having conducted this study the following recommendations are offered for consideration:

1. The statistical analysis of the data revealed some interesting findings. A future study could use a more specific bullying-related instrument such as The Olweus Self-report Questionnaire to collect data.
2. This instrument could be used in multiple schools and in more than one community thus increasing the sample size and increasing the ability to make generalizations.
3. While not specific to this study, this researcher believes that given the prevalence of bullying in all schools, at a minimum, a survey should be conducted to determine the level of bullying taking place in each school.
4. The school administration should engage in a collaborative process with staff and students to provide opportunities for professional development opportunities pertinent to recognizing and addressing bullying behaviour in schools.
5. The recent emergence of cyber bullying warrants the need for further research in this area and its impact on middle school students.

Conclusion

All over the world, bullying and victimization are common in elementary and secondary schools. The estimated rates of bullying and victimization range from 10% to 35% in Australia, Austria, Finland, Germany, Norway, the United States and Canada. Bullying among children and adolescents is a significant problem affecting their well-

being and psychosocial functioning and thus presents a serious threat to their healthy development during students' school careers. Bullies are at an increased risk of becoming involved in delinquency, crime, and alcohol abuse. Victims are at increased risk of depression and lower self-esteem in adulthood. It is vital that educators and the community in general, understand that bullying is not "letting boys be boys" or dismissing it as some "right of passage." If intervention and prevention strategies are to be successful, it is imperative that we understand what factors increase the likelihood of someone engaging in bullying behaviour and what the factors are that may reduce its occurrence while ultimately moving toward its elimination from our schools and communities

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APPENDIX A

You and Your School Questionnaire

Age _____ Grade _____ Male Female

Please note this questionnaire is anonymous. You are encouraged to answer all questions as honestly as you can. You will not be questioned on any of your responses.

How wrong is it for you or someone your age to do each of the following things?

	Very wrong	Just a little wrong	Not wrong at all
1 Cheat on school tests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Use marijuana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Break something that belongs to someone else just to be mean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Steal something worth less than \$5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Drink beer or wine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Break into a car or house to steal something	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Steal something worth more than \$50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Sell drugs to another student	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please tell whether you think each of the following statements is mostly true or mostly false.

	True	False
9 Sometimes a lie helps to stay out of trouble with the teacher.	<input type="checkbox"/>	<input type="checkbox"/>
10 It is alright to get around the law if you can.	<input type="checkbox"/>	<input type="checkbox"/>
11 It is okay to lie if it keeps your friends out of trouble	<input type="checkbox"/>	<input type="checkbox"/>
12 Sometimes you have to be a bully to get respect.	<input type="checkbox"/>	<input type="checkbox"/>
13 If you find someone's purse it is OK to keep it.	<input type="checkbox"/>	<input type="checkbox"/>
14 Sometimes you have to cheat in order to win.	<input type="checkbox"/>	<input type="checkbox"/>

Please tell whether you think each of the following statements is mostly true or mostly false.

	True	False
15 I often feel like <u>nobody</u> at school cares about me.	<input type="checkbox"/>	<input type="checkbox"/>
16 Teachers don't ask me to help them in class.	<input type="checkbox"/>	<input type="checkbox"/>

- | | | | |
|----|--|--------------------------|--------------------------|
| 17 | I feel no one really cares what happens to me. | <input type="checkbox"/> | <input type="checkbox"/> |
| 18 | I often feel lonely at school. | <input type="checkbox"/> | <input type="checkbox"/> |
| 19 | Sometimes I feel lonely when I'm with my friends. | <input type="checkbox"/> | <input type="checkbox"/> |
| 20 | I don't feel as if I really belong at school. | <input type="checkbox"/> | <input type="checkbox"/> |
| 21 | I often feel left out of things. | <input type="checkbox"/> | <input type="checkbox"/> |
| 22 | Other students don't want to be my friend. | <input type="checkbox"/> | <input type="checkbox"/> |
| 23 | My friends try to help me if I have a problem. | <input type="checkbox"/> | <input type="checkbox"/> |
| 24 | I don't feel that I fit in very well with my friends. | <input type="checkbox"/> | <input type="checkbox"/> |
| 25 | Teachers don't call on me in class, even when I raise my hand. | <input type="checkbox"/> | <input type="checkbox"/> |
| 26 | My friends don't care about my problems. | <input type="checkbox"/> | <input type="checkbox"/> |
| 27 | I feel like I belong at this school. | <input type="checkbox"/> | <input type="checkbox"/> |
| 28 | I feel close to my friends. | <input type="checkbox"/> | <input type="checkbox"/> |
| 29 | I know people in this school will help me when I need help. | <input type="checkbox"/> | <input type="checkbox"/> |

30 Do you expect to complete high school? YES NO

31 How important do you think it is to work hard in school?
 very important a little important not important

32 How hard do you work in school?
 very hard a little hard not hard at all

Please tell whether you think each of the following statements is mostly true or mostly false.

- | | True | False |
|---|--------------------------|--------------------------|
| 33 My schoolwork is messy. | <input type="checkbox"/> | <input type="checkbox"/> |
| 34 I don't bother with homework or class assignments. | <input type="checkbox"/> | <input type="checkbox"/> |
| 35 I turn my homework in on time. | <input type="checkbox"/> | <input type="checkbox"/> |
| 36 If a teacher gives a lot of homework, I try to finish all of it. | <input type="checkbox"/> | <input type="checkbox"/> |
| 37 The grades I get in school are important to me. | <input type="checkbox"/> | <input type="checkbox"/> |
| 38 I often feel like quitting school. | <input type="checkbox"/> | <input type="checkbox"/> |

How often do you do each of the following things?

- | | Never | Sometimes | Often |
|---|--------------------------|--------------------------|--------------------------|
| 39 Take things that do not belong to me. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 40 Stay after school to be punished. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 41 Break other people's things. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 42 Try to hurt or bother people (by tripping, hitting, or throwing things). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 43 Tease other students. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

44	Fight with other students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45	Talk back to the teacher.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46	Show off in class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47	Do things I know will make the teacher angry.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48	Cheat on tests.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49	Copy someone else's homework.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50	Come late to class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51	Not pay attention in class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52	Don't do what the teacher asks me to do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

During the last year, how many of your friends have done each of the following things?

	None	Some	Most
53	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please tell whether you think each of the following statements is mostly true or mostly false.

	True	False
58	<input type="checkbox"/>	<input type="checkbox"/>
59	<input type="checkbox"/>	<input type="checkbox"/>
60	<input type="checkbox"/>	<input type="checkbox"/>
61	<input type="checkbox"/>	<input type="checkbox"/>
62	<input type="checkbox"/>	<input type="checkbox"/>

63 If your friends were doing something that would get them in trouble,
would you try to stop them? YES NO

64 If one of your friends was smoking some marijuana and offered you
some, would you smoke it? YES NO

Please tell whether you think each of the following statements is mostly true or mostly false.

	True	False
65 I will never drink beer, wine, or hard liquor.	<input type="checkbox"/>	<input type="checkbox"/>
66 I will never try marijuana or other drugs.	<input type="checkbox"/>	<input type="checkbox"/>
67 Smokers look stupid.	<input type="checkbox"/>	<input type="checkbox"/>
68 People my age who smoke are show-offs.	<input type="checkbox"/>	<input type="checkbox"/>
69 I will never smoke cigarettes.	<input type="checkbox"/>	<input type="checkbox"/>
70 People who smoke marijuana have more fun than people who don't.	<input type="checkbox"/>	<input type="checkbox"/>
71 People my age who smoke cigarettes have more friends than people who don't.	<input type="checkbox"/>	<input type="checkbox"/>
72 Smoking makes a person look grown up.	<input type="checkbox"/>	<input type="checkbox"/>
73 Girls like boys who smoke.	<input type="checkbox"/>	<input type="checkbox"/>
74 If a young person smokes marijuana, he or she will be popular.	<input type="checkbox"/>	<input type="checkbox"/>
75 I can easily get alcohol, cigarettes if I want them	<input type="checkbox"/>	<input type="checkbox"/>
76 I can easily get other drugs if I want them	<input type="checkbox"/>	<input type="checkbox"/>

Please tell whether you think each of the following statements is mostly true or mostly false.

	True	False
77 I like the principal.	<input type="checkbox"/>	<input type="checkbox"/>
78 I like school.	<input type="checkbox"/>	<input type="checkbox"/>
79 I like to be called on by my teacher to answer questions.	<input type="checkbox"/>	<input type="checkbox"/>
80 I usually enjoy the work I do in class.	<input type="checkbox"/>	<input type="checkbox"/>
81 I care what teachers think about me.	<input type="checkbox"/>	<input type="checkbox"/>
82 I like my teacher.	<input type="checkbox"/>	<input type="checkbox"/>
83 Most of the time I do not want to go to school.	<input type="checkbox"/>	<input type="checkbox"/>
84 Sometimes I wish I did not have to go to school.	<input type="checkbox"/>	<input type="checkbox"/>

Please tell whether you think each of the following statements is mostly true or mostly false.

	True	False
85 I am happy most of the time.	<input type="checkbox"/>	<input type="checkbox"/>
86 I am usually happy when I am at school.	<input type="checkbox"/>	<input type="checkbox"/>
87 Most of the time I am proud of myself.	<input type="checkbox"/>	<input type="checkbox"/>
88 Other students see me as a good student.	<input type="checkbox"/>	<input type="checkbox"/>
89 My grades at school are good.	<input type="checkbox"/>	<input type="checkbox"/>
90 I am satisfied with my school work.	<input type="checkbox"/>	<input type="checkbox"/>
91 I am proud of my school work.	<input type="checkbox"/>	<input type="checkbox"/>

92	Most boys and girls think I am good at school work.	<input type="checkbox"/>	<input type="checkbox"/>
93	I feel good about myself.	<input type="checkbox"/>	<input type="checkbox"/>
94	I can't do anything well.	<input type="checkbox"/>	<input type="checkbox"/>
95	Sometimes I feel bad about myself.	<input type="checkbox"/>	<input type="checkbox"/>
96	My teacher thinks that I am a slow learner.	<input type="checkbox"/>	<input type="checkbox"/>
97	I often wish I were someone else.	<input type="checkbox"/>	<input type="checkbox"/>
98	Sometimes I think I am no good at all.	<input type="checkbox"/>	<input type="checkbox"/>
99	Other boys and girls think I am a trouble maker.	<input type="checkbox"/>	<input type="checkbox"/>

How often do you do each of the following things?

	Never	Sometimes	Often
100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
101	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
102	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
103	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
104	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
105	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
106	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
107	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How important is it to you that your friends...

	Not Important	A Little Important	Very Important
108	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
109	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
110	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
111	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
112	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
113	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Are these statements mostly true or mostly false about your friends?

	True	False
114	<input type="checkbox"/>	<input type="checkbox"/>
115	<input type="checkbox"/>	<input type="checkbox"/>
116	<input type="checkbox"/>	<input type="checkbox"/>

As far as you know, are the following statements true or false about your best friend?

- | | True | False |
|---------------------------------|--------------------------|--------------------------|
| 117 Likes school | <input type="checkbox"/> | <input type="checkbox"/> |
| 118 Tries to behave in school | <input type="checkbox"/> | <input type="checkbox"/> |
| 119 Gets into trouble at school | <input type="checkbox"/> | <input type="checkbox"/> |

If you think you would do each of these things, mark Y for yes. If you think you would not do each of these things, mark N for no.

- 120 If your friends got into trouble with the police, would you lie to protect them? YES NO
- 121 If a friend asked to copy your homework, would you let the friend copy it even if it might get you in trouble with a teacher? YES NO

Attitudes About Police: Please tell us if you think each of the following statements is mostly true or mostly false?

- | | True | False |
|--|--------------------------|--------------------------|
| 122 Most police officers can be trusted. | <input type="checkbox"/> | <input type="checkbox"/> |
| 123 The police would rather catch you doing something wrong than try to help you | <input type="checkbox"/> | <input type="checkbox"/> |

Coping With Stress: Please tell us if you think each of the following statements is mostly true or mostly false?

- | | True | False |
|---|--------------------------|--------------------------|
| 124 If I got into an argument with another student, I would talk to someone about it. | <input type="checkbox"/> | <input type="checkbox"/> |
| 125 When I have to talk in front of the class, I try to relax. | <input type="checkbox"/> | <input type="checkbox"/> |
| 126 When I have too many things to do, I try to do the things I like the most. | <input type="checkbox"/> | <input type="checkbox"/> |

In the last year have you...

- | | Yes | No |
|---|--------------------------|--------------------------|
| 127 Smoked cigarettes? | <input type="checkbox"/> | <input type="checkbox"/> |
| 128 Used smokeless tobacco? | <input type="checkbox"/> | <input type="checkbox"/> |
| 129 Drunk beer, wine, or "hard" liquor? | <input type="checkbox"/> | <input type="checkbox"/> |
| 130 Smoked marijuana (grass, pot, hash, ganja)? | <input type="checkbox"/> | <input type="checkbox"/> |

In the last month how often have you...

- | | Never | Sometimes | Often |
|--------------------------------|--------------------------|--------------------------|--------------------------|
| 131 Smoked cigarettes? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 132 Drunk alcoholic beverages? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- | | | | | |
|-----|-------------------|--------------------------|--------------------------|--------------------------|
| 133 | Smoked marijuana? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 134 | Used oxycontin? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 135 | Used other drugs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Considering the different places you hear about the dangers of drug use, rank the following sources of information in order from **1 to 7**. With **1** meaning you have gotten most of your information there and **7** meaning you have gotten little or no information from that source.

- _____ Parents
- _____ Peers / Friends
- _____ School subjects such as health
- _____ D.A.R.E. Program
- _____ Guidance Counsellor
- _____ Media – TV, Magazines, Radio etc
- _____ Teachers

End of Questionnaire

Note: Since this questionnaire was used to evaluate the DARE program at [REDACTED] School a modified version was used to include some specific questions about the DARE program and the drug oxycontin.

APPENDIX B

D.A.R.E. (Drug Abuse Resistance Education), is a program that gives students the skills they need to avoid involvement in drugs, gangs, and violence. D.A.R.E. was founded in 1983 in Los Angeles and has proven so successful that it is now being implemented in 75 percent of our nation's school districts and in more than 43 countries around the world. D.A.R.E. is a police officer-led series of classroom lessons that teaches children from kindergarten through 12th grade how to resist peer pressure and live productive drug and violence-free lives.

Source <http://www.dare.com>

APPENDIX C

Principal:

Vice Principal:

Memo To: Parents / Guardians of Grade 5 – 8 students**Memo****From:****Re:** DARE Evaluation**Date:** May 31, 2004

As you are aware, when your child was in Grade 5 he / she participated in the DARE Program. The Primary goal of D.A.R.E. is to prevent substance abuse among school age children.

The D.A.R.E. program targets children at an age when they are most receptive to drug prevention education and before they are likely to have experimented with tobacco, alcohol and drugs. D.A.R.E. seeks to prevent adolescent substance abuse, thus reducing the demand for drugs.

The 17-lesson core curriculum is taught to students by a specially trained police officer. The core curriculum "emphasizes a no-use message" which is life skills based and focuses on peer pressure resistance training, self-concept improvement, personal safety and decision-making skills. A wide range of teaching techniques: including interactive peer leadership and cooperative learning groups are used to encourage student participation and response.

Our school was one of the first in the Province to use this program and this year marks the fourth time it has been offered. We are interested in evaluating the impact this program has had on student behavior. To accomplish this we will be administering a questionnaire to all students who have taken part in the program. Questionnaires will be anonymous (no names used).

As with the DARE Program your permission is required for you child to participate. Please sign below and return this form to the school. If you have any questions or would like more information please contact [redacted] at the school.

Your cooperation is greatly appreciated.

I give permission for my child to complete the DARE evaluation questionnaire.

I DO NOT give permission for my child to complete the DARE evaluation questionnaire.

Child's Name _____ Grade _____ Date _____

Parent / Guardian Signature

