Adolescent Non-Suicidal Self-Injury: Willingness to Seek School-Based Help

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Abstract

Non-suicidal self-injury (NSSI) is a prevalent behaviour among high school-age youth; however, there remains confusion concerning the optimal sources of support and treatment for these adolescents. The current study sought to investigate how many adolescents with NSSI are willing to access help at school, as well as the variables related to their willingness to do so. Overall, 13.5% of the students who reported engaging in NSSI indicated that they were willing to seek help at school. The rate of help-seeking did not differ by gender or indices of NSSI severity, including the frequency of NSSI and number of body locations employed. Students who indicated that they would seek help had more people in their lives that knew about their NSSI, were more likely to report having been victimized at school, and indicated that they were more worried about some violent events occurring in their neighborhood, such as gang violence.

Résumé

Bien que l'automutilation non suicidaire soit un comportement assez répandu au sein des adolescents au secondaire, il existe toujours des questions quant aux meilleurs moyens de prévention et d'intervention auprès de ces adolescents. Le présent sondage visait à déterminer combien d'adolescents qui s'automutile sont prêt à chercher de l'aide à leur l'école ainsi qu'a déterminer les facteurs qui influencent cette décision. Au total, 13,5% des adolescents qui se sont automutilés ont affirmé être prêt à chercher de l'aide à l'école. Ce taux est constant parmi les garçons et les filles, et n'est pas influencé par le degré de sévérité de l'automutilation, ni par la fréquence ou le nombre d'endroits du corps mutilés. Les étudiants ayant indiqué vouloir obtenir de l'aide ont davantage des personnes dans leur vie qui sont au courant de leur automutilation, ont rapporter avoir été victime de violence à l'école plus souvent et se sont montrés plus préoccupés par la violence de quartier, notamment celle perpétrée par les gangs de rue.

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Statement of Authorship

The project described in this thesis is co-authored by Dr. Nancy Heath, Jessica R. Toste, Rusty McLouth and I. Dr. Nancy Heath collaborated with Rusty McLouth on the data collection, as well as formulating and conceptualizing the original design and research questions. Jessica R. Toste contributed to the organization of data collection and research design. Rusty McLouth organized and oversaw the data collection and creation of database. I was responsible for data analysis with consultation, and the organization and writing of the present thesis. Dr. Nancy Heath served in an advisory capacity throughout these steps as well. Co-authorship on this thesis is in accordance with McGill's Graduate and Postdoctoral Studies Thesis Guidelines, which state that original scholarship is not required for a Master's thesis. An article comprised of a partial version of the present thesis is currently under review for publication.

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Chapter 1

Introduction

Non-suicidal self-injury (NSSI) refers to the deliberate and self-inflicted destruction of body tissue, without suicidal intent (Nixon & Heath, 2008). NSSI is differentiated from deliberate self-harm (DSH) as it is conceptualized as a strictly non-suicidal behaviour. In contrast, DSH includes self-injury with or without suicidal intent, and includes overdoses, ingesting non-ingestible substances, and behaviours causing bodily harm, such as cutting. While a number of risk factors for NSSI have been identified, poor emotion regulation and a tendency toward emotion-focused, rather than problem-focused, coping are strongly linked to NSSI (Gratz, Conrad, & Roemer, 2002; Haines & Williams, 2003).

NSSI is both a prevalent and significant health concern in North America. Fourteen to 20% of the community-based, non-clinical adolescent population report engaging in NSSI (e.g., Muehlenkamp & Gutierrez, 2007; Ross & Heath, 2002), and research has shown that individuals who engage in NSSI are more likely to attempt suicide (e.g., Lester & Gatto, 1989). Also, the mean age of onset reported by high school age youth is between 12 and 15 years (e.g., Muehlenkamp & Gutierrez, 2004). These findings suggest that the middle and high school years represent a crucial time period for the prevention and intervention of NSSI. Although there is limited research on empirically-supported treatment programs for self-injury, two treatment approaches show promise for effectively reducing NSSI behaviours among youth (Muehlenkamp, 2006). Dialectical Behaviour Therapy typically utilizes skill-building groups in addition to individual therapy and assignments such as ongoing self analysis of behaviour and “mindfulness”

exercises (Linehan, 1993). Similarly, the goal of Problem-Solving Therapy is to help clients identify and resolve the problems they encounter in their lives, as well as to teach clients general coping and problem-solving skills that they can utilize in the future to deal more effectively with the problems they encounter (D'Zurilla & Goldfried, 1971).

Students who engage in self-injury are often referred to hospital or psychiatric settings for treatment. Given the high cost of inpatient treatment and the low level of suicidal intent often associated with high school students who self-injure, this has significant limitations for treating youth who engage in NSSI (Muehlenkamp, 2006). More appropriate methods of dealing with youth who engage in NSSI could include non-clinical settings, such as schools. While youth who engage in severe NSSI with additional difficulties or those who are thought to be at risk for suicide should be referred to appropriate services outside the school, for less severe cases, the school setting may provide a good opportunity for early intervention (Lieberman, Toste, & Heath, 2008). Yet, the greatest challenge in providing effective and appropriate intervention for high school students who engage in NSSI may not lie in the intervention itself, but students' willingness to access such help in the school setting.

While no research has examined the factors that promote help-seeking for NSSI, the decision about whether or not to seek help for a general mental health issue has been conceptualized as influenced by conflicting approach and avoidance factors (Kushner & Sher, 1989). Variables which are linked to a greater likelihood of seeking help, called approach factors, have included the female gender (e.g., Rickwood & Braithwaite, 1994), positive attitudes toward seeking help (Deane & Todd, 1996), prior help-seeking (Deane & Todd), and higher psychological distress (e.g., Komiya, Good, & Sherrod, 2000). In

contrast to approach factors, research has also identified numerous avoidance factors which are thought to decrease one's likelihood of seeking help for personal, emotional, or mental health problems. These factors include perception of social stigma associated with accessing mental health services (e.g., Stefl & Prosperi, 1985), low socio-economic status (Tessler & Schwartz, 1972), ethnic minority status (Brinson & Kottler, 1995; Gottesfeld, 1995; Loo, Tong, & True, 1989; Suan & Tyler, 1990), a strong belief in individualism (Tata & Leong, 1994), low interpersonal dependency (Bornstein, Krukonis, Manning, Mastrosimone, & Rossner, 1993), and discomfort with experiencing and expressing emotions (Komiya et al.).

To date, one research study has examined help-seeking for non-suicidal self-harm, which encompasses the same behaviours as DSH yet excludes any acts with suicidal intent (Nixon, Cloutier, & Jansson, 2008), and three studies have examined help-seeking for DSH (DeLeo & Heller, 2004; Evans, Hawton, & Rodham, 2005; Mojtabai & Olfson, 2008; Nada-Raja, Morrison, & Skegg, 2003). These studies have found that between 30 and 56% of youth or young adults who engage in self-harm seek help for this issue. This tendency to avoid help seems to also be reflected in informal help-seeking, such as speaking to friends or family, as research has found that only 40% of self-injurers report that someone is aware of their NSSI (Whitlock, Eckenrode, & Silverman, 2006). These studies have produced mixed findings in terms of the correlates of help-seeking; although, greater frequency of self-harm, female gender, and parental detection of DSH have been identified as predictors of help-seeking.

While the four studies conducted to date have shown low levels of help-seeking among youth for self-harm, a study has yet to examine help-seeking using a NSSI

definition. Further, no study has specifically investigated the school setting as a possible source of help or support. It is thought that schools may be an appropriate setting for primary prevention and intervention services, yet it is unknown how many youth would access help for self-injury if it was available in their school.

The purpose of the current study is to address this gap in the literature. Specifically, the two main objectives of this thesis are to examine: (a) the proportion of youth engaging in self-injury who report that they would access school-based intervention for NSSI if available, and; (b) differences between those who report that they would or would not access help on demographic and health-related variables.

By addressing these objectives, this thesis will provide an original contribution to the literature on NSSI by examining help-seeking for this behaviour in the school setting, as well as provide valuable information to practitioners who work with students who self-injure. Specifically, describing the percentage of students who are willing to access school-based help for NSSI would shed light on whether support services for NSSI are appropriate or likely to be effective in the school setting. If a substantial percentage of youth who engage in NSSI are hypothetically willing to seek help at school, the cost of developing intervention procedures specifically for schools may be a worthwhile investment. In addition, describing the variables that differentiate those who are willing to seek help from those who are not could help to identify the characteristics that promote help-seeking in this population. This information could be used to engage students who are not likely to actively seek help by themselves.

Chapter 2

Review of the Literature

This chapter comprises a review of the literature, which includes information on the definition, prevalence, risk and protective factors, and prevention and treatment approaches for non-suicidal self-injury (NSSI) among youth. In addition, the theoretical process of seeking help for mental health issues will be described, as well as the factors associated with help-seeking, such as gender, psychological distress, stigma, and social support. Previous studies of help-seeking for self-injury are reviewed in greater detail. The chapter will conclude by identifying the gaps in the existing literature and outlining the research questions of the present thesis.

Non-Suicidal Self-Injury

Non-suicidal self-injury is an often misunderstood and increasingly documented behaviour, especially among adolescents in schools. This behaviour is defined as the deliberate, self-inflicted destruction of body tissue resulting in immediate damage, without suicidal intent and for purposes not culturally sanctioned (Nixon & Heath, 2008; Walsh, 2006). In their characterization of self-injurious behaviours as reflecting an impulse control problem, Favazza and Rosenthal (1993) identified three classifications of "non-socially sanctioned self-mutilation": major, stereotypic, and moderate/superficial. Major self-mutilation is an infrequent act that occurs suddenly with a great deal of tissue damage. It is most commonly associated with individuals who are psychotic or acutely intoxicated. It rarely occurs among students in schools. Stereotypic self-mutilation includes behaviours such as head banging, wrist and lip biting, and complex tics which are most often associated with those who have developmental disabilities, autism, or

Tourette's syndrome. What Favazza and Rosenthal termed "moderate/superficial self-mutilation" is now commonly referred to as non-suicidal self-injury (NSSI) by researchers (e.g., Nixon & Heath). NSSI is the focus of the current study because it is more likely to occur in schools than the first two categories of self-injury. Unlike major or stereotypic self-injury, which are associated primarily with clinical populations, characteristics of NSSI are evident in the non-clinical, community-based population. Research on the incidence of NSSI in this community-based population has grown exponentially since the 1990's (Jacobson & Gould, 2007); however, it has been more widely studied among adults rather than adolescents. Among non-clinical adults, researchers have found that there is a relatively high lifetime prevalence of NSSI among young adults in college, ranging from 17 to 43% (e.g., Hasking, Momeni, Swannell, & Chia, 2008; Whitlock, Eckenrode, & Silverman, 2006), whereas the documented rate of NSSI in the previous six months in the wider adult population is substantially lower at 4% (Briere & Gil, 1998).

Moderate/superficial NSSI encompasses a wide variety of behaviours, however it occurs most commonly in the forms of cutting and carving skin, biting, hitting, and burning (Lloyd-Richardson, Perrine, Dierker, & Kelley, 2007). Other forms of NSSI include breaking bones and swallowing toxic substances. While NSSI has often been thought of as a predominantly female behaviour, recent results in community samples have been less consistent. For example, although some research suggests that female individuals are 1.5 to 3.0 times more likely to self-injure than male individuals (Conterio & Lader, 1998; Favazza, 1999), more recent studies suggest that the gender gap may be much narrower than this (Lundh, Karim, & Quilisch, 2007; Whitlock, Eckenrode, et al.,

2006). In addition, studies employing clinical samples (e.g., Langbehn & Pfohol, 1993) and adolescent samples (Laye-Gindhu & Schonert-Reichl, 2005; Muehlenkamp & Gutierrez, 2007; Ross & Heath, 2002) have tended to find that more females engage in NSSI. Similarly, research findings linking self-injury and ethnicity in community populations are mixed. In particular, studies employing American high school samples of primarily White students have found that the rate of NSSI is higher among White than non-White students (Muehlenkamp & Gutierrez, 2004, 2007). In contrast, Laye-Gindhu and Schonert-Reichl found no ethnic differences in rates of NSSI. This study was conducted in a large high school, in which 70% of the students reported a European background, and 75% reported living in a two-parent home. In addition, Whitlock, Eckenrode, et al. found that in their college sample, Asian/Asian-American students were less likely than White students to have engaged in more than one incident of NSSI. The fact that these three studies all report a relatively small number of individuals within each non-White ethnic group could skew the results. Also, results regarding ethnicity and NSSI may be influenced by the geographic location of the sample, as Muehlenkamp and Gutierrez (2004, 2007) and Laye-Gindhu and Schonert-Reichl studied students in the American Midwest and Western Canada, respectively; and, Whitlock, Eckenrode, et al.'s sample was comprised of students from two American northeastern colleges.

Parallels between self-injury and eating disorders have led to the same assumptions made about eating disorders; specifically, that NSSI is most common among individuals of middle and upper socio-economic status. No existing research supports this assumption. There is some evidence linking NSSI to sexual orientation, such that the incidence of self-injury is higher among individuals who are lesbian, gay, bisexual, and

are questioning their sexuality (Skegg, Nada-Raja, Dickson, Paul, & Williams, 2003; Whitlock, Eckenrode, et al., 2006).

Self-injury has been associated with a wide variety of disorders, including psychotic, antisocial, and borderline personality disorders, as well as mood and anxiety disorders, such as depression and anxiety, and general distress (Zila & Kiselica, 2001). Similarly, it has also been associated with eating disorders, a history of abuse or trauma, and psychological distress in clinical populations (Connors, 1996; Lipschitz, Winegar, Nicolau, Hartnick, Wolfson, & Southwick, 1999; Sansone & Levitt, 2002). There is some evidence for these associations in nonclinical populations as well (Gratz, Conrad, & Roemer, 2002; Ross & Heath, 2003). The mechanisms linking NSSI and these disorders to negative life events remains unclear, however.

The relationship between NSSI and suicide is complex. Whether self-injury without suicidal intent (NSSI) should be conceptualized as an independent clinical phenomenon from suicide and suicide attempts is a major issue in the field (e.g., Muehlenkamp & Gutierrez, 2004, 2007; Whitlock & Knox, 2007). Researchers have found that individuals who engage in NSSI are more likely to attempt suicide than those who have never engaged in NSSI (e.g. Lester & Gatto, 1989; Whitlock & Knox), and thus argue that all self-injury should be considered along a continuum of lethality, such that NSSI falls on one end of the continuum and completed suicide falls on the other end. In contrast, others have asserted that because NSSI and suicide serve different purposes (i.e., managing stress versus ending one's life) that they should not be viewed as related (e.g., Favazza, 1996).

Deliberate Self-Harm

While studies investigating NSSI typically employ a strictly non-suicidal definition to study this behaviour, research has also been carried out to study self-injury that includes acts both with and without suicidal intent, often referred to as deliberate self-harm (DSH). Thus, the definition of DSH is broader than the definition of NSSI. The definition and prevalence of DSH is outlined here as some of the studies on help-seeking reviewed employ the DSH rather than NSSI criteria.

Keith Hawton and his colleagues in the United Kingdom have studied deliberate self-harm (DSH), which includes self-injury with suicidal intent. As such, many studies have relied on the definition put forth by the Child and Adolescent Self-Harm in Europe (CASE) Group. According to CASE, DSH includes acts with a non-fatal outcome in which an individual deliberately (a) initiated behavior to cause bodily harm (i.e., self-cutting, jumping from a height), (b) ingested a substance in excess of the prescribed or generally recognized therapeutic dose, (c) ingested a recreational or illicit drug as an act that the individual regarded as self-harm, or (d) ingested a non-ingestible substance or object. Using this definition, researchers have found a prevalence rate of approximately 6% in community-based populations of adolescents across the UK and Australia. Specifically, using anonymous surveys based on the CASE definition, researchers in the UK and Australia have found prevalence rates of 6.2 and 6.9%, respectively, of DSH in the previous six months among high school students (De Leo & Heller, 2004; Hawton, Rodham, Evans, & Weatherall, 2002). Similar to NSSI, DSH is associated with other difficulties, including psychiatric disorders (Mahadevan, Hawton, & Casey, in press). While a significant amount of research has been conducted on DSH among youth in the

UK, the construct of NSSI, defined in non-suicidal terms, has been of greater research focus in North America and is the subject of the current study.

NSSI among Adolescents

Adolescence is a common time period for the adoption of risk-taking behavior, and in recent years NSSI has emerged as a prevalent behavior in the general adolescent population. Recently, it has been hypothesized that NSSI is increasing in the community-based adolescent population (e.g., Jacobson & Gould, 2007). Indeed, prevalence rates range between 14% and 20% in this population (e.g., Muehlenkamp & Gutierrez, 2007; Ross & Heath, 2002). As such a large percentage of adolescents engage in self-injury, it is important to extend our understanding of this phenomenon in order to identify the optimal time and setting for the prevention and intervention of NSSI

In terms of the best time for prevention or early intervention efforts, several studies of the prevalence of NSSI have included questions to estimate the age of onset of this behavior. Typically, participants who self-injure are asked at what age they first engaged in NSSI. Although people's memory of specific incidences of NSSI may be influenced by the length of time that has passed, results are surprisingly consistent across studies. Among community-based samples, the mean reported age of onset falls in the early adolescent years. Specifically, the mean age of onset reported by high school age youth is between 12 and 15 years (e.g., Muehlenkamp & Gutierrez, 2004, 2007; Nixon, Cloutier, & Jansson, 2008), and the mean age of onset reported by college students is approximately 15 years (Whitlock, Eckenrode, et al., 2006). Samples employing younger participants support earlier ages of onset because they necessarily exclude individuals who begin to self-injure at a later age. These findings suggest that the middle school and

high school years represent a crucial time period for the prevention and intervention of NSSI.

Risk and Protective Factors for NSSI

In order to understand the behavior of NSSI, the pathway in which it develops must be investigated. This has been done through risk factor research which has documented certain factors that are associated with the occurrence of NSSI. The more that is understood about this behaviour in non-clinical populations, the better able professionals will be to offer appropriate help to self-injuring individuals should they choose to seek help. Indeed, theory and empirical research suggests that a variety of family, social, environmental, and psychological variables may contribute to NSSI in community populations of youth.

For example, researchers have suggested that emotion regulatory difficulties are often present among individuals who engage in self-injury (Gratz et al., 2002; Holly, Heath, Schaub, & Toste, 2007). It is also possible that adolescents who engage in self-injury employ poor coping strategies compared to other adolescents. Coping strategies represent both behavioural and cognitive efforts to deal with stressful situations. The transactional model of coping strategies (Lazarus & Folkman, 1984) conceptualizes the coping response as being determined both by an individual's appraisal of the degree of threat posed to them and the resources seen as being available to help them cope with the situation. Coping responses in this model are divided into emotion-focused and problem-focused strategies. Problem-focused coping attempts to actively alter the stressful situation in some way, perhaps by talking to someone about it. In contrast, emotion-focused strategies, such as disengaging from the situation, giving up, or avoiding thinking

about it, have generally been related to increased distress (e.g., Holahan & Moos, 1986; Li, DiGiuseppe, & Froh, 2006). Indeed, adolescents with DSH thoughts or behaviours have been found to differ from other adolescents in terms of the coping strategies they report employing when faced with difficulties. Specifically, they show less focus on problems and more avoidant behaviours (Evans, Hawton, & Rodham, 2005). In addition, research has shown that those who engage in NSSI use fewer adaptive and more impulsive coping mechanisms compared to their peers (Haines & Williams, 2003).

Empirical studies have supported several other individual risk factors. Individuals that engage in NSSI are more likely to report having tattoos and engaging in other risky behaviors (i.e., substance abuse, recklessness) compared to those who do not engage in NSSI, and females are more likely to report smoking (Laye-Gindhu & Schonert-Reichl, 2005). As well, impulsiveness (Herpetz, Sass, & Favazza, 1997), self-punishment (Klonsky, 2007), anxiety and depressive symptomology (Haavisto, Sourander, Multimaki, Parkkola, Santalahti, Helenius et al., 2005; Ross & Heath, 2002), a history of sexual abuse (Whitlock, Eckenrode, et al., 2006), and substance abuse (Evren, Kural, & Cakmak, 2006) are also associated with engagement in NSSI.

When considering protective factors against self-injury, there has been evidence that increased religious affiliation lowers risk for suicidal behavior (Dervic, Oquendo, Grunebaum, Ellis, Burke, & Mann, 2004), although spirituality has not been explored as a potential protective factor for self-injury. Other factors that appear to decrease the risk for self-injury include higher socio-economic status and greater social support (Holly et al., 2007).

In sum, a variety of factors that may contribute to the development of NSSI have

been identified by researchers, and in particular, emotion regulation difficulties, use of emotion-focused coping strategies, and childhood abuse have received the greatest research attention. Identifying risk factors for NSSI is significant because this knowledge aids clinicians in developing appropriate prevention and intervention for NSSI. For example, the recommended treatment approaches for reducing NSSI target deficits in emotion regulation and problem-focused coping. These treatment approaches will be reviewed in greater detail below. While the focus of the current thesis is adolescent willingness to seek help for NSSI, should these adolescents seek help, it is crucial that mental health professionals employ effective methods to retain these youth in treatment. Similarly, knowledge of how youth mental health professionals could prevent NSSI is also valuable information, as this could reveal factors that would inhibit students' vulnerability to initiating NSSI.

Prevention of Self-Injury among Youth

While no research has focused on preventing NSSI in youth, researchers have studied adolescents' views on preventing DSH. This study is significant as it reveals high school students' thoughts concerning school-based prevention efforts for NSSI, as well as barriers to seeking help. Specifically, Fortune, Sinclair, and Hawton (2008) examined what 15- and 16-year-olds in the United Kingdom believe can be done to prevent young people from feeling like they want to harm themselves. Students' responses were analyzed thematically, and eleven broad categories were identified covering the causes and possible ways of preventing self-injurious behaviours. The most dominant theme to emerge was communication. More than one quarter of the adolescents suggested that one way to prevent others from feeling that they wanted to harm themselves was to talk to

them, listen to them, to give them advice or to speak to them about their problems. The next most frequently described themes included the role of families, involvement in sports or recreation clubs and other social experiences, and friendship.

The category ranked fifth in terms of the frequency of comments about the causes and ways of preventing self-injury in young people was school. Adolescents commented on difficulties related to workload, the timing of assessments, stress caused by examinations and the fear of failing at school. Seven percent of the adolescent respondents suggested that it would be helpful to have someone in school to talk to who is not a teacher (e.g., school counselor, tutor, or mentor). More than twice as many female than male adolescents made the suggestion of having someone in school to provide support (9% versus 4%). The responses of some adolescents highlighted the idea that the support person or counsellor should be proactive and actively make contact with all students rather than waiting for someone to have a problem. A smaller number of respondents commented on the role of teachers, including a desire for greater access to teachers and for teachers to be aware of warning signs and to look out for troubled students.

Some students made reference to bullying, discrimination, racism, or general aggravation. They described the negative effects of bullying and the wish for schools to have more effective bullying policies. The sixth category of responses encompassed formal organizations, such as phone-lines, social services, and the internet. Mental health services and health professionals such as general practitioners, psychologists and psychiatrists were rarely mentioned by the respondents (2%). Only 3% of adolescents made any reference to mental illness or psychiatric disorder in their responses. The most

common terms used were “depressed” and “depression.”

The remaining five categories of responses made by adolescents about the causes and ways of preventing self-injury among young people included: barriers to seeking help, such as confidentiality and stigma; substance use, improving drug awareness, and the presence of drug dealers; public education, including the suggestion that there should be greater awareness and education about who should be contacted when adolescents feel distressed or engage in self-injury; media, including references about exposure to self-injury through television, magazines, music, and websites; and the idea that it is difficult or impossible to prevent adolescents from feeling like they want to self-injure. Overall, the adolescents in this large community-based sample considered family, friends, and school as the main sources of support in preventing non-suicidal and suicidal behaviour, and more important than external helping agencies. The results of this study suggest that while adolescents view communication and support from families and friends as the most important means of preventing self-harm, having support available in the school setting is also viewed by many youth as a suitable method of prevention. As such, school-based support may be particularly needed by students with limited social support from family and friends. The current thesis will extend this literature by explicitly asking students if they would seek help for NSSI in the school setting, as well as investigating variables which may differentiate those who are willing to access school support services from those who are not.

Treatment for NSSI

Although there is limited research on empirically-supported treatment programs for self-injury, two treatment approaches are thought to be appropriate for youth engaging in

NSSI (Muehlenkamp, 2006). Given that NSSI is primarily conceptualized as a tool for emotion regulation (Linehan, 1993; Nock & Prinstein, 2004) maintained through positive and negative reinforcements, treatments utilizing cognitive-behavioral strategies show the greatest promise for successfully reducing the behavior. Two types of treatments falling within the cognitive-behavioral domain that focus specifically on self-injury have been identified: Problem-Solving Therapy (D'Zurilla & Goldfried, 1971) and Dialectical Behaviour Therapy (Linehan, 1993). These treatments share common features such as being time-limited, structured therapies with an emphasis on immediately targeting self-injury and related skill deficits.

Problem-Solving Therapy is based on the assumption that dysfunctional coping behaviors result from a cognitive or behavioral breakdown in the problem-solving process. The goal of therapy is to help clients identify and resolve the problems they encounter in their lives, as well as to teach clients general coping and problem-solving skills that they can utilize in the future to deal more effectively with the problems they encounter. This is usually done by teaching the different steps in problem solving including problem identification and goal setting (often by utilizing a behavioral analysis of the problem), brainstorming and assessing potential solutions, selecting and implementing a solution, and evaluating the success of the chosen solution. Although research on the efficacy of Problem-Solving Therapy in reducing self-injurious behaviors has produced mixed findings, Problem-Solving Therapy appears to reduce self-injurious behaviours. For example, in a meta-analysis of 20 studies that used randomized clinical trials for assessing the efficacy of different treatments for "parasuicide" (including self-injury and suicide attempts), Hawton, Arensman, Townsend, Bremner, Feldman,

Goldney et al. (1998) found that Problem-Solving Therapy produced the greatest reductions in parasuicide among participants compared to standard care controls; however, the reductions found were not statistically significant. It is possible that school-based support programs for self-injury could incorporate the methods used in Problem-Solving Therapy to help students reduce their self-injurious behaviour.

Self-injury can also be treated with an intense, short-term program called Dialectical Behaviour Therapy (DBT; Linehan, 1993). One of the central purposes of DBT is to help adolescents find other ways to calm and soothe themselves. Specifically, DBT requires the adolescent to recognize the purpose that NSSI serves for them and to make a commitment to learn and practice alternative ways to manage intense emotions. DBT typically utilizes skill-building groups in addition to individual therapy and assignments, such as ongoing self analysis of behaviour and "mindfulness" exercises. Mindfulness is defined as the non-judgmental awareness of one's experience as it unfolds moment by moment (Robbins, 2002). This is a key skill needed to appropriately identify emotions. Through DBT, it is thought that adolescents become equipped with a personalized array of skills that allow them to become more effective problem solvers (Hollander, 2008). Other skills that are taught in DBT include: interpersonal effectiveness skills, which focus on how to ask for things from others, how to say no, and how to negotiate; emotion regulation skills, which focus on identifying one's emotional state, identifying and challenging negative thoughts, and changing one's emotional state; and distress tolerance skills, which involve accepting one's current emotional state without relieving it by reacting in impulsive or maladaptive ways (Robbins). DBT is an empirically supported treatment originally developed for self-injuring females with

borderline personality disorder (Linehan, Armstrong, Suarez, Allmon, & Heard, 1991), although it has since been supported as a treatment for inpatient adolescents with suicide attempts or suicidal ideation (Katz, Cox, Gunasekara, & Miller, 2004). Recent research has suggested that DBT is effective in reducing NSSI and NSSI urges (Stanley, Brodsky, Nelson, & Dulit, 2007), and is seen as useful by adolescents who have completed eight weeks of DBT to treat NSSI, as well as their parents (Nixon, McLagan, Landell, Carter, & Deshaw, 2004). Further research is required to assess the efficacy of DBT among non-clinical adolescents; however, these preliminary studies suggest that it is a promising treatment for this population. While DBT is not appropriate to carry out in the school setting, it is possible that school counselors or school psychologists could employ specific methods from this type of therapy in individual or group therapy with self-injuring students. To date, no research has examined the use of strategies such as mindfulness, interpersonal effectiveness, emotion regulation, or distress tolerance skills by professionals in the school setting, and thus, research is needed to study the appropriateness and effectiveness of such methods by school-based professionals.

Currently, many students who engage in self-injury are referred to hospital or psychiatric settings for treatment. This has significant limitations for treating youth who engage in NSSI, as it is expensive and may not be the most appropriate setting because of the low level of suicidal intent and psychopathology often associated with high school students who self-injure (Muehlenkamp, 2006). More appropriate methods of dealing with such youth who engage in NSSI could include non-clinical settings, such as community health centers or schools. Certainly, preventative efforts against initiation of NSSI in middle and high schools is ideal, and school professionals should be aware of the

risk factors for NSSI, such as poor emotion regulation, less problem-focused coping, and other risk-taking behaviours (Haines & Williams, 2003; Laye-Gindhu & Schonert-Reichl, 2005). The issue of whether students currently engaging in NSSI should receive support or treatment in the school setting is more complicated. Whether these students should receive intervention at school depends on the complexity of the case and whether the student is deemed to be at high risk for suicide attempts (Lieberman, Toste, & Heath, 2008). Youth who engage in severe NSSI with additional difficulties or are thought to be at risk for suicide should be referred to appropriate services outside the school. For less severe cases, the school setting may provide a good opportunity for early intervention, given the frequency of contact and availability high school students have with school-based professionals. In fact, some research suggests that school-based mental health professionals are already increasingly intervening and providing support to youth engaging in NSSI (Heath, Toste, & White Kress, 2007). Yet, the greatest challenge in providing effective and appropriate intervention for high school students who engage in NSSI may not lie in the intervention itself, but students' willingness to access such help in the school setting. Researchers have not examined factors that promote seeking school-based support in this population. This thesis aims to address this critical gap in the literature by exploring variables that differentiate those who are willing seek help from those who are not.

Help-Seeking

The theoretical process of seeking help for mental health issues has been studied for several decades; however, it has not been studied in-depth in relation to NSSI. Rickwood, Deane, Wilson, and Ciarrochi (2005) describe help-seeking as a term that is generally

used to refer to the behaviour of actively seeking help from other people. It involves communicating with other people to obtain help in terms of understanding, advice, information, treatment, and general support in response to a problem or distressing experience. Help can be sought from a variety of sources differing in their level of formality. Formal help-seeking is from professional sources of help; that is, professionals who have a recognized role and appropriate training in providing help and support, such as mental health and health professionals, teachers, and youth workers. Informal help-seeking is from informal social relationships, such as friends and family. Increasingly, however, help can be sought from sources that do not involve direct contact with other people, such as internet chat rooms.

In general, the help-seeking process has been segmented into three sequential stages: recognizing there is a problem, deciding that help is needed, and seeking help (Saunders, Resnick, Hoberman, & Blum, 1994). The third step of this process, whether or not one will actually seek help, has been conceptualized as influenced by conflicting approach and avoidance factors (Kushner & Sher, 1989). This approach-avoidance hypothesis suggests that these two sets of conflicting factors combine to affect whether clients seek or avoid mental health services. Variables which are linked to a greater likelihood of seeking help, called approach factors, have included the female gender (e.g., Rickwood & Braithwaite, 1994), positive attitudes toward seeking help (Deane & Todd, 1996), prior help-seeking (Deane & Todd), and higher psychological distress (e.g., Komiya, Good, & Sherrod, 2000).

Help-seeking and gender. In particular, the gender effect is relatively robust, as a number of studies suggest that adolescent females are more likely to seek help for mental

health problems than males, after controlling for the effects of psychological distress (Boldero & Fallon, 1995; Laitinen-Krispijn, Van der Ende, Wierdsma, & Verhulst, 1999; Price & McNeill, 1992; Schonert-Reichl & Muller, 1996). Further, females have been reported to have a more positive attitude toward seeking professional psychological help, including greater recognition of the need for help and greater confidence in mental health service providers compared to males (Leong & Zachar, 1999). Adolescent girls have also been found to have higher mental health literacy, in that they are more able to correctly label depression and they express greater concern over a depressed peer (Burns & Rapee, 2006). Saunders et al. (1994) found that females are more likely to identify a need for help when asked if they had any serious personal, emotional, behavioural, or mental health problems that they felt they needed help with. Males reported that they would need to be significantly more depressed than females in order to seek help. While a significant amount of research has consistently linked the female gender with greater help-seeking across a variety of personal, emotional, mental health, and physical health problems, some researchers have identified gender-based interactions in help-seeking. For example, Raviv, Sills, Raviv, and Wilansky (2000) examined preferred helping agents and found that when parents were the source, girls sought help more often for a minor problem, but there were no gender differences for severe problems. In general, however, females are more likely to seek help.

To explore why males may be less likely to seek help, Timlin-Scalera, Ponterotto, Blumberg, and Jackson (2003) used grounded theory methodology (Glaser & Strauss, 1967; Strauss & Corbin, 1990) to examine the mental health stressors in the lives of a group of White male adolescents, as well as their help-seeking behaviors. Semi-

structured interviews were conducted with 22 males, 4 female adolescent counterparts, 4 male parents, and 5 high school staff members. The substantive grounded theory that emerged was that the communal pressures of wealth, success, and high expectations creates a tremendous amount of stress for males to be successful and "fit in" and contributes to a gender-linked stigma about males' help-seeking behaviors. Consistent with these themes, research has indicated that male college students with stronger endorsement of traditional male gender roles and greater male gender role conflict report more negative attitudes about psychological help-seeking compared to other male students (Good, Dell, & Mintz, 1989; Good & Wood, 1995; Robertson & Fitzgerald, 1992).

Help-seeking and psychological distress. Psychological distress has traditionally been conceptualized as an approach variable, such that as distress and symptom severity increase, the probability of seeking help also increases (Carlton & Deane, 2000; Deane & Chamberlain, 1994; Komiya et al., 2000; Rickwood & Braithwaite, 1994). For example, in a sample of Australian adolescents, Sheffield, Fiorenza, and Sofronoff (2004) found that youth with greater distress were more willing to seek help from both formal and informal sources for a mental illness. Despite these findings, contradictory evidence exists regarding the direction of the relationship between psychological distress and help-seeking. Garland and Zigler (1994) found that adolescents with higher depressive symptoms were more likely to have negative attitudes toward seeking help. Also, while their measure of psychological distress was associated with more willingness to seek help, Carlton and Deane found that suicidal ideation was related to decreased willingness to seek help. The negating influence of suicidal ideation on help-seeking has also been

documented in more recent non-clinical studies, finding that as suicidal ideation increased, young people's intentions to seek help decreased (Deane, Wilson, & Ciarrochi, 2001; Wilson, Deane, & Ciarrochi, 2005). Thus, youth who are at increased risk for suicide may be less likely to seek help than their peers, and psychological distress as a predictor of help-seeking may be problem-specific. Related to psychological distress, perceived problem severity has also been found to be an approach factor. Hinson and Swanson (1993) found that people view high severity personal problems as more appropriate for professional counseling compared to low severity problems. To manipulate problem severity, two similar scenarios were described reflecting the symptoms of a Dysthymic Disorder and a Major Depressive Episode. These two disorders were chosen because many of the symptoms are common to both types of depression, but differ in duration and severity.

In contrast to approach factors, research has also identified numerous avoidance factors which are thought to decrease one's likelihood of seeking help for personal, emotional, or mental health problems. These factors include perception of social stigma associated with accessing mental health services (e.g., Stefl & Prosperi, 1985), low socio-economic status (Tessler & Schwartz, 1972), ethnic minority status (Brinson & Kottler, 1995; Gottesfeld, 1995; Suan & Tyler, 1990), a strong belief in individualism (Tata & Leong, 1994), low interpersonal dependency (Bornstein, Krukonis, Manning, Mastrosimone, & Rossner, 1993), and discomfort with experiencing and expressing emotions (Komiya et al., 2000).

Help-seeking and stigma. One significant avoidance factor is related to the stigma associated with mental health services or counselling. Stigma is defined as a mark or flaw

resulting from a personal or physical characteristic that is viewed as socially unacceptable (Blaine, 2000). Stigma has long been identified as a key avoidance motive in help-seeking, and the existence of public stigma in regards to the seeking of psychological services is clear. For example, research has shown that the majority of community participants report negative attitudes toward people with an identified disorder (Crisp, Gelder, Rix, Meltzer, & Rowlands, 2000), as well as avoid people who are labeled as having been previously hospitalized (Link, Cullen, Frank, & Wozniak, 1987). Stefl and Prosperi (1985) found that almost twice as many of those who have psychological difficulties but did not seek help saw stigma as a treatment barrier, compared to other participants. Similarly, depressed teenagers often cite perceived stigma as one of the main barriers to treatment (Meredith, Stein, Paddock, Jaycox, Quinn, Chandra et al., 2009). Stigma can decrease the likelihood that an individual will seek services even when the potential consequences of not seeking counseling are severe, mainly increased suffering (Sibicky & Dovidio, 1986). Among undergraduates, it has been found that those who endorse stigma of the mentally ill are less likely to seek psychological help (Cooper, Corrigan, & Watson, 2003). Further, the stigma associated with mental illness is related to the early termination of treatment (Sirey, Bruce, Alexopoulos, Perlick, Raue, Friedman et al., 2001). Wrigley, Jackson, Judd, and Komiti (2005) studied the effect of stigma on attitudes toward seeking help. In this study, the researchers investigated participants' perceived stigma about people with mental illness within their rural community. It was found that individuals reporting higher perceived stigma also held more negative attitudes toward seeking help for a mental health issue. In terms of the stigma associated with various mental disorders, Crisp et al. (2000) found that negative beliefs about individuals

with mental illness varied by the specific disorder within their sample of British adults. The most negative opinion, that people with mental disorder are dangerous, was held most often about those with schizophrenia, alcoholism and drug dependence, as compared to severe depression, panic attacks, dementia, and eating disorders. This suggests that perceived stigma may be greater for certain mental health issues, and this may in turn influence individuals' attitudes toward seeking help, and thus their actual help-seeking behaviours.

In contrast, treatment fears are considered an avoidance factor (Deane & Todd, 1996). While Sheffield et al. (2004) found that attitudes toward mental illness did not influence willingness to seek help, they did find that less stigmatizing attitudes were related to greater knowledge of mental illness, being female, and higher levels of social support. These variables may in turn encourage help-seeking.

Similar results were reported by the National Survey of Mental Health and Wellbeing (Sawyer, Arney, Baghurst, Clark, Graetz, Kosky et al., 2000), which found that the most frequently reported reason that adolescents gave for not seeking professional help for a mental health problem was that they preferred to manage their own problems. Barriers to professional help seeking reported less frequently by adolescents in this survey included thinking no one could help, not knowing where to get help, and being worried what other people would think of them if they sought help.

Help-seeking and social support. Research on the effect of social support on help-seeking has produced somewhat mixed findings. Research by Sherbourne (1988) has shown that adolescents and adults with more close friends and relatives are less likely to seek help from professional services, suggesting that adolescents with inadequate social

support might be more likely to seek professional help. Sherbourne argues that the presence of higher numbers of close friends and relatives implies the availability of a confident or confiding relationship; thus, the more social resources available to a person, the less likely that person is to use mental health services. This study, however, did not control for the effects of problem severity or psychological distress, which may decrease both contact with friends or relatives and thus increase help-seeking. Consistent with Sherbourne's contention, Kuhl, Jarkon-Horlick, and Morrissey (1997) found that one of the major barriers to help-seeking among secondary school students is the perception that family, friends, and self are adequate to deal with problems. The results of these studies suggest that a wider network of social support may inhibit one's likelihood of seeking professional help for a mental health-related problem.

In a more fine-tuned study of the effect of social support on help-seeking, Cepeda-Bonita and Short (1998) found that low social support was associated with greater perceived likelihood of seeking professional help, but this effect was not documented among individuals with high self-concealment (a person's tendency to keep intimate information secret). This suggests that certain personality characteristics may interact with social support to influence formal help-seeking.

In contrast, Rickwood and Braithwaite (1994) reported that characteristics of adolescents' social support network did not predict professional help-seeking. Here, social support was assessed using a measure of the availability of frank and confiding relationships within the social network. While professional help-seeking was not influenced by social support, the researchers did find that the presence of these types of relationships predicted informal help-seeking. Like Rickwood and Braithwaite, Sheffield

et al. (2004) found that greater social support predicted adolescent willingness to seek help from informal, but not formal, sources. These two studies finding no link between social support and professional help-seeking share several methodological similarities which may account for their consistent findings. For example, they both employed Australian adolescents in their samples, and operationalized social support with regard to quality of relationships rather than the number of friendships. Unlike Rickwood and Braithwaite and Sheffield et al., Sherbourne (1988), who demonstrated a relationship between social support and help-seeking, used the number of social contacts to measure social support, and employed American adolescents and adults in her sample. These differences suggest that the negative relationship between social support and formal help-seeking may be limited to adults, and, even when the quality of adolescents' friendships is accounted for, they may still feel the need to consult professionals concerning mental health issues.

Rates of help-seeking. Studies of help-seeking among youth have generally found low rates of seeking help. For example, Boldero and Fallon (1995) found that just over half of their Australian sample of adolescents had asked for help, from either formal or informal sources, with problems that caused them considerable distress. These problems generally reflected family, interpersonal relationships, education, and health problems. Similarly, 67% of Rickwood and Braithwaite's (1994) sample who reported either moderate or severe emotional problems had sought help. However, 58% of these had only done so from informal sources; specifically, 86% had done so within their social network of friends and family (Rickwood & Braithwaite). It thus seems that adolescents' preferred sources of support include parents, family members, and friends, and they

generally report a greater preference for these informal sources as compared to formal sources, such as school counselors or psychologists (Sheffield et al., 2004). This is consistent with past research indicating that people seek help from close friends and family members first, and from professionals last (Christenson & Magoon, 1974; Hinson & Swanson, 1993).

In sum, the decision about whether or not to seek help for mental health-related concerns is thought to be influenced by conflicting approach variables, such as psychological distress and being female, as well as avoidance variables, such as social stigma, low SES, and ethnic minority status. In general, many adolescents do not seek or receive help for mental health concerns. The percentage of youth who seek help for mental health problems ranges from 55 to 68%, depending on the type of problems. In general, help-seeking is greater for emotional problems that have caused at least moderate distress. In terms of sources of help for youth, adolescents consistently identify informal sources, such as friends and family members, as more favourable compared to formal sources, including psychological professionals.

Help-Seeking among Adolescents who engage in NSSI

In general, the rates of detection and treatment of self-injury are low. For example, research has found that 40% of college students who engage in self-injury report that no one knows about their NSSI. Further, 20% of the same sample had injured themselves more severely than expected or badly enough that they should have received medical treatment, and yet only 6.5% had ever sought medical help (Whitlock, Eckenrode, et al., 2006). Low level of engagement with health care providers has also been documented among university students in Canada (Holly et al., 2007). In adolescent self-injurers,

Lloyd-Richardson et al. (2007) found that just 3% of their community sample of adolescents who engaged in NSSI had received medical treatment for any of their injuries. As such, there is evidence to indicate that a substantial proportion of adolescents who engage in NSSI do not seek or receive help from medical professionals. In terms of help-seeking for the broader emotional aspects of NSSI, four empirical studies have researched help-seeking among adolescents who engage in non-suicidal self-harm or DSH, and one study has focused on young adults.

First, Nixon, Cloutier, and Jansson (2008) have examined help-seeking among adolescents who engage in what they termed "non-suicidal self-harm." A modified version of the CASE definition of DSH was employed whereby any behaviour with suicidal intent was excluded. Participants who indicated that they had hurt themselves in a way that was deliberate but not intended as a means to take their life were asked to choose a statement that best describes their self-harm. These statements included: (1) self-injury such as self-cutting, self-scratching, self-hitting, etc.; (2) ingesting a medication in excess of the prescribed or generally recognized therapeutic dose; (3) ingesting a recreational or illicit drug or alcohol as a means to harm themself; (4) ingesting a non-ingestible substance or object; (5) other (participants were asked to specify). Although this study conflicts with the commonly used definition of NSSI (e.g., Walsh, 2006) by including overdoses, it is still relevant to the study of self-injury and help-seeking because of the large amount of overlap in self-injurious behaviours. This study was based on a population-based survey of 568 youth aged 14-21 in Western Canada. This sample was composed of 263 male and 305 female youths, and it was drawn from a study of the risks of unintentional injuries in youth. Households with

eligible youth were identified and invited to participate through random sampling of telephone numbers. In-person interviews were then scheduled to complete the measures used in the study. Just over half (56%) of the youth who reported that they had engaged in NSSI also reported that they had sought help or support for this behaviour, most often turning to a friend (56%), a psychiatrist or psychologist (54%), family member (48%), other mental health professional (32%), family doctor (30%), other non-specified sources (18%), and help-lines (18%). The mean number of sources of support reported was 2.9. Youth who reported more frequent self-harm were more likely to report seeking help for this behavior. While this study provides useful information regarding the percentage of youth who seek help for self-harm and their preferred sources of help, it gives no additional information as to what factors are associated with seeking help for this behaviour. For example, the literature on help seeking in other domains suggests that whether an adolescent who engages in self-harm will seek help may depend on several factors, such as their gender, ethnicity, psychological distress, and other self-injury-related severity indices, such as the number of methods or body locations used in their self-injury. Nixon and colleagues (2008) have provided the sole study that focuses specifically on non-suicidal self-harm and help-seeking, however, several studies have looked at help-seeking for the broader construct of DSH. Although studies of non-suicidal self-harm/self-injury and DSH cannot be directly compared because of the conflicting definitional criteria for self-injurious behaviour, there is some overlap in terms of NSSI and non-suicidal acts within the DSH criteria. As such, the studies examining help-seeking for DSH are highly relevant and are reviewed below.

Evans, Hawton, and Rodham (2005) examined adolescent help-seeking for DSH by

comparing secondary students who had recently self-harmed with those who had thoughts of self-harm, and with adolescents without either experience. This study employed the CASE definition of DSH, and thus included self-injurious behaviour both with and without suicidal intent. This student sample was comprised of 6,020 15 to 16 year old adolescents who completed anonymous questionnaires at their schools. Students who reported engaging in DSH were asked to provide a description of their most recent act of self-harm and its consequences, including help-seeking before and after its occurrence. They were also asked whether they felt that they had any serious personal, emotional, behavioural, or mental health problems in the past year for which they thought that professional help was needed, and whether professional help was sought. They were not asked to describe their recent problem, and no definition of a serious problem was given, allowing them to make their own interpretation. In the survey, the students were also asked who they felt they could talk to about things that really bother them, and a list was provided including parents, siblings, relatives, friends, teachers, or someone else. The students' use of various coping strategies was also assessed by asking them how often they reacted in the following ways when they were worried or upset: talked to someone, blamed themselves for getting into the mess, got angry, stayed in their room, thought about how they had dealt with similar situations, had an alcoholic drink, tried not to think about what was worrying them, and tried to sort things out. The researchers found that 46% of the adolescents who had recently engaged in DSH reported that they had tried to get help before the incident, and 55% had received help after the DSH episode. The adolescents who had engaged in self-harm, compared to those who had thoughts of self-harm or no self-harm, were most likely to feel the need for help yet did

not seek it. The majority of adolescents who engaged in self-harm and about half of those who had thoughts of self-harm reported that they had serious personal, emotional, behavioural or mental health problems in this period. A quarter of adolescents who actually engaged in self-harm did not think they had a serious problem.

Additional findings from this study by Evans and colleagues (2005) pertain to the students' ability to share their problems with others. Specifically, they found that the adolescents with self-injurious thoughts or behaviours were also less able to talk to family members and teachers, and had fewer categories of people that they could talk to about things that really bothered them, compared to their peers. For most of those with a self-harm episode, at least one person or source knew about it, but over 20% of the adolescents reported that no one knew. Of adolescents with thoughts of self-harm, 40% had not talked to or tried to get help from anyone. Consistent with earlier findings concerning social support and help seeking, those recently engaging in self-harm or with thoughts of self-harm were more likely to seek and receive help from their friends than from other sources. The researchers also found that adolescents with a single episode of self-harm were more able to talk to relatives and friends than adolescents with multiple self-harm episodes. This result is contradictory to Nixon et al.'s (2008) finding that adolescents with more frequent NSSI are more likely to seek help. This direction of the relationship between frequency of self-injury and help-seeking may differ for NSSI and DSH due to the presence of suicidal ideation and behaviours within the DSH sample. Previous research has suggested that suicidality is an avoidance factor for help-seeking (Wilson et al., 2005), and multiple episodes of DSH with suicidal intent may make youth less likely to seek help. In addition, if more frequent DSH is taken as an indicator of

severity and greater distress, this finding is inconsistent with the literature asserting that psychological distress is an approach variable for help-seeking. Instead, the authors hypothesize that either having few people to talk to may be a risk factor for recurrent DSH, or adolescents with multiple episodes of DSH are socially withdrawn, thus leaving themselves with few sources of support. Because this study is cross-sectional in design, it is unclear whether a lack of social support is a risk factor for more frequent DSH, whether students who engage in DSH later become socially isolated, or whether both occur as a result of a third factor, such as depression.

An additional study examining DSH and help-seeking has been conducted in Australia. Using the same DSH definitional criteria as Evans et al. (2005), De Leo and Heller (2004) examined DSH and help-seeking among 3,757 Australian high school students. A questionnaire was employed in this study, whereby students who reported at least one self-harm episode completed a series of questions about their most recent episode of self-harm. These included questions about their help-seeking behaviour. Consistent with findings by Evans et al. (2007), results indicated that students' friends were the preferred source of help. When asked who knew about their self-harm, friends (61.4%) and mothers (18.5%) were most often cited, whereas few general practitioners (2.6%) or mental health workers (7.3%) were aware of the participants' self-harm. There were no sex differences among respondents who sought help before the episode of self-harm. The results of this study lend additional support to the notion that adolescents who engage in self-harm are more willing to disclose their DSH to friends compared to professionals. It is unclear from the results of this study, however, whether disclosure of DSH to friends or family members makes one more willing to seek professional help.

A population-based study of help-seeking has also been conducted examining DSH in a sample of 965 young adults, all aged 26 years, in New Zealand (Nada-Raja, Morrison, & Skegg, 2003). The definitional criteria for self-harm included traditional methods of self-harm, including suicide attempts, overdose, and self-cutting, as well as behaviours considered lesser forms of self-harm, including self-hitting, putting one's fist through a wall, denying oneself a necessity such as food or exercising excessively to deliberately hurt oneself, and self-biting or wounding. These participants completed a semi-structured interview in which they were asked questions about self-harm thoughts and behaviours. Questions were posed in the context of dealing with mental or psychological pain, emotions, or stress, and the term "suicide" was not used. For any self-harm behaviours reported by the participants, they were asked if they had received help for either physical or other consequences (i.e., psychological) related to those behaviours. One advantage of this study is that individuals who had received help were given follow-up questions allowing the researchers to examine correlates of help-seeking for DSH. Specifically, those who indicated that they had received help related to DSH behaviours were asked further questions about formal and informal sources of help consulted or received, satisfaction with the help, and main reasons for seeking help. Those who had not sought help were asked to indicate barriers to help-seeking. The researchers found that 56% of the sample had consulted or received formal or informal help for their self-harm, including physical consequences. Specifically, 26% of the respondents had sought formal help, whereas 37% had sought informal help from family and friends. There was a positive relationship between formal and informal help-seeking, such that those who reported informal help-seeking were significantly more likely to also report formal help-

seeking for self-harm. In terms of satisfaction with help received for self-harm, general practitioners, psychiatrists, and psychologists or counselors were rated favourably by most who had sought help from these sources. Family members and friends were also rated favourably by more than 90% of the participants. Among those who did not seek help, 83% considered help unnecessary. The most commonly reported barrier to seeking help was attitudes about help-seeking, such as thinking that no one could help, that they should be strong enough to handle the problem on their own, that it would resolve itself, or that they were too embarrassed to discuss it with anyone. This type of attitudinal barrier was reported by 39% of the young adults who had engaged in self-harm. A significant limitation of this study arose from the fact that too few respondents reported engaging in traditional self-harm in order for the separate groups, traditional self-harm versus lesser self-harm, to be analyzed separately for some of the variables, including barriers to help-seeking. As such, individuals with a wide variety of behaviours, from serious suicide attempts to biting one's lip, were present in this sample. This lack of problem specificity makes it difficult to draw conclusions. For example, the most common reason for not seeking help was that it was not considered necessary. For participants engaging in relatively minor self-harm, this is a more realistic belief than someone who has attempted suicide or overdosed. Because all participants were analyzed together as a group, it is unclear whether the severity of the problem influenced the types of barriers reported.

Mojtabai and Olfson (2008) also studied professional help-seeking for DSH among children and adolescents aged 5 to 16 years in the UK. Of primary interest in this study was parental detection of DSH. Because parents are likely to have a large influence

on the contact that self-harming youth have with sources of professional help, the help-seeking rates in this study cannot be directly compared to the studies of individual help-seeking reviewed above. The study sample included 7,036 parent-child dyads drawn from two national mental health surveys, conducted in 1999 and 2004. Parental detection was low, with 2.7% of parents reporting DSH in their children, compared to 6.6% of the youth. Parents were found to be more accurate in their report of DSH when they were of White ethnicity, were mothers of girls, experienced psychological distress themselves, or if their children were older or had emotional or behaviour problems. Parents who indicated that their child had significant emotional or behavioural problems were asked whether they had spoken to a professional about these problems. Thus, professional help-seeking was defined as having sought advice or treatment from a social worker, teacher, special education specialist (e.g., school psychologist, school counselor), general practitioner, psychiatrist, psychologist, or a hospital or community pediatrician. Results indicated that children of parents who were aware of their DSH were more likely to receive professional help, compared to children of parents who were unaware of their DSH. Of parents whose children also reported DSH, 88% of the 1999 sample and 94% of the 2004 sample had sought professional help, whereas the help-seeking rate among those with child-reported DSH only was approximately 50% across the two survey samples (exact values were not reported). This suggests that when parents become aware of their child's DSH, they are very likely to at least consult a professional, or ensure that their child receives treatment. As such, the high rates of help-seeking obtained in this study do not reflect individual help-seeking for DSH, but rather parental reporting of help-seeking behaviours. Overall, this study suggests that while parental detection of DSH is low, it is

a strong predictor of professional help-seeking. It is unclear, however, whether child age influences the effect of parental detection on help-seeking, as this sample included children within a wide age range.

The above studies indicated that between 30 and 56% of youth or young adults who engage in non-suicidal self-harm or DSH seek help for this issue. The tendency to avoid help seems to also be reflected in informal help-seeking for NSSI, as research has found that only 40% of self-injurers report that someone is aware of their NSSI (Whitlock, Eckenrode, et al., 2006). This suggests that the number of adolescents who come forward and disclose their self-injury to professionals or even family members and friends is a major under-representation of the number of youth who engage in this behavior. Lack of disclosure of self-injury also suggests that there is stigma associated with NSSI. While limited research has been conducted on NSSI and stigma, preliminary results suggest that self-injuring adolescents who are socially stigmatized have lower social competence compared to their non-stigmatized self-injuring peers (Kulikowska & Pokorski, 2008). Additional research has shown that health-care students, particularly males and medical students, have greater anger toward self-harming young people (Law, Rostill-Brookes, & Goodman, 2009). These feelings of anger were associated with less willingness to help. This suggests that greater stigma may be associated with NSSI compared to other mental health issues or behaviours.

The fact that many individuals who self-injure are functioning well enough to go undetected by the health care system also raises important questions about whether those who engage in self-injury in a high-school population are more likely to suffer poor future outcomes compared to their peers who do not engage in self-injury. The strong

association with suicide-related behaviours and heightened distress suggest so, but additional studies are needed. Further, it is unclear whether a lack of social support contributes to self-injurious thoughts or behaviours, or whether there is a tendency for adolescents who are experiencing these problems to isolate themselves from their social network. Previous research has demonstrated that having low parental support and acceptance is associated with suicidal phenomena in adolescents (Jones, 1991), but causality cannot be inferred. Alternatively, it is possible that adolescents with problems have fewer people to rely on for emotional support because of their problems, or their responses to them, have driven their sources of support away.

While the four studies conducted to date have shown low levels of help-seeking among youth for both non-suicidal self-harm and DSH, no study has yet to investigate help-seeking for NSSI. Also, researchers have not specifically examined the school setting as a possible source of help or support. It is thought that schools may be an appropriate setting for primary prevention and intervention services, yet it is unknown how many youth would actually take advantage of help for self-injury if it was made available in their school.

The Current Study

The central purpose of this research study is to determine if high school students who engage in NSSI view their schools as a place where they are willing to access help or support services, as well as to delineate the personal and social variables involved in willingness to access help for NSSI in schools. Specifically, this thesis will address five key research questions:

(1) What is the percentage of high school students who engage in NSSI who report

that they are willing to seek school-based help?

(2) Are there gender differences among students in terms of their willingness to seek help in the school setting?

(3) What is the relationship between indices of NSSI, specifically frequency and body locations of self-injury, and student willingness to seek help for this behaviour?

(4) What is the relationship between the number of people who know about students' engagement in NSSI and their willingness to seek help at school?

(5) What is the relationship between worries about violence at school or in the community and willingness to seek help for NSSI?

Chapter 3

Method

Participants

Survey data was collected from 7126 high school students (3503 male, 3623 female), ranging in age from 11 to 19 years (*M* age = 14.92, *SD* = 1.61) and across grades 6 to 12. Participants were recruited from 11 school districts in the Greater Kansas City Metro area in early 2007. In total, students from 13 high schools and 18 middle schools participated. The number of participating schools from each school district ranged between one and eight. Because students completed the surveys during class time on computers, entire classes were chosen to participate. These classes were selected randomly. The percentage of participating students from each school varied; however, a minimum participation rate of 25% was achieved at each school. It is unknown how many of the students who were in the selected classes chose not to complete the survey. Parents had the right to refuse consent for their children to participate, and a total of six students withdrew based on parental refusal. Tables 1-3 provide the breakdown of this overall sample by age, gender, grade, and ethnicity. All tables in the current thesis are presented in Appendix A.

From the overall sample, a sub-group was formed of students who indicated that they had hurt themselves on purpose at least once (*n* = 1873). Within this self-injury group, a further group was formed of students who had engaged in self-injury, but had never done so with suicidal intent. The specific criteria for inclusion in this NSSI group are described in the Procedure section. A total of 654 participants comprised the NSSI group. Specifically, 13.4% (*n* = 486) of the female students and 4.8% (*n* = 168) of the

male students from the overall sample were included in the NSSI group, resulting in a group comprised of 74.3% female students and 25.7% male students. The rates of NSSI for the different age, grade, and ethnic groups are presented in Tables 4-6. The mean age of this group was 14.88 (*SD* = 1.48). The ethnic breakdown of the NSSI group was as follows: 76% White, 4.1% Black, 4.9% Hispanic, 4.4% Multiethnic, 2.6% Native Alaskan or Native American, 1.7% Pacific Islander, and 4% self-identified as "other."

Based on whether or not they would seek help at school, respondents who engaged in NSSI were divided into two groups: Help-Seekers (HS; *n* = 88) and Non-Help Seekers (NHS; *n* = 566). The specific question on which the formation of these groups was based is described in the Procedure section. HS participants were matched with participants in the NHS group based on gender, ethnicity, age, and grade, resulting in 88 matched pairs. The mean age of this final sample of 176 participants was 14.60 (*SD* = 1.33), with a mean grade of 8.73 (*SD* = 1.42). Seventy-five percent of the sample was female, and 25% male.

Measures

The Kauffman Teen Survey (KTS) was used to collect data from the participating high school students. The KTS is a comprehensive lifestyle survey which covers a broad range of questions related to adolescents' physical, social, and emotional well-being. The Ewing Marion Kauffman Foundation developed the KTS and it began surveying Kansas City area teenagers during the 1984-85 school year. The mission of the KTS project is to measure and report the status of teen well-being, and the Ewing Marion Kauffman Foundation uses the data to guide the development and implementation of their prevention programs. Research consultants from the Partnership for Children (PFC), an agency in Kansas City, were the administrators of the KTS and were responsible for

posting the survey online. The Heath Research Team collaborated with PFC consultants to develop the section of the KTS related to NSSI.

The KTS contains 125 questions, a large majority of which are in either multiple choice or checklist format. Also, some open-ended questions allow the respondent to type in his or her own answer. This online survey is computer-adaptive, such that students' responses to questions influence the subsequent questions that are asked. Thus, most respondents are not asked all 125 questions. The survey was developed and administered online using SurveyPro 3.0 software.

The KTS collects information about many aspects of adolescents' lives, including:

(a) Demographic information: grade; age; gender; ethnicity/race; religious association

(b) Family characteristics: family composition; family economic status; after-school supervision; level of trust in parents

(c) School functioning: participation in academic programs (e.g., IEP, advanced studies), average school grades; how many classes skipped; level of trust in teachers, administrators, counsellors; likelihood of graduation; expectation of attending postsecondary education

(d) Neighbourhood characteristics: feelings of safety in community; worries about violent events occurring in neighbourhood

(e) Alcohol and drug use: frequency of cigarette smoking, drug use, and alcohol consumption; types of drugs tried; age when first tried alcohol

(f) Safety and violence-related behaviours: ever carried a weapon; ever threatened/injured on school property; school days missed because felt school was unsafe; number of times in physical fights; frequency of being bullied at school; frequency of bullying other

students; ever been physically, mentally, or sexually abused; engagement in self-injury and/or suicide-related behaviours

(g) Nutrition: consumption of fruit, vegetables, milk; height; weight; engagement in dieting behaviours (e.g., fasting, laxatives, calorie restriction); amount of exercise

(f) Television and internet use: average number of hours spent watching TV and using internet; parental use of control software for internet; engagement in internet activities (e.g., gambling, chatting)

For example, to assess students' perception of their economic status, they were asked, "when thinking about your lifestyle, how would you describe your family's income?" Five options were provided, including low income, lower middle income, middle income, upper middle income, and upper income.

Midway through the questionnaire, respondents were asked if they have ever physically hurt themselves on purpose. Those who reported doing so were then asked a series of follow-up questions regarding their self-injurious behaviours. These questions assessed aspects of the respondents' self-injury, such as body locations, frequency, and age of onset. Table 7 presents the full section of questions related to NSSI in the KTS.

Procedure

The high school students in this sample were asked to complete an online survey exploring behaviours and variables related to teen health. Because the KTS is carried out yearly in Kansas City schools, students are generally familiar with the content and purpose of the survey. Before starting the survey, students were told that no individual results would be examined, and all published results would be in aggregate form. They completed the online survey during class time in computer labs at their schools. The

surveys were completed in a group setting; however, the students worked on individual computers and were not permitted to discuss their responses. When available in the schools, dividers between desks were employed. Students were given between 40 and 115 minutes to complete the survey, depending on the length of class periods at the participating schools.

As part of the questionnaire used in this study, respondents were asked if they had ever physically hurt themselves on purpose. Those who reported doing so were asked two additional follow-up questions. The first question was to assess if they had ever done so with suicidal intent: "Did you ever hurt yourself because you wanted to die?" Respondents who indicated that they had ever self-inured with intent to die were eliminated from the current sample. The purpose of the second question was to assess whether they had self-injured to deal with stress: "Did you physically hurt yourself to deal with problems or stress (e.g., cutting/burning your skin) without wanting to die?" A computer error occurred such that participants who indicated that they had physically hurt themselves on purpose in the initial question about NSSI but who indicated that they had not done so to deal with stress were eliminated from the sample. Thus, the criteria for the NSSI group were as follows: (1) students who have physically hurt themselves on purpose to deal with stress, and (2) who have never hurt themselves because they wanted to die.

To determine whether students in the NSSI group were willing to access help for the behaviour at school, respondents were asked: "If your school offered a program to help kids with self-injury, would you go (or would you have gone in the past)?" Participants who were willing to seek help at school (HS group) were matched with

participants who were not willing to seek help (NHS group) based on gender, ethnicity, age, and grade. For each participant in the HS group, a list of all possible matches in the NHS group was generated, and a match was randomly selected using a computerized list randomizer. When no exact matches existed in the NHS group, a list of the closest matches was generated. For example, some participants were matched with other students with the same gender, ethnicity, and grade, but one year apart in age. Of the 88 matches, 70 (79.5%) were matched exactly on all of four of the variables. Of the remaining 18 matches, 16 differed on one of the four matching categories and two differed on two of the matching categories.

Parental consent was obtained for all students in grades 6 through 12 across each school district; parents were informed by letter about the nature of the survey and alerted to their right to refuse. Prior to participation, adolescents provided their own informed assent.

Chapter 4

Results

Of the 654 respondents who reported engaging in NSSI, 88 participants (13.5%) indicated that they would access help if it were available at their school. Of the female respondents in the NSSI group, 13.8% (n = 67) reported that they would seek help at school for the behaviour, whereas 12.5% (n = 21) of the male participants were willing to do so. Further, the help-seeking rates by age, grade, ethnicity, and economic status are presented in Tables 8-11 in Appendix A. The results of a chi-square analysis indicate that there are no gender differences among students in terms of their willingness to seek help in the school setting. The percentage of females who reported that they would access help at school for NSSI was not significantly greater than that of males, X^2 (1) = .177, p = .674.

In addition, chi-square analyses were conducted to determine if the percentage of students who are willing to seek help for NSSI differs by ethnicity or economic status in comparison to their non-help-seeking peers. It was found that willingness to seek help did not differ by self-reported ethnic group, X^2 (6) = 3.507, p = .743. In terms of self-reported family income, results of the chi-square shows that willingness to seek help did not differ by self-reported economic standing group, X^2 (4) = .773, p = .942.

Matched Groups Results

The relationships between indices of NSSI, specifically the methods, frequency and body locations of self-injury, and student willingness to seek help for this behaviour were investigated using one-way ANOVAs. Eta squared (η^2) is reported throughout as a measure of effect size. This indicates the amount of the total variance that is explained by

the independent variable. According to Cohen (1988), effect sizes for one-way ANOVAs can be classified into three categories: .10 is a small effect, .25 is a medium effect, and .40 is a large effect.

The number of methods of NSSI endorsed by the participants did not differ between the HS (M = 1.77, SD = .99) and the NHS (M = 2.07, SD = 1.26), F (1, 174) = 3.00, p = .085. This effect had a small effect size of η^2 = .130, and an observed power of .406. The reported lifetime frequency of NSSI was not different for the HS group (M = 10.35, SD = 21.12) and the NHS group (M = 15.70, SD = 59.16), F (1, 157) = .570, p = .452. This analysis had a very small effect size of η^2 = .063, with a power estimate of .117. The number of body locations did not differ between the HS (M = 1.64, SD = .80) and the NHS groups (M = 1.66, SD = 1.06), F (1, 174) = .026, p = .873, with a non-existent effect size of η^2 = .000, and a power estimate of .053.

Further, the average age of onset of NSSI among HS (M = 12.58, SD = 2.38) and NHS (M = 12.80, SD = 2.56) did not differ, F (1, 169) = .340, p = .561. This effect had a small effect size of η^2 =.045. The power estimate for age of onset was .089.

The relationship between the number of people who know about students' engagement in NSSI and their willingness to seek help at school was also analyzed. It was found that the HS group endorsed significantly more categories of people who knew about their NSSI (M = 2.56, SD = 2.12) compared to the NHS group (M = 1.92, SD = 2.11), F (1, 174) = 3.984, p = .047. This analysis had a small effect size of η^2 = .148, and a power estimate of .510. The most common categories of people who knew about the respondents' NSSI were friends, parents, boyfriend/girlfriend, and siblings. The frequencies of the categories of individuals as reported by the participants are presented

in Figure 1.

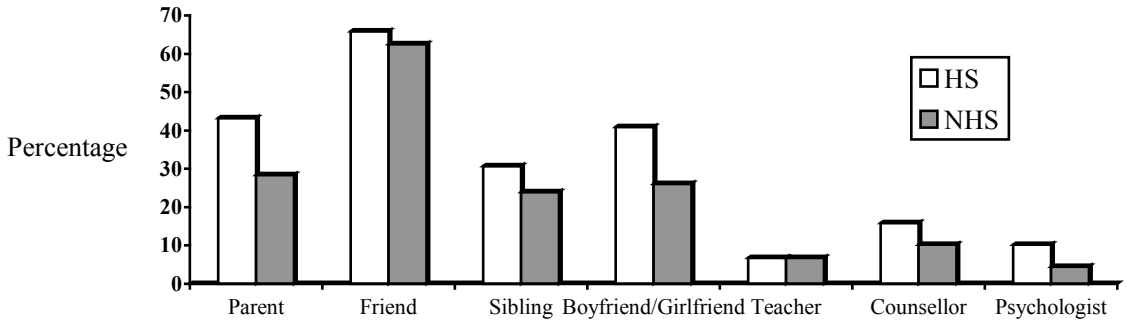

Figure 1. Percentage of respondents who report that various categories of people know about their NSSI, for the help-seeking (HS) and non-help seeking (NHS) matched groups.

Also of interest was the relationship between worries about violence at school or in the community and willingness to seek help for NSSI. It was found that the HS group had greater worries about some types of violence in their community. Specifically, members of the HS group (M = 1.85, SD = 1.12) had greater worries about gang violence than the NHS group (M = 1.51, SD = .86), F (1, 172) = 4.98, p = .027. The effect size for this analysis was small (η^2 = .167), and the power estimate was .602. Participants in the HS group (M = 2.22, SD = 1.18) also worried more about sexual harassment compared to the NHS group (M = 1.84, SD = .93), F (1, 173) = 5.54, p = .020. This effect had a small effect size (η^2 = .176), and a power estimate of .648. Similarly, those in the HS group (M = 1.76, SD = 1.13) were more worried about drug use than the NHS (M = 1.46, SD = .82), F (1, 172) = 3.99, p = .047. This effect had a small effect sizes of η^2 =.152, and a power estimate of .510. The HS (M = 2.05, SD = 1.03) had greater worries about getting hurt in

their neighborhood than the NHS (M = 1.50, SD = .70), F (1, 174) = 17.02, p <.001; this effect had a moderate effect size of η^2 = .298 and a power estimate of .984. The groups also differed in the number of days of school they had missed because they felt unsafe. Specifically, the HS group had missed more days for this reason (M = 1.25, SD = .65) than the NHS group (M = 1.06, SD = .23), F (1, 174) = 6.93, p = .009. This effect had a small effect size of η^2 = .195, with a power estimate of .745.

Chapter 5

Discussion

The present research study sought to address two central questions. First, how many high school-age students who have ever engaged in NSSI are willing to seek support services for this behaviour in the school setting; and, secondly, what personal or social variables are correlates of their willingness to seek help. The current study extended the finding of previous help-seeking studies by focusing on hypothetical help-seeking rather than actual help-seeking. Previous studies have asked individuals who engage in NSSI whether they have sought professional help for the issue, whereas respondents in this study were asked if they would seek help if a program designed to help students with NSSI was offered in their school. This is the first study to ask participants if they would seek help from a program meant specifically for NSSI. Further, the specification of help-seeking in the school setting is also an original element of the current study, as no researchers have investigated help-seeking for NSSI in schools.

In regards to the first research question, results indicated that only 13.5% of students who had engaged in NSSI in this sample were willing to seek help at school. While this finding is consistent with evidence that a substantial percentage of adolescents and young adults who engage in NSSI do not seek or receive help (e.g., Lloyd-Richardson et al., 2007; Whitlock, Eckenrode, et al., 2006), the rate of help-seeking for NSSI in this study is lower than those previously documented for non-suicidal self-harm or DSH. The single previous study of help-seeking for non-suicidal self-injurious behaviours used a population-based sample of youth aged 14 to 21 years (Nixon et al., 2008). They also employed a definition of self-harm based on the CASE definition of

DSH, yet excluded self-harm with suicidal intent. Thus, in contrast to the present study, Nixon et al.'s study included overdoses as a form of self-harm. Also, rather than asking youth about their willingness to seek help, Nixon et al. tapped actual engagement in help-seeking. They found a substantially higher percentage of help-seekers (56%) than those identified in the current study. A main reason for this difference is that Nixon et al. included both informal help-seeking from friends or family members, as well as formal help-seeking from professionals. Also, because this study asked participants whether they had actually sought help in the past, it is likely that a portion of those who indicated that they had accessed help did not actively seek help themselves, but rather were forced to receive treatment or help by their parents or school staff. In contrast, the current thesis focused on students' willingness to seek help or support services in the future, and it may be that many of those unwilling to seek help at school will eventually receive treatment for their NSSI either unwillingly or willingly in a setting other than school.

Further, studies of help-seeking for DSH among youth have found help-seeking rates ranging from 30 to 61% for informal help-seeking, and 7.3 to 55% for formal help-seeking (DeLeo & Heller, 2007; Evans et al., 2005; Nada-Raja et al., 2003). In addition, Mojtabai and Olfson (2008) found that their rate of professional help-seeking among children and adolescents who have engaged in DSH rose from approximately 50% to 94% when parents were aware of their children's DSH.

It is significant that not only do few self-injurers seek help, but few are hypothetically willing to seek help, especially in the school setting. A barrier thus may exist in one of the first two stages of help-seeking: recognizing there is a problem, or deciding that help is needed. It is unclear whether adolescents who engage in NSSI do not

recognize the extent or seriousness of their difficulties or whether they recognize that they need help but do not access it because of other factors, such as negative attitudes toward the available sources of help or feelings of stigma or shame.

In terms of the first possibility, that adolescents who engage in NSSI underestimate their need for help, this is consistent with a finding by Evans et al. (2005) that a quarter of adolescents who actually engaged in self-injury did not think they had a serious problem. However, because severity of NSSI was unrelated to willingness to seek help in the current study, this suggests that regardless of the students' perception of the severity of their NSSI, most will not access help at school.

In terms of the latter possibility, adolescents may recognize the negative social consequences, or stigma, associated with accessing psychological services in general, or for NSSI in particular, and avoid such outcomes. Unlike previous studies of help-seeking for self-injury, participants in the current study were asked if they are willing to access support services in the school setting. This specification of the setting for help may have contributed to the lower rate of help-seeking for NSSI documented here. The school setting is a significant social environment for youth, and during the adolescent years, youth may experience intense pressures to "fit in" among their classmates. As such, receiving support in the school setting may incite social stigma for students. Further, this low level of help-seeking and disclosure of NSSI suggests that the clients of school professionals who currently provide services or counseling for students with NSSI represent a small minority of the population of the self-injurers at their school.

Past research has shown that help-seeking may be influenced by conflicting approach and avoidance factors (e.g., Carlton & Deane, 2000). One of the most consistent

findings in this area is that females are more likely to seek help for psychological problems than males (e.g., Kessler, Brown, & Broman, 1981; Price & McNeill, 1992). In fact, female adolescents have been found to possess more positive attitudes toward seeking help for psychosocial problems from adults in a school setting (Garland & Zigler, 1994). Surprisingly, this was not supported in this sample of 654 adolescents who self-injure, as 12.5% of males and 13.8% of females were willing to access help at school. The phenomena of females being more willing help-seekers may not apply to the issue of NSSI. Additionally, it may be that high school-age boys who engage in NSSI are less likely to conform to traditional masculine gender norms. Because less help-seeking among males is attributed to sex-typed socialization and attitudes, it may be that these effects had less influence over the male participants in the NSSI sample. Further research is needed to explore this possibility.

An alternative explanation for the lack of gender differences may be that female students held equally stigmatizing attitudes in relation to seeking help for NSSI as males. Previous research has held that being female is associated with less stigmatizing attitudes in terms of seeking help for mental health problems (e.g., anxiety, depression) among adolescents. In the case of NSSI, which may be a more highly stigmatized issue compared to other problems such as anxiety or depression, and in the social context of school, both males and females may experience highly negative attitudes toward accessing services. This is supported by previous evidence that more than 50% of youth seek help for depression (Boldero & Fallon, 1995), and that some mental health issues are associated with greater stigma than others (Crisp et al., 2000). Compared to help-seeking for depression, a much smaller fraction of adolescents are even hypothetically willing to

seek help for NSSI, suggesting that help-seeking for NSSI is rare and not acceptable among high school students. In order to test this hypothesis, future research should examine high school students' attitudes toward NSSI.

There was no relationship between student willingness to seek help for NSSI at school and the NSSI-related variables studied. These variables included the self-reported lifetime frequency of NSSI, the number of methods of NSSI used by the respondents, and the number of body locations that students reported injuring. If these variables are taken as indicators of severity of NSSI, it seems that severity, and the greater psychological distress assumed to be associated with more severe NSSI, does not have an effect on one's willingness to access support. Previous research on the relationship between psychological distress and help-seeking has revealed somewhat mixed findings, whereby distress and problem severity are positively correlated with help-seeking (e.g., Komiya et al., 2000; Sheffield et al., 2004), however, suicidal ideation has a negating influence on help-seeking (Carlton & Deane, 2000). Because those who engaged in NSSI with a greater frequency, number of methods, and number of body locations were no more willing to seek help than peers with less severe NSSI, it may be that NSSI functions similar to suicidal ideation. This is supported by previous studies linking NSSI with suicidal behaviour (e.g., Whitlock & Knox, 2007). An alternative explanation is that some adolescents with more severe NSSI are more socially withdrawn than others with only one episode, method, or body location of NSSI, leaving themselves with fewer sources of help or support, as found by Evans et al. (2005). As the number of people that one has disclosed their NSSI to is associated with help-seeking in this sample, it may be that these adolescents with more severe NSSI behaviours have not received the necessary

informal support and encouragement from friends, and as such are unwilling to consider more formal help.

Results also indicated that students who had disclosed their NSSI to a greater number of people, such as parents, friends, or professionals were more willing to seek help. Not surprisingly, "friend" was the most popular response in the current study. This is consistent with previous studies that have documented a positive relationship between formal and informal help-seeking among young adults (Nada-Raja et al., 2003). It is possible that individuals who are comfortable disclosing their NSSI to family members, friends, or others are also willing to seek professional help, because they hold less stigmatizing attitudes about NSSI. Additionally, youth may be willing to access both informal and formal help due to personality characteristics, such as greater openness.

Interestingly, students in the help-seeking group indicated that they were significantly more worried about a variety of types of violence in their community, including gang violence, drug use, sexual harassment, and getting hurt in their neighbourhood. These potential help-seekers had also missed more days of school because they felt unsafe. The HS and NHS groups were almost identical in terms of perceived economic status. These differences, then, may be interpreted in terms of greater psychological distress, specifically anxiety, among those who were willing to seek help. Thus, these findings are consistent with previous research that has conceptualized psychological distress as an approach variable, such that as distress increases the probability of seeking help also increases (Carlton & Deane, 2000).

Taken together, these results suggest that high school students who self-injure and who are willing to seek help at school (13.5%) represent only a minority of the

population of students who engage in NSSI, and are not representative of this wider population. As a group, students who are willing to seek help for NSSI have disclosed their NSSI to a greater number of people, and have greater anxiety about their safety at school and in their community. Further, the findings that male and female students were equally unwilling to access support services at school and that help-seeking was not related to any of the indices of NSSI severity suggest that help-seeking for NSSI is not equivalent to help-seeking for other mental health issues. This may be due to a greater degree of stigma surrounding NSSI compared to other types of emotional or behavioural problems.

Future Directions

One of the central issues of this paper has been the variables related to willingness to seek help for NSSI. However, there remains the question about whether willingness to seek help in the school setting would indeed lead to actual help-seeking. Future studies should link willingness to seek help to actual formal help-seeking among the minority of students who do indicate such willingness. Future research in the area of NSSI and help-seeking among youth should focus on alternative avenues of support for these youths. Because the vast majority of adolescents who engage in NSSI are not willing to seek help at school for the behaviour, other sources must be considered. It would be worthwhile to ask a future sample of high school students to rate sources of support in terms of their willingness to access such services. In particular, sources of support could include non-traditional sources such as online support groups or telephone help-lines. It is likely that high school-age youth would be more willing to disclose their NSSI to these anonymous help services.

In addition, because the findings suggest that help-seeking for NSSI may not be equivalent to help-seeking for other mental health problems, additional research is needed examine help-seeking for this behaviour. In particular, researchers should investigate the relationship between adolescents' perception of the stigma associated with NSSI and their willingness to seek help.

Limitations

The data used in the current study were cross-sectional, self-reported, and retrospective. As such, the associations between help-seeking and disclosure of the behaviour to other people cannot be interpreted as causally linked. As with all self-report studies, there are issues with the honesty and forthrightness of responses.

Willingness to seek help for NSSI was assessed with one yes-or-no question: "if your school offered a program to help kids with self-injury, would you go (or would you have gone in the past)?" Using only this question to assess hypothetical help-seeking is not ideal because students' responses may have been influenced by different aspects of the question or interpreted the question in different ways. For example, some students may not view NSSI as a problem needing help, or may not see school as a favourable place to receive help. Asking a series of questions relating to seeking help or support for NSSI would give more information and possibly help clarify why the majority of the sample provided a negative response to this question.

A limitation of this study arises from the limited statistical power associated with one of the analyses. Specifically, while the ANOVA that was carried out to compare the number of methods of NSSI employed by those in the help-seeking and non-help seeking groups was non-significant, with greater statistical power it is likely that a significant

difference would be found. This analysis had a *p* value of .085, a small effect size of .13, and a low power estimate of .406. It is likely that with an ideal power of .7, those who are unwilling to seek help would be found to report significantly more methods of NSSI compared to students who are willing to seek help.

Another limitation in the current study relates to the computer programming for the questions related to NSSI. A computer error occurred such that students who indicated that they had hurt themselves on purpose without suicidal intent, but not to deal with stress, were not given the follow-up NSSI questions. Included in these follow-up questions was the respondents' willingness to seek help for NSSI at school. Because of this error, it is unknown whether the elimination of individuals who do not view their self-injury as related to stress biased the NSSI sample in this study. Indeed, an examination of the group of participants that were eliminated reveals that these self-injurers who more likely to be male and African- American, suggesting there may be a different group of self-injurers who engage in the behaviour for other reasons.

Implications

The results of this study have particular significance for mental health professionals working with youth. First, the results suggest that only a minority of adolescents are willing to seek support services for NSSI at school. This reluctance to seek help at school is equally pervasive among girls as boys, and it highlights the importance of identifying alternative routes of offering help to youth. One increasingly common source for social support for individuals engaging in NSSI is internet message boards (Whitlock, Powers, & Eckenrode, 2006). Because these online message boards are anonymous, youth are more likely to disclose their NSSI and discuss these behaviours openly. Here, self-

injurers are likely to give and receive informal support, however, they may also be exposed to a social group in which NSSI is normalized and encouraged (Whitlock, Powers, et al.). It is possible that future efforts at creating online communities for youth engaging in NSSI could be monitored and controlled, such that the risks associated with such groups is minimized or eliminated. For example, trained counsellors with experience in treating NSSI could supply youth with anonymous information on the nature of NSSI and available sources of treatment in their area. The results of the current study suggest that few adolescents would be willing to access such help; however, perhaps if it was available in an anonymous setting rather than at school, more youth would be willing to seek help for NSSI.

In conclusion, this thesis represents a new direction in research on NSSI by using a large, school-based survey and investigating variables related to adolescent willingness to seek help for this behaviour in school. The study found that not only are a large proportion of students engaging in NSSI, but the vast majority of students who self-injure, cutting across gender and ethnicity, are not willing to seek help. This emphasizes the need to reduce the stigma associated with NSSI and provide adolescents with sources of help outside the school setting, such as anonymous sources. The students who are willing to seek help represent a unique minority of self-injurers who are already open about their NSSI by disclosing it to other individuals in their life, or have a higher level of anxiety about negative things happening to them, such as violence in their community. In addition, a unique finding of this study was that willingness to seek help was not related to gender or symptom severity. This suggests that help-seeking for NSSI is influenced by a different set of variables than other mental health issues.

Chapter 6

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Appendix A: Tables

Table 1

Composition of Overall Sample by Age and Gender

Age	Total n	Male n	Female n	Percent of Total
11 years	59	28	31	0.8
12 years	177	79	98	2.5
13 years	822	370	452	11.5
14 years	2665	1340	1325	37.4
15 years	865	437	428	12.1
16 years	1319	648	671	18.5
17 years	503	242	261	7.1
18 years	673	332	341	9.4
19 years	43	27	16	0.6
Total	7126	3503	3623	100.0

Table 2

Composition of Overall Sample by Grade

Grade	n	Percent of Total
6	195	2.7
7	204	2.9
8	3500	49.1
9	401	5.6
10	1656	23.2
11	234	3.3
12	936	13.1

Table 3

Composition of Overall Sample by Ethnicity

Ethnicity	n	Percent of Total
Asian/Pacific Islander	149	2.1
Black	1035	14.5
Native Alaskan/Native American	112	1.6
Spanish/Hispanic	404	5.7
White	4776	67.0
Multi-Ethnic	332	4.7
Other	318	4.5

Table 4

NSSI Rates by Age

Age	n (age group N)	Percent of Group
11 years	2 (59)	3.4
12 years	11 (177)	6.2
13 years	68 (822)	8.3
14 years	267 (2665)	10.0
15 years	87 (865)	10.1
16 years	121 (1319)	9.2
17 years	49 (503)	9.7
18 years	47 (673)	7.0
19 years	2 (43)	4.7

Table 5

NSSI Rates by Grade

Grade	n (grade N)	Percent of Group
6	9 (195)	4.6
7	12 (204)	5.9
8	343 (3500)	9.8
9	41 (401)	10.2
10	155 (1656)	9.4
11	27 (234)	11.5
12	67 (936)	7.2

Table 6

NSSI Rates by Ethnicity

Ethnicity	n (ethnic group N)	Percent of Group
Asian/Pacific Islander	11 (149)	7.4
Black	42 (1035)	4.1
Native Alaskan/Native American	71 (112)	15.2
Spanish/Hispanic	32 (404)	7.9
White	497 (4776)	10.4
Multi-Ethnic	29 (332)	8.7
Other	26 (318)	8.2

Table 7

KTS Questions about NSSI

Students have to deal with a lot of stress. When you have had problems to deal with, have you ever physically hurt yourself on purpose?

- Never did this
- Did this only once
- Did this a few times to cope with stress
- Frequently did this to cope with stress

You indicated that you have physically hurt yourself on purpose before, when you did this…

Did you choose to hurt yourself because you wanted to die?

- No, never
- Yes, a few times
- Yes, always

Did you physically hurt yourself to deal with problems or stress (e.g., cutting/burning your skin) without wanting to die?

- Never did this
- Did this only once
- Did this a few times to cope with stress
- Frequently did this to cope with stress

Did you physically hurt yourself for another reason?

- No
- Yes

If you answered yes to the above, please explain

Check any of the ways that you have hurt yourself on purpose without wanting to die (this is sometimes called "self-injury")

- Cut your wrists, arms, or other areas of your body
- Burned yourself
- Scratched yourself, to the extent that scarring or bleeding occurred
- Banged your head against something, to the extent that caused a bruise to appear
- Punched yourself, to the extent that you caused a bruise to appear
- Other

What parts of your body have you hurt?

- Arms
- Legs
- Stomach
- Chest

Genitals
Face
Other

How old were you when you first hurt yourself on purpose this way?

Who knows that you have hurt yourself on purpose this way? Check all that apply
Parent
Bother/Sister
Other relative
Friend(s)
Boyfriend/Girlfriend
Internet friend
Teacher
Coach or instructor
Doctor
Nurse
Social worker
Psychologist
Counselor
No one knows
Other

About how many times have you hurt yourself on purpose throughout your life?

If your school offered a program to help kids with self-injury, would you go (or would you have gone in the past)?
No
Yes

Table 8

Help-Seeking Rates by Age

Age	n (Age Group N)	Percent of Group
11 years	0 (2)	0
12 years	3 (11)	27.3
13 years	9 (68)	13.2
14 years	41 (267)	15.4
15 years	12 (87)	13.8
16 years	12 (121)	9.9
17 years	9 (49)	18.4
18 years	2 (47)	4.3
19 years	0 (2)	0

Table 9

Help-Seeking Rates by Grade

Grade	n (Grade N)	Percent of Group
6	3 (9)	33.3
7	1 (12)	8.3
8	54 (343)	15.7
9	4 (41)	9.8
10	15 (140)	9.7
11	2 (27)	7.4
12	9 (67)	13.4

Table 10

Help-Seeking Rates by Ethnicity

Ethnicity	n (Ethnic Group N)	Percent of Group
Asian/Pacific Islander	0 (11)	0
Black	5 (42)	11.9
Native Alaskan/Native American	4 (17)	23.5
Spanish/Hispanic	5 (32)	15.6
White	66 (497)	13.3
Multi-Ethnic	4 (29)	13.8
Other	4 (26)	15.4

Table 11

Help-Seeking Rates by Economic Status

Economic Status	n (Income Group N)	Percent of Group
Low Income	3 (24)	12.5
Low Middle Income	17 (129)	13.2
Middle Income	37 (289)	12.8
High Middle Income	27 (191)	14.1
High Income	4 (21)	19.0