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Parental school-related support and bullying among Canadian youth

by

Diane Kunyk



**Thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of
the requirements for the degree of Master in Nursing**

Faculty of Nursing

Edmonton, Alberta

Spring, 2002



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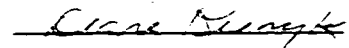
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Degree: Masters in Nursing

Year this Degree Granted: 2002

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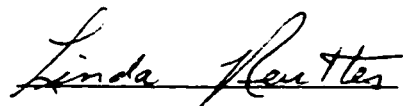
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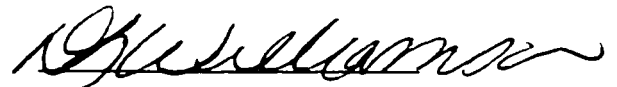
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Every individual should have the right to be spared oppression and repeated, intentional humiliation, in school as in society at large.

Dan Olweus, 1993

Abstract

Bullying among youth is a prevalent behaviour that has potential for immediate harm and future health-damaging outcomes such as progressive aggression and poor mental health. The possible influence of parental support on bullying/victimization in youth has not been examined. A secondary analysis on data from the 1997-98 Health Behaviours in Children survey examined the relationship between youth perceptions of parental school-related support and bullying/victimization behaviour using multiple regression analysis. Results indicated that youth whose parents were willing to help if they had problems were less likely to bully or be bullied; those whose parents were willing to come to school were less likely to be victimized; and youth whose parents encouraged them to do well were less likely to bully. These results indicate that school-related parental support may contribute positively to prevention of bullying and victimization.

ACKNOWLEDGEMENTS

I would like to express my sincerest appreciation to my supervisory committee: *Dr. Anne Neufeld*, my supervisor, for her scholarly advice, constant energy, and positive encouragement throughout our many courses together and the development of this thesis; *Dr. Linda Reutter* for her enthusiasm for exploring the topic and detailed comments; and *Dr. Deanna Williamson* for her interest and contribution to my work.

This research reports on the Canadian component of the 1998 Health Behaviours in School-Aged Children Survey: a WHO Cross-National study (HBSC); Principal Investigator, Dr. Will Boyce, Queen's University; funded by Health Canada. My appreciation is extended to *Mary Johnson*, Senior Research Analyst at Health Canada, and *Chuck Humphrey*, Data Library Coordinator, University of Alberta, for their assistance in regards to this data set.

My studies would not have been possible without the love, encouragement, and unfailing support of my family. My husband, *Terry Kuyk*, believed in my abilities and always urged me on. I want to thank my sons; *Michael*, as a role model in academics and time management, and *David*, for helping me recognize the important things in life. My sincerest appreciation also goes to the constant parental support of *Margaret and Mel Wensink*, a source of inspiration to me.

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CHAPTER 1

INTRODUCTION

Many adults vividly remember a personal experience with bullying from their childhood. Some recall acutely the shame and humiliation of being victimized, perhaps by name-calling or being relegated to outsider status. Others may reluctantly admit to the flush of power and control after bullying a vulnerable peer. Witnesses to a bullying event often speak of the helplessness and inadequacy of not intervening. Regardless of the memory, few would deny it was a painful experience.

Bullying is a prevalent and serious issue affecting a high proportion of youth in the world today (Peplar, Craig, & Roberts, 1998). The Canada Council of Social Development (1998) found that half of boys and one-quarter of girls felt that bullying was a problem for them. During the summer of 1999, Alberta Children's Services surveyed youth in grades 7-9 and found that 39% said teasing was the top problem they faced today, above alcohol and drugs (First Circle Uniting for Children, 1999). Bullying is an issue that youth are dealing with on a daily basis, with frequent reminders in the media of violent outcomes attributed to bullying such as the Columbine High School tragedy on April 20, 1999 when two teenagers shot and killed one teacher, twelve students, and injured 23 others.

Bullying is a particularly harmful behaviour because it has potential for immediate and long-term health damaging outcomes for both bullies and their victims. The victim suffers immediate harm and distress (William, Chambers, Logan, & Robinson (1996), often stays away from school (Kumpulainen, Rasanen, Henttonen, Almqvist, Kresanov, Linna, Moilanen, Piha, Puura, & Tamminen, 1998), and might display depressive behaviours for many years (Olweus, 1992). The bully may progress to other aggressive behaviours, is at increased risk of being physically abusive, and of having a criminal record as an adult (Farrington, 1993). Both bullies and victims may have other related mental health concerns (Craig, Peters & Konarski, 1998; Sourander, Helstela, Helenius, & Piha, 2000). Bullies grow up to be bullies and have children who are bullies, just as victims grow up and have children who are victims, indicating future generations of children may be affected (Farrington, 1993). Given the serious consequences for students who bully, and for their victims, it is extremely important to become knowledgeable about the factors that may prevent bullying behaviour.

Bullying is a health threatening behaviour affecting a large number of youth in society; it is therefore appropriate to take the population health approach and consider this behaviour within the context of the broader determinants of health. The population health approach recognizes that health status, and behaviours that promote or threaten health of youth in Canada, are influenced by a wide range of social, cultural, physical and economic determinants, many of

which lie outside the traditional health sector (Federal/Provincial/Territorial Advisory Committee on Population Health, 1999). Determinates of health are identified as income and social status, social support networks, education, employment and working conditions, social environments, physical environments, biology and genetic endowment, personal health practices and coping skills, health child developments, health services, gender, and culture (Federal/Provincial/Territorial Advisory Committee on Population Health, 1998).

Social support, one of the determinants of health, promotes wellness, increases the use of effective coping strategies, and decreases stress (National Crime Prevention Council of Canada, 1996). Families constitute the primary social support network for children (Federal/Provincial/Territorial Advisory Committee on Population Health, 2000). Although adolescence is a period when youth are expected to become more responsible and more autonomous in their lifestyle as they prepare for adulthood, this does not necessarily lead to estrangement from their parents. Perhaps contrary to parents' perception, the vast majority of adolescents still respect their parents, feel part of the family, and share many of the same values as their parents (Demo, 1992). Focusing on support provided by parents, the impact this support has on fostering health seeking behaviour, and preventing health damaging behaviour such as bullying, continues to be relevant for youth.

Comprehensive reviews of parenting research (Rollins & Thomas, 1979; Peterson & Rollins, 1987) have determined two important dimensions of parenting: parental support and parental control techniques. Parental support includes behaviours manifest by the parent towards the child that make the child feel accepted and loved. Parental control typically refers to the type, or degree of intensity, of influence attempts (discipline) by parents rather than the actual attainment of control. The support dimension typically consists of the more positive affective characteristics of the parent-child relationship whereas parental control techniques are perceived more negatively (Rollins & Thomas, 1979).

Parental support enables children to acquire interpersonal skills, to positively develop self-image, and to increase abilities to make use of support from others (Pierce, Sarason, Sarason, Joseph, & Henderson, 1996). Additionally, parental support facilitates coping by strengthening children's ability to realistically appraise stressful events and develop alternative coping strategies (Pearson, 1986). Because parents provide supportive functions that help their children deal with problems they are experiencing, their support has an impact on the health of adolescents (Wills, Mariani, & Filer, 1996). One of the significant ways in which parents support their children is through helping them negotiate extra-familial challenges, such as school and friendships (Ryan & Solky, 1996).

Parental control techniques, rather than parental supportive behaviours, have been variables in research on bullying behaviour in children. Permissiveness of aggression and power-assertive methods of discipline by parents have been

found to increase the likelihood that their children will engage in bullying behaviour (Espelage, Bosworth, & Simon, 2000; Farrington, 1994; Olweus 1991). Victims are more likely to be enmeshed in over-intense or over-involved family systems (Bowers, Smith, & Binney, 1994), particularly by their mothers (Olweus, 1994). In their Canadian study, Craig, Peters and Konarski (1998) concluded that both bullies and victims likely come from homes where there are few positive interactions, many hostile interactions, and harsh and inconsistent punishment practices.

Olweus (1993) concluded that the school is, without doubt, where most of bullying occurs. School is an important environment for youth as it is where they spend most of their waking hours; therefore it is important that the school environment be safe, stimulating, and enjoyable. Although educators desire to improve the social environment for the children in their schools, they feel that the job of teaching has become increasingly unmanageable because society's expectations for schools have expanded to a point where they can no longer be met (Alberta Teachers' Association, 1996). Schools cannot support health and learning by themselves. Increasingly, the school setting is becoming a site for concerned partners, such as community health nurses, parents, and teachers, to collaborate on the goal of providing a safe, caring, and healthy environment for children to grow and develop. Collaboration supports the creation of environments that can more effectively respond to the complex needs of youth and augments the resources that can be brought to bear on a problem (Anderson, Kalnins, Raphael, & McCall, 1999). It is timely and fitting for community health nursing to examine the role of parental school related support in the issue of bullying and victimization because it may provide insight to an available resource to deal with the problem.

Parental support is consistently found to have a positive relationship with all aspects of social competence in children (Rollins & Thomas, 1979; Windle & Miller-Tutzauer, 1992), and is indicated as a protective factor from some kinds of health damaging behaviours (Barrera & Li, 1996; Wills et al., 1996). It is possible, therefore, that parental support may have a positive role in prevention, or preventing the continuation, of bullying/victimization behaviour in youth.

Research Questions

The purpose of this research is to examine the relationship between perceived parental school-related support and bullying/victimization behaviour in youth, and to describe any gender variations. The research objectives are:

1. To describe and compare perceptions of school-related parental support among 13 year old male and female Canadian youth. Perceptions of support include parental willingness to help with school problems, talk with teachers, and encourage youth to do well at school.
2. To describe and compare how often male and female Canadian youth, aged 13, experience bullying and victimization behaviour.
3. To determine the extent to which aged 13 Canadian youth's perceptions of school-related parental support can predict their bullying/victimization behaviour.

CHAPTER 2

SELECTED LITERATURE REVIEW

Scope of Bullying and its Significance to Health

Bullying is generally acknowledged to be a form of childhood aggression embedded in an ongoing relationship between a bully or bullies and a victim or victims (Charach, Peplar, & Ziegler, 1995). A student is bullied when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students (Olweus, 1994). There is an imbalance in strength in that the student who is exposed to the negative actions has difficulty in defending him/herself and is somewhat helpless against the student or students who harass (Farrington, 1993). Being stronger does not only refer to physical strength; being more powerful could also mean having a stronger personality or being more determined. The physical, verbal or psychological intimidation is intended to cause fear, distress or harm.

The term bullying is not used when two persons of approximately the same strength (physical or psychological) are fighting or quarrelling, there must be a certain imbalance in the strength relations. The term bullying also does not apply to isolated incidents because bullying is a repetitive act between the bully and victim. Bullying is different than childhood aggression: it is more systematic, occurs repeatedly, and embraces a variety of hurtful actions including teasing, gossip, subtle social exclusion, extortion, verbal attacks, and physical abuse (Pepler, Craig, Ziegler, & Charach, 1994).

The reported rates of bully-victim problems vary. In one of the first major surveys, Olweus (1991) used an anonymous self-report survey to study bullying among 83,330 students ages 8-16, from 404 schools in the Norwegian comprehensive school system. Fifteen % of students were involved in bully-victim problems more than once or twice a term: 7% identified themselves as bullies, and 9% identified themselves as victims.

In Canada, Craig, Peters, and Konarski (1998) used data from the National Longitudinal Survey of Children and Youth on children who were attending school. Youth ages ten and eleven (n=2124) were asked to self identify their involvement in bullying behaviour over the last year. Of those surveyed, 17% of boys and almost 9% of girls reported that they sometimes or very often bullied, and almost 14% of boys and 8% of girls identified themselves as victims, sometimes or very often.

Glover, Gough, Johnson, and Cartwright (2000) surveyed 4,700 youth ages 11-16 in England about their relationships with peers. The term bullying was not used. Instead they defined the variables of interest as either physical or verbal mistreatment or interference with personal property. Students were asked if

they had mistreated others, or been mistreated themselves, physically, verbally, or had their property interfered with. Their investigation showed that 75% of pupils were bullied in a school year, but that severe and repeated bullying (more than seven incidences) was committed, and suffered, by about seven per cent of students. Whichever measurement is used, there is little doubt that bullying is a significant problem for children and must be given serious consideration.

Sensitivity to gender differences is appropriate in examining bullying behaviours. Boys are more likely to be bullies when compared to girls of the same age (Craig, et al., 1998; Espelage, et al., 2000; Glover et al., 2000; Olweus, 1991; Sourander, et al., 2000). Additionally, victims are more likely to be boys than girls (Kumpulainen, et al., 1998, Olweus, 1991; Sourander, et al., 2000). The response to bullying also differs by gender. Girls are more likely to tell someone in authority when threatened by a bully, whereas boys are more likely to respond with a fight (Glover, et al, 2000). There are gender differences in rates of occurrence of bullying behaviour and response to bullying.

Bullying behaviour has some stability over time. Sourander et al. (2000) followed 1268 children in Finland ages 8 to 16 over eight years. Bullying at age 8 was associated with bullying at age 16, and victimization at age 8 was associated with victimization eight years later. This finding, that bullies and victims tend to retain their status through adolescence, has been supported in earlier studies (Farrington, 1993; Olweus, 1994). The Cambridge Study (Farrington, 1993) also found that there was intergenerational transmission of bullying. Boys who bullied at 14 years of age tended, when they were age 32, to have children who also bullied. Also, adult victims tended to have children who were victims. There is an intragenerational, and intergenerational, component to bullying.

Bullying is generated wherever children are together. On the basis of his research, Olweus (1993) concluded that the school is without doubt where most of bullying occurs. In a literature review, Farrington (1993) reported that the most common location for bullying is in the school setting. For example, Whitney and Smith (1991) found that 45 % of victims were bullied in the school ground, 39 % in the classroom, and 30 % in the corridors. In the Glover, Gough, Johnson and Cartwright (2000) study of 4770 students in 25 schools in England, 21 % of reported physical bullying and 50 % of teasing occurred in the classroom. That over one in five children can experience physical bullying in the classroom highlights the pervasiveness of the issue.

Perhaps contrary to popular belief, bullying has not been associated with the variables of socio-economic status or race. Sprott, Doob, and Jenkins (2001) examined data on 12- and 13-year-olds from the National Longitudinal Study on Children and Youth and failed to find a link between family income and aggressive behaviour, a finding with support in previous studies (Olweus, 1984; O'Moore, & Hillery, 1989). Eslea and Mucktar (2000) surveyed Hindu, Indian Muslim, and Pakistani children in England and determined that all three ethnic

groups suffered equally, but that the bullying was at least as likely to be by other Asian children of a different ethnic group as it was by white children. The survey by Junger (1990) of Dutch, Moroccan, Turkish, and Surinamese boys in the Netherlands found no ethnic differences in bullying and victimization but ethnic minority victims attributed their victimization to their ethnicity (unlike native Dutch victims). Olweus (1993) concluded that 'external deviations' play a much smaller role in the origin of bully/victim problems than generally assumed.

Bullying behaviour is, however, associated with health damaging outcomes. The Canadian bullies displayed externalizing problems such as physical aggression, indirect aggression, inattention, property offences, and hyperactivity (Craig, et al., 1998). The victims exhibited these externalizing behaviours, but also exhibited internalizing behaviours such as anxiety, depression, unhappiness and emotional difficulties (Craig, et al., 1998). The Finnish study found that at age 16, many of those who bullied or were victimized had a wide range of problems in externalizing and internalizing behaviour and in social competence. Bullying at age 16 was especially associated with externalizing behaviour problems, while victimization was strongly associated with self-reported internalizing problems (Sourander, et al, 2000).

The Finnish researchers were particularly interested in the psychological health of bullies and victims. After using questionnaires with the students, their parents, and their teachers, it was determined that mental health services had been used by 18% of those who bullied and 15% of those who were victims. However, of those who had been referred, 30% were bullies and 30% were victims, indicating that those who were referred did not always access mental health services. Both bullies and victims were affected negatively by the behaviour, with both adolescent bullies and victims expressing higher levels of suicidal thoughts than their peers (Kumpulainen et al., 1999). It is not surprising that years of torment and abuse from bullies impacts the mental health of an adolescent, but it is equally alarming to note that the bully suffers extensively as well.

Bullying and Parental Relations

Parental awareness of the bullying and victimization behaviour of their children has been questioned in the literature. In Toronto, twenty-two classrooms in 16 schools were surveyed with an anonymous self-report questionnaire following a classroom discussion on the definition of bullying (Charach, Pepler, & Ziegler, 1995). The questionnaires were an English translation of the self-report questionnaire developed by Olweus for use in schools in Scandinavia. The majority of the students who had been victimized had talked to their parents and/or teachers about it. However, almost a third of the victims, many of whom were most frequently bullied, reported that they had not sought adult help. This concurs with Olweus' (1993) study that found that parents of students who are victimized were relatively unaware of the problem and talked with their children

about it to a limited extent; parents of bullies were equally unaware of the problem.

An Anti-Bullying Intervention program which included quantitative and qualitative assessments before and after implementation was piloted at four Toronto schools (Pepler, et al, 1994). The results indicated that parents appeared to be less informed of their children's bullying at school than their teachers. Fewer than half of the parents of the bullies had talked to them about their behaviour. Conversely, parents appeared to be somewhat more aware than teachers of children's victimization. Fifty-nine % of victims indicated that their parents had spoken to them about the problem. Surprisingly, the proportion of parents that talked to their children, both bullies and victims, did not improve throughout the anti-bullying intervention.

In a survey of 130,000 students ages 8-16 in Norway, about 55% of victimized students in the primary grades reported that "somebody at home" had talked with them about the bullying (Olweus, 1993). In junior high school, this percentage was reduced to 35%. For students who reported having bullied others, the figures were considerably lower. Not only were many parents unaware of their children's bullying and victimization behaviour, they also appeared to be less aware as their children increased in age.

Gender differences have been identified in the awareness of bullying behaviour by parents. Craig et al. (1998) found that there were differences between the parents' reports of bullying and children's self reports. Compared to parents' reports, a higher percentage of boys reported bullying others or being bullied. For girls, the percentages of bullying and victimization were relatively similar to parents' reports. They concluded that since aggression is more atypical of girls, it may be that parents were more likely to be aware of their daughters bullying than their sons. With respect to victimization, when compared to boys, girls may be more willing to confide with their parents, consequently parents' reports were similar to the girls' self reports.

Parental discipline methods have been examined in relation to bullying behaviour in children. The prospective, longitudinal Cambridge Study in Delinquent Development followed 411 male students from age 8 to 32 years, interviewing and testing the boys and their parents 8 times over the twenty-four years. Their results showed the largest difference between bullies and non-bullies was in parental authoritarianism, with the bully having more authoritarian parents (Farrington, 1993). A further study by self-report questionnaire on 238 youth ages 11-14 years in Italy supported the role of authoritarian parents in bullying behaviour, especially for the subset of children who were both bullies and victims (Baldry & Farrington, 1998).

Craig et al. (1998), used data from the Canadian National Longitudinal Survey of Children and Youth on parents of children ages 4 – 11 years who were

attending school. The parents identified on questionnaires if their children were bullies or victims, and responded to questions on positive interaction, hostile interaction, consistency, and punitive practices. They concluded that bullying behaviour starts at home. The parents of the bullies, and of the victims, were inconsistent in the enforcement of their rules, and were hostile or harsh, a finding with support in a similar study (Espelage et al., 2000).

The Relevance of Parental Support to Youth

The construct of social support is broad and encompasses many different functions. Supportive behaviours have been categorized according to their functions yielding different labels in terms of the number and content of supportive functions (Stewart, 2000). One such categorization of the functions of support is the House & Kahn (1985) classification of emotional support, instrumental (tangible assistance), informational, and affirmational support.

A number of models have proposed pathways of the beneficial effects of social support. The main-effect model suggests that social support benefits health directly by fulfilling social needs and enhancing social integration, a primary preventative action (Cohen & Wills, 1985). Social support has also been purported to have a buffering effect protecting individuals from harmful influences of stressful situations and enhancing coping abilities, a protective role (Stewart, 2000). The mediator model predicts that social support indirectly influences the effects of stress on health, thereby acting as an intervention to ameliorate the impact of stress (Quittner et al., 1990). In these ways, social support is reputed to prevent, protect, and intervene positively in regards to reducing stress and enhancing well-being.

Social support may be perceived as potentially available, or may be actually delivered and received (Sarason, Sarason, Pierce, & Sarason, 1990). Measures that tap the individual's perception of the availability of others upon whom they can rely for support (perceived social support) have proven to be the most consistent and strongest predictors of coping and are stable across time and situations (Pierce, et al., 1996). Additionally, Schaefer (1965) has argued that how children perceive what their parents do and say may be more important in affecting a child's behaviour than what these parents actually do or say.

Parents have been found to be a major source of support for their children (Pierce, et al, 1996). Supportive interactions with parents provide children with an opportunity to acquire coping skills that enable them to meet the challenges posed by stressful situations (Pierce, et al, 1996). Although family relationships carry with them strong social obligations and prescriptions concerning the provision of social support, children are not assured of obtaining support from their parents should they require it.

The provision of support can be influenced at many points in the support process. The parent must first perceive that their child desires or needs assistance. Whether or not the child has actively sought support, the parent must evaluate the nature of the challenge to which their child's coping efforts are (or will be) directed. The parent must also assess the child's resources for dealing with the challenge. The parent may fail to give aid – even when desired by the child – if the parent evaluates the challenge as non-threatening or if the parent overestimates the child's resources with which to face the challenge.

Adolescence is that time between childhood and adulthood during which young people continue to develop the social and intellectual skills that will prepare them for adult roles and responsibilities. Adolescence, like other life-cycle transitions – including marriage, childbirth, the start of school, and retirement – is a developmental stage that is often marked by uncertainty and stress (Vondra & Garbarino, 1988). The physical, cognitive, and social capabilities of adolescents exceed those of children, and adolescents are confronted with the need to respond to a range of novel situations and interpersonal events that may be facilitated by parental support.

For the majority of youth, movement into the adolescent years involves a reorganization and expansion of their social contacts: for instance, adolescents' relationships with their parents may change in nature and function as they begin to disengage from the family and build more extensive peer networks (Blyth & Traeger, 1988). Some might question the role of supportive relationships with parents during this developmental period in which autonomy and the emergence of peer relationships appear to be so influential.

Parental support has been examined in comparison with peer support in early adolescence. In an American study of 199 fifth and sixth graders, students rated parents, siblings, grandparents, and friends for support (Furman & Burhmester, 1985). Parents were the most prominent providers of affection, enhancement of worth, and instrumental aid. Furthermore, relationships with parents were rated as more important and satisfying than relationships with grandparents, friends, and siblings. Siblings, in fact, were perceived as the greatest source of conflict. Friends were rated the highest for companionship of all the examined relationships. Through the eyes of these young adolescents, parents were the most active providers of both emotional and tangible support, while friends occupied the predictable role of social companion.

The impact of perceived parental support when compared to perceived peer support changes in relative value during the adolescent years. Furman and Burhmester (1992) explored changes in the supportive provisions of parents and peers as children move through adolescence. They examined children at four different stages: 4th grade, 7th grade, 10th grade, and college. They found that 4th-grade students rated parents as the most active providers of support. Seventh-grade students saw their parents as similar to same-sex friends in supplying

support, and 10th-graders rated parents somewhat lower than same-sex friends. Finally, college students viewed mothers, same-sex friends, and romantic partners as comparable in support provision. These youth perceived that parental support decreased in value when compared to peer support as they grew through their adolescent years, which moderated as they entered adulthood. Although diminished in value in comparison to peer support, these youth still sought out, and depended upon, parental support.

Adolescents appear to seek out support from parents and peers for different personal concerns and are likely to favour advice from parents or peers depending on the issue. Sebald (1989) reported data from questionnaires administered to high school students in the United States in which he asked adolescents to indicate whose advice they sought for 18 issues. Parents were viewed as valuable sources of advice for critically important issues concerned with careers, academic preparation, finances, and school issues whereas peers were prime sources of advice on dating, and alcohol use.

Gender differences arise in the examination of parental support in adolescence. In an American study, Weigel, et al, (1998) asked high school students who their primary support person was on three different occasions over eight months. Mother was the most frequently chosen category. When the primary support person categories were collapsed into parent, other family adults, sibling, and peers, adolescent females were more likely to nominate peers as their primary support person, whereas adolescent males were more likely to nominate parents. However, adolescent females still nominated parents second after peers. Furman and Burhmester (1992) also found an apparent gender difference in the preferred source of advice on "personal problems". Boys' ratings were relatively balanced between parents and peers concerning whom they would consider more important to consult, but girls strongly preferred peers rather than parents. Regardless of the preferred source of advice, parents continue to be a major source of support for adolescents.

Protective Role of Parental Support in Adolescence

Parental support has been indicated as a protective factor from some kinds of health damaging behaviour for adolescents. Wills, Mariani, and Filer (1996) conducted a research program on the role of family and peer support with adolescent substance abuse. They concluded that support from parents typically is indicated as a protective factor, inversely related to level of adolescent substance use. In contrast, support from peers is positively related to substance use. They concluded that adolescents seem to be particularly vulnerable when they have a low level of parental support and are strongly immersed in peer social activity. This protective effect of parental support was independent of social class, ethnicity, and the number of parents in the family.

Parental support also has a protective factor when mental health of adolescents is explored. Patten, et al. (1997) examined data from the California Youth Tobacco Survey to study the relationship between parental support and depressive symptoms in adolescents. Higher rates of depressive symptoms were found among youth who resided with parent(s) not named as supportive when compared with those who lived with parents(s) who were perceived as supportive.

Greenberg, Siegel, and Leitch (1983) specifically tested the effects of parental and peer support in an adolescent sample, with outcome measures of self-concept and life satisfaction. They found that although peer support was utilized more often in terms of frequency, the beneficial effect of parental support on outcomes was much greater than the effect of peer support. Moreover, these investigators found that parental support produced stress-buffering effects, but peer support did not. These findings suggest that even though adolescents may perceive supportiveness from peer networks and utilize peer support with considerable frequency, the effect of parental support for helping adolescents to cope with problems may be greater in actuality.

The impact of parental support on the quality of children's relationships with their peers has been examined in grade five students in another American study (Franco & Levitt, 1998). Children who reported more support from their parents were more likely to report higher levels of caring, guidance, companionship, and intimate exchange in their friendships. They were also more likely to report a more positive approach to conflict resolution. Parental support was found to be a predictor of all dimensions of friendship quality of the child's relationship with friends.

Critique of the Literature

Challenges arise in comparing and contrasting results of research studies in the literature on bullying for a number of reasons. There is no universally accepted operational definition of bullying. A large number of different oppressive behaviours have been included under the heading of bullying such as physical violence, mental cruelty, intimidation, extortion, stealing, wilful destruction of property, menacing stares, mistreatment, and name calling. Some researchers distinguish between physical, verbal, and psychological bullying. Others have differentiated between direct and indirect methods of bullying whereby direct includes activities such as teasing and physical aggression and indirect implies exclusion from the group. It is often unclear whether the prevalence of bullying at school includes these incidents of social exclusion and/or whether it includes incidents on the way to and from school. The time period is rarely specified exactly, making comparisons of reported prevalence rates uncertain. Also, it is often uncertain whether the source of bullying is the same person or group of people. Even the classification of bullying poses confusion: some researchers classify one episode as bullying; others consider that

bullying implies repeated occurrences and require various numbers of incidents to categorize behaviour as bullying.

Most of the research on bullying has been descriptive and exploratory in nature. Bullying has been measured using a variety of different techniques; teacher ratings and peer nominations, anonymous self-report questionnaires, and parental reports on cross-sectional and longitudinal designs. Comparatively, the use of qualitative research methods has been relatively restricted. Bullying research has its roots in studies on aggression and delinquency, and this has provided a rich foundation for interest in bullying/victimization behaviour and lack of family cohesion, hostile discipline techniques, inadequate parental supervision, and parental use of physical discipline. As a result, the research variables in relation to the family have been focused on more punitive rather than positive behaviours.

Summary

Bullying is an extensive problem for youth and must be given serious consideration. Bullying is a particularly harmful behaviour because it has potential for immediate and long-term health damaging outcomes for both the bully and their victim. Knowledge concerning the parental role with bullying behaviour in adolescents is being explored and developed, but requires further work to clarify the overall picture.

The review of the literature indicates a relationship between parental discipline methods and bullying behaviour but the variable of parental support has not been examined to the same extent.

Parents continue to be an important influence for adolescents, regardless of their increasing independence and maturity. Parental support for adolescents has been indicated as a protective factor from some kinds of health damaging behaviour, and as having a positive impact on mental health, as well as the quality of peer relationships. Additionally, although adolescents may turn to peers for support frequently, parental support appears to help adolescents cope with problems more effectively. Adolescence is a time when youth build more extensive peer networks and value their support; however, parents remain a significant source of support.

Families play a central role in supporting their children and it is therefore very important to understand what parental behaviours might be identified as risk or protective factors for youth in regard to bullying/victimization behaviour. One potentially protective behaviour is school-related parental support. This study will examine the possible relationship of school-related parental support and bullying and victimization behaviour among Canadian youth.

CHAPTER 3

METHOD

Purpose and Objectives of the Study

The purpose of this research is to describe the relationship between the variables of perceived parental school-related support and bullying/victimization behaviour in youth, and to describe any gender variations. The research objectives are

1. To describe and compare perceptions of school-related parental support among male and female Canadian youth aged 13. Perceptions of support include parental willingness to help with school problems, talk with teachers, and encourage youth to do well at school.
2. To describe and compare how often 13-year-old male and female Canadian youth experience bullying and victimization behaviour.
3. To determine the extent to which aged 13 Canadian youth's perceptions of school-related parental support can predict their bullying/victimization behaviour.

Definition of Terms

Bullying: When another person, or a group of people, says or does nasty and unpleasant things to him/her. It is also bullying when one is teased repeatedly in a way he/she doesn't like. But it is not bullying when two students about the same strength quarrel or fight (Social Program Evaluation Group, 1998).

Perceived School-related Parental Support: The extent to which children perceive their parents will help them with problems at school, are willing to go to school to talk to their teachers, and encourage them to do well at school.

Research Design

A secondary analysis of a sub-sample from the Health Behaviours in School-aged Children Survey (HBSC) was used in the research (King, Boyce, & King, 1998). Secondary analysis is defined as further analysis of existing data for the purpose of presenting interpretations, conclusions, or knowledge additional to, or different from, those presented in the first study (Leske, 1990). The advantages of secondary analysis include: a) the promotion of the principles of open scientific inquiry; b) verification, refinement, or repetition of original findings; c) potential for new insights and answers to questions not previously addressed; d) reduction of respondent burden; and e) economical usage of limited human, material, and

fiscal resources (Estabrooks & Romyn, 1995). The HBSC represents an extensive and comprehensive Canadian database that individual researchers would not have the resources to collect.

Limitations of secondary data analysis include the lack of control and involvement in the conception, generation, and recording of the data set (Jacobson, et al, 1993). Lack of involvement during the data collection phase limits the researcher's insight into hidden factors that may have influenced the study's outcome. Challenges arise for the secondary analyst regarding determination of the source of the instruments, determining the definitions of the concepts measured, and obtaining results of psychometric testing of these instruments. Consequently, the secondary analyst may be at greater risk for drawing invalid conclusions that arise from misinterpretation of findings.

Conversely, secondary analysts may tend to suffer less from being too close to the data that might affect the conclusions of original investigations (Gleit & Graham, 1989).

Health Behaviours in School-aged Children Survey

The HBSC data were examined for appropriateness for secondary analysis using the following questions; what was the purpose of the study, who collected the data, what data were collected, how were the data obtained, when did data collection occur, and can the data answer new research questions? The HBSC data set was also evaluated for the fit between the existing survey and the proposed study according to the purpose of the study, the design of data collection, the sample, and the availability of the data. These points will now be discussed.

The HBSC is a subset of the World Health Organization collaborative cross-national study designed to collect information related to the health knowledge, attitudes and behaviours of young Canadians. The study has two main objectives. The first is to monitor health-risk behaviour in youth over time in order to provide the necessary background and targets for health promotion initiatives. The second objective is to provide information to researchers that will enable them to understand and explain the development of health attitudes and behaviours through adolescence. The HBSC survey follows the population health approach taken by Health Canada. The framework incorporates health outcomes and factors that may influence or shape these outcomes. Outcomes behaviours include smoking, alcohol abuse, levels of physical activity, and bullying. Determinants of health include attitudes related to the home, the school, the social environment, individual health practices, and gender (King, Wold, Tudor-Smith, & Harel, 1996). One purpose of the survey is to gain insights into the influences of the family on young people's lifestyles. The proposed study also fits within the population health framework and considers the determinant of health, social

support of the family, and how this may affect the outcome of bullying/victimization behaviour.

A quasi-longitudinal design of collecting data from three age groups (11, 13 and 15 year olds) every four years has been implemented by the HBSC. Age 11 represents the onset of adolescence, age 13 the challenge of physical and emotional changes, and age 15, the middle years when very important life and career decisions are beginning to be made (World Health Organization (1998). The first survey was in 1989-1990, followed by 1993-94, and 1997-98. Additional items on bullying were added to the 1997-98 survey and, for this reason, data from the 1997-98 survey will be used in this study. Age 13 was selected for the current research as the greatest incidence of bullying/victimization occurred in that age group when compared to ages 11 and 15 in the 1997-1998 HBSC data set (King, et al., 1999).

Data were collected in the form of a questionnaire. Questionnaires can be given to large numbers of people simultaneously, making it possible to cover wide geographic areas and to question large numbers of people relatively inexpensively (Brink & Wood, 1994). Subjects are likely to feel that they can remain anonymous and may be more likely to express controversial opinions. Also, the written question is standard from one subject to the next and is not susceptible to changes in emphasis. There is always the possibility, however, that written questions will be interpreted differently by different readers.

Sample

The questionnaire was administered to Canadian students aged 11, 13 and 15 in grades 6, 7, 8, 9, and 10 (and Quebec equivalents) in school classrooms in 1997-98. These classes were identified through systematic sampling procedures and the surveys were administered during one 40-minute class. The respondents were guaranteed anonymity and the teachers were asked to closely follow a specific set of instructions regarding administration. Approximately 80 classes per grade were selected to reach the targeted sample size of 2000 students per grade level.

A systematic cluster sampling procedure was used by the 1998 Canadian HBSC survey. Cluster sampling is used when a simple random sample would be prohibitive in terms of travel time and cost, reducing the expense while allowing the results to be generalized (Brink & Wood, 1994; Burns & Grove, 1993). The 1998 Canadian survey cluster sampling procedure involved five grades to represent the three age groups, with the school class being the basic cluster. The number of Grade 6, 7, 8, 9, and 10 classes (and Quebec equivalents) were estimated for Canadian schools and a list was prepared. The list was systematically sampled assuming 25 students per class. This sampling procedure allowed for students who had been held back in school to be represented in the basic HBSC data. The sample was designed so that the proportions of the three

samples contributed by each province were approximately equal to true proportions. Only those students born between January 1 and December 31 in 1982, 1984, and 1986 were selected to be part of the HBSC database. Within provinces, proportional representation was assured by community type, geographical location, language of instruction, and religious affiliation.

Some disadvantages exist to cluster sampling. Data from subjects associated with the same institution may be correlated as students within the same class or school are more likely to be similar to each other than to students generally (King, et al., 1996). Since the school class was the cluster employed in the sampling procedure, it is possible that those who make up a cluster may have a similar set of behaviours or attitudes; for example they may share the same opinion about bullying and victimization. Cluster sampling thereby results in standard errors that tend to be higher than if the same size of sample was obtained using a simple random sample. This can lead to a decrease in precision and an increase in sampling error. The design effect is the factor by which the sample size computed for a simple random sampling should be multiplied to recognise these factors. The recommended minimum sample size for the HBSC survey is 1536 students (King, et al., 1996) assuming a confidence interval of +/- 3% at 95% and a design effect of 1.44 based on an analysis of the 1993-1994 survey (WHO, 1998). This sample was selected so that 95 times out of 100 the true response can be expected to lie within plus or minus 3 percentage points of the responses obtained had the entire target population of the country been surveyed. The sample size in the 1998 HBSC survey of aged 13 students was 4137, exceeding the recommended minimum sample size.

Measures

Perceived School-Related Parental Support

The HBSC survey questions on relationships with parents were developed on contract by the Social Program Evaluation Group at Queens University at Kingston. These questions have been used for the 1993-94 and 1997-98 Canadian editions of the HBSC survey, and will now be used on future international HBSC surveys. Although these questions have face validity, psychometric testing has not been published. Within these questions on family relations, three were selected to represent perceived parental school support. These questions ask the student's perceptions of; whether their parents are ready to help them with problems at school, a measure of instrumental support; whether their parents are willing to come to the school to talk to their teachers, another measure of instrumental support; and whether their parents encourage them to do well at school, a measure of emotional support (Appendix 1).

Bullying

Questions on bullying were added to the 1997-98 HBSC questionnaires. These questions have similarities to the Olweus questionnaire, a tool used in many reported studies (Baldry & Farrington, 1998; Charach, et al., 1995; Olweus, 1993; Peplar et al., 1994). The Olweus questionnaire provides a definition of bullying and identifies the specific time frame before the questions are introduced. The questions focus on how often the student has been bullied in school and how often the student has taken part in bullying in school.

In the HBSC survey, there is a statement identifying that the following questions will be about bullying. It then states “a person is being bullied when another person, or a group of people, says or does nasty and unpleasant things to him/her. It is also bullying when one is teased repeatedly in a way he/she doesn’t like. But it is not bullying when two students about the same strength quarrel or fight”. The time frame given is “this term”. This follows the procedure of the Olweus questionnaire. Two questions were selected; one asking if the student was bullied, the other asking if the student had bullied this term (Appendix 1).

Sample for the Current Study

For the current study, a subset of thirteen year old boys and girls from the 1997-87 HBSC study was used. These included students that were in grades 7, 8, and 9 (and the Quebec equivalents).

Data Analyses

Analyses were conducted on an IBM-compatible computer. The Statistical Package for Social Sciences (SPSS) for MS Windows Release 8.0 for the descriptive and inferential statistics was used.

The first stage of analysis involved exploration of frequencies and descriptive statistics to identify the characteristics of the variables. Comparisons between boys and girls perceptions of parental school-related support, as well as self reported bullying/victimization behaviour, were examined using *t* tests. Although this is a large sample, the significance level was set at 0.05 to control for Type 1 error because of the preliminary nature of this study.

Pearson product-moment correlations were used to examine the relationship of the variables of perceived parental school-related support (parental willingness to help with school problems, talk with teachers, and encourage youth to do well at school) with self reported bullying behaviour followed by the same examination on self reported victimization behaviour. Again, the level of significance was set at .05 to control for Type I error.

Regression analysis was performed to determine the relative strength of the variables of perceived parental school-related support (parental willingness to help with school problems, talk with teachers, and encourage youth to do well at school as well as the sum of these questions) in predicting self reported bullying behaviour followed by the same examination on self reported victimization behaviour. The variables were treated as a single block for statistics computed for the multiple regression equation because theory does not exist to justify the entry of one variable before another. The level of significance was maintained at .05 to control for Type I error.

Ethical Considerations

Ethical approval was obtained from the University of Alberta Health Research Ethics Review Committee prior to initiating the research. The study analyzed a subset of a Health Canada data set that is available for students and researchers affiliated with a Canadian university. This data file contained no identifying characteristics, and numerous measures have been taken to safeguard the identity of individual survey respondents. It is not possible to link individuals with data thereby protecting the anonymity of respondents.

CHAPTER 4

FINDINGS

Sample

The Health Behaviours in School-Aged Children Survey in 1997-1998 included 11,272 students. To maintain consistency with HBSC literature, the data were grouped into three categories: ages 11, 13, and 15 (King, Boyce, & King, 1999; World Health Organization (1998)). These ages are used as labels only, recognizing that within each category a range of birthdates are grouped. Those students in the age 13 grouping had a range of age from 12.00 to 13.92 years. The sample size in this group of students was 4137 with a proportion of 51.2% female, 48.4% male, a mean age of 12.98, and a standard deviation of .57.

Univariate descriptions of the school-related parental support variables, the sum of the support variables, and the bullying/victimization variables.

Initially, the three perceived parental school-related support questions were examined to test for the internal reliability of the concept. In the following discussion, the question, 'If I have problems at school, my parent(s) are ready to help me' will be referred to as 'help', 'My parent(s) are willing to come to the school to talk to teachers' as 'willing', and the final question 'My parent(s) encourage me to do well at school' as 'encourage'. Cronbach's alpha coefficient correlates each individual item with each other and the overall score, giving an overall measure of the consistency with which the score on an item can be used to predict the overall attribute being measured. The standardized alpha coefficient was .7460 indicating that the questions reflect some of the fine discriminations in the construct 'perceived parental school related support' (Burns & Grove, 1993). There is precedence for summing questions within a concept when the alpha level is in this range. Samdal, et al. (1998) used the sum of questions from the HBSC survey with alpha levels ranging from .50 to .81 depending on the concept measured and the country sampled. In this study, the three school-related parental support questions, and the sum of these three questions (termed support), were treated separately during the analysis.

The vast majority of students reported that they perceived their parents to be supportive. A total of 80.5 % male students and 78.8% female students reported that their parent(s) were often or always ready to help them with problems at school, and 74.4 % of males and 74.5 % of females reported that their parents were often or always willing to talk to teachers. Encouragement had the largest positive response rate with 92.9 % of boys and 92.6 % of girls indicating that their parents often or always encouraged them to do well at school.

There are youth, however, who believe their parents are not supportive. A total of 13.2 % of boys and 16.2 % of girls perceived that their parent(s) would sometimes or rarely be willing to help them, leaving a further 6.3 % of boys and 4.9 % of girls believing that their parent(s) are never willing to help them. The percentage of parents who would sometimes or rarely be willing to go to the school were recorded as 19.4 % for boys and 20.5 % for girls with 6.2 % of boys and 5.0 % of girls believing that their parent(s) would never be willing to go to the school on their behalf. Only 5.3 % of boys and 5.6 % of girls reported that they felt their parents would sometimes or rarely encourage them to do well at school, and 1.8 % of both sexes believed their parents never encouraged them to do well at school. Although the vast majority of students perceived that their parent(s) are helpful, it is alarming that some children believed their parents were never willing to help them, willing to go to the school on their behalf, or would never encourage them to do well at school.

Almost half of the boys (48.4 %) and over one third of the girls (36.5%) self-reported bullying others this term. The largest proportion of self-reported bullies (29.2% of boys and 26.6% of girls) admitted to bullying others only once or twice this term, however 9.6% of boys and 3.9% of girls bullied from one to several times a week. The majority of boys (57.4%) and girls (65.3%) also reported that they had not been bullied by others this term. Approximately one third of the students (31.2% of boys and 37.5% of girls) were bullied by others once or twice, or sometimes this term. This leaves 10.2% of boys and 7.1% of girls suffering from bullying once to several times a week. It is difficult to imagine the lives of this large number of youth who suffer weekly torment and harassment from their peers. Table 1 documents these results.

Table 1**Univariate Description of the School-related Parental Support Variables, the Sum of the School-related Support Variables and Bullying/Victimization**

Variable	n	Mean *	Std.Dev.
Help	3986	3.25	1.1654
<i>male</i>	1910	3.27	1.1809
<i>female</i>	2063	3.23	1.1624
Willing	3984	3.08	1.2062
<i>male</i>	1905	3.08	1.2179
<i>female</i>	2066	3.09	1.1997
Encourage	3982	3.70	0.7808
<i>male</i>	1904	3.70	0.7828
<i>female</i>	2065	3.70	0.7855
Sum of Support	3993	3.34**	2.6294
<i>male</i>	1913	3.34**	2.6429
<i>female</i>	2067	3.33**	2.6149
Bully	4006	0.67	0.9922
<i>male</i>	1925	0.83	1.1100
<i>female</i>	2068	0.52	0.8468
Victim	4014	0.70	1.1208
<i>male</i>	1930	0.81	1.1953
<i>female</i>	2071	0.60	1.0354

* range 0 to 4

** mean obtained by dividing summed scores by number of items (3).

Comparison of the school-related parental support variables, the sum of the support variables, and bullying/victimization by sex

Exploration of the data revealed that two of the assumptions for *t* tests, that the variances are equal, and the data is normally distributed, were violated. The Levene test takes the absolute value of the distance each observation is from the mean in that group (rather than a *t* test of the original observations) thereby comparing the variances of the two groups. When the value of the Levene test is significant, the conclusion is that, on average, the deviations from the mean in one group exceed those in the other (Dawson & Trapp, 2001). For both the bully and victim variables, the variances were statistically significantly different so the *t* test was performed using separate variances, a more conservative measure. Even with the equal variances not assumed, the differences between males and females for both bullying and victimization behaviour appear to be significant ($p < .001$) with more boys than girls self-reporting involvement in both bullying others and being bullied. Differences between boys and girls were not significant for any of the three parental support questions individually or for the sum of support questions. These results are indicated in Table 2.

All of the variables demonstrated moderate positive or negative skewness. Upon examination, each variable is skewed in the same direction when compared by gender. All of the school-related parental support questions, and the sum of the questions, are skewed negatively for both boys and girls indicating that the majority of youth find their parents supportive. The bullying and victimization variables are both skewed positively, regardless of sex, indicating that the majority of youth are not involved in bullying/victimization activity. The *t* test is usually described as robust, meaning that it is more or less unaffected by moderate departures from the underlying assumptions (Daniel, 1995; Hazard Munro & Batten Page, 1993). For studies with large sample sizes, violating the assumption of normal distribution is not intolerable provided the samples are roughly the same shape (Howell, 2002).

Table 2

Independent Samples *t* Tests Comparing the School-related Parental Support Variables, the Sum of the Support Variables, and Bullying/Victimization by Sex

	Mean	<i>t</i>	df	Sig. (2-tailed)
Help		1.042	3971	.298
<i>male</i>	3.27			
<i>female</i>	3.23			
Willing		-.312	3967	.755
<i>male</i>	3.08			
<i>female</i>	3.09			
Encourage		.387	3991	.699
<i>male</i>	3.70			
<i>female</i>	3.70			
Sum of Support		.147	3978	.883
<i>male</i>	3.34*			
<i>female</i>	3.33*			
Bullying		9.700**	3999	.000***
<i>male</i>	0.83			
<i>female</i>	0.53			
Victimization		5.909**	3969	.000***
<i>male</i>	0.81			
<i>female</i>	0.60			

n = 4137

range = 0 to 4

* mean obtained by dividing summed scores by number of items (3).

** equal variances not assumed

*** significant

However, violations of two of the assumptions for *t* tests encouraged further exploration of the data comparing the variables by gender using a test considered more appropriate for discrete data. Data from the HBSC has been treated as discrete (Eder, A., 1990; King, Pickett, & King, 1998; King, Boyce, & King, 1999) as well as continuous (King, Wold, Tudor-Smith, & Harel., 1996; Samdal, Nutbeam, Wold, & Kannas, 1998). The Mann-Whitney U test does not require normally distributed data but is sensitive to the central tendency and the distribution of the scores (Hazard Munro & Batten Page, 1993). It is considered to be more powerful than the *t* test when the assumptions for the *t* test have been violated (Burns & Grove, 1993). Again, when comparing 13-year-old youth by sex, significant differences were not demonstrated for each of the three parental support questions, or for the sum of these questions. There were, however, statistically significant differences when comparing bullying and victimization behaviour by gender – reinforcing the results noted from the *t* tests that indicated boys were more likely than girls to self-report both bullying and victimization behaviour. The results obtained using the Mann-Whitney U test are fully displayed in Appendix C.

Correlation of the school-related parental support variables, the sum of the support variables, sex, and bullying/victimization

Sensitivity to the issues around treating this data as continuous or discrete encouraged use of both the Pearson product-moment correlation coefficient and the Spearman rank correlation to determine if there was a relationship between the support and bullying variables. The Pearson product-moment correlation coefficient applies to situations where both variables are measured on a continuous scale, where the distribution is normally distributed, and homogeneity of variance assumptions are met (Howell, 2002). As noted earlier, the distributions for the support and bullying/victimization variables are moderately skewed (although in the same direction), and Levene's test for homogeneity of variance demonstrated a significant difference for the bullying/victimization variables. Spearman rank correlation is a nonparametric test that correlates two sets of ranked variables. It is the appropriate statistic to use with numerical variables when their distributions are skewed (Dawson & Trapp, 2001). Table 3 reports the results from these two tests comparing the school-related parental support variables, the sum of the support variables, and bullying/victimization by sex. Appendix D reports the intercorrelations between all of the support variables.

Each of the individual support variables, as well as the summed support variable, demonstrated negative correlations with both bullying and victimization. This indicates an inverse relationship between these variables: the more youth perceive their parents to be supportive (regardless if it is help, willing, encourage, or the sum of the school related support variables), the less likely they are to report involvement with bullying/victimization behaviour. An inverse

relationship also exists between sex and bullying/victimization behaviour. The code value for male was less than female, so in this situation a negative correlation can be interpreted to mean that males are more likely than females to report involvement in bullying and victimization. The only positive correlation coefficients were between bullies and victims, indicating that the more youth report they are victimized, the more likely they are to also report involvement in bullying others.

Table 3

**Correlations of the School-related Parental Support Variables, the
Sum of the Support Variables, Sex, and Bullying/Victimization**

Variable	Help	Willing	Encourage	Support	Bully	Victim	Sex
Bully							
<i>Pearson</i>	-.128	-.093	-.125	-.137	1.00	.172	-.153
<i>Sig. *</i>	.000	.000	.000	.000	.000	.000	.000
<i>N</i>	3975	3973	3970	3981	4006	3986	3993
Bully							
<i>Spearman</i>	-.130	-.082	-.118	-.122	1.00	.214	-.141
<i>Sig. *</i>	.000	.000	.000	.000	.000	.000	.000
<i>N</i>	3975	3973	3970	3981	4006	3986	3993
Victim							
<i>Pearson</i>	-.101	-.094	-.071	-.112	.172	1.000	-.093
<i>Sig. *</i>	.000	.000	.000	.000	.000	.000	.000
<i>N</i>	3963	3961	3959	3970	3986	4014	4001
Victim							
<i>Spearman</i>	-.113	-.098	-.079	-.128	.214	1.000	-.091
<i>Sig. *</i>	.000	.000	.000	.000	.000	.000	.000
<i>N</i>	3963	3961	3959	3970	3986	4014	4001

n = 4137

* 2-tailed significance

It is difficult to make direct comparisons between the actual values of the two sources of coefficients for each variable. However, there are similarities when the coefficients are ranked in order of strength for bullies and victims. The Pearson correlations for the dependent variable of bully in descending order of strength are; victim, sex, support, help, encourage and willing. The Spearman rank correlations have a slightly different descending order of strength; victim, sex, help, support, encourage and willing – just reversing the order for the support and help variables. Both of the sets of correlations have the same order for the dependent variable of victim – bully, support, help, willing, sex, and encourage.

Multiple regression analysis

Regardless of the test used, all of the support variables were significantly correlated with bullying and victimization ($p < .001$). Appreciative of these findings, it was decided that regression analysis ought to be performed to determine the relative strength of the support variables. Multiple regression analysis was therefore executed with the three support questions independently, followed by the same analysis using the sum of the questions as the independent variable, on bullying and victimization behaviour in Canadian youth aged 13. Sex and bullying behaviour were included as predictor variables for victimization, and sex and victimization behaviour were included as predictor variables bullying, because of their significant correlations. Table 4 depicts regression of the school-related parental support variables, the sum of the school-related support variables, and victimization on bullying. Table 5 repeats the analysis when the same independent variables are regressed on victimization behaviour.

The use of listwise deletion of missing values (only students that had valid responses for all variables named in the equation were included) was applied, retaining 95% of the available data and also preserving large degrees of freedom. It is assumed that the missing values were missing completely at random. In multiple regression analysis, listwise deletion is quite robust when a large proportion of the data is retained for analysis (Allison, 2002).

Table 4

**Multiple Regression Analysis of the School-related Parental Support Variables,
the Sum of the School-related Support Variables, Sex, and Victimization on
Bullying**

Independent Variables	B	Beta	T	Sig. T
Model 1				
<i>(Constant)</i>	1.580		17.454	.000
<i>Help</i>	-6.672E-02	-.078	-3.952	.000
<i>Willing</i>	-4.503E-03	-.005	-.288	.773
<i>Encourage</i>	-9.282E-02	-.073	-3.993	.000
<i>Sex</i>	-.282	-.142	-9.1755	.000
<i>Victim</i>	.128	.145	9.295	.000

R square = .067

Model 2				
<i>(Constant)</i>	1.469		18.570	.000
<i>Overall Support</i>	-4.700E-02	-.124	-7.993	.000
<i>Sex</i>	-.279	-.140	-9.072	.000
<i>Victim</i>	.129	.145	9.337	.000

R square = .064

n = 3931

Table 5

**Multiple Regression Analysis of the School-related Parental Support Variables,
the Sum of the School-related Support Variables, Sex, and Bullying on
Victimization**

Independent Variables	B	Beta	T	Sig. T
Model 3				
<i>(Constant)</i>	1.186		11.210	.000
<i>Help</i>	-5.299E-02	-.055	-2.741	.006
<i>Willing</i>	-4.461E-02	-.048	-2.497	.013
<i>Encourage</i>	-7.388E-03	-.005	-.277	.782
<i>Sex</i>	-.167	-.075	-4.712	.000
<i>Bully</i>	.168	.149	9.295	.000

R square = .043

Model 4				
<i>(Constant)</i>	1.247		13.529	.000
<i>Overall Support</i>	-3.992E-02	-.093	-5.917	.000
<i>Sex</i>	-.166	-.074	-4.678	.000
<i>Bully</i>	.168	.149	9.337	.000

R square = .043

n = 3931

In total, four models were tested – two using bullying as the outcome variable and two using victimization. In model 1, 6.7 % of bullying behaviour is accounted for when the variables were entered using the three perceived parental support questions independently. This is slightly elevated when compared with model 2 where 6.4 % of the variability in bullying behaviour is attributable from the variables when the sum of the support questions was used. When the outcome variable is victimization, 4.3 % of the variability in victimization is explained by perceptions of parental willingness, encouragement, and helpfulness as well as sex, and bullying experience of Canadian youth age 13. The same rate of variability in victimization is associated with model 4, using the sum of the support questions. These results suggest that treating the three support questions independently reflects, ever so slightly, some of the finer differences in measurement of the construct, perceived parental school-related support. When a large number of variables are being investigated, the desirability of using the sum of the perceived parental school-related support variables as a scale may outweigh the advantage of distinguishing these finer differences in measurement when treating the questions independently.

The negative regression coefficients observed for all of the support variables indicate that the more youth perceive they are supported by their parent(s) the less involved they are in bullying and victimization behaviour. The negative coefficients associated with sex in all of the models suggest that 13 year old male students are more involved in both bullying and victimization than their female counterparts. The positive coefficient for victimization indicates a predictive impact on bullying behaviour. Similarly, the positive coefficient for bullying indicates a predictive impact on victimization.

Both of the models predicting bullying behaviour contain variables with moderately strong beta weights with the exception of the willing variable, which is rated as a weak predictor (Everitt, 2001). Victim and sex are the predictors with the strongest weights for the outcome of bullying. Using the same criteria (Everitt, 2001) on the models predicting victimization behaviour, the predictor of bully can be rated as strong. Help, willing, and sex have moderately strong beta weights, and encourage is a weak predictor for victimization behaviour.

Overall, most of the indicators were significant predictors on bullying and victimization behaviour. In model 1, only the variable willing did not display statistical significance, whereas in model 2, all of the variables were significant in predicting bullying behaviour. In model 3, encourage did not prove to be a significant indicator of victimization in comparison with model 4 where all of the variables were significant in predicting victimization behaviour.

CHAPTER 5

DISCUSSION

This investigation examined the relationship of perceived parental school-related support and bullying/victimization behaviours in youth with data from the Canadian 1998 Health Behaviours in Children Survey. The research described perceptions of school-related parental support, and bullying/victimization behaviour, among Canadian girls and boys aged 13. This study also examined the relative strength of the variables of parental school-related support, gender, and bullying in predicting victimization behaviour, and the relative strength of the variables of parental school-related support, gender, and victimization in predicting bullying in Canadian youth aged 13.

The majority of students, both boys and girls, reported high levels of perceived support from their parents. The rates exhibited were higher than the Glover, Gough, & Johnson (2000) research where 70 % of students responded that they enjoyed parental support in school. Of notable interest were results on the question 'My parent(s) encourage me to do well at school' with over 90% of students agreeing with this statement. There were no statistically significant gender differences in perception of support from their parents by Canadian youth on any of the three support questions used for this research. This supports similar findings from the 1993-1994 international HBSC survey that compared data from twenty-four countries (King, Wold, Tudor-Smith & Harel, 1996).

It is remarkable that so many students indicated that they participated in the negative behaviour of bullying others. These actual rates of behaviour are difficult to compare with other studies because of the lack of consistency in the definition and measurement of bullying. The number of children being bullied in this study is more than reported by Kumpulainen, et al. (1997) with elementary aged children in Finland, slightly lower than the numbers reported by from the United Kingdom with adolescent youth (Glover, et al, 2000), and similar to those from the National Longitudinal Study of Children and Youth in Canada (Craig, et al., 1998).

The rates for bullying in 1997-98 were up slightly from the 1993-94 HBSC Canadian data that reported 32% of girls, and 45% of boys, took part in bullying others at least once this school term. In 1997-98, 36.5% of girls and 48.4% of boys reported bullying others at least once this school term. The question that arises is whether the incidence of bullying is increasing or whether youth are reporting more of their involvement. Bullying is, like other forms of abuse, surrounded by secrecy and fear (Dawkins & Hill, 1995). However, the issue is now more openly acknowledged, as shown in the comparatively high reporting of incidents in the media. This recognition of bullying as an issue may encourage students to report rather than conceal involvement. This is an area that

requires further research to determine whether the incidence is, indeed, increasing or whether there are other factors contributing to this apparent rise in rates of bullying and victimization in Canadian youth.

Perhaps ironically, youth who were victimized were more likely to report that they had bullied others. These findings support those of the international HBSC data set (King, Wold, Tudor-Smith & Harel, 1996). This overlap between bullying and victimization is, perhaps, the most controversial issue in the bullying literature. Craig, Peters, & Konarski (1998) reported little overlap between bullies and victims in their research on data from the National Longitudinal Study of Children and Youth in Canada. Olweus (1978) also argued that there was no overlap between bullies and victims. Other researchers investigated a subset called aggressive victims (Glover et al., 2000) or bully-victims (Kumpulainen et al., 1998; Sourander et al., 2000) or provocative victims (Bowers, Smith, & Binney, 1992) whereby the child is involved in both bullying and victimization behaviour. There are several possible explanations for this finding of a relationship between bullying and victimization. Stephenson & Smith (1987) speculate that the hostility directed by these children toward their victims is fuelled by their own experiences of victimization. Another possible explanation could be provided by social learning theory. Through social learning (modeling) children acquire the conditions, behaviour, and affect of others (Bandura, 1973). Children who are victims may learn this conduct from their aggressor and then practice this behaviour on others.

As was expected, boys reported a higher incidence of bullying and victimization when compared to girls regardless of the test used (independent *t* test or Mann-Whitney U test). These findings support those of other investigations that found large gender differences, with boys more likely to have been bullied, and to bully others, when compared to girls (Craig et al., 1998; Farrington, 1994; Glover et al., 2000; King, Wold, Tudor-Smith & Harel, 1996; Kumpulainen et al., 1998; Olweus, 1994). These findings are in agreement with research on gender differences in aggressive behaviour with aggressive and externalizing behaviour, in general, being more common in boys than girls (Onyskiw, 1999; Yu-feng, Yu-Cun, Bo-Mei, Mei-Xiang, & Lin, 1989). It is of considerable note that our male youth grow up in an environment filled with more fear and aggression than their female counterparts.

The four regression models explained a small amount of the variance in bullying and victimization behaviour in Canadian youth. Of the models studied, the model for bullying treating the three support questions independently had the greatest explanatory power followed closely by the model predicting bullying activity using the sum of the three support questions. It is of interest that the support variables were more predictive for bullying rather than victimization. Bullying, by nature, is active whereas victimization is passive. A focus on preventing victimization smacks of blaming the victim for their own fate. Taken

in this light, the fact that the bullying models had the greatest explanatory power is heartening.

All of the models tested explained a modest portion of the variance but when taken in consideration of all of the variables that may come into play explaining bullying/victimization; this low level of explanation appears more meaningful. There is some reason for optimism regarding the consistent finding that each of the variables was significant in predicting bullying/victimization behaviour in Canadian youth. All of the models suggest that parental support does make a significant contribution to preventing both bullying and victimization behaviour. The help variable (if I have problems at school, my parents are willing to help me) was a significant predictor for preventing both bullying and victimization. The variable willing (my parents are willing to come to the school to talk to teachers) was not a significant predictor for bullying but was for victimization. The variable encourage (my parents encourage me to do well at school) was a significant predictor for bullying but not for victimization. The reason for this lack of consistency and the importance of these findings is not entirely clear.

The results of this study provides a preliminary indication that school related parental support may influence bullying and victimization behaviour but does not suggest the mechanisms by which this may occur. Previous research has indicated a number of pathways whereby parental support may influence youth such as; a beneficial effect for self-concept and life satisfaction (Greenberg, Siegel, & Lietch, 1983); a protective factor from some kinds of health damaging behaviour (Wills, Mariani, & Filer, 1996); and predictive role in friendship quality (Franco & Levitt, 1998). There is a need to understand in more depth the phenomenon of parental support of youth, including school related support, and the ways in which it may influence bullying. Qualitative research helps develop explanatory models and theories (Morse & Field, 1995) and, as such, may prove useful in exploring the pathways of parental support and the ways it may influence bullying/victimization in youth.

It is also possible that the role of perceived school-related parental support may be parent specific. Marta (1997) found that although both parents play an important role in providing support to their adolescent children, youth perceive differences in the quality and kind of support offered by their mothers when compared to their fathers. Piko (2000) noted that father support, when compared to mother support, was more influential in predicting substance abuse in youth. There is the potential for further investigation in the relationship between bullying/victimization and parental support to examine the roles of fathers and mother independently.

Limitations of the Study and Suggestions for Future Research

The instruments used in this study to measure perceived parental support and bullying have not been psychometrically tested. Without psychometric testing it is not known whether the questions are reliable and valid in measuring the concepts of perceived parental school-related support and bullying/victimization behaviour. However, the instruments used demonstrate face validity and have been used in other research studies in this area (Baldry & Farrington, 1998; Charach, et al., 1995; Glover, et al, 2000; Olweus, 1993; Peplar et al., 1994; Vondra & Gabarino, 1988; Windle & Miller-Tutzauer, 1992).

Additionally, the questions used to represent parental school-related support may not reflect the range of the concept but were selected because they were available questions. The four functions of support are emotional, instrumental (practical), informational, and affirmational (House & Kahn, 1985). The variables help (if I have problems at school, my parents are ready to help me) and willing (my parents are willing to come to the school to talk to the teachers) reflect instrumental support, and the variable encourage (my parents encourage me to do well at school) served as a measure of emotional support, but measures of informational and affirmational support were unavailable. One of the difficulties with secondary analysis is the lack of involvement of the researcher in selecting the questions for use in the questionnaire (Jacobson, et al, 1993).

The relatively low explanation of variance in bullying/victimization by perceived parental school-related support encourages a wider net of exploration of support for youth. Adolescents need supportive environments to thrive. Families, friends, schools, neighbourhoods, service delivery systems, the media and Internet, and socio-economic status all provide support and thereby influence adolescent health status, health behaviours, and the use of health services (Federal/Provincial/Territorial Advisory Committee on Population Health, 2000). Research that includes an expansion of examination of perceived support by youth from all of these aforementioned areas could provide important insights into the prevention of bullying/victimization behaviour in youth.

The age range of youth in this study was restricted to one grouping of thirteen year old students. Examination of the entire data set may reveal differences with children aged 11 and 15 in regards to perceived school-related parental support and bullying/victimization behaviour. Longitudinal studies would also have the potential to demonstrate changes in values of parental support in relation to bullying and victimization over time.

Difficulty exists when comparing results from research on bullying because of the diversity of range of behaviours - from name-calling or teasing, social exclusion, physical violence, to name but a few - which may or may not be included. For example, the overlap between bullying and teasing is thought

provoking. Teasing can be considered quite acceptable for some yet involves intimidation and results in distress for others. Also, the incidence of bullying requires clarification. If bullying by definition requires repetitive action, where is the cut off - twice a year, twice a term, or twice a week? If a person reports being victimized, must it be repeated action from the same bully, or group of bullies, or could it be from different groups or individuals to be considered victimization? Concept analysis is a term that refers to the process of unfolding, exploring, and understanding concepts (Morse, Hupcey, Mitcham, & Lenz, 1996). This critical assessment can increase the consensus of the meaning of the concept. A conceptual analysis may help to define and clarify the parameters of bullying and victimization providing benefits to future researchers in this area.

Significance of the Study

Bullying is a very old phenomenon. Generations of children have grown up with bedtime stories that included descriptions of systematic harassment and attacks on children by their peers. Many parents remember bullying incidents from their past. The media frequently reports on events that are attributed to bullying.

This familiarity with the issue does not suggest a dismissal of the problem. Society has responded to the issue with a number of alternatives. Legal action is increasingly becoming an option, for example a teenage schoolyard bully was found guilty of criminal harassment in Abbotsford after her 14-year-old victim killed herself. Another victim has successfully sued school official ("Ex-student awarded," 2002). School districts in both Canada and the United States are experimenting with profiling software designed to identify students that might be prone to bullying ("School security," 1999). Spurred on by reports of brutal schoolyard bullying, several French companies have offered back-to-school "bully insurance" that reimburses pupils for items such as stolen textbooks and ripped clothing ("Latest in back to school?" 2001). In contrast to these responsive actions, it is important to emphasize prevention as an alternative to dealing with the issue

The prevalence of bullying and victimization in Canada highlights the need to design and implement effective preventative programs. Preventative work has been demonstrated to have some effect against bullying (Olweus, 1994; Peplar et al, 1993). Because bullying happens at school, schools need to become involved in bullying prevention policies. Strong support currently exists to support policy initiatives regarding bullying in the school setting. The Amendment to the Alberta School Act, which received Royal Assent on May 19, 1999, mandates that each student enrolled in a school operated by the board must be provided with a safe and caring environment that fosters and maintains respectful and responsible behaviours. Inherent in this environment is the absence of bullying.

Currently, comprehensive school health initiatives tend to emphasize school policies and environment, and links to the wider community. Increasingly, the school setting is becoming a site for concerned partners, such as community health nurses, parents, and teachers, to collaborate on the goal of providing a safe, caring, and healthy environment for children to grow and develop. Collaboration supports the creation of environments that can more effectively respond to the complex needs of youth and augments the resources that can be brought to bear on a problem (Anderson, et al., 1999). Efforts aimed at decreasing bullying behaviour are likely to benefit from a comprehensive approach that includes families, peers, and neighbourhoods.

Over the last decade, schools have faced a chilly fiscal climate (Mahon, 2001). Recently, the Alberta government withdrew funding from the Safe and Caring Schools Program, designed to curb school violence (“Safety program funds cut”, 2002). The recognition of an accessible and available resource, parents, which may contribute positively to the prevention of bullying in the school setting, may be to the economic advantage of the school sector.

Bullying is an extremely complex issue, and as such, has equally complex requirements for prevention. Community health nursing is in a unique position to contribute to prevention of this behaviour. Nurses have broad access to people in the community, potential to interact with individuals/families, and involvement in the school sector. Increasing awareness by raising the issue, inclusion of families as partners in prevention of bullying, stressing the importance of involving parents in the school setting, and affirming the importance of open communication between students, teachers and parents are all strategies in the realm of community health nursing that could help in the prevention of bullying in the school setting.

A high proportion of Canadian youth suffer repeated pain, harassment, and humiliation at the hands of their peers through the act of bullying. Prevention of health problems, and building on existing strengths, are effective strategies according to the population health approach. Given the serious consequences for students who bully, and for their victims, it is extremely important to become knowledgeable about the factors that may prevent bullying behaviour. Confirmation of the supportive role of parents in preventing bullying and victimization behaviour in youth provides some insight to an available resource to prevent, or prevent the continuation, of the problem. Although this study was preliminary in nature, there is the potential for this research to contribute to the growing body of knowledge on bullying and victimization in youth.

REFERENCES

- Aiken, L.S., West, S.G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park: Sage.
- Allison, P.D. (2002). Missing data. In M. S. Lewis-Best (Series Ed.) *Quantitative applications in the Social Sciences* (Series/Number 07-136). Thousand Oaks: Sage.
- Anderson, A., Kalnins, I., Raphael, D., & McCall, D.S. (1999). *Partners for health: Schools, communities and young people working together*. Toronto: University of Toronto, CAHPERD, CASH, and Health Canada.
- Baldry, A.C., & Farrington, D.P. (1998). Parenting influences on bullying and victimization. *Legal and Criminological Psychology*, 3, 237-254.
- Bandura, A. (1973). *Aggression: A social learning analysis*. Englewood Cliffs, NJ: Prentice-Hall.
- Barrera, M. & Li, S.A. (1996). The relation of family support to adolescents' psychological distress and behaviour problems. In G.R. Pierce, B.R. Sarason, & I.G. Sarason (Eds.) *Handbook of social support and the family* (pp.313-343). New York: Plenum Press.
- Blyth, D.A. & Traeger, C. (1988). Adolescent self-esteem and perceived relationships with parents and peers. In S. Salzinger, I Antrobus, & M. Hammer (Eds.). *Social networks of children, adolescents, and college students* (pp. 171-193). Hillsdale, NJ: Lawrence Erlbaum.
- Bowers, L., Smith, P.K., & Binney, V. (1992). Cohesion and power in the families of children involved in bully/victim problems at school. *Journal of Family Therapy*, 14, 371-387.
- Brink, P.J., & Wood, M.J. (1994). *Basic steps in planning nursing research: From question to proposal* (4th ed.). Boston: Jones and Bartlett Publishers.
- Burns, N., & Grove, S.K. (1993). *The practice of nursing research: Conduct, critique & utilization*. Philadelphia: W.B. Saunders Company.
- Canada Council of Social Development (1997). *The progress of Canada's children*. Ottawa: Canadian Council on Social Development
- Charach, A., Pepler, D., & Ziegler, S. (1995). Bullying at school: A Canadian perspective. *Education Canada*, 35(1), 12-18.

- Cohen, S., & Wills, T.A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98, 310-357.
- Committee on Public Education and Professional Practice. (1996). *Trying to teach: Necessary conditions*. Edmonton, AB: Alberta Teachers' Association.
- Craig, W.M., Peters, R.D., & Konarski, R. (1998). *Bullying and victimization among Canadian schoolchildren*. (W-98-28E). Ottawa: Applied Research Branch, Strategic Policy, Human Resources Development Canada.
- Daniel, W.W. (1995). *Biostatistics: A foundation for analysis in the Health Sciences*. (6th ed.). New York: John Wiley & Sons.
- Dawkins, J., & Hill, P. (1995). Bullying: Another form of abuse. In T.J. David (ed.), *Recent advances in pediatrics*. Edinburgh: Livingstone.
- Dawson, B., & Trapp, R.G. (2001). *Basic & clinical biostatistics* (3rd ed.). New York: McGraw-Hill.
- Demo, D. (1992). Parent-child relations: Assessing recent changes. *Journal of Marriage and the Family*, 54, 104-117.
- Eder, A. (1990). Risk factor loneliness. On the interrelations between social integration, happiness and health in 11-, 13- and 15-year old schoolchildren in 9 European countries. *Health Promotion International*, 5(1), 19-33.
- Eslea, M. & Muktar, K. (2000). Bullying and racism among Asian schoolchildren in Britain. *Educational Research*, 42(2), 207-217.
- Espelage, D.L., Bosworth, K., & Simon, T.R. (2000). Examining the social context of bullying behaviors in early adolescence. *Journal of Counseling and Development*, 78(3), 326-333.
- Estabrooks, C.A., & Romyn, D.M. (1995). Data sharing in nursing research: Advantages and challenges. *Canadian Journal of Nursing Research*, 27(1), p. 77-88.
- Everitt, B.S. (2001). *Statistics for psychologists: An intermediate course*. Nahwah: Lawrence Erlbaum Associates.
- Ex-student awarded \$4,000 in bullying. (April 10, 2002). *The Edmonton Journal*, p.A8.

Farrington, D. (1993). Understanding and preventing bullying. In M. Tonry & N. Morris (Eds.) *Crime and Justice*, 17, 381-457. Chicago: University of Chicago Press.

Federal/Provincial/Territorial Advisory Committee on Population Health (1999). *Toward a healthy future: The second report on the health of Canadians*. (Cat. No. H39-468/1999E). Ottawa: Author.

Federal/Provincial/Territorial Advisory Committee on Population Health (2000). *The opportunity of adolescence: The health sector contribution*. (Cat. No. H39-548/2000E). Ottawa: Author.

First Circle Uniting for Children (October 1999). Results of province-wide Youth survey. Retrieved February 20, 2002 from <http://www.childrensforum.gov.ab.ca>.

Franco, N., & Levitt, M.J. (1998). The social ecology of middle childhood: Family support, friendship quality, and self-esteem. *Family Relations*, 47(4), 315-322.

Furman, W., & Buhrmester, D. (1985). Children's perceptions of the personal relationships in their social networks. *Developmental Psychology*, 21, 1014-1024.

Furman, W., & Buhrmester, D. (1992). Age and sex differences in perceptions of networks of personal relationships. *Child Development*, 63, 103-115.

Gleit, C., & Graham, B. (1989). Secondary data analysis: A valuable resource. *Nursing Research*, 38(6), 380-381.

Glover, D., Gough, G., & Johnson, M. (2000). Bullying in 25 secondary schools: Incidence, impact and intervention. *Educational Research*, 42(2), 141-156.

Greenberg, M.T., Siegel, J.M., & Leitch, C.J. (1983). The nature and importance of attachment relationships to parents and peers during adolescence. *Journal of Youth and Adolescence*, 12, 373-386.

Hazard Munro, B., & Batten Page, E. (1993). *Statistical methods for health care research*, (2nd ed.). Philadelphia, J.B. Lippincott Company.

House, J., & Kahn, R.L. (1985). Measures and concepts of social support. In S. Cohen & S.L. Syme (Eds.) *Social Support and Health*. Orlando: Academic Press.

Howell, D.C. (2002). *Statistical methods for psychology* (5th ed.). Pacific Grove: Duxbury.

Jacobson, A.F., Hamilton, P., & Galloway, J. (1993). Obtaining and evaluating data sets for secondary analysis in nursing research. *Western Journal of Nursing Research*, 15(4), 483-494.

Junger, M. (1990). Intergroup bullying and racial harassment in the Netherlands. *Sociology and Social Research*, 74, 65-72.

King, A.J.C., Boyce, W.F., & King, M.A. (1999). *Trends in the health of Canadian youth*. (Cat. No. H39498/1999E). Ottawa: Health Canada.

King, M.A., Pickett, W., & King, A.J.C. (1998). Injury in Canadian youth: A secondary analysis of the 1993-94 Health Behaviour in School-Aged Children Survey. *Canadian Journal of Public Health*, 89(6), 397-401.

King, A., Wold, B., Tudor-Smith, C., & Harel, Y. (1996). *The health of youth: A cross-national survey*. WHO Regional Publications, European Series No. 69. ISPN 9 890 1333 8, ISSN 0378-22.

Kumpulainen, K., Rasanen, E., & Henttonen, I. (1999). Children involved in bullying: Psychological disturbance and the persistence of the involvement. *Child Abuse & Neglect*, 23(12), 1253-1262.

Kumpulainen, K., Rasanen, E., Henttonen, I., Almqvist, F., Kresanov, K., Linna, S., Moilanen, I., Piha, J., Puura, K., & Tamminen (1998). Bullying and psychiatric symptoms among elementary school-age children. *Child Abuse & Neglect*, 22(7), 705-717.

Leske, J.S. (1990). Evaluating sources for secondary analysis. *Heart & Lung*, 19(5), 537-539.

Mahon, R. (2001). School-aged children across Canada: A patchwork of public policies. Retrieved February 20, 2002 from <http://lists.magma.ca:8080/T/A17.44.147.1.102>.

Marta, E. (1997). Parent-adolescent interactions and psychosocial risk in adolescents: An analysis of communication, support and gender. *Journal of Adolescence*, 20, 473-487.

Morse, J.M., Field, P.A. (1995). *Qualitative research methods for health professionals* (2nd ed.). Thousand Oaks: Sage.

Morse, J.M., Hupcey, J.E., Mitcham, C., & Lentzzz, E.R. (1996). Concept analysis in nursing research: A critical appraisal. *Scholarly Inquiry for Nursing Practice, 10*, 253-277.

National Crime Prevention Council of Canada (1996). *The Determinants of Health and Children*. Ottawa: National Crime Prevention Council of Canada.

Olweus, D. (1994). Annotation: Bullying at school: Basic facts and effects of a school based intervention program. *Journal of Child Psychology & Psychiatry & Allied Disciplines, 35*(7) 1171-1190.

Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Oxford: Blackwell Publishers.

Olweus, D. (1992). Victimization by peers: Antecedents and long-term outcomes. In K.H. Rubin & J.B. Asendorf (eds.), *Social Withdrawal, Inhibition, and Shyness in Childhood*. Hillsdale, NJ: Erlbaum.

Olweus, D. (1991). Bully/victim problems among schoolchildren: Basic facts and effects of a school based intervention program. In D.J. Pepler, & K.H. Rubin (Eds.) *The Development and Treatment of Childhood Aggression* (pp. 411 – 455). Hillsdale, NJ: Lawrence Erlbaum Associates.

O'Moore, A.M., & Hillery, B.(1989). Bullying in Dublin schools. *The Irish Journal of Psychology, 10*, 426-441.

Onyskiw, J.(1999). *Children's responses to witnessing aggression*. Unpublished doctoral dissertation, University of Alberta, Canada.

Patten, C.A., Gillin, J.C., Farkas, A.J., Gilpin, E.A., Berry, C.C., Perce, J.P. (1997). Depressive symptoms in California adolescents: Family structure and parental support. *Journal of Adolescent Health, 20*, 271-278.

Pearson, J.E. (1986). The definition and measurement of social support. *Journal of Counseling and Development, 64*, 309-395.

Peplar, D.J., Craig, W., & Roberts, W.L. (1994). Observations of aggressive and non-aggressive children on the school playground. *Merrill-Palmer Quarterly, 44*(1), 55-76.

Peplar, D.J., Craig, W., Zeigler, s., & Charach, A. (1994). An evaluation of an anti-bullying intervention in Toronto schools. *Canadian Journal of Community Mental Health, 13*(2), 95-110.

Pierce, G.R., Sarason, B.R., Sarason, I.G., Joseph, H.J., & Henderson, C.A. (1996). Conceptualizing and assessing social support in the context of the

family. In G.R. Pierce, B.R. Sarason, & I.G. Sarason (Eds.) *Handbook of social support and the family* (pp. 3-23). New York: Plenum Press.

Piko, B. (2000). Perceived social support from parents and peers: Which is the stronger predictor of adolescent substance use? *Substance Use & Misuse*, 35(4), 617-630.

Quittner, A.L., Glueckauf, R.L., & Jackson, D.N. (1990). Chronic parenting stress: Moderating versus mediating effects of social support. *Journal of Personality and Social Psychology*, 59, 1266-1278.

Rollins, B.C., & Thomas, D.L. (1979). Parental support, power, and control techniques in the socialization of children. In W.R. Burr, R. Hill, F.I. Nye, & I.L. Reiss (Eds.) *Contemporary theories about the family* (pp.317-364). New York: The Free Press.

Ryan, R.M., & Solky, J.A. (1996). What is supportive about social support? In G.R. Pierce, B.R. Sarason, & I.G. Sarason (Eds.) *Handbook of Social Support and the Family* (pp. 289-310). New York: Plenum Press.

Safety program funds cut. (2002, March 30). *Edmonton Journal*, p. A1.

Samdal, O., Nutbeam, D., Wold, B., & Kannas, L. (1998). Achieving health and educational goals through schools – A study of the importance of the school climate and the students' satisfaction with school. *Health Education Research*, 13(3), 383-397.

Sarason, B.R., Sarason, E.N., Pierce, G.R., & Sarason, I.G. (1990). Interrelations of social support measures: Theoretical and practical considerations. *Journal of Personality and Social Psychology*, 52(4), 813-832.

Schaefer, E.S.(1965). Children's reports of parental behavior: An inventory. *Child Development*, 413-424.

School security at what price? (1999, Nov. 24). *Edmonton Journal*, p. A16.

Sebald, H. (1989). Adolescents' peer orientation: Changes in the support system during the past three decades. *Adolescence*, 24, 937-946.

Social Program Evaluation Group (1998). *Health Behaviour in School-Aged Children: A World Health Organization cross-National Study: Questionnaire 1997/98. (NHW/HSP-315-03738)* Ottawa: Health Canada.

- Sourander, A., Helstela, L., Helenius, H., & Piha, J. (2000). Persistence of bullying from childhood to adolescence – A longitudinal 8-year follow-up study. *Child Abuse & Neglect*, 24(7), 873-88.
- Sprott, J., Doob, A., & Jenkins, J. (2001). Problem behaviour and delinquency in children and youth. (Cat. No. 85-002-XPE). *The Juristat*, 21(4). Ottawa: Statistics Canada
- Stephenson, P., & Smith, D. (1989). Bullying in the junior school. In D.P. Tattum & D.A. Lane (Eds.), *Bullying in schools*. Stoke-on-Trent: Trentham Books.
- Stewart, M.J.(Ed.)(2000). *Community nursing: Promoting Canadians' health* (2nd ed.). Toronto: W.B. Saunders Company.
- Vonda, J., & Garbarino, J. (1988). Social influences on adolescent behaviour problems. In S. Salsinger, J. Antrobus, & M. Hammer (Eds.). *Social networks of children, adolescents, and college students*. (pp.195 – 224). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Weigel, D.J., & Devereux, P. (1998). A longitudinal study of adolescents' perceptions of support and stress: Stability and change. *Journal of Adolescent Research*, 13(2), 158-168.
- Whitney, I., & Smith, P.K. (1991). *A Survey of the Nature and Extent of Bullying in Junior/Middle and Secondary Schools*. Sheffield: University of Sheffield.
- William, K., Chambers, M., Logan, S., Robinson, D. (1996). Association of common health symptoms with bullying in primary school children. *British Medical Journal*, 313, 17-19.
- Wills, T.A., Mariani, J., & Filer, M. (1996). The role of family and peer relationships in adolescent substance use. In G.R. Pierce, B.R. Sarason, & I.G. Sarason (Eds.) *Handbook of social support and the family* (pp. 521-549). New York: Plenum.
- Windle, M., & Miller-Tutzauer, C. (1992). Confirmatory factor analysis and concurrent validity of the perceived social support-family measure among adolescents. *Journal of Marriage & the Family*, 54(4), 777-792.
- World Health Organization (1998). *Health Behaviour in School-aged Children: A WHO cross-national survey (HBSC): Research protocol for the 1997-1998 study*. Copenhagen: World Health Organization.

Yu-Feng, W., Yu-Cun, B., Bo-Mei, G., Mei-Xiang, J., & Lin, Z.A. (1989). An epidemiological study of behaviour problems in school children in urban areas of Beijing. *Journal of Child Psychology and Psychiatry*, 30, 907-912.

APPENDICES

Appendix A

**Selected Questions from the
Health Behaviour in School-Aged Children:
A World Health Organization Cross-National Study
Questionnaire 1997/98**

**Selected Questions from the
Health Behaviour in School-Aged Children:
A World Health Organization Cross-National Study
Questionnaire 1997/98**

Socio-demographic Variables

1. Are you male or female?

KEY

1 = Male

2 = Female

2. a. In what month were you born?
b. In what year were you born?

Parental Social Support Questions

62. For each statement below choose the response from the KEY that you think best describes your parents. If your mother and father live in different places, answer for the parent with whom you live most of the time.

0 = Never

1 = Rarely

2 = Sometimes

3 = Often

4 = Always

- _____ a. If I have problems at school, my parent(s) are ready to help me.
_____ b. My parent(s) are willing to come to the school to talk to teachers.
_____ c. My parent(s) encourage me to do well at school.

Bullying Questions

57. How often has someone bullied you in school this term?

0 = I have not been bullied at school this term.

1 = Once or twice

2 = Sometimes

3 = About once a week

4 = Several times a week

60. How often have you taken part in bullying other students in school this term?

0 = I have not bullied others at school this term.

1 = Once or twice

2 = Sometimes

3 = About once a week

4 = Several times a week

Source: Health Canada (1998). *Health behaviour in school-aged children: A World Health Organization cross-national study: Questionnaire 1997/98*. (Cat.No. NHW/HSP-315-03738). Ottawa, Health Canada.

Appendix B
Health Behaviour in School-Aged Children 1997/1998
Code Book for Selected Questions

Health Behaviour in School-Aged Children 1997/1998**Code Book for Selected Questions**

Sex = Are you male or female?

0 = Male

1 = Female

Agey = age in years.

Ageg = age in month.

11 = 10.00 to 11.92

13 = 12.00 to 13.92

15 = 14.00 to 15.92

Victim = How often have you been bullied in school this term?

0 = I have not been bullied at school this term

1 = Once or twice

2 = Sometimes

3 = About once a week

4 = Several times a week

Bully = How often have you taken part in bullying other students in school this term?

0 = I have not bullied others at school this term

1 = Once or twice

2 = Sometimes

3 = About once a week

4 = Several times a week

Help = If I have problems at school, my parent(s) are ready to help me.

0 = Never

1 = Rarely

2 = Sometimes

3 = Often

4 = Always

Willing = My parent(s) are willing to come to the school to talk to teachers.

- 0 = Never
- 1 = Rarely
- 2 = Sometimes
- 3 = Often
- 4 = Always

Encourage = My parent(s) encourage me to do well at school.

- 0 = Never
- 1 = Rarely
- 2 = Sometimes
- 3 = Often
- 4 = Always

Appendix C

Mann-Whitney U Test Comparing the School-related Parental Support Variables, the Sum of the Support Variables, and Bullying/Victimization by Gender

Mann-Whitney U Test Comparing the School-related Parental Support

Variables, the Sum of the Support Variables, and Bullying/Victimization by

Gender

Variable	Sex	Rank	Sum	M-W	Z	Sig.
Help	<i>male</i>	2015.33	3849042			
	<i>female</i>	1960.77	4045073			
	<i>total</i>			1916057	-1.721	.085
Willing	<i>male</i>	1981.89	3775496			
	<i>female</i>	1989.79	4110909			
	<i>Total</i>			1960031	-.237	.813
Encourage	<i>male</i>	1992.95	3794568			
	<i>female</i>	1977.67	4083897			
	<i>Total</i>			4083897	-.520	.520
Sum of Support	<i>male</i>	1997.22	3820689			
	<i>female</i>	1984.28	4101500			
	<i>Total</i>			1964222	-.371	.711
Bully	<i>male</i>	2146.27	4131571			
	<i>female</i>	1858.05	3842450			
	<i>Total</i>			1703104	-8.909	.000*
Victim	<i>male</i>	2095.75	4044760			
	<i>female</i>	1912.72	3961240			
	<i>Total</i>			1815684	-5.755	.000*

n = 4137

*significant

Appendix D

Intercorrelations Between the Three School-related Parental Support Variables

Intercorrelations Between the Three School-related Parental Support Variables

Variable	Help	Willing	Encourage
<hr/>			
Help			
<i>Pearson</i>	1.000	.558	.505
<i>Sig.*</i>		.000	.000
<i>N</i>	3986	3980	3977
Willing			
<i>Pearson</i>	.558	1.000	.436
<i>Sig.*</i>	.000		.000
<i>N</i>	3980	3984	3976
Encourage			
<i>Pearson</i>	.505	.436	1.000
<i>Sig.*</i>	.000	.000	
<i>N</i>	3977	3976	3984

*2-tailed significance