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Examining suicidal ideation among street involved youth : a resilience perspective

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EXAMINING SUICIDAL IDEATION AMONG STREET INVOLVED YOUTH: A RESILIENCE PERSPECTIVE

by

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A thesis

presented to Ryerson University

In partial fulfillment of the
requirements for the degree of

Masters of Nursing

In the program of

Nursing

Toronto, Ontario, Canada, 2007

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Examining Suicidal Ideation among Street Involved Youth: A Resilience Perspective

Frederick Jan Go

Master of Nursing

Master of Nursing

Ryerson University, Toronto, 2007

Abstract

This exploratory study examined risk factors and protective resources for suicidal ideation among street youth in four community agencies in metro Toronto. A secondary data analysis of 65 street youth from a collaborative project funded by the Wellesley Institute was undertaken to explore the relationships between suicidal ideation and age, gender, sexual orientation, history of physical/sexual abuse, depression, hopelessness, self-esteem, social connectedness and resilience. Results of the analysis revealed that high levels of self esteem, social connectedness and resilience are protective of suicidal thought, while an increase in age, being unsure of one's sexual orientation, and a high level of depression, as well as hopelessness were found to be risk factors for suicidal ideation. A history of physical abuse and/or sexual abuse was found to be significantly related to suicidal ideation at a 0.05 level, but for this study, it was not considered to be significant (significance level set at 0.01). Implications of these findings are discussed.

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Chapter I- Introduction

Background

Homeless youth or street youth are young people who are frequently immersed in street culture and who are without the benefit of permanent residency (Baer, Peterson & Wells, 2004). It has been well documented in the literature that homeless youth suffer from a broad range of physical and psychological health challenges as a result of the stressful conditions of street life (Argeriou, McCarty & Mulvey, 1995; Hwang, 2002; Mayor's Task Force, 1999). For example, Feldmann & Middleman (2003) reported that street youth frequently contract sexually transmitted infections, tuberculosis, asthma and hepatitis as a consequence of life on the street. Furthermore, empirical evidence reveals that homeless youth also experience mental health symptoms such as hopelessness, substance misuse, depression, anxiety, psychosis, low self-esteem, antisocial behavior and suicidal behavior (Fieldmann & Middleman; Miller et. al., 2004; Sarbeet, Sharma, Shivananda, Saha & Ingie, 2004).

Inevitably, the combination of these physical and mental health challenges place homeless youth at greater risks for early mortality. In fact, Hwang (2000) documented that mortality among homeless adults and youth is much higher compared to the general population. He found that suicide was reported as one of the leading causes of death among men 18 to 24 years old using the shelter system in Toronto (Hwang). Similarly, a study conducted by Roy, Haley, Leclerc, Sochanski, Boudreau & Boivin (2004) on mortality among street youth found that the mortality rate among this marginalized group exceeds 11 times the rate observed among youth in the general population. The primary observed cause of death among these street youth was suicide, accounting for 13%, which surpassed physical illnesses (Roy et. al.).

The high rate of suicide behavior in homeless youth is a growing concern. Adlaf,

Zdanowicz & Smart (1996) reported that suicide attempts and ideation among homeless youth take place at a rate of over 100 times that of the national average. Kidd's (2002) qualitative study reported that among street youth who participated, 27% stated that they had thoughts of engaging in suicide both before they became homeless, as well as during their homelessness. Molnar, Kral, Booth & Watters (1998) research study further supported this finding, reporting that among those homeless youth that agreed to participate, 75% had reported suicide attempts, while 72% of females and 51% of males had reported suicidal ideation. Similar studies conducted by Rotheram-Borus (1993) and Yoder (1999) found comparable findings. Given these astonishing statistics, it is clear that suicide behavior amongst homeless youth is a health issue that needs to be addressed.

Problem statement

Although, the alarmingly elevated rates of suicidal thoughts and behavior among street youth is an urgent concern, the issue of suicide behavior among this high-risk group has been inadequately addressed in current research literature (Kidd, 2003). Ultimately, in order to better understand the phenomenon of suicidal ideation among homeless youth, there is a need for an empirical study that explores what places this population at risk for suicidal ideation and what protects them from such harmful thoughts that lead to behaviors.

Resilience is a concept which encompasses both risk and protective factors that may influence ways in which an individual copes with adverse events (Lawford & Eiser, 2001). Stewart, Reid and Mangham (2001) defined the concept as the capacity of individuals to successfully adapt to significant changes, adversity or risk. This capacity to adapt may be enhanced by protective factors within the person and the environment. A resilient individual has the ability to focus on productive functioning that may protect him or her during periods of stress

and threat. The conceptualization of resilience “as a reason for how some people succeed and experience well-being despite adversity modifies the focus of suicidal behavior from psychopathology to greater consideration for the complex interaction of risk and protective factors” (Rew, Thomas, Horner, Resnick & Beuhring, 2001c, p. 362). Thus, resilience served as the conceptual framework for this study, which aims to understand what places youth at risk for suicidal ideation and what protects youth from these harmful thoughts.

Risk factors within the resilience framework expose street youth to conditions associated with a higher incidence of suicidal ideation (Tusaie, 2004). Several empirical studies have provided some preliminary evidence that certain risk factors may place street youth at increased risk for suicidal ideation and attempts. These factors include low self esteem (Leslie, Stein & Rotheram, 2002; Thomson, Moody & Eggert, 1994; Yoder, 1999), depression (Leslie et. al.; Rotheram-Borus, 1993; Thompson et. al.; Votta & Manion, 2003), and certain individual characteristics such as age, gender, sexual orientation, and history of physical and/or sexual abuse (Leslie et. al.; Molnar, Shade, Kral, Booth & Watters, 1998; Noell & Ochs, 2001; Rew, Taylor-Seehafer & Fitzgerald, 2001a; Yoder, 1999). Hopelessness is also considered to be a risk factor for suicidal ideation in street youth. Kidd’s qualitative study on street youth suicide found hopelessness to be one of the factors that left street youth feeling suicidal and thinking about wanting to end their lives.

Protective resources within the framework of resilience may operate to counterbalance risk factors (Rew & Horner, 2003). An empirical study undertaken on the phenomenon of street youth suicide has identified high self esteem, low depression, and a positive social connectedness to be factors that decrease street youth’s risk for suicidal ideation and suicide attempts (Thompson et. al., 1994).

In order to increase our understanding of suicidal ideation amongst this marginalized youth population, the protective role of positive self esteem and social connectedness, as well as the risk factors of depression, hopelessness and certain individual characteristics were explored from the framework of resilience. It was hoped that an increased understanding of risk and protective factors would enable the development of appropriate suicide prevention strategies for at risk homeless youth. This understanding could assist healthcare professionals to develop interventions to both prevent and address the issue of suicidal ideation amongst this vulnerable population.

Accordingly, the purposes of this study were to: (a) explore relationships amongst related risk and protective factors, and suicidal ideation; as well as (b) identify those variables which best predict suicidal ideation among street youth.

Chapter II – Literature Review

Introduction

Suicidal behavior among street youth is a poorly understood phenomenon, yet these youth are a high risk group for engaging in suicidal behavior (Kidd, 2003). Nevertheless, recent literature has suggested that this vulnerable group may possess relatively high levels of resilience in the context of their life on the street, which may serve a protective function (Rew, Taylor-Seehafer, Thomas & Yockey, 2001b). Overall, there has been relatively little literature addressing suicidality among this vulnerable adolescent group, including those factors which place them at risk for suicide and those factors which protect these youth from suicide. Given the limited literature concerning suicide in the street youth population, it is necessary to consult the literature concerning adolescent suicide. Although this study focused on suicidal ideation in particular, this review provided an overview of the theoretical and empirical literature relevant to suicidal behavior, which includes suicidal ideation, suicide attempts as well as suicide gestures, and its associated risk and protective factors, in both the adolescent and the street youth population. In addition, factors such as age, gender, sexual orientation, social connectedness, self esteem, depression and hopelessness thought to be relevant to suicidal behavior in street youth were also addressed. A general overview of the problem of street youth characteristics will be presented initially to provide a context for the review.

Street Youth

Homelessness among youth is a persistent problem that continues to confront this country. Specifically, it has been reported that the largest number of homeless Canadian youth live in Toronto, Vancouver, and Calgary (Hwang, 2001). A statistical report released by Covenant House, a Toronto shelter for street youth, estimated that in 2004, approximately 33,000

Canadians were homeless, and approximately 8,333 to 11,000 of those Canadians were youth. From the same report it was estimated that at least 10,000 youth were homeless in the city of Toronto, and that anywhere from 1,500 to 2,000 become homeless on any given night.

Street youth are those youth who have faced homelessness on their own rather than as a child of a homeless family group (Miller, Donahue, Este & Hofer, 2004). They are also those youth who have not lived at home or have been without a place of their own for at least one month. Although the age of street youth participants varies across studies, the age range is usually between 14 to 25 years (Ensign & Panke, 2002; Gaitz, O'Grady & Vaillan Court, 1999; Miller et. al.). Similarly, the age range of youth who utilize shelters and services for street youth within Toronto is between 16 and 24.

The etiology of homelessness among youth is multifaceted and complex, frequently including the combination of natural, familial and situational factors. Empirical research has identified several factors that contribute to the decision of youth to leave home. Among the primary reasons are familial conflict, inadequate family functioning, experience of violence such as physical and sexual abuse, lack of permanence, and alcohol and drug use (Byrne et. al., 2005; Miller et. al., 2004). Gritz, O' Grady and Vaillancourt (1999) reported that in a sample of homeless youth (N= 351), 19% of males and 40% of females cite sexual abuse as being a key factor leading to their life on the streets, and 39% of males and 59% of females identify physical abuse as also being a factor. This study also reported "being thrown out" as an important reason for leaving home, with 30% of the sample reporting that the decision to leave home was made jointly by both parents (Gritz et. al.). Similarly, Busen and Beech (1997) reported that one-third of their sample of 150 homeless youth had reported sexual abuse, and 22.9% reported parental abandonment as a reason for becoming homeless. In a qualitative study of 41 street youth,

Miller et. al. found addiction of the parents and the youth themselves were significant contributors to homelessness. Finally, several studies have documented that the decision to leave home was made by the youth themselves (Argeriou, McCarty & Mulvey, 1995; Busen & Beech; Gritz et. al.; Miller et. al.). Hyde (2005) takes this idea further and suggests that the decision to leave home is not an act of rebellion or experimentation with personal freedom, but rather the decision to leave home is a path toward self determination which offers protection from negative experiences suffered in an unhealthy familial or institutional environment.

Street youth, by virtue of their circumstances, are subjected to a multitude of negative life experiences. According to Byrne et. al. (2005), “life on the street introduces these youth to a street economy and culture that includes drug/alcohol use, drug selling, gang involvement and survival sex” (p. 1). It is reasonable to expect that these experiences contribute to the development of negative physical and mental health outcomes, which further complicates the lives of these youth (Byrne). Given the range of persistent negative life experiences that occur for street youth, suicide attempts and ideation among this population take place at a rate of over 100 times that of the national average (Adlaf, Zdanowicz & Smart, 1996).

Suicidal Thoughts and Behavior

As indicated earlier, the literature related to suicide in adolescents was reviewed in order to provide a context for suicide in street youth. Suicide in adolescents has been increasingly acknowledged as an important clinical and public health concern. Specifically, statistics in the United States shows that suicide ranks among the top ten sources of death overall and among the two or three principal causes of death for individuals aged 15 to 25 years (Bologinini, Plancherel, Laget & Halfon, 2003). In Canada, McNamee and Offord (2006) of the Canadian Children Rights Council reported that in a survey of 15,000 grade 7 to 12 students in British Columbia,

34% knew of someone who had attempted or died by suicide; 16% had seriously considered suicide; 14% had made a suicide plan; 7% had made an attempt and 2% had required medical attention due to an attempt.

A debate often exists pertaining to the meaning and scope of the term suicide and suicidal behavior (Santa Mina & Gallop, 1998). Therefore, for the purpose of this study, suicide and suicidal behavior will be referred to as the “voluntary actions intending to bring about one’s own immediate death” (Bologinini et. al., 2003, p. 1652). Three types of suicide behavior are identified in the literature and include: suicidal ideation, suicidal gestures, and suicide attempts. Goldston (2003) provided the following definitions of these different types of suicide behavior as follows:

...suicidal ideation refers to any self-reported thoughts of engaging in suicide-related behavior. Suicide gesture refers to suicidal behavior for which the ultimate goal is at least partially something other than death. Suicide attempt refers to a potentially self-injurious behavior with a nonfatal outcome, for which there is evidence that the person intended at some level to kill himself/herself (p.14).

According to Joffe & Offord (1990), the incidence of the types of suicidal behaviors, specified above, are much more common than completed suicide, with ratio of attempted to completed suicide to be estimated at 120:1.

The exact pathway of events leading to suicidal ideation and suicide attempts among adolescents is unknown. There are no general answers as to why youth decide to commit suicide. However, various authors have proposed that suicidal behavior is a consequence of both external stress and internal conflict (Hawton, 1986; Maclean, 1990). Theoretical accounts suggest that there are six groups of primary motivating factors that influence adolescents to

engage in suicidal thoughts and behavior. These factors are described as follows: 1) losing a love object which leads to pervasive sense of loneliness and despair; 2) expressing a high degree of internal hostility and a loss of a sense of well-being; 3) experiencing family stress, such as conflict within the family, material scarcity, and physical illness for a considerable period of time; 4) being angry towards others; 5) experiencing increasing tension and confusion; and 6) having an idea that death is thrilling (Mattson, Seese, & Hawkins, 1969, as cited in Maclean, 1990). Overall, Bolginini et. al. (2003) theorized that adolescents are often driven to engage in such harmful behavior to express or communicate feelings of distress, anger, and hopelessness. In an earlier study of 50 adolescents who attempted suicide through self poisoning, Hawton, Cole, O'Grady, & Osborn (1982) found that most adolescents indicated that they had been feeling lonely or unwanted, or angry with someone, and had taken the overdose to alleviate or demonstrate distress. In a more recent study, Pages, Arvers, Hassler and Choquet (2003) found that suicidal ideation and attempts among adolescents were a reflection of the personal struggle that they encountered, such as violence, crimes, having a low self-esteem, depressive mood, and poor parent-child relationship.

Furthermore, theoretical literature indicates that environmental factors play an important role in youth's suicidal behavior. For example, Joffe & Offord (1990) suggested that youth of lower socioeconomic status were more likely to engage in suicidal thoughts and behavior. Similarly, Zhang (1998) proposed that children and youth who were living at home were less likely to commit suicide. Inevitably, the interaction that a youth has with his or her environment may affect the development of his or her mental well-being (Yoder, 1999). For street youth, living in a negative environment is unavoidable. Many of these youth live in situations characterized by poverty, violence and isolation. More over, the "street culture promotes

antisocial behavior, which includes alcohol/drug use and deviant means of survival such as prostituting, stealing, and drug dealing” (Yoder, p. 27). Living in a stressful environment is one of the many factors that place street youth at risk for suicidal thoughts and behavior (Feldmann & Middleman, 2003).

In a study of 80 street youth, Kidd (2004) noted that 46% of those interviewed had attempted suicide at least once; the majority of that number (29%) had made more than one attempt. Kidd also found that the experience of worthlessness, loneliness, hopelessness, and most centrally, feeling/being trapped were linked to suicidal behavior among this vulnerable population. Similarly, Yoder’s (1999) study comparing suicide attempters, suicide ideators, and non-suicidal homeless and runaway youth found that having low self-esteem, depression, and experience of abuse were characteristics of those street youth who engaged in suicide behavior. In addition, Roy et. al. (2004) found that suicide and drug overdose were the two leading causes of death among street youth in Montreal, Canada.

Overall, suicide behavior among street youth has been insufficiently addressed in the current research literature (Kidd, 2004). This insufficiency may be explained in part by the difficulty of defining suicidal behavior (Goldston, 2003), and from the sampling of this specific vulnerable population (Ensign, 2003). Therefore, further research is needed to maximize the understanding regarding suicidality among street youth.

Risk Factors and Protective Resources for Suicide Behavior

When taken together, a range of literature suggests that certain individual characteristics such as age, gender and sexual orientation, social connectedness, self-esteem, depression and hopelessness place street youth at risk for or protects them from suicidal thoughts and behavior. Yet, the literature related to risk and protective factors for suicide in street youth is limited.

Therefore, in order to fully understand what may place these youth at risk for suicide and what protect them from such harmful behavior, an overview of adolescent literature is provided. To begin with, the adolescent literature is presented, then, the street youth literature is highlighted.

Individual Characteristics

Age. Age is recognized as a factor contributing to the etiology of suicide behavior among individuals. In an earlier study by Solomon and Hellon (1980), as cited in Holinger and Offer (1991), a cohort analysis of 4,315 young adults revealed that suicide rates increase as the young person progresses towards adulthood. Once a cohort entered the 15 to 19 year old age range, suicide rates remained consistently high. In fact, several studies suggested that adolescents and young adults aged 15 to 24 had higher rates of suicide and death by non-motor vehicle accident as compared to the general population (Bolginini, Plancherel, Laget, & Halfon, 2003; Sudak, Ford & Rushforth, 1984).

A theoretical perspective helps to understand why adolescents are at increased risk for suicide. Specifically, as children progress to adulthood, they become increasingly aware of the conceptualization of death (Maclean, 1990). As children reach the age of 12 and above, they have an increased capacity for abstract, logical, hypothetical and objective thoughts and thus, death becomes understood as being biologically irreversible and a personal event (Maclean). It is through this understanding that children acquire the notion that death can be utilized as a device to relieve helplessness (Maclean). In fact, Hawton (1986) suggested that a significant degree of cognitive development is necessary for a child to develop feelings such as despair and hopelessness. Without cognitive maturity, the feelings of emotional negativity will be absent. Furthermore, cognitive maturity is also necessary to understand access to means of suicide

(Maclean). Planning ahead is important in suicidal behavior, and this capacity does not develop until early adolescence (Hawton).

Sociological perspective suggests that socio-environmental factors can also account for the increase in suicide among adolescents. Pfeffer (1990) had suggested that given the precarious developmental stage of adolescence, youth are more susceptible to dramatic societal changes, which may result in low self-esteem, reduce coping skills and loss of hope. With the use of a “population model”, Sudak et. al. (1984) outlined the following changes in the society; greater competition, failure, decreased income, alienation, unemployment, deteriorating neighborhood and family disorganization. For street youth, these negative social experiences are evident. Their age, in combination with their vulnerable status, places most of this youth population at greater risk for suicide behavior.

Gender. In the literature, gender is recognized as an individual factor that places an adolescent at risk for suicide behavior (Rew, Thomas, Horner, Resnick & Beuhrig, 2001c). From a resilience perspective, it has been suggested that an adolescent’s capacity to respond to adversity is highly influenced by his/her gender (Boyden & Mann, 2005). For adolescent women, particularly those socialized in dominant culture norms, responding to adverse circumstances may involve internalizing negative feelings (Gilgun & Abrams). They often turn their anger or rage inward, against themselves, in efforts to adapt to adverse occurrences (Gilgun & Abrams). On the other hand, for adolescent men, responding to adverse circumstances often involves directing the distress toward others (Gilgun & Abrams). In fact, according to the theory of male gender adaptation, men, when faced with adversity, incorporate into their self schemas values related to violence and perpetration of crimes as a means to maintain or fulfill male expectations of power and control (Gilgun & Abrams).

The empirical literature on adolescence suicide has suggested that suicide attempts, ideation and completed suicides are more common in females than males (DeMan & Leduc, 1995; Pinhey & Millman; 2004; Rew et. al., 2001b). In a study of suicide behavior among adolescents in Northern Nova Scotia, Wang, Hughes, Murphy, Rigby & Langille (2003) found that females were more likely to report suicidal ideation, suicide planning, suicide attempts and any type of suicidal behavior than males. Similarly, Lewinsohn, Rohde, and Seeley's (1994) study in future adolescent suicide attempt found that female adolescents were overrepresented in the future attempters group. Bolginini's et. al. (2003) study of adolescent suicide attempters revealed that more drug abusing females attempted suicide than their male counterparts.

However, other empirical literature revealed contradictory findings, suggesting that more males than females engage in suicidal behavior. These contradictory findings can be attributed in part to the lack of consensus towards the definition of suicidal behavior. Pages, Arvers, Hassler and Choquet's (2004) analysis of hospitalized suicide attempters revealed higher suicide attempts among non-participant males. Likewise, in England and Wales, 78 percent of suicides reported to coroners in 2001 were by men (Home office, 2002, as cited in Smalley, Scourfield & Greenland, 2005). Smalley et. al. (2005) posits that females have more flexible coping skills and a higher religiosity level than males and, therefore, are less likely to kill themselves.

Despite these contradictory findings, several empirical studies related to street youth suicide have found that a much greater number of females than males engage in suicidal behavior. In a study of suicidality among runaway youth, Leslie, Stein, and Rotheram-Borus found that 25% of girls and 14% of boys had attempted suicide at least once. Molnar, Shade, Kral, Booth, and Watters' (1998) study of suicidal behavior and sexual/physical abuse among street youth found attempted suicide to be greater in females than males. Similarly, the Yoder's

(1993) study revealed that young runaway women are more likely to be attempters or ideators than young runaway men. A study by Rotheram-Borus (1993) found comparable findings as well.

Sexual Orientation. Sexual orientation has emerged as a risk factor for adolescent suicide. It is commonly believed that lesbian, gay and bisexual (LGB) youth living in the community are faced with societal expression of stigma indicative of homophobia and heterosexism (Brown & Colbourne, 2005). This experience traumatizes many of these youth during their critical stages of development, creating feelings of fear, isolation and even depression (Brown & Colbourne; Russell & Joyner, 2001).

Theoretical literature suggests that exposure to homophobia and heterosexism put LBG youth at risk for physical and verbal abuse, homelessness, prostitution and suicide (Bagley & Tremblay, 1997; Grossman, 2000; Remafedi, Farrow & Deisher, 1991; Remafedi, French, Story, Resnick & Blum, 1998; Savin-Williams, 1994). In fact, suicidal behavior has been reported to be high among the LGB youth community (Smalley et. al., 2005). McNaught and Spicer (2000) suggest that most of these youth, as a result of their sexual orientation, experience a sense of failure at not being able to be “straight” for their parents benefit or at not playing by society’s traditional roles. Therefore, in an effort to give their life some sense of significance, a number of these youth engage in suicidal acts (McNaught & Spicer).

There are several studies that have demonstrated a strong link between adolescent sexual orientation and suicidal thoughts and behavior (Borowsky, Wagman, Marjorie & Resnick, 2001; Botnick, Heath, Cornelisse, Strathdee, Martidale & Hogg, 2002; Pinhey & Millman, 2004). In a national study, Russell and Joyner (2001) found that youth who had reported same-sex sexual orientation were significantly more likely to report suicidality than their heterosexual peers.

Similarly, Remafedi et. al. (1998) compared 394 LGB high school students with 336 matched heterosexual students and found that a much higher percentage (28%) of gay and bisexual males reported suicide attempts compared to heterosexual males (4%). They also found that 20 % of lesbian and bisexual females reported suicide attempts compared to 14% of heterosexual females.

It is evident that the empirical literature supports the idea that the general LGB adolescent population are at increased risk for suicide thoughts and behavior. However, little is known about suicide risk in street youth with an LGB status. In one study retrieved, Noell & Ochs (2000) found an association between lifetime history of suicide attempts and a LGB status amongst their population of homeless youth. Given this finding, further exploration is needed to better understand the role of sexual orientation as a risk factor for suicide behavior among street youth.

Social Connectedness

Social connectedness as a construct is considered to be an important factor in understanding suicidal behavior in adolescence. The concept reflects a “type of relational schema representing regularities in patterns of interpersonal relatedness” (Baldwin, 1992, p. 461). Social connectedness emphasizes both the independent self in relation to others, and the individual’s perception of closeness with the social world (Lee, Draper & Lee, 2001). The concept of social connectedness is related to social support, social integration and social belonging, as each concept signifies a set of beliefs that one’s social network cares (Hagerty, Lynch-Sauer, Patusky, Bouwsema & Collier, 1992; Klerman, 1996; Rew et. al, 2001b). For adolescence, positive social connectedness is regarded to be essential towards healthy development of physical and mental well being (Hagerty, Williams, Coyne & Early, 1996).

Positive connectedness with family, peers, and the social environment provides adolescents with reassurance of worth, self understanding, social integration, and guidance and help (Klerman, 1986). The need to be integrated and connected with peers and friends is critically important for adolescents as they move beyond the safety net of their families (Farberow, 1991). Klerman has suggested that:

... adolescents, as they separate from their parents as primary attachment figures, are entering a phase of life in which they are without an attachment figure for the first time. Thus, they may go through a period of pining or yearning for the kind of relationship that would provide intimacy. The support and encouragement of a peer network in turn provides adolescents with relationships that help in the often difficult task of separating from parents (p. 191).

Therefore, social and peer relationships are an important part of an adolescent's life as it facilitates development, survival and growth (Hagerty et. al., 1996). In the absence of positive peer and social connectedness, adolescents are at greater risk for emotional isolation, social isolation, and alienation as they are confronted with the developmental challenges of their life stage (Farberow, 1991; Klerman).

Lee et. al. (2001) suggests that adolescents with a low sense of social connectedness often experience repeated interpersonal failures in life and narcissistic damage to the self. They often perceive themselves as "outsiders and feel misunderstood by others, have difficulty relating with the social world, as well as are uncomfortable in social situations" (Lee et. al., p. 310). These negative perceptions consequently lead to feeling solitary, where adolescents are unable to discover any meaningful or purposeful commitments in life (Klerman, 1986). Kohut (1984) suggests that adolescents with low social connectedness often develop dysfunctional

interpersonal behavior that is characterized by insecure attachment style such as avoidant and assertive behaviors (as cited in Lee et. al., 2001). These dysfunctional interpersonal behaviors are embraced in an effort to avoid further condemnation or rejection, but ultimately lead to greater psychological distress (Lee & Robbins, 1998). Therefore, an adolescent's connectedness and relatedness with his or her social network plays a vital role in promoting positive psychological adjustment.

Several empirical studies support the relationship between social connectedness and psychological functioning. A Baumeister and Learly (1995) study found that people with low connectedness often experience loneliness, anger, depression, anxiety and low self-esteem. Similarly, a study conducted by Hagerty, Williams, Cyne and Early (1996) involving 379 community college students found negative correlation between social connectedness and loneliness, depression, anxiety and suicidal thinking and attempts. Morano and Cisler (1993) study of adolescent's suicidal behavior revealed the importance of loss and insufficient family and peers social support in the etiology of adolescent suicide attempts.

Bonner and Rich's (1987) "stress-vulnerability model of suicidal behavior posits that socioemotional alienation and deficient adaptive resources combine to produce a predisposition to self-harm" (as cited in Morano & Cisler, 1993, p. 21). Family and peer relatedness and support are suggested to have a buffering effect toward serious vulnerability and stress (Vanderhorst & McLaren, 2004). Therefore, an adolescent who has high social connectedness is less likely to engage in self harm behavior. A study by Resnick et. al. (1997) found perceived family and school connectedness to be factors that protected youth from every health risk behavior including suicidal thoughts and behavior. More recently, Rew et. al. (2001c) found a

significant inverse relationship between suicide attempts and social connectedness among samples of White, Hispanic, and African adolescent ethnic groups.

The above theoretical and empirical literature provides evidence that supports the relationship between a lack of social connectedness and various psychosocial factors such as loneliness, anxiety and depression. Increased negative emotions have been identified as significant correlates of life threatening action, including suicidal thoughts and behavior in adolescents (Rew et. al., 2001c). For homeless youth, the lack of belonging and connectedness can be a continual and pervasive occurrence that is psychologically distressing and potentially incapacitating (Lee et. al., 2001). Although many homeless youth develop friendships with others, they remain lonely and isolated as a result of society's stigmatization (Rew et. al., 2001b). They also have difficulties maintaining relationships because of mistrust or fear of rejection, and tend to be interpersonally unprepared to overcome their circumstances (Lee et. al.). The lack of social relationship and connectedness among street youth can potentially limit their ability to adapt and successfully cope with adverse circumstances, and therefore increases their risk for suicidal thoughts and behavior (Braga, 1989). In contrast, however, a study conducted by Rew et. al. (2001b) found that street youth who are less connected are more resilient and, therefore, engage in fewer life threatening behaviors. Since this finding is in contrast with the findings from the general adolescent population, further exploration is needed to better understand social connectedness as a construct in street youth's suicide behavior, specifically suicidal ideation.

Much of the research that relates to social connectedness and suicide behavior among adolescent and street youth have utilized other psychological constructs such as social support, sense of belonging and social relationship, which only taps into aspects of connectedness (Lee et.

al., 2001). Therefore, social connectedness is a broader construct that may contribute to better understanding of suicidal behavior among the street youth population.

Self-Esteem

Self esteem is defined as the person's feeling of self worth (Rosenberg, 1965, as cited in McElroy, 2004). As such, self esteem is regarded to be an important constituent of an adolescent's healthy development (Robins, Trzesniewski, Tracy & Gosling, 2002). Connor, Poyrazli, Ferrer-Wreder and Grahame (2004) suggested that while high self-esteem may be associated with an overall sense of well being during adolescence, low self esteem has been related to risk behaviors and negative developmental outcomes. Research studies have found an association between low self-esteem and substance use, smoking and crime involvement (Gordon & Caltabiano, 1996; Wild, Flisher, Bhana & Lombard, 2004). Furthermore, low self esteem has also been found to be a significant variable associated with adolescent's mental and behavioral problems including hopelessness and suicidality (McGee, Williams & Nada-Raja, 2001).

Theory suggests that adolescents with low self-esteem often assume a self-defeating understanding of their social experiences (Baldwin, 1992). They often "adopt self-blaming positions regarding any perceived social failure, or they may be overly sensitive to criticism and unable to accept compliments (Klerman, 1986, p. 201). Therefore, adolescents with low self-esteem often engage in risky behavior, such as suicide, to cope with or escape from the negative feelings associated with low self-worth (Wild et. al, 2004). For these adolescents, suicide may be the only means available to deal with feelings of worthlessness, rejection and stress (Wild et. al.).

Several studies have supported the relationship between diminished self esteem and suicidal behavior amongst the adolescent population (Lewinsohn, Rohde & Seeley, 1994; McGee, Williams & Nada-Raja, 2001; Wilburn & Smith, 2005). In a national longitudinal study, Bearman and Moody (2004) found that having a high self esteem lowered the likelihood of suicidal ideation for both samples of males and females. Similarly, a study of suicidality among South African adolescents found the likelihood of suicidal thoughts or behavior increased significantly with lower global self-worth (Wild et. al., 2004).

Positive self esteem can offer protection against self-harming behaviors such as suicide. In order to maintain positive self-worth, Robin et. al. (2002) suggested that individuals need to have positive evaluations about the self. The quality of feedback received from the environment significantly affects one's perception of self, thereby affecting one's self esteem (Wilburn & Smith, 2005). In fact, Garber and Flynn's (2001) study found that negative self worth develops as an outcome of low acceptance and negative feedback from others. Therefore, conditions of relationship with others and the environment are the primary vehicle through which self-esteem is developed (McElroy, 2004). For street youth, negative social environments are pervasive in their lives, either prior to becoming homeless or as a result of homelessness. Family conflict, violence, abuse, isolation and discrimination are some of the negative personal experiences that many street youth encounter (Ensign & Panke, 2002). These life experiences may damage their self esteem, which consequently increases their risk for suicidal behavior. Yoder's (1999) study of suicidality amongst runaway youth revealed lower levels of suicidal ideation and suicide attempts among those street youth who possessed high self-esteem. A similar study by Leslie, Stein and Rotheram-Borus (2002) found lower self-esteem to be a factor that influenced suicidal behavior among runaway females.

To date, limited empirical literature exists that uses the street youth population in the exploration of self-esteem as a factor in development of suicidal thoughts and behavior. Based on evidences provided by the adolescence literature, further investigation is needed pertaining to this matter.

Depression and Hopelessness

Depression and hopelessness are psychological variables considered to be definitive risk factors for suicidal behavior. Depression is an “emotional state marked by sadness; feelings of helplessness, worthlessness, guilt, and withdrawal from others” (Edwards, 2005, p. 241).

Hopelessness on the other hand is “a system of cognitive schemas whose common denominator is negative expectations about the future” (Beck, 1974, as cited in Joiner, Brown, & Wingate, 2005, p. 288). Essentially, these two psychological variables are closely related to each other. Joiner et al. (2005) considered hopelessness as significant in the etiology and continuance of depression. Similarly, Beck (1963), as cited in De Man & LeDuc (1995), regarded hopelessness to be the system, or key factor, in the relationship between depression and suicide. Suicide attempts, ideation and completions are often a fatal consequence of depression (Lewinsohn, Rhode & Seely, 1994). However, Beck, Brown, Berchick, Stewart, & Steer (1990) found that hopelessness is more directly related to suicidal thoughts and behavior than depression alone.

Theoretical literature recognizes that depression and hopelessness play an important role in enhancing adolescent’s risk for suicidal behavior. For youth who are depressed and experiencing hopelessness, misinterpretation of their experiences in a negative way often occur (Beck et. al., 1990). This misinterpretation consequently motivates adolescents to anticipate dire outcomes for their problems (Beck et. al.). Ultimately, with the belief that his or her situation is

insoluble, adolescents will view suicide as the only feasible strategy for coping with their problems (Beck et. al.).

The vital role of depression and hopelessness in the development of suicidal behavior among adolescents has been supported by empirical research (Flisher, 1999; Lewinsohn et. al., 1994; Malone, Oquendo, Haas, Ellis, Li, Mann, 2000; Placidi, Oquendo, Malone, Brodsky, Ellis & Mann, 2000; Rew et. al., 2001c). For example, Chitsabesan, Harrington, Harrington and Tomenson's (2003) study of adolescents with mean ages of 14.4 and 14.6 found that depression increased the risk of these youth for suicidal ideation, attempts and intent. In a sample of 13,465 adolescents from a National Longitudinal Survey of Adolescent Health, Bearman & Moody (2004) found 'being depressed' as a factor that increased suicidal ideation for all adolescents. Similarly, Thompson, Moody & Eggert's (1994) study concluded depression as the strongest predictor of suicidal ideation and behavior among those youth sampled. A study by De Man & Leduc (1995) also found a strong association between depression and suicidal ideation among adolescents. On the other hand, hopelessness was also found to be a generative mechanism for suicidal ideation in adolescents (McGee, Williams & Nada-Raja, 2001). A study conducted by Cotton and Range (1996) sampling 84 high school students and 15 inpatient adolescents found hopelessness to be negatively related to attraction to life, and positively related to repulsion by life. Furthermore, Pinhey and Millman's (2004) study of Asian/Pacific Islander adolescents found that those who reported to be hopeless were more likely to report suicidal thoughts.

Similar to the adolescent literature, street youth that are depressed and experiencing hopelessness are also at increased risk for suicidal thoughts and behavior. In fact, street youth can be considered to be a sub-group of the general adolescent population that is at greater vulnerability for development of depression and hopelessness. According to Joiner et. al. (2005),

the feeling of being a burden on others and the experience of failed belongingness results in hopelessness and depression in many street youth, which increases their risk and motivates them to engage in suicidal acts. In fact, several investigators have supported this account. Rotheram-Borus (1993) study of runaway youths found depression to be a factor associated with suicidal ideation and attempt among female runaways. Votta and Manion's (2003) study found high level of depressive symptomatology among homeless male youth who engage in suicidal behavior. In a study by Yoder (1999), it was found that those homeless and runaway youth who reported low levels of depression were also less likely to commit suicide. With regard to hopelessness, no empirical literature has been found that explored this variable in relation to street youth's suicide risk.

The general adolescent literature provides a clear link between suicidal behavior and depression, as well as hopelessness. However, few studies have been found that explored these psychological variables, particularly hopelessness in the street youth population. Due to the complex nature of these variables and their potential role in the development of suicidal thoughts and behavior, further research is needed.

Resilience

This section of the literature review addresses resilience as an individual characteristic of adolescence, and as such was identified as a variable for this study. Resilience was also employed as a conceptual framework for this study, which will be discussed further in Chapter III (see p. 29).

Adverse circumstances for adolescence and young adults arise as a result of many factors, including; social and political discord, family problems, environmental chaos and calamities, and many others (Boyden & Mann, 2005). Due to their lack of authority and power in the society,

adolescents often experience and are amongst the most relentlessly affected by these adverse circumstances (Besthorn, 2005). However some adolescents, despite experiencing adversity, are able to persevere with a sense of emotional and psychological competence. They possess “equanimity, perseverance, meaningfulness, existential aloneness, and self reliance” (Wagnild & Young, 1993, as cited in Rew et. al., 2001b, p.34), which decreases their susceptibility to negative developmental outcomes. In the literature, this adolescent is characterized as resilient.

The concept of resilience is a general term is used to describe attitude, behavior and environmental conditions that help people adjust to obstacles of daily living (Besthorn, 2005). According to Richardson (2002), resilient individuals possess certain qualities that allow them to cope with adversity, change, or opportunity in a manner that results in recognition of protective factors. For this reason, resilience encompasses two important components: a) the capacity to defend one’s integrity during adversity and b) the capacity to preserve positive life experiences in spite of unfavorable circumstances (Besthorn).

Several empirical studies have explored characteristics of resilient youth and have linked a multitude of factors to resilience. Characteristics of resilient children and adolescents include; having a positive internal locus of control (Magnus, Cowen, Wyman, Fagen, & Work, 1999), high self-esteem and self efficacy (Bandura, 1989), high intellectual ability (Masten, Best & Garnezy, 1990; Masten & Coatsworth, 1998; Masten, Hubbard, Gest, Tellegen, Garnezy, & Ramirez, 1999), positive emotional regulation (Cicchetti, Ackerman, & Izard, 1995), and a positive attachment to adults during critical periods of development (Werner, 1992). Similarly, Haase (2004) study with adolescent cancer patients had identified positive family atmosphere, family support resource, social connectedness, and perceived meaning in life to be directly associated with resilience.

Resilience develops within the adolescent's sociocultural context and experiences (Besthorn, 2005). The ability to deal with unfavorable situations is dynamic and varies all through a person's life and in relation to the diverse circumstances that he or she encounters (McAdam-Crisp, Aptekar & Kironyo, 2005). For street youth, the risk of encountering adverse experiences is inevitable. Poverty, depleted resources, violence, crimes, and inequalities are all occurrences that street youth encounter. These negative experiences can effect the development of healthy or unhealthy functioning (Rew & Horner, 2003). However despite facing adversity, many street youth display a great deal of resilience (McAdam-Crisp et. al.).

The capacity of some street youth to "bounce back" after adversity is accounted for by their ability to balance what they need to do to respond to society's reaction and expectations regarding their conditions (Mc Adam-Crisp et. al., 2005). Often, street youth are relatively successful in accomplishing this adjustment. In fact, Aptekar & Stocklin (1997) suggested that street youth are more resilient than their stay-at-home counterparts (as cited in McAdam et. al., 2005). A study in Nigeria noted that a substantial majority of street youth engage in economic tasks t to earn a living, demonstrating a stronger capacity to earn a living than urban, African youth (Olley, 2006). A study by Miller, Donahue, Este & Hofer (2004) also suggested that street youth experience a greater sense of community and place greater emphasis on social life.

For street youth, leaving home and fending for themselves seems to be a sign of resilience, as it helps them to buffer the emotional stress of daily living (McAdam-Crisp et. al., 2005; Rew et. al., 2001b). Research literature pertaining to the concept of resilience among this vulnerable population is not extensive. However, in one study, it is suggested that resilient street youth although disconnected, are less likely to be lonely, hopeless, and engage in fewer life-

threatening behavior (Rew et. al., 2001b). Given these positive outcomes, further study is needed to better understand resilience as an attribute in street youth population.

Summary

A number of empirical studies conducted within the general adolescent population have provided evidence that certain individual characteristics such as age, gender, and sexual orientation, as well as one's self-esteem and perceived social connectedness can serve as risk factors or protective resources for suicidal thought and behavior. Furthermore, depression and hopelessness are also found to be common to suicidal ideation and suicidal behavior. Although studies with the general adolescent population are important in understanding suicide behavior for this age group, the generalizability of the findings to street youth samples cannot be assumed as this vulnerable population is situated within a different culture and social structure.

To date, there are few empirical studies exploring the role of self esteem, social connectedness, depression and hopelessness, as well as age, gender and sexual orientation in street youth's suicidal ideation. Most of the studies explored one or two of these psychosocial variables in isolation, and none have explored all these variables collectively. In addition, only one study was found that have explored the phenomenon of street youth's suicidal ideation within the resilience framework, where such harmful behavior is viewed in terms of risk factor and protective resource (Rew et. al., 2001b).

There is a need for empirical studies that elucidate factors that induce and/or prevent suicidal ideation among the street youth population. Such research will facilitate development of interventions and strategies that will address the problem of street youth suicide.

Chapter 3- Framework

Conceptual Framework

Resilience is a concept which represents a combination of skills and characteristics that interrelate dynamically to allow an individual to bounce back in spite of significant adversity (Tusaie & Dyker, 2004). For some theorists, individuals who are resilient possess the ability to cope successfully despite experiencing disruption from stress, thereby avoiding the risk for developing negative psychosocial and physical symptoms (Rutter). From a resilience perspective, the propensity for suicidal thoughts and behaviour can be viewed as a complex interaction of risk factor and protective resources, where those individuals who possess increased risk factors, in the absence of protective resources, are at greatest risk of developing suicidal thoughts and behaviour (Rew, Thomas, Horner, Resnick & Beurhring, 2001; Rutter, 1987). The resilience framework offers a mechanism for understanding what places youth at the greatest risk for suicidal thoughts and behavior, and as such a resilience framework served to guide this research study directed toward identifying what places street youth at greatest risk for suicidal thoughts and behavior, as well as what protects them from such harmful thoughts and behavior.

Risk factor is broadly defined as “any event, condition, or experience that increases the probability that a problem, such as suicidal thoughts will be formed, maintained, or exacerbated” (Jenson & Fraser, 2005, p. 5). The presence of risk factors does not necessarily mean that suicidal behavior or ideation will occur (Rutter, 1987). Rather, its presence suggests an increased probability that such harmful thoughts and behaviour may occur (Jenson & Fraser). In the context of street youth, risk factors can be individual, environmental, and psychosocial stressors that increase the likelihood that this vulnerable population will engage in suicidal acts. Individual risk factors for suicidal thoughts and behaviour may include gender, age, and sexual

orientation (Barton, 2005). While at the environmental and psychosocial level, factors such as a propensity for depression, hopelessness and low self-esteem, as well as a history of sexual abuse, and poor social connectedness may place an individual at risk for suicidal thoughts and behaviours (Barton; Jenson & Fraser; Rutter). Closely related to risk factors are protective resources, which operate to counterbalance risk factors (Rew & Horner, 2003). Within the resilience framework, protective resources are individual attributes, psychosocial and environmental factors that most likely lower the probability of an undesirable outcome such as suicidal ideation (Jenson & Fraser, 2005).

Protective resources serve to buffer the impact of risk in an adolescent's life, by interrupting a chain of risk factors, and preventing the onset of subsequent risk factors (Fraser & Terzian, in press, as cited in Jenson & Fraser, 2005). In the context of street youth, protective resources are environmental, interpersonal and psychosocial factors that minimize suicide risk for this population. Elevated self-esteem, as well as a strong sense of social connectedness are all positive resources that may enhance youth's capacity to adjust successfully following a period of adversity (Devon, 2003, as cited in Edwards, 2005; Raphael, Rukholm, Brown, Hill, Bailey & Donato, 1996; Wild, Flisher, Bhana & Lombard, 2004), and may decrease the risk for suicidal ideation. Since many of these variables may serve as both risk and protective factors in this population (i.e. high self-esteem as protective and low self-esteem as a risk factor) positive concepts, such as self-esteem and social connectedness will be assumed to be protective factors, while negative concepts, such as depression and hopelessness will be assumed to be risk factors. As indicated certain individual characteristics may serve as risk or protective factors. For example, a history of physical or sexual abuse may be considered a risk factor, whereas education may serve as a protective factor.

Research Questions

Guided by the review of related theoretical and empirical literature, theoretical framework, and study purposes, the following research questions were asked of the study variables. The study hypotheses (see below) specified relationships between variables which were identified as protective or risk factors and the outcome of interest, specifically suicidal ideation:

- 1) What are the relationships between suicidal ideation and the identified study variables, specifically resilience, self-esteem, social connectedness, depression and hopelessness among the study participants?
- 2) What are the relationships between the specified individual characteristics (age, gender, sexual orientation and history of physical and/or sexual abuse) and the study variables, specifically suicidal ideation, resilience, self-esteem, social connectedness, depression and hopelessness among the study participants?
- 3) Which of the study variables best predict suicidal ideation for this study population?
(Note: This analysis will be undertaken if the correlational matrix meets the conditions necessary for the analysis – see data analysis).

Study Hypotheses

Guided by the review of theoretical and empirical literature, two specific hypotheses related to the study's theoretical framework and variables of interest were developed:

Suicidal Ideation

Protective Factors

Increased self esteem, social connectedness and resilience will be correlated with decreased suicidal ideation.

Risk Factors

Increased feelings of depression and hopelessness will be correlated with increased suicidal ideation.

Conceptual and Operational Definition

Resilience

Conceptual Definition. Resilience was defined as a “personality characteristic that moderates the negative effects of stress, promoting adaptation despite facing significant adversity” (Wagnild & Young, 1993, p. 165).

Operational Definition. The Resilience Scale (Wagnild & Young, 1993) was used to measure resilience.

Suicidal Ideation

Conceptual Definition. Suicidal ideation was defined as “any self-reported thoughts of engaging in suicide-related behavior” (Goldston, 2003, p. 14).

Operational Definition. The Depressive Symptom Index: Suicidality subscale (Joiner, Pfaff & Acres, 2002) was used to measure suicidal ideation.

Social Connectedness

Conceptual Definition. Social connectedness was defined as “an attribute of the self that reflects cognitions of enduring interpersonal closeness with the social world” (Lee, Draper & Lee, 2001, p. 310).

Operational Definition. The Social Connectedness Scale Revised (Lee, Draper & Lee, 2001; Lee & Robbins, 1995) was used to measure social connectedness.

Self-esteem

Conceptual Definition. Self esteem was defined as the person’s feeling of self

worth (Rosenberg, 1965).

Operational Definition. The Rosenberg Self-Esteem Scale (Rosenberg, 1979) was used to measure self-esteem.

Depression

Conceptual Definition. Depression was referred to as an “emotional state marked by sadness, feelings of helplessness, worthlessness, guilt, and withdrawal from others” (Edwards, 2005, p. 241).

Operational Definition. The Centre for Epidemiologic Studies Depression Scale (Devins, Orme, Costello, Binik, Fritzcell, Stam & Pullin, 1988) was used to measure depression.

Hopelessness

Conceptual Definition. Hopelessness was referred to as “a system of cognitive schemas whose common denominator is negative expectations about the future” (Beck, 1974, as cited in Joiner, Brown, & Wingate, 2005, p. 288).

Operational Definition. The Hopelessness Scale (Beck, Weissman, Lester & Trexler, 1974) was used to measure hopelessness.

Chapter IV – Methods and Procedures

Design

This descriptive correlational study was a secondary analysis of data generated from a collaborative research project (funded by the Wellesley Institute) which employed qualitative, participatory action and quantitative methodologies designed to comprehensively assess the mental health needs of the street youth population. From this collaborative study, an existing quantitative data set was generated from interviewer based administrated and self reported questionnaires using standardized measures. The primary intention of the questionnaires was to assess a range of variables related to the overall mental health needs of transitional street youth.

The present descriptive correlational study examined the issue of suicidal ideation among street youth in Toronto; more specifically, to gain an understanding of what places street youth at risk for suicidal ideation and on the other hand, what protects these youth from such harmful thoughts as conceptualized from a resilience perspective. The adoption of a secondary analysis for this study was based on the following reasons: (1) there was an existing data set including a sample of 65 street youth who had been interviewed; (2) questions examined for this study were related to the original data set; and (3) in order to develop effective interventions to meet the mental health needs of street youth, a study that explores the relationship of self-esteem, social connectedness, resilience, depression, hopelessness and suicidal ideation is necessary.

Setting and Sample

The data from the primary study were collected from four Toronto community agencies serving the street youth population, specifically Covenant House, Turning Point, Street Outreach Services and Yonge Street Mission's Evergreen Center for Street Youth. The target population of the primary study was street youth between the ages of 16-24. The sample was comprised of

individuals from both genders who met the following inclusion criteria: 1) Youth between the ages of 16-24; 2) Youth who had not lived at home or had been without a place of their own for at least one month; 3) Youth who were able to give informed consent; and 4) Youth who were able to read, comprehend and speak English. All youth who met these inclusion criteria were invited to participate in the primary study by a staff member at their agency or through a poster requesting their participation.

Sample size

The sample size was comprised of 65 participants. Given the study's research questions (refer to p. 31), this sample size was appropriate as it allows for 5-10 subjects per independent variable (Norman & Streiner, 2000). The present study encompassed five independent variables: self-esteem, social connectedness, hopelessness, depression and resilience, in addition to some of the mentioned individual characteristics namely, age, gender, sexual orientation and history of abuse.

Ethical Consideration

The primary study had undergone ethics review and had gained approval from the Research Ethics Board. Although this study was a secondary analysis of data collected from an ongoing study, it was still necessary to inform the ethics review committee. An abbreviated ethics application was approved by the Ryerson University Research Ethics Board. This study was in keeping with the original study, and confidentiality was preserved for each participant. Participants of the study were coded and their names were not viewed. Subject's anonymity was not violated and raw data, except the data needed for this study, were not viewed nor altered.

Data Collection Procedure

The primary study was initiated on August 25, 2005 and is currently ongoing, quantitative data from the primary study were collected from each participant through interviewer administrated interviews and self-report questionnaires. Participants were also asked to complete a demographic survey for the purpose of describing the sample and to assess whether the findings were generalizable. In this present project however, only data pertaining to the study variables and the study purpose were utilized. Specifically the study variables included: depression, hopelessness, resilience, self esteem, social connectedness and suicidality. Furthermore, only those demographic variables (see Appendix A) deemed to be related to the study variables were included in the study; namely age, gender, sexual orientation, education, living situation, and history of physical/ sexual abuse. Data pertaining to the variables physical and sexual abuse were collected based on the summary results of the Juvenile Victimization Questionnaire (JVQ) (see description below).

Study Instruments

The following study instruments were selected to assess the study variables for the purpose of this secondary analysis.

Centre for Epidemiologic Studies Depression Scale (CES-D)

The CES-D scale is a 20 item self reported questionnaire developed for use in the epidemiological surveys to identify persons with depressive symptoms (Devins, Orme & Costello, 1988). The instrument is a ratio level measurement and it is composed of 16 items that tap into a variety of cognitive, affective, behavioral and somatic symptoms associated with depression, and four items that focus on positive moods, which were reverse scored (Devins et. al., 1988). For each item, participants indicated the frequency or duration with which a specific

depressive feature had occurred during the preceding week (Devin et. al., 1988). Total scores were calculated by summing responses across the set of 20 individual items, and range from 0 to 60, with higher scores reflecting more depressive symptoms (Devin et. al., 1988). The scale has been widely used in studies of homeless youth and adults (Adlaf & Zdanowicz, 1999) and possesses adequate reliability and validity across different population (Devins et. al., 1999).

Rosenberg Self-Esteem Scale (RSE)

The RSE scale is a 10 item self-reported inventory developed to measure global self-worth (Rosenberg, 1979). The questionnaire is an interval level measurement that is based on “contrived items”, and yields a 7-point scale (Rosenberg). Scale I is contrived from combined responses to items 3, 7, and 9. Scale item II is contrived from the combined responses to items 4 and 5. Scale items III, IV, V are scored simply as positive or negative based on responses to items 1, 8, and 10, and scale item VI is contrived from the combined responses to items 2 and 6 (Rosenberg). The RSE scale has been widely used in a number of adolescent and young adult populations, and has demonstrated to be both reliable and valid.

Beck Hopelessness Questionnaire (BHQ)

The Beck Hopelessness Questionnaire is a 20-item self reported questionnaire at a ratio level measurement. Participants were asked to respond true or false in every statement, in which a score of 0 or 1 was assigned. The total hopelessness score was the sum of the scores on the individual items, with possible scores ranging from 0 to 20 (Beck, Weissman, Lester, & Trexler, 1974). Higher scores reflected high level of perceived hopelessness. The tool had demonstrated to be reliable and valid, with internal consistency of 0.93 as reported by Beck et al. (1974). The BHS has also been used in a sample of homeless adolescent and had demonstrated good reliability (Rew et. al., 2001).

The Resilience Scale

The Resilience Scale is an interval level measurement that is composed of 25-item self report scale with a 7-point Likert response format (Wagnild & Young, 1993). Participants were asked to state the degree to which they agreed or disagreed. All items were scored on a 7-point scale from 1, disagree, to 7, agree. (Wagnild & Young). Possible scores range from 25 to 175 with higher scores reflecting higher resilience. Evidence of construct validity was reported through factor analysis (Wagnild & Young). Reliability of the tool for adults was reported with coefficient alpha of 0.91 (Wagnild & Young), and homeless adolescent with Cronbach's alpha of 0.91 (Rew et. al., 2001b).

The Social Connectedness Scale- Revised

The Social Connectedness Scale-Revised is an interval level measurement that is composed of 20 item self reported questionnaires with 5-point Likert scale format that assesses belongingness in the domain of social connectedness and social assurance (Lee, Draper & Lee, 2001). The original scale was modified from a 6 point Likert to a 5 point Likert scale for the purpose of the primary study. Ten items on the questionnaire are worded positively and ten items are worded negatively. The negatively worded items were reverse scored and summed together with the positively worded items to create a scale score with a possible range from 20 to 120 (Lee et. al., 2001). An item mean score with a possible range from 1 to 6 were also calculated by dividing the total scale score by 20 (Lee et. al., 2001). Higher score on the Social Connectedness Scale indicated a stronger sense of social connectedness. The tool has been reported to have good validity and demonstrated a Cronbach alpha of 0.94 in a sample of adolescence (Lee et. al., 2001).

Depressive Symptom Index: Suicidality subscale

The Depressive Symptom Index: Suicidality subscale is a brief measure containing four items from the Hopelessness Depression Symptom Questionnaire at a ratio level measurement. Scores on each item range from 0 to 3 and, for the inventory, from 0 to 12, with higher scores reflecting greater severity of suicidal ideation. The tool demonstrated good reliability and validity, and has been used with individuals between the ages of 15-24 years of age (Joiner et. al., 2002).

Juvenile Victimization Questionnaire (JVQ)

The JVQ is a comprehensive instrument that assesses all major forms of violent assault (physical and sexual) against youth (Hamby & Finkelhor, 2004; Finkelhor, Ormrod, Turner, & Hamby, 2005). The scale was comprehensively tested with specialists, parents and focus groups. The scale can be used to assess victimization across childhood and adolescence. For this study, results of the JVQ were summarized into 'absence' or 'presence' of physical abuse, sexual abuse by an adult known and sexual abuse by an adult stranger.

Data Analysis

The data were analyzed using the SPSS/PC statistical package. There were three parts of the analysis: 1) tests for reliability of each measurement tool; 2) description of the sample, 3) research questions and hypotheses.

Test for Reliability of Measurement Tools

The Cronbach alpha coefficient for each measurement tool used in this study was computed in order to evaluate internal reliability. Cronbach alpha is the most common approach to test internal consistency (Burns & Grove, 2005). A reliability coefficient of 0.80 is considered

the lowest acceptable value for a well-developed psychosocial measurement tool (Burns & Grove).

Description of the Sample

Frequencies were used to describe the characteristics of the sample, specifically age, gender, sexual orientation, living situation, living arrangements, years of education completed, current school involvement, and history of physical and/or sexual abuse. The percentage of the sample according to each demographic variable was also reported to describe the proportion of the sample falling into a specific group (Burns & Grove). In order to describe the sample's age and years of completed education, a measure of central tendency and variability was performed. The mean age and years of education completed of the participants were determined by calculating the mean, and the standard deviation obtained from that mean age and years of education was identified by calculating its standard deviation (Burns & Grove).

Analysis of Research Questions & Hypotheses

In answering the research questions, four inferential statistical approaches were used: Pearson correlation, t-test, ANOVA and multiple regression.

Research Question #1. Pearson correlation coefficients were calculated to identify relationships amongst the study variables in this research question. This parametric test has been commonly used in the determination of relationships between two variables (Burns & Grove, 2005). One assumption of the Pearson correlation test is that both variables need to be in interval/ratio level measurement (Burns & Grove).

Given the study variables (self-esteem, social connectedness, self-concept, resilience, depression and hopelessness and suicidal ideation), Pearson correlation was employed to determine whether an association existed between these identified variables. As this study

contains multiple statistical tests, a significance level of 0.01 was adopted to reduce the risk of type 1 error (Burns & Grove).

Research Question #2. Two tailed t-test, ANOVA (equal variance), and Pearson correlation coefficients were calculated to identify relationships between the sample characteristics and suicidal ideation, as well as the other study variables.

In this present study, two tailed t-test for independent samples was performed to determine relationships between suicidal ideation and gender, as well as suicidal ideation and history of physical and/or sexual abuse. A similar test was also performed to identify relationships between gender and the study variables, as well as history of physical and/or sexual abuse and the study variables. The t-test is one of the most common parametric analyses used to test for significant differences between statistical measures of two samples (Burns & Grove, 2005).

In identifying the relationship between sexual orientation (lesbian, gay, bisexual and transsexual) and suicidal ideation, as well as the study variables, ANOVA was performed. ANOVA is a bivariate analysis that examines data from two or more groups (Burns & Grove, 2005). The outcome of such analysis is a numerical value for the F statistic, which will be used to determine whether the groups are significantly different (Burns & Grove).

With regards to the variable age, Pearson correlation was used to determine the relationship between age and suicidal ideation, as well as the other study variable among street youth.

Research Question # 3. Multiple regression analysis was conducted to determine the best predictor of suicidal ideation in the samples of street youth. This statistical test assesses the explanatory power of more than one independent variable to explain a dependent variable (Polit,

Beck & Hungler, 2001). However, this statistical test was only performed on those independent variables that demonstrated an association with suicidal ideation (dependent variable). The variables that were correlated with suicidal ideation were entered into a stepwise regression equation. Each independent variable was entered into the analysis one at a time by the SPSS program, and the program determined whether each additional variable significantly increases the variance in the dependent variable (Burns & Grove, 2005). The variable that explained the most variance in the dependent variable was entered first, while the remaining variables were assessed to see if there was a significant increase in the amount of variance explained. The variables entered into the regression equation were assessed for multi-collinearity (Burns & Grove).

Chapter V – The Results

The results of this study are presented in six sections: 1) sample characteristics, 2) management of missing data, 3) reliability of the study instruments, 4) mean and standard deviation for the psychosocial measures included in the study, 5) research hypotheses, and 6) research questions. As this study contains multiple statistical tests, a significance level of 0.01 was set for this analysis.

Sample Characteristics

Sixty-five street-involved youth comprised the sample for this study. Sample characteristics are shown in Table 1. Forty-four participants were males, and 20 participants were females, while 1 participant reported being transgendered (male to female). The mean age of the sample was 20.14 (S.D. = 2.06) and ranged from 16 years of age to 24 years of age.

Forty-two (64.6%) participants reported a heterosexual orientation. Five (7.7%) participants reported a homosexual orientation and ten (15.4%) considered themselves to be bisexual. The sexual orientation of five (7.7%) participants is coded as “other”. Overall, the “other” category reflects a range of responses including a desire not to be labeled according to societal norms of sexuality. More than half (55.4%) of the sample were living in shelters with 12 (18.5%) youth reported that they were living in the street. The remainder of the sample stated that they were living in transitional housing or in a friend’s home. Almost half of the sample (49.2%) reported living with other shelter users. Ten (15.4%) participants reported living alone, with the remainder living with friends or with other individuals on the street.

The majority of the sample (15.4%) reported having attained nine years of education. Eight (12.3%) street involved youth reported having completed 12 years of education and seven (10.8%) reported completing ten years of education. The remainder of the sample stated that

they had accomplished eight years of education and few reported completing fourteen plus years of education. The mean years of education was 10.51 (SD = 1.96). More than half (56.9%) of the sample reported no current school involvement, with the remainder currently enrolled in high school and in university (see Table 1).

Twenty- three (35.4%) of the sample reported no physical or sexual abuse in their life time, while forty-one (63.1%) of the sample reported experiencing abuse. Of these forty-one participants, nineteen (29.2%) street youth reported experiencing physical abuse only, while eight (12.3%) of the sample reported experiencing both physical abuse and sexual abuse from an adult they know. Seven (10.8%) street youth reported experiencing both physical and sexual abuse from an adult they know and did not know (see Table 1).

Table 1. Characteristics of the Sample (N = 65)

Demographic Variables	Frequency	Percent (%)
Gender		
Male	44	67.7
Female	20	30.8
Transgender – male to female	1	1.5
Sexual Orientation		
Heterosexual	42	64.6
Homosexual	5	7.7
Bisexual	10	15.4
Unsure	3	4.6
Others	5	7.7
Living Situation (location)		
Shelter	36	55.4
Transitional housing	4	6.2
Friend's home	6	9.2
Street	12	18.5
Own place	2	3.1

Table 1. Characteristics of the Sample (N = 65)

Demographic Variables	Frequency	Percent (%)
Living Situation (cont.)		
Partner's home	1	1.5
Others	4	6.2
Living Arrangement (with whom)		
Alone	10	15.4
Spouse or significant other	1	1.5
Partner/spouse and children	1	1.5
Friends	8	12.3
Other shelter users	32	49.2
Other individuals living on the streets	4	6.2
Other	7	10.8
Missing	2	3.1
Current School Involvement		
High School	2	3.1
College	1	1.5
University	2	3.1
GED	1	1.5
None	37	56.9
Missing	22	33.8
Experienced of Physical/Sexual Abuse		
No abuse (Physical and Sexual)	23	35.4
Physical Abuse only	19	29.2
Sexual Abuse- adult unknown	1	1.5
Sexual Abuse- adult known	1	1.5
Physical Abuse and Sexual Abuse - adult unknown	2	3.1
Physical Abuse and Sexual Abuse - adult known	8	12.3
Physical Abuse and Sexual Abuse - adult both known and unknown	7	10.8
Physical Abuse and Sexual Abuse Refuse	3	4.6
Refuse	1	1.5

Management of Missing Data

For this study, less than 5% of the data were completely missing. The pattern of missing data was random. Two approaches were employed to manage missing data for the variables: resilience, social connectedness, depression and hopelessness. The first approach was through case mean substitution. This approach was employed when participants failed to complete all the items in a specific psychometric instrument. In this approach, the mean of the remaining items were calculated and assigned to each of the missing values for one specific case (El-Masri & Fox-Wasylyshyn, 2005). The second approach was through sample mean substitution. This approach was employed when there was a missing score for one specific case. In this approach, the sample mean of the available data for one specific variable was calculated and used to replace missing value on that variable (El-Masri & Fox-Wasylyshyn, 2005).

Reliability of the study instruments

The reliability of each measurement tool was assessed by examining Cronbach's alpha for each of the study instrument (see Table 2). Each measurement tool demonstrated relatively high internal consistency with Cronbach's alpha of each measure ranging from 0.80 to 0.93. As such, all of the instruments meet the standard level of reliability of 0.80 recommended for well-developed psychosocial measurement instruments (Burns & Grove, 2005).

The distribution of the study variables was assessed. All of the study variables approached normal distribution, with the exception of the suicidality scale (DSI-SS). The DSI-SS was positively skewed and thus, data pertaining to suicidal ideation was transformed to achieve a normal distribution. However, the result of the transformation did not change the results of the initial analyses. Furthermore, the distribution of DSI-SS suicidality scores for this street youth population is comparable to the distribution of scores reported by Joiner et. al

(2002), which sampled the general adolescent and young adult population. Therefore for this study, the DSI-SS scores were not transformed for the purpose of data analysis.

Table 2. Reliability of Measurement Tools

Study Instruments	Cronbach's alpha
Centre for Epidemiological Studies Depression Scale (CES-D)	0.91
Rosenberg Self- Esteem Scale (RSE)	0.90
Beck Hopelessness Questionnaire (BHQ)	0.88
The Resilience Scale	0.92
The Social Connectedness Scale- Revised	0.93
Depressive Symptom Index: Suicidality Subscale	0.80

Mean and standard deviation of the study instruments

The mean scores and standard deviations of the psychosocial tools included in this study are summarized in Table 3. The mean scores for resilience, self-esteem and social connectedness were moderately high. The mean score for depression was high, whereas the mean scores for hopelessness and suicidal ideation were somewhat elevated.

Table 3. Means and Standard Deviations of the Study Variables

Study Variables	Mean Scores	Range		Standard Deviation
		Min	Max	
Resilience (RS)	130.07	85.0	175.0	25.05
Self-Esteem (RSE)	29.57	13.0	40.0	6.33
Social Connectedness (SCS-Rev)	69.42	20.0	100.0	17.42
Depression (CES-D)	20.45	0.0	53.0	12.98
Hopelessness (BHQ)	4.61	0.0	20.0	4.44
Suicide Ideation (DSI-S)	0.88	0.0	6.0	1.43

RS (Resilience Scale); RSE (Rosenberg Self-Esteem Scale); SCS-Rev (Social Connectedness Scale-Revise); CES-D (Centre for Epidemiological Studies Depression Scale); BHQ (Beck Hopelessness Questionnaire); DSI-S (Depressive Symptom Index: Suicidality Subscale)

Research Hypotheses

Hypothesis: Protective Factors

Increased self esteem, social connectedness and resilience are correlated with decreased suicidal ideation.

Results. Consistent with the study hypothesis, self esteem, social connectedness, and resilience were significantly negatively correlated with suicidal ideation (see Table 4), indicating that as self-esteem, social connectedness and resilience increased, suicidal ideation decreased.

Hypothesis: Risk Factors

Increased feelings of depression and hopelessness, as well as decreased resilience will be correlated with increased suicidal ideation.

Results. Consistent with the study hypothesis, depression and hopelessness were

significantly positively correlated with suicidal ideation (see Table 4), indicating that as depression and hopelessness increased, suicidal ideation increased. Further, resilience was significantly negatively correlated with suicidal ideation (see Table 4), indicating that as resilience increased, suicidal ideation decreased.

Research Questions

Research Question # 1

What are the relationships between suicidal ideation and the identified study variables, specifically resilience, self-esteem, social connectedness, depression and hopelessness among the study participants?

Results. Pearson correlation coefficients for suicidal ideation and the identified study variables are shown in Table 4. Suicidal ideation was significantly correlated with resilience, self-esteem, social connectedness, depression and hopelessness ($p < 0.01$). The direction of these correlations is as described above in the hypotheses section.

Table 4. Correlation Coefficients for Suicidal Ideation and Resilience, Self esteem, Social Connectedness, Depression and Hopelessness

Study Variables	Suicidal Ideation
Depression	0.55*
Hopelessness	0.47*
Resilience	- 0.40*
Self-Esteem	- 0.59*
Social Connectedness	- 0.55*
$p < 0.01$	

Research Question #2

What are the relationships between the specified individual characteristics (age, gender, sexual orientation and history of physical and/or sexual abuse) and the study variables, specifically suicidal ideation, resilience, self-esteem, social connectedness, depression and hopelessness among the study participants?

Results. Analyzed by Pearson correlation, suicidal ideation (DSI-SS) was significantly, albeit weakly, positively correlated with age, $r(63) = 0.10, p < 0.01$. However, the results of the correlation analysis revealed no significant relationship between age and resilience, self esteem, social connectedness, depression and hopelessness

Analyzed by two tailed t-test, tests for relationships between suicidal ideation and gender, history of physical abuse, sexual abuse by an adult they knew and sexual abuse by an adult they did not know are shown respectively in Table 5, 6, 7 and 8. No significant differences were evident in suicidal ideation by gender (see Table 5). Analysis pertaining to history of physical abuse includes those participants who reported experiencing physical abuse only, physical and sexual abuse by an adult they knew, physical and sexual abuse by an adult they did not know, as well as physical and sexual abuse by an adult whom they both knew and did not know. Similarly, analysis pertaining to sexual abuse includes those participants who reported experiencing sexual abuse only by an adult they knew, physical and sexual abuse by an adult they knew, as well as physical and sexual abuse by an adult whom they both knew and did not know. No significant differences were evident in suicidal ideation by either a history of physical abuse (see Table 6) and history of sexual abuse by an adult they did not know (see Table 8). However, t-test analysis for those participants who reported sexual abuse by an adult whom they

knew revealed a significant level of 0.02, $t(60) = 2.32$ (see Table 7). Although this result was not significant at a 0.01 level, it will be significant at a 0.05 level.

T-tests analysis also revealed no significant differences in resilience, social connectedness, self-esteem, depression and hopelessness according to gender (see Table 5). Similarly, there were also no significant differences among these mentioned psychosocial variables according to both history of physical abuse (see Table 6) and sexual abuse by an adult they did not know (see Table 8). However, significant differences were evident for social connectedness, self-esteem and depression according to whether the youth experienced sexual abuse by an adult they knew, yet no significant differences exist for resilience and hopelessness (see Table 7).

Table 5: T-test for Differences in Suicidal ideation, Resilience, Self Esteem, Social Connectedness, Depression and Hopelessness by Gender (N= 64)*

Instruments and mean	Mean Males	Mean Females	Significance
DSI-SS (M=0.88; SD=1.43)	M=0.68; SD=1.09	M=1.10; SD=1.77	$t=-0.97$ (df=62; $p=0.34$)
RS (M=30.07; SD=25.05)	M=131.79; SD=24.20	M=127.50; SD=27.30	$t=0.63$ (df=62; $p=0.52$)
RSE (M=29.57; SD= 6.33)	M=30.20; SD= 5.78	M=28.60; SD=7.39	$t= 0.97$ (df=62; $p=0.34$)
SCS-Rev (M=69.42;SD=17.42)	M=72.07; SD=15.84	M=64.30; SD=20.00	$t= 1.67$ (df=62; $p=0.10$)
CES-D (M=20.45; SD=12.98)	M= 19.42; SD=12.41	M=21.90; SD=14.15	$t= -0.71$ (df=62; $p=0.48$)
BHQ (M=4.61; SD=4.44)	M=4.24; SD=3.91	M=5.40;SD=5.56	$t=-0.97$ (df=62; $p=0.34$)
RS (Resilience Scale); RSE (Rosenberg Self-Esteem Scale); SCS-Rev (Social Connectedness Scale-Revise); CES-D (Centre for Epidemiological Studies Depression Scale); BHQ (Beck Hopelessness Questionnaire); DSI-S (Depressive Symptom Index: Suicidality Subscale)			

Legend: M=Mean SD= Standard Deviation

* sample size did not include the participant who reported being transgendered

Table 6: T-test for Differences in Suicidal ideation, Resilience, Self Esteem, Social Connectedness, Depression and Hopelessness by History of Physical Abuse (N= 64)*

Instruments and mean	Abuse Mean	Non-Abuse Mean	Significance
DSI-SS (M=0.88; SD=1.43)	M=0.97; SD=1.56	M=0.76; SD=1.23	t=0.58 (df=62; p=0.57)
RS (M=30.07; SD=25.05)	M=129.51; SD=26.07	M=129.88; SD=23.82	t=-0.06 (df=62; p=0.95)
RSE (M=29.57; SD= 6.33)	M=29.15; SD=6.54	M=30.08; SD=6.20	t=-0.56(df=62; p=0.56)
SCS-Rev (M=69.42;SD=17.42)	M=67.90; SD=17.29	M=70.88; SD=17.57	t=-0.67(df=62; p=0.51)
CES-D (M=20.45; SD=12.98)	M=21.43; SD=13.08	M=19.48; SD=12.98	t=0.58(df=62; p=0.56)
BHQ (M=4.61; SD=4.44)	M=4.91; SD=4.91	M=4.33; SD= 3.65	t=0.51(df=62; p=0.61)

RS (Resilience Scale); RSE (Rosenberg Self-Esteem Scale); SCS-Rev (Social Connectedness Scale-Revise); CES-D (Centre for Epidemiological Studies Depression Scale); BHQ (Beck Hopelessness Questionnaire); DSI-S (Depressive Symptom Index: Suicidality Subscale)

Legend: M=Mean SD= Standard Deviation

* sample size did not include the participant who refused

Table 7: T-test for Differences in Suicidal ideation, Resilience, Self Esteem, Social Connectedness, Depression and Hopelessness by History of Sexual Abuse-Adult Known (N= 62)*

Instruments and mean	Abuse Mean	Non-Abuse Mean	Significance
DSI-SS (M=0.88; SD=1.43)	M=1.56; SD=1.71	M=0.63; SD=1.25	t=2.32 (df=60; p=0.02)
RS (M=30.07; SD=25.05)	M=119.20; SD=24.19	M=131.80; SD=24.14	t=-1.80 (df=60; p=0.08)
RSE (M=29.57; SD= 6.33) *	M=25.13; SD=5.92	M=30.84; SD=5.83	t=-3.37(df=60; p=0.00)
SCS-Rev (M=69.42;SD=17.42)*	M=58.19; SD=17.17	M=72.40; SD=15.64	t=-3.05(df=60; p=0.00)
CES-D (M=20.45; SD=12.98)*	M=27.68; SD=13.14	M=18.60; SD=12.10	t=2.53(df=60; p=0.01)
BHQ (M=4.61; SD=4.44)	M=6.36; SD=6.06	M=4.18; SD= 3.73	t=1.69(df=60; p=0.10)

* p<0.01; RS (Resilience Scale); RSE (Rosenberg Self-Esteem Scale); SCS-Rev (Social Connectedness Scale-Revise); CES-D (Centre for Epidemiological Studies Depression Scale); BHQ (Beck Hopelessness Questionnaire); DSI-S (Depressive Symptom Index: Suicidality Subscale)

Legend: M=Mean SD= Standard Deviation

* sample size did not include participants who refused

Table 8: T-test for Differences in Suicidal ideation, Resilience, Self Esteem, Social Connectedness, Depression and Hopelessness by History of Sexual Abuse- Adult Unknown (N=61)*

Instruments and mean	Abuse Mean	Non-Abuse Mean	Significance
DSI-SS (M=0.88; SD=1.43)	M=0.90; SD=1.10	M=0.88; SD=1.51	t=0.04 (df=59; p=0.97)
RS (M=30.07; SD=25.05)	M=123.89; SD=21.70	M=129.25; SD=25.41	t=-0.62 (df=59; p=0.54)
RSE (M=29.57; SD= 6.33)	M=27.20; SD=6.56	M=29.73; SD=6.31	t=-1.15(df=59; p=0.26)
SCS-Rev (M=69.42;SD=17.42)	M=64.90; SD=15.22	M=69.16; SD=17.51	t=-0.72(df=59; p=0.48)
CES-D (M=20.45; SD=12.98)	M=27.70; SD=12.96	M=19.87; SD=12.62	t=1.79(df=59; p=0.08)
BHQ (M=4.61; SD=4.44)	M=5.76; SD=5.72	M=4.61; SD= 4.27	t=0.74(df=59; p=0.46)

RS (Resilience Scale); RSE (Rosenberg Self-Esteem Scale); SCS-Rev (Social Connectedness Scale-Revise); CES-D (Centre for Epidemiological Studies Depression Scale); BHQ (Beck Hopelessness Questionnaire); DSI-S (Depressive Symptom Index: Suicidality Subscale)

Legend: M=Mean SD= Standard Deviation

* sample size did not include participants who refused

The relationships between sexual orientation and suicidal ideation, resilience, self-esteem, social connectedness, depression and hopelessness were analyzed using ANOVA. Results of these analyses are shown in Table 9. There exists a difference in suicidal ideation among groups of street youth who reported being heterosexual, homosexual, bisexual, unsure and others. Furthermore, supported by the Post Hoc analysis (see Table 10), analysis of variance demonstrated that those street youth who reported an unsure sexual orientation scored significantly higher on the suicidality scale than those who reported a heterosexual and bisexual orientation, but no differences exist for those who reported a homosexual orientation and others. In regards to the other study variables, no differences exist with regard to resilience and depression, among groups of street youth who reported being heterosexual, homosexual, bisexual, unsure and others. On the other hand, differences exist among the five categories of

sexual orientation in terms of their self-esteem, social connectedness and feeling of hopelessness. In conjunction with Post hoc analysis (see Table 10), analysis of variance (see Table 9) revealed that those street youth who reported to be unsure of their sexual orientation scored higher in the hopelessness scale and lower in the self-esteem scale compared to the other four groups. Furthermore, this group of street involved youth who felt unsure about their sexual orientation also scored lower in the social connectedness scale compared to those youth who reported heterosexual and bisexual orientation, but no difference exist for those who reported homosexual orientation and others.

Table 9: ANOVA, Differences in Suicidal ideation (DSI-SS), Resilience (RS), Self Esteem (RSE), Social Connectedness (SCS-Rev), Depression (CES-D) and Hopelessness (BHQ) by Sexual Orientation

Instruments and mean	Sexual Orientation					Significance
	Heterosexual N=42	Homosexual N=5	Bisexual N=10	Unsure N=3	Others N=5	
DSI-SS (M=0.88; SD=1.43)*	M=0.69 SD=1.14	M=1.00 SD=2.24	M=0.60 SD=1.07	M=4.00 SD=2.00	M=1.00 SD=1.41	F 4,60=4.78 p=0.00
RS (M=30.07; SD=25.05)	M=129.28 SD=24.63	M=133.00 SD=30.75	M=134.69 SD=22.34	M=113.00 SD=6.25	M=134.8 SD=37.65	F 4,60=0.49 p=0.74
RSE (M=29.57; SD= 6.33)*	M=29.57 SD=5.33	M=31.60 SD=6.66	M=31.00 SD=2.02	M=16.00 SD=2.65	M=32.80 SD=5.63	F 4,60=5.03 p=0.00
SCS-Rev (M=69.42;SD=17.42)*	M=70.79 SD=14.64	M=75.40 SD=17.76	M=77.20 SD=17.26	M=38.67 SD=16.69	M=54.80 SD=18.62	F 4,60=4.88 p=0.00
CES-D (M=20.45; SD=12.98)	M=20.60 SD=11.25	M=14.40 SD=14.17	M=15.50 SD=11.99	M=42.33 SD=15.14	M=22.07 SD=17.05	F 4,60=3.16 p=0.02
BHS (M=4.61; SD=4.44)*	M=4.21 SD=3.69	M=2.40 SD=1.67	M=4.21 SD=3.32	M=17.23 SD=3.23	M=3.40 SD=3.71	F4,60=10.41 p=0.00

*p < 0.01

Table 10: Post Hoc Analysis in Suicidal ideation, Resilience, Self Esteem, Social Connectedness, Depression and Hopelessness by Individual who reported “Unsure” Sexual Orientation

Study Variables	Mean Difference	Significance level	99% Confidence interval	
			Lower	Upper

Suicidal Ideation				
Heterosexual	3.31*	0.00	0.69	5.93
Homosexual	3.00	0.02	- 0.20	6.20
Bisexual	3.40*	0.00	0.51	6.29
Other	3.00	0.02	- 0.20	6.20
Resilience				
Heterosexual	-16.25	0.82	- 68.13	35.56
Homosexual	-20.00	0.82	- 83.35	43.35
Bisexual	-21.69	0.70	- 78.80	35.42
Other	-21.80	0.77	- 85.15	41.55
Self Esteem				
Heterosexual	- 13.57*	0.00	- 25.11	- 2.04
Homosexual	- 15.60*	0.00	- 29.70	- 1.50
Bisexual	- 15.00*	0.00	- 27.71	- 2.29
Other	- 16.80*	0.00	- 30.90	- 2.70
Social Connectedness				
Heterosexual	- 32.12*	0.00	- 63.94	- 0.31
Homosexual	- 36.73*	0.01	- 75.61	2.14
Bisexual	-38.53*	0.00	- 73.57	- 3.49
Other	- 16.13	0.62	- 55.01	22.74
Depression				
Heterosexual	21.73	0.03	- 3.08	46.54
Homosexual	27.93	0.02	- 2.38	58.25
Bisexual	26.83*	0.01	- 0.49	54.16
Other	20.26	0.17	- 10.06	50.58

* $p < 0.01$

Table 10: Post Hoc Analysis in Suicidal ideation, Resilience, Self Esteem, Social Connectedness, Depression and Hopelessness by Individual who reported “Unsure” Sexual Orientation (Cont.)

Study Variables	Mean Difference	Significance level	99% Confidence interval	
			Lower	Upper

Hopelessness				
Heterosexual	13.01*	0.00	5.84	20.19
Homosexual	14.83*	0.00	6.06	23.60
Bisexual	13.01*	0.00	5.11	20.92
Other	13.82*	0.00	5.06	22.60

* $p < 0.01$

Question 3

Which of the study variables (resilience, self-esteem, social connectedness, depression and hopelessness) best predicts suicidal ideation for this study population?

Results. A multiple regression analysis was employed to answer this research question.

Prior to the regression analysis, a multiple correlation analysis was performed among the independent variables. The correlation matrix for this analysis is presented in Appendix B. The correlation analysis among all of the independent variables yielded correlation levels of less than 0.80. Therefore, multicollinearity was not identified as an issue for this analysis (Burns & Grove, 2005).

The results of the stepwise regression analysis are shown in Table 11. Because the study allows for ten subjects per research variable, an alpha of 0.05 was chosen as the minimum criterion for a predictor to remain in the model. Results of the analysis show that self-esteem is a significant predictor, accounting for 34% of the variance in suicidal ideation and is significant at

0.04 level. Social connectedness remained in the model as it increases the explanatory variance of suicidal ideation.

Table 11: Predictors of Suicidal Ideation in Street Youth

Predictor Variables	B Coefficient	Beta	t	Change in R ²	Sig.
Self Esteem	- 0.09	- 0.40	- 2.99	0.34	0.04
Social connectedness	- 0.02	-.028	- 2.07	0.37	0.04

Chapter VI – Discussion of the Results

The discussion of the results is presented in four parts: (a) characteristics of the sample, (b) characteristics of the sample and study variables; (c) prevalence of suicidal ideation among the street youth population; and (d) risk factors and protective resources for suicidal ideation. However to begin, the limitations of the present study will be firstly discussed.

Limitations

The present study possesses several limitations that should be highlighted. First, the study sample may suffer from selection bias, as it was not a random sample of all street involved youth in Toronto. Despite efforts of involving street youth from diverse community agencies, the voluntary characteristics of the study excluded the participation of street youth who are unwilling to participate. Moreover, data collected for this study were also from a single geographic location. Ultimately, both these potential biases limit the generalizability of the findings. Second, a power analysis was not performed in the calculation of sample size, which increases the study's risk for type II error where the false null hypothesis is accepted.

Characteristics of the Sample

Generally this sample of street involved youth is comparable to other studies of street youth. Specifically, the sample for this study is comprised of more male than female participants. This gender distribution is fairly consistent with other studies that sampled homeless and run away youth (Cauce, 2000; Leslie et. al., 2002; Rew et. al., 2001a; Rew et. al., 2001b; Roy et. al., 1998). Compared to other studies of street youth where the mean age ranges from 16 to 18 year of age (Leslie et. al.; Rew et. al., 2001 a; Rew et. al., 2001b; Rothem-Borus, 1993; Roy et. al.; Votta & Manion, 2004), the youth involved in this study are somewhat older with a mean age of 20 years. Whereas, approximately one-third of participants identified

themselves as homosexual, bisexual and unsure, which is fairly consistent with other similar studies (Rew, Taylor-Seehafer & Thomas et. al.,; Votta & Manion). While more than one half of participants reported that they were living in shelters at the time of the study, which is consistent with other studies of homeless and runaway youth in other studies (Cauce; Rotheram-Borus; Votta & Manion; Yoder, 1999). In addition, similar to Cauce's study, the majority of these youth were not currently involved with any educational institution.

Compared to other studies involving street youth where at least half of the sample reported physical and sexual abuse, the majority of the sample in this study did not report physical and sexual abuse (Kidd & Kral, 2002; Rew et. al., 2001a; Rew et. al., 2001b; Ryan, Kilmer, Cauce, Watanabe & Hoyt, 2000; Molnar et. al, 1998; Sarbjeet et. al., 2004; Warren, Garry, & Moorhead, 1994). This is an unexpected finding, as physical abuse and especially sexual abuse are common reasons given for why youth leave or run away from their home (Cauce; 2000; Rew et. al., 2001b; Rotheram-Borus, 1993). It is possible that participants in this study did not feel comfortable disclosing their experience of physical and/or sexual abuse. It is important however, to note that 20% did report sexual abuse and close to 30% reported physical abuse. Further study is needed that employs sensitive measures of childhood trauma to accurately identify presence of abuse and the nature of the abuse for this vulnerable population.

Study Variables and Relationships to Sample's Characteristics

Overall, this sample had a higher degree of resilience, with a mean resilience score of 130.1, compared with the mean resilience score of 111.9 for the street youth sample reported by Rew et. al. (2001b). In contrast, this sample population had lower resilience scores compared to a sample of high risk low income minority high school students (Huntler & Chandler, 1999). Similar to Rew's et. al. study, no differences in resilience were found according to gender for

this youth sample. This finding is contrary to Boyden and Mann's (2005) theoretical perspective which suggests that a youth's ability to respond to adversity is highly influenced by his/her gender. Interestingly, the experience of physical abuse, and/or sexual abuse was also not found to be significantly associated with resilience. These findings are consistent with Edmond, Auslander, Elze & Bowland's (2006) study of adolescent girls in the foster care system and Rew's et. al. study of street youth. These studies found no association between the youth's level of resilience and a history of sexual abuse. However, the study findings are contrary to Ungar's (2004) study of high risk adolescents where he found physical and sexual abuse to be a threat towards youth's discursive empowerment and subsequent experience of the youth as resilient.

Street youth involved in this study had moderately high levels of self-esteem, but self esteem for participants in this study remains lower than the level of self esteem reported for adolescents in the general adolescent population (Chubb, Fertman and Ross, 1997; Connor et. al., 2004). No gender differences were found for self esteem in this youth population, which is consistent with a study involving adolescents in non-mainstream schools (Connor et. al.). However, gender differences in self esteem have been found in the general adolescent population (Kling, Hyde, Showers & Buswell, 1999; Major, Barr, Zubek & Babey, 1999). Furthermore, physical abuse and sexual abuse by an adult stranger was also not found to be a factor in the participants' level of self-esteem. However, a history of sexual abuse by an adult they know was found to be a factor in one's self-esteem. This finding will be discussed further in the risk factor section of the chapter (p. 65). In Kidd and Kral's study of homeless adolescents, both childhood physical and sexual abuse were found to be associated with low self-worth.

Street involved youth in this study reported a higher degree of social connectedness in comparison with Rew's et. al. (2001b) study where a higher percentage of the sample were living

on the street and not in shelters. The shelter environment experienced by the majority of the sample in this study may have contributed to the youth's increased sense of social connectedness. There were also no gender differences for social connectedness in this sample, again similar to Rew's et. al. study. This finding is, however, contrary to Lee's et. al.(2001) study of the general adolescent population in which young women were found to have higher levels of social connectedness than young men. Furthermore, results of the analysis revealed no differences in social connectedness according to a history of physical abuse and/or sexual abuse by an adult stranger. However, differences in social connectedness existed according to history of sexual abuse by an adult they knew. This finding will be further discussed in the risk factor section of the chapter (p. 65). This finding is consistent with other studies that identified that youth who have experienced sexual abuse were more socially isolated than youth who did not experience abuse (Bolger, Patterson, & Kupersmidt, 1998; Wolfe & Mosk, 1983 as cited in Elliot, Cunningham, Linder, Colangelo, & Gross, 2005). However, the finding related to sexual abuse and social connectedness are contrary with the findings reported by Rew et. al., where no significant differences existed in social connectedness by reported sexual abuse.

Street youth who participated in this study demonstrated high levels of depression compared to the general adolescent population (Chitsabesan et. al., 2003). This finding is consistent with other studies involving street and runaway youth (Ayerst, 1999; Rothem-Borus, 1993; Votta & Manion, 2003; Yoder, 1999). No gender differences were found with regard to depression, indicating that gender is not a factor associated with feeling depressed in this study. This finding is in contrast with Langhinrichsen-Rohling, Lewinsohn, Rohde and Seeley's et. al. (1998) study that found gender differences in depression, with female adolescents living at home reporting increased depressive symptoms compared to male adolescents living at home. In the

general adolescent population physical and sexual abuse has been found to be associated with depression (Flaherty, Thompson & Litrownik et. al., 2006; Silverman, Reinherz, & Gianconia, 1996; Widom, DuMont & Czaja, 2007), whereas in the current study no differences in depression were found for those participants who reported a history of physical and/or sexual abuse compared to those who did not. This finding could be partly due to the fact that both groups of street youth, those who reported experiencing abuse and those who did not, experienced higher level of depression, thus, finding a difference would be difficult.

Interestingly enough, despite the high levels of depressive symptomatology among this street youth sample, they experience less hopelessness as compared to the sample of street youth in another study (Rew et. al., 2001b). These youth were also less hopeless compared to a sample of psychiatric outpatients (Beck et. al., 1990) and the general adolescent population (Cotton & Range, 1996). This finding could be partly attributed to the view that depression reflects the most current mental well being of the street youth, while hopelessness reflects more towards the prospective future of the youth in life. For this study, male and female street youth do not differ in their scores on the measure of hopelessness, which indicates that gender is not a factor influencing the feeling of hopelessness for this sample of street youth. This finding is consistent with other studies (Langhinrichsen-Rohling et. al., 1998; Rew et. al.). No differences are also found in the level of hopelessness among participants who reported physical abuse and sexual abuse. This finding is consistent with Rew's et. al. findings, but is contrary to Silverman's et. al. (1996) study of the general adolescent population.

In summary, street youth in the current study had higher levels of self esteem, resilience, social connectedness, as well as depression than the general adolescent population. These findings are generally consistent with the street youth literature. Overall, gender was not a factor

that affected these participants' level of self esteem, resilience, social connectedness, depression and hopelessness. This finding may possibly be explained that regardless of gender, this youth population equally experiences distress as a consequence of their life in the street. Therefore, gender differences pertaining to their psychosocial well being are not visible for this vulnerable population. Furthermore, sexual abuse by a known adult was found to predispose these youth towards lower levels of self-esteem and perceived social connectedness, as well as a higher level of depression. A striking finding of this study was the low level of hopelessness reported by this sample despite experiencing increased vulnerability. This finding is similar to that of Miller et. al. (2004) where qualitative data collected from Canadian street youth indicated that while life on the street for this youth population is not easy, it was preferable to the life they had left. A majority of street youth also believe that their homelessness was temporary and that they had the capability to change their situation in time (Miller et. al.).

Prevalence of Suicidal ideation: The Street Youth Population

Most studies of suicide amongst street involved youth report suicide rates of 20% to 40% (Adlaf & Zdanowicz, 1999; Molnar et. al., 1998, Rotheram-Borus, 1993). In keeping with these results, the present study documented that 34 % of street youth expressed some level of suicidal ideation (DSI-SS score >1). A mean score of 0.88 on the DSI-SS was found overall for the sample, which is higher than a mean of 0.79 on the DSI-SS obtained in a general adolescent population (Joiner et. al., 2002). This indicates that rates for suicidal ideation and attempts are more elevated among street youth than among adolescent living at home, which is consistent with a range of theoretical and empirical literature (Adlaf et. al., 1996, Kidd, 2002, Molnar et. al., 1998, Rotheram-Borus, 1993, Yoder, 1999). Furthermore, more participants in the present sample expressed increased suicidal thoughts, compared to Rotheram-Borus's (1993) study of

runaway youth living in shelters that found 12 % of the sample reporting suicidal ideation at least once over a two year period.

While the mean suicidality score for this sample is somewhat low, Joiner et. al. (2002) suggest that “any DSI-SS score above zero warrants further investigation” (p. 477). Joiner et. al. also suggest that a cut of point of three and above on the DSI-SS is considered to be a clinical indicator of suicidal risk. For the present sample, 17 % of street youth reported a score of greater than 3, as compared to Joiner’s et. al. study where 15% of adolescents studied in the general population reported a score of above 3. This finding regarding elevated suicide risk is important as it suggests that a sizable portion of this study sample endorsed having: thoughts about suicide; a definite plan for suicide; and impulses to kill himself or herself (Joiner et. al.). Overall, this finding supports the theory that young people from socially disadvantaged backgrounds are at greater risk of having suicidal thoughts than young people from other socioeconomic groups (Fergusson, Woodward & Horwood, 2000).

Risk and Protective Factors for Suicidal Ideation

According to the study framework, adolescents who are resilient possess certain characteristics that allow them to cope with adversity, change, or opportunity such that protective factors exceed risk factors (Besthorn, 2005; Richardson, 2002). Street youth in this study inevitably displayed a great deal of resilience despite facing adversity. The concept of resilience is known in literature to be a broad construct that addresses both risk factors and protective resources that can either promote or hinder suicidal behavior among street youth (Aptekar & Stocklin, 1997; Besthorn, 2005; Rew & Horner, 2005). What follows is a discussion of risk and protective factors that may either place street youth at risk or provide protection from suicidal ideation.

Risk Factors

Age. Amongst the theoretical and empirical literature, increased age is recognized as a risk factor which contributes to suicidal behavior among adolescents (Maclean, 1990; Rew, Thomas, & Horner et. al., 2001; Solomon & Hellon, 1980). The literature does not address age as a risk factor for the development of suicidal ideation amongst street youth. However in this study, a small but statistically significant correlation was found between suicidal ideation and age, indicating that increased age may serve as a risk factor for suicidal ideation. This finding was consistent with studies of the general adolescent population (Bolginini et. al., 2003; De Man & Leduc, 1995; Holinger and Offer, 1991). For example, in one study conducted by Fergusson et. al. (2000), it was found that 28.8% of adolescents who were 21 years of age reported thoughts about suicide, while only 7.5% of those adolescents age 15 reported suicidal ideations.

The finding of this analysis can be explained through the use of the “population model”, which states that as youth progress towards adulthood, more negative social occurrences such as feelings of failure and alienation are experienced (Sudak et. al). In addition, young adults have a level of cognitive maturity which enables death to be viewed as a device to relieve helplessness and feelings of emotional negativity (Maclean, 1990). This theoretical perspective supports the understanding that older street involved youth are increasingly vulnerable to suicidal ideation.

Gender. In the literature, gender is known as an individual characteristic that places an adolescent at risk for suicidal behavior, specifically being a young women or a girl is associated with greater risk for such harmful acts (Rew et. al., 2001c). However the results of the current study found that no differences existed with regard to gender and increased risk for suicidal ideation. However regardless of this finding, it was evident for this sample that females had a higher DSI-SS score (mean score of 1.1) than their male counterparts (mean score of 0.68). This

finding is consistent with other similar studies involving the street youth population where young women had significantly elevated levels of suicidal ideation (Leslie et. al., 2002; Molnar et. al., 1998, Rotheram-Borus, 1993; Yoder, 1993). Furthermore, it is also important to note that in the current study, more females reported having experienced sexual abuse by a known adult compared to males (male = 7 and female = 9), while males and females are equal in regards to reported sexual abuse by an adult stranger. These findings may therefore suggest that there is a possibility that the increased level of suicidal ideation amongst female participants was attributed to greater experience of sexual abuse than their male counterpart. Nevertheless, the result of this analysis seem to be consistent with the theory that adolescent females have a tendency to turn their anger or rage inward, against their self, in efforts to adapt to adverse occurrences (Gilgun & Abrams, 2005) such as being without a permanent home and living with a vulnerable status in the society.

Sexual orientation. Sexual orientation has recently been recognized as a risk factor for adolescent suicide (Brown & Coulbourne, 2005; Pinhey & Millman, 2004). The finding of this study supports this account and revealed a significant difference in suicidal ideation by sexual orientation. This result is consistent with findings from a study of homeless youth, in which association was found between having a non-heterosexual status and increased suicidal ideation (Noell & Ochs, 2001). This finding is also consistent with studies involving the general adolescent population where suicidal ideation is associated with being gay, lesbian and bisexual (Borowsky et. al., 2001; Botnick et. al., 2002; Pinhey & Millman; Remafedi et. al., 1991; Russell & Joyner, 2005). However, it is contrary with the findings of Rew's et. al. (2001b) study, in which sexual orientation was found not to have an association with life threatening behavior.

Though, it is important to note that the distribution of sexual orientation in Rew et. al. study includes gay, lesbian, homosexual and bisexual, and unsure sexual orientation is not included.

Further analysis of the data revealed that street youth who were unsure of their sexual orientation had higher suicidal ideation compared to those who were heterosexual and bisexual. In addition, those youth who were unsure of their sexual orientation also had lower self esteem and lower perceived social connectedness compared to their heterosexual, homosexual and bisexual peers, as well as higher levels of depression compared to those street youth who were bisexual. This finding can be explained in part by the notions that when youth identified themselves as having a certain sexual orientation, they benefit from social support from other youth who have similar sexual orientation in the community (Russell & Joiner). Therefore, those street youth who are unsure of their sexual orientation are likely to feel isolated, resulting in low self worth, and a lack of belongingness, thus placing them at greater risk for suicidal thoughts (Brown & Colbourne, 2005).

History of Physical and Sexual Abuse. The findings of this study were interesting in that no significant associations were found between suicidal ideation and a history of physical abuse or sexual abuse in the 0.01 significance level. The results regarding history of sexual abuse are consistent with Rew et. al. (2001b) findings where no association was found between suicidal ideation and a history of sexual abuse. However, the results of this analysis are in contrast with other studies involving street youth (Molnar et. al., 1998; Rew et. al., 2001a; Sarbjeet et. al., 2004) and adolescents in the general population (Fergusson et. al. 2000; Pages et. al., 2004; Rew et. al., 2001c). The inconsistency in the findings regarding abuse may be attributed to the discrepancy in the measurement of abuse across various studies. It is important to note however that youth in this study who had been abused by someone known to them were more likely to

have increased suicidal thoughts compared to youth who had not been abused by someone known to them ($p = 0.02$). This finding supports the research finding that suicide is strongest when abuse is experienced from a perpetrator that is known to the victim (Santa Mina & Gallop, 1998). It is anticipated that the association would be replicated in future studies of suicide and trauma.

With regard to the other psychosocial variables, those street youth who had histories of abuse from adults they knew also reported lower self-esteem, lower perceived social connectedness, and a higher level of depression compared to those who had not experienced abuse from a known adult. These findings further support the theoretical accounts by Sudak et. al. (1984) that those youth who experience sexual victimization by an adult they trust will develop greater mental and emotional trauma compared to those who did not experience sexual abuse.

Depression & Hopelessness. Within the resilience framework, depression and hopelessness are known to be two emotional risk factors that increase the chances that street youth will experience adverse outcomes in response to stressors (Rew & Horner, 2003). As expected, depression was significantly and positively correlated with suicidal ideation, which indicated that those street youth who feel depressed will have more thoughts about killing themselves. This finding is similar to those of other researchers who found high rates of suicidal thoughts among homeless youth who exhibited depression (Rotheram-Borus, 1993; Votta & Manion, 2003; Yoder, 1999). A concept closely link to depression is hopelessness. The result of this study demonstrates consistency with other studies that emphasized that high levels of hopelessness plays an important role in increasing adolescent's risk for suicidal behavior (Beck et. al., 1990; Cotton & Range, 1996; McGee et. al., 2001; Pinhey & Millman, 2004). The

analysis for this study revealed that street youth who were more hopeless also experienced more thoughts about killing themselves, which is similar to Rew's et. al. (2001b) study involving the homeless youth population. Based on the finding of this study, one can account that those street youth who are hopeless often perceive their situation as being insoluble, thus motivating them to view suicide as the only feasible mean for coping with their multitude of problems (Beck et. al., Joiner et. al., 2005).

Protective Resources

Resilience. In addition to using the resilience construct as a study framework, resilience was also used as a psychosocial variable for this present study. Generally the literature indicates that resilience is an individual attribute that can offer protection from harmful outcomes such as suicidal ideation as individuals cope with stressful situations (Besthron, 2005; McAdam-Crisp et. al., 2005; Rew & Horner, 2003). The results from the study revealed that street youth who were resilient were less likely to think about suicide. This finding is consistent with Rew's et. al. (2001b) study of street youth. However, correlation obtained in this analysis is lower ($r = -0.40$) than Rew et' al. findings of $r = -0.52$. Therefore, the low correlation result for this study suggests that there exists other factors, such as those factors attributed as risk and protective, that influence the prevalence of suicidal ideation for this study population.

Self-Esteem. From the framework of resilience, increased self esteem can be considered a protective factor that may enhance youth's capacity for positive behavior, thus preventing suicidal ideation (Robins et. al., 2002). Results of this study indicated that street youth who had high self esteem also had less suicidal thoughts. This finding is consistent with studies of homeless youth (Leslie et. al., 2001; Yoder, 1999), as well as the general adolescent population (Bearman & Moody, 2004; Lewinsohn et. al., 1994; McGee et. al, 2001; Wilburn & Smith, 2005;

Wild et. al., 2004). Results of this study also revealed that low self-esteem was the most significant predictor of suicidal ideation. Research has shown that street youth report low self-worth as the most central factor influencing their experience of suicide (Kidd & Kral, 2002). Street youth with low self esteem often engage in risky behavior, such as suicide, to cope with or escape from the negative feelings associated with low self-worth (Wild et. al., 2004). The link between self esteem and suicidal ideation in street youth is important, since it offers an understanding of both what may predispose youth living on the street to suicidal ideation and possibly how to intervene to protect youth from suicidal ideation. From a resilience perspective a high level of self esteem offers a positive evaluation about the self, which may buffer the harmful impact of stressful life events resulting in improved mental well-being (Robin et. al., 2002). Ultimately, a positive self esteem may provide street youth protection against self-harming behavior such as suicidal ideation.

Social Connectedness. Within the resilience framework, high level of perceived social connectedness is regarded as an important protective factor for suicidal ideation. It has been suggested that youth with low social connectedness experience repeated interpersonal failures in life and greater feeling of solitary, which results in the inability of the youth to discover meaningful or purposeful commitments in life (Klerman, 1986; Lee et. al., 2001). Therefore, youth with low social connectedness are at increase risk for suicide. Supporting this theoretical account, findings for this study suggests that those street youth who had high perceived social connectedness also had less thought about killing themselves. This finding is consistent with studies of the general adolescent population that found an inverse relationship between suicidal thoughts and behavior and social connectedness (Resnick et. al., 1997; Rew et. al., 2001c). Interestingly, social connectedness was also found as an additional predictor of suicidal ideation.

It has been theorized that peer relatedness contribute to youth success at achieving acceptance for his or her identity as resilient (Ungar, 2004). This positive acceptance consequently provides a buffering effect toward serious vulnerability and stress (Ungar). Given this, the result of this study shows that there are additional benefits to mental health if a street youth feels connected with their peers, social institution, and environment. This benefit that social connectedness contribute ultimately increases street youth's resilience, thus decreasing their risk for suicidal thoughts.

Summary

Statistically, the level of significance in this study remained at 0.01. The reason for adopting a more conservative p value was because this study contained multiple statistical tests.

Overall, the demographic characteristics of the sample are consistent with other studies of homeless and runaway youth. Most of the youth involved in this study, despite experiencing multiple negative occurrences, expressed high levels of resilience, self esteem and perceived social connectedness. However, they also reported high levels of depressive symptomatology and mild levels of hopelessness. Consistent with other similar studies, this youth population also reported higher thoughts about suicide compared to the general adolescent population.

Within the framework of resilience, suicidal ideation is viewed in terms of risk factors and protective resources. For the sample of street youth in this study, increased age served as a risk factor for suicidal ideation. Furthermore, a lack of certainty in one's sexual orientation was also a risk factor. A history of physical abuse and/or sexual abuse was found to be significantly related to suicidal ideation at a 0.05 level, but not in the 0.01 level. Therefore, it was not considered to be significant for this study but such issue needs further exploration. As expected, depression and hopelessness were found to be risk factors for suicidal ideation.

From a resilience perspective, risk factors can be counteracted by protective resources. Findings for this study demonstrated that both high levels of self esteem and high levels of perceived social connectedness protect street youth from suicidal thoughts. Having a high level of resilience also offers protection against suicidal ideation. Furthermore, self esteem and social connectedness were also found to be significant predictors of suicidal ideation, suggesting that both of these are important factors in prevention of suicidal thoughts for this street youth population. These results indicate that consideration should be given in the future to including measures of self esteem and social connectedness in the assessment of adolescents' suicidal thoughts and behavior.

Chapter VII- Implications and Conclusion

The present results suggest several important implications for nursing practice and education, as well as nursing research. Furthermore, this study also suggests important theoretical implications related to the concept of resilience.

Implications for Nursing

Nursing Practice & Education

The findings from this study revealed that higher self esteem, perceived social connectedness, and resilience were protective factors for suicidal ideation. To the contrary, depression and hopelessness were found to be risk factors associated with suicidal ideation. These findings highlight the importance of attending to the psychological, social and emotional well being of street youth in relation to suicidal ideation for practitioners who work with street youth. Nurses who work in the community, as well as community agency's workers, are well positioned to help street youth build self-esteem and to create supportive social networks, which may help to reduce the occurrence of suicidal thoughts, as well as hopelessness and depression. Based on these study findings, community nurses who are expert in street youth's health issues may see the need to provide training and consultation to community organizations to emphasize the importance of strengthening protective resources of those street youth who are most at risk for suicidal thoughts

Consideration should be given to developing programs for street-involved youth who are experiencing suicidal ideation; in particular, there is a need to increase assessment of vulnerable youth who may be at risk for suicide. The study findings suggest certain demographic characteristics specifically; increased age, being a female, and having an 'unsure' sexual orientation to be risk factors that increased street youth risk for suicidal ideation. One of the

interesting finding of this study is that low levels of self esteem and social connectedness are predictive of suicidal ideation. This preliminary finding suggests that interventions geared towards suicide prevention for street youth would benefit from focusing on improving self esteem and social connectedness. Interventions that strengthen emotional skills and social competencies development may be important early interventions for the prevention of suicidal ideation for this vulnerable population.

Ultimately within the framework of resilience, nurses and community practitioners need to be skillful at providing interventions that strengthen protective resources and inhibit risk factors for suicidal ideation. Community agencies need to develop training for health professionals that are geared toward enhancing competencies in identification of risk factors and protective resources for suicidal ideation. Nurses and community agency's workers should be also provided ongoing training to better recognize those street youth who are most at risk for such harmful thoughts.

Nursing Research

The findings of this study suggest that this is an important area of investigation to better understand suicidal ideation in this vulnerable population. Future studies are needed with an increased sample size of street youth from different geographic locations to enhance the representativeness of the sample. It may also be important to take into account the length of time youth have spent on the street, which may be a factor related to youth's experience of suicidal ideation. In addition, in order to better understand suicidal ideation from the resilience perspective, future research should explore the dynamic interaction of risk factors and protective resources present in street youth. Qualitative research would also be beneficial in understanding both the experience of suicidal ideation and would provide a basis for the development of

interventions to address this difficult mental health issue in this vulnerable group. In particular, interviews can be conducted with street youth who have clinically significant thoughts of suicide; exploring their perception with regards to the importance of various psychosocial factors that may place youth at risk or protect youth from suicidality. An action research approach may also be important in the development of interventions as it encourage street youth involvement and participation, thereby enhancing the effectiveness of those interventions geared towards suicide prevention. In addition, as the construct of resilience is conceptually complicated, future research should focus on the clarification of the concept, and the development of a framework to better understand resilience as an individual characteristic that protects street youth from suicidal ideation. Moreover, further longitudinal studies related to childhood abuse are needed to better understand its role as a risk factor for suicidal ideation over time.

Theoretical Implications

This study demonstrated the complexity associated with the construct of resilience. Resilience could be regarded as an individual characteristic that protects youth from suicidal ideation. Yet, resilience can also serve as a framework for understanding suicidal ideation in terms of the complex interaction of both risk and protective factors. Rutter (1987) had suggested that the focus of attention should be on the protective processes or mechanism of resilience, rather than on the variable in itself. Given this, it would be useful in the future to conduct a concept analysis of resilience. This will ultimately promote better understanding of the resilience framework and its relation to the measure of the concept.

Conclusion

From the resilience perspective, this descriptive exploratory study assessed factors that placed street youth at risk for suicide and on the other hand protects youth from these harmful

thought. Consistent with most of the literature, this study found depression and hopelessness to be risk factors for suicidal ideation. Certain individual characteristics such as increased age and having an unsure sexual orientation were found to be risk factors for suicidal ideation. However, having experienced physical abuse and/or sexual abuse in the past were found not to be significant at a 0.01 level. However, these findings were approaching significance and should be studied further.

From the resilience perspective, these identified risk factors can be buffered by protective resources. Findings of this study suggest that having high self esteem and high level of perceived social connectedness may serve as protective resources for suicidal thoughts. In fact, these two protective resources were the best predictors of suicidal ideation amongst street involved youth. Ultimately, findings from this study can serve as a basis for developing interventions based in a resilience framework, that target the prevention of suicidal ideation among the street youth population. Currently, strategies based on the findings from the primary study directed toward enhancing street involve youth's social connectedness and self-esteem are being developed in order to promote emotional well being which may prevent suicidal ideation and behavior.

Appendix A: Sociodemographic Questionnaire

Background:

Date of Birth: Month____/Day____/Year____ Age in years: _____

How do you identify your gender? ____Male ____Female ____Transgender
____Other

How do you identify your sexual orientation? _____

Living Situation:

Current Living Situation: _____
(I.e. Shelter, transitional housing, friend's home, street)

Current living arrangements: _____
(i.e. Alone, spouse or significant other, spouse & children, parents, other family members, friends)

School Background:

Current School Involvement: _____
(i.e. Attending high school, college, university, GED, other)

Years of education completed: _____
(Grade 1 and up)

**Appendix B: Correlates Among Resilience, Self Esteem, Social Connectedness
Depression and Hopelessness**

Study Variable	1	2	3	4	5
Resilience		0.60*	0.57*	- 0.58*	- 0.49*
Self Esteem			0.68*	0.68*	- 0.70*
Social Connectedness				- 0.73*	- 0.60*
Depression					0.61*
Hopelessness					

* $p < 0.01$

References

- Adlaf, E., Zdanowicz, Y., & Smart, R. (1996). Alcohol and other drug use among street-involved youth in Toronto. *Addiction Research*, 4(1), 11-24.
- Argerious, M., McCarty, D., & Mulvey, K. (1995). Dimension of homelessness. *Public Health Reports*, 110(6), 734-741.
- Ayerst, S. (1999). Depression and stress in street youth. *Adolescence*, 135(34), 567- 575.
- Baer, J., Peterson, P., & Wells, E. (2004). Rationale and design of a brief substance use intervention for homeless adolescents. *Addiction Research and Theory*, 12(4), 317-334.
- Bagley, C., & Tremblay, P. (1997). On the prevalence of homosexuality and bisexuality in a random community survey of 750 men aged 18 to 27. *Journal of Homosexuality*. Retrieved April 6, 2006 from www.youth-suicide.com/gay-bisexual/.
- Baldwin, M. (1992). Relational schemas and the processing of social information. *Psychological Bulletin*, 112(3), 461-484.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44,
- Barton, W. (2005). Methodological challenges in the study of resilience. In M. Ungar (Ed.). *Handbook for working with children and youth: Pathway to resilience across culture and contexts* (pp.135-149). London: Sage Publication.
- Baumeister, R. & Leary, M. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human emotion. *Psychological Bulletin*, 112, 461-484.
- Bearman, P., & Moody, J. (2004). Suicide and friendships among American adolescents. *American journal of Public Health*, 94(1), 89-95.

- Beck, A., Brown, G., Berchick, R., Stewart, B. & Steer, R. (1990). Relationship between hopelessness and ultimate suicide: A replication with psychiatric outpatients. *The American Journal of Psychiatry*, 147(2), 190-195.
- Besthorn, F. (2005). Beetles, bullfrog, and butterflies: Contribution of natural environment to childhood development and resilience. In M. Ungar (Ed.). *Handbook for working with children and youth: Pathway to resilience across culture and contexts* (pp.121-133). London: Sage Publication.
- Bolger, K., Patterson, C., & Kupersmidt, J. (1998). Peer relationships and self-esteem among children who have been maltreated. *Child Development*, 69, 1171-1197.
- Bologinini, M, Plancherel, B., Laget, J., & Halfon, O. (2003). Adolescent's suicide attempts: Populations at risk, vulnerability, and substance use. *Substance Use and Misuse*, 38(11-13), 1651-1669.
- Borowski, I., Wagman, I., Marjorie, R., & Michael D. (2001). Adolescent suicide attempts: Risk and Protectors. *Pediatrics*, 107(3), 1-20.
- Botnick, M., Heath, K., Cornelisse, P., Strathdee, S., Martindale, S. & Hogg, R. (2002). Correlate of suicide attempts in an open cohort of young men who have sex with men. *Canadian Journal of Public Health*, 93(1), 59-62.
- Boyden, J. & Mann, G. (2005). Children's Risk, Resilience, and Coping in Extreme Situations. In M. Ungar (Ed.). *Handbook for working with children and youth: Pathway to resilience across culture and contexts* (pp.3-25). London: Sage Publication.
- Brown, M. & Colbourne, M. (2005). Bent But Not Broken: Exploring Queer Youth Resilience. In M. Ungar (Ed.). *Handbook for working with children and youth: Pathway to resilience across culture and contexts* (pp.57-71). London: Sage Publication.

- Busen, N. & Beech, B. (1997). A collaborative model for community based health care screening of homeless adolescents. *Journal of Professional Nursing*, 13, 316-324.
- Burns, N., & Grove, S. (2005). *The practice of nursing research: Conduct, critique, and utilization*. St. Louis: Elsevier Saunders.
- Byrne, D., Grant, R. & Shapiro, A. (2005). Quality health care for homeless youth: Examining barriers to care. *The New York City Child Health Forum*. Retrieved February 16, 2006 from [www.childrenshealthfund.org/ whatwedo/WhitePaperFinal.pdf](http://www.childrenshealthfund.org/whatwedo/WhitePaperFinal.pdf).
- Calgary Homeless Foundation (2002). Calgary homeless study: Final Report. Calgary, AB:Author.
- Cauce, A. (2000). The characteristics and mental health of homeless adolescents: Age and gender differences. *Journal of Emotional & Behavioral Disorders*, 8(4), 230-240.
- Chanokruthai, C., Williams, A., & Hagerty, B. (2005). The role of sense of belonging and social support on stress and depression in individual with depression. *Archives of Psychiatric Nursing*, 19(1), 18-29.
- Chitsabesan, P., Harrington, R., Harrington, V., & Tomenson, B. (2003). Predicting repeat self-harm in children: How accurate can we expect to be? *European Child & Adolescent Psychiatry*, 12, 23-29.
- Chubb, N., Fertman, C. & Ross, J. (1997). Adolescent self-esteem and locus of control: a longitudinal study of gender and age differences. *Adolescence*, 32(125):113-29.
- Cicchetti, D., Rogosch, F., Lynch, M., & Holt, K. (1993). Resilience in maltreated children: Process leading to adaptive outcomes. *Development and Psychopathology*, 6, 533-549.
- Connor, J., Poyrazli, S., Ferrer-Wreder, L., & Grahame, K. (2004). The relation of age, gender, ethnicity, and risk behaviors to self-esteem among students in nonmainstream schools. *Adolescence*, 255(39), 457-273.

- Cotton, C. & Range, L. (1996). Suicidality, hopelessness, and attitudes toward life and death in clinical and non-clinical adolescents. *Death Studies*, 20, 601-610.
- De Man, A., & Leduc, C. (1995). Suicidal ideation in high school students: Depression and other correlates. *Journal of Clinical Psychology*, 51(2), 173-181.
- Eckersley, R., & Dear, K. (2002). Cultural correlates of youth suicide. *Social Science & Medicine*, 55, 1891-1904.
- Edmond, T., Auslander, W., Elze, D., & Bowland, S. (2006). Signs of resilience in sexually abused adolescent girls in the foster care system. *Journal of Child Abuse*, 15(1), 1-28.
- Edward, K. (2005). Resilience: A protector from depression. *American Psychiatric Nurses Association*, 11(4), 241-243.
- Elliot, G., Cunningham, S., Linder, M., Colangelo, M., & Gross, M. (2005). Child physical abuse and self-perceived social isolation among adolescents. *Journal of Interpersonal Violence*, 20(12), 1663-1684.
- El-Masri, M. & Fox-Wasylyshyn, S. (2005). Missing data: An introductory conceptual overview for the novice researcher. *Canadian Journal of Nursing Research*, 37(4), 156-171.
- Ensign, J. (2003). Ethical issues in qualitative health research with homeless youth. *Journal of Advance nursing*, 43(1), 43-50.
- Ensign, J. & Panke, A. (2001). Barriers and bridges to care: voices of homeless female adolescent youth in Seattle, Washington. *Journal of Advance Nursing*, 37(2), 166-172.
- Ensign, J. & Santelli, J. (1997). Shelter-based homeless youth: Health and access to care. *Archive of Pediatric Adolescence Medicine*, 151, 817-823.
- Farberow, N. (1991). Social Isolation. In L. Davidson & M. Linnoila (Eds), *Risk Factors for Youth Suicide* (32-33). New York: Hemisphere Publishing Corporation.

- Fergusson, D., Woodward, L. & Horwood, L. (2000). Risk factors and life processes associated with the onset of suicidal behavior during adolescence and early adulthood. *Psychological Medicine*, 30, 23-39.
- Feldmann, J., & Middleman, A. (2004). Homeless adolescents: Common clinical concerns. *Journal of Adolescent Health*, 34(3), 237-243. Retrieved March 2, 2006 from CINAHL.
- Finkelhor, D., Ormrod, R., Turner, H. & Hamby, S. (2005). The victimization of children and youth: A comprehensive, national survey. *Child Maltreatment*, 10(1), 5-25.
- Flaherty, E., Thompson, R., Litrownik, A., Theodore, A., English, D., Black, M., Wike, T., Whimper, L., Rugar, D., Dubowitz, H. (2006). Effect of early childhood adversity on child's health. *Archive of Pediatric Adolescent Medicine*, 160(12), 1232-1238.
- Flisher, A. (1999). Annotation: Mood disorder in suicidal children and adolescents: Recent development. *Journal of Child Psychology and Psychiatry*, 40(3), 315-324.
- Garber, J. and Flynn, C. (2001). Predictors of depressive cognitions in adolescents. *Cognitive Theory and Research*, 25, 353-376.
- Gaitz, S., O'Grady, B., & Vaillancourt, B. (1999). Making the money: The shout clinic report on homeless youth and employment. *Central Toronto Community Health Centers*, 5-11, 13-21, 41-49.
- Goldston, D. (2003). *Measuring Suicidal Behavior and Risk in Children and Adolescents*. Washington: American Psychological Association.
- Gordon, W. & Caltabiano, M. (1996). Urban-Rural differences in adolescent self-esteem, leisure boredom, and sensation seeking as predictors of leisure-time usage and satisfaction. *Adolescence*, 31, 883-901.

- Grossman, A. (1997). Growing up with a spoiled identity: Lesbian, gay, and bisexual youth at risk. *Journal of Gay & Lesbian Social Services*, 6(3), 45-56.
- Gilgun, J. & Abrams, L. (2005). Gendered Adaptations, Resilience, and the Perpetration of violence. In M. Ungar (Ed.). *Handbook for working with children and youth: Pathway to resilience across culture and contexts* (pp.57-71). London: Sage Publication.
- Haase, J. (2004). The adolescent resilience model as a guide to interventions. *Journal of Pediatric Oncology Nursing*, 21(5), 289-299.
- Hagerty, B., Lynch-Sauer, J., Patusky, K., Bouwsema, M., & Collier, P. (1992). Sense of belonging: A vital mental health concept. *Archives of Psychiatric Nursing*, VI(3), 172-177.
- Hagerty, B., Williams, R., Coyne, J., & Early, M. (1996). Sense of belonging and indicators of social and psychological functioning. *Archives of Psychiatric Nursing*, 10(4), 235-244.
- Hamby, S. & Finkelhor, D. (2004). *The Comprehensive Juvenile Victimization Questionnaire*. Durham: University of New Hampshire.
- Hawton, K. (1986). *Suicide and Attempted Suicide*. London: Sage Publication.
- Hawton, K., Cole, D., O'Grady, J., & Osborn, M. (1982). Motivational aspects of deliberate self-poisoning in adolescents. *British Journal of Psychiatry*, 141, 286-291.
- Holinger, P. & Offer, D. (1991). Sociodemographic, Epidemiologic, and Individual attributes. In L. Davidson & M. Linnoila (Eds), *Risk Factors for Youth Suicide*(3-17). New York: Hemisphere Publishing Corporation.
- Hunter, A. & Chadler, G. (1999). Adolescence Resilience: *Journal of Nursing Scholarship*, 31(3), 243-247.

- Hwang, S. (2000). Mortality among men using homeless shelters in Toronto, Ontario. *Journal of American Medical Association*, 283(16), 2152-2157.
- Hwang, S. (2002). Is homelessness hazardous to your health? Obstacles to the demonstration of a casual relationship. *Canadian Journal of Public Health*, 93(6), 407-411.
- Hyde, J. (2005). From home to street: Understanding young people's transitions to homelessness. *Journal of Adolescence*, 28, 171-183.
- Jenson, J. & Fraser, M. (2005). A risk and resilience framework for child, youth, and family policy. *Social Policy for Children and Families*
- Joffe, R., & Offord, D. (1990). Epidemiology. In G. MacLean (Ed.), *Suicide in children and adolescents* (pp. 1-13). Toronto: Hogrefe & Huber Publishers.
- Joiner, T., Brown, J., & Wingate, L. (2005). The psychology and neurobiology of suicidal behavior. *Annual Review of Psychology*, 56, 287-314.
- Kidd, S. & Kral, M. (2002). Suicide and prostitution among street youth: A qualitative analysis. *Adolescence*, 146(37), 411-430.
- Kidd, S. (2003). The need for improved operational definition of suicide attempts: Illustrations from the case of street youth. *Death Studies*, 27, 449-455.
- Kidd, S.A. (2004). The walls were closing in, and we were trapped: A qualitative analysis of street youth suicide. *Youth & Society*, 36(1), 30-55.
- Klerman, G. (1986). *Suicide and Depression among Adolescent and Young Adult*. Toronto: American Psychiatric Press.
- Kling, K., Hyde, J., Showers, C. & Buswell, B. (1999). Gender differences in self-esteem: A meta-analysis. *Psychological Bulletin*, 125, 470-500.

- Langinrichsen-Rohling, J., Lewinsohn, P., Rohde, P., Seeley, J., Monson, C., Meyer, K., & Langford, R. (1998). Gender differences in suicide-related behaviors of adolescents and young adults. *Sex Roles, 39*, 839- 854.
- Lawford, J. & Eiser, C. (2001). Exploring links between the concepts of quality of life and resilience. *Pediatric Rehabilitation, 4*(4), 209-216.
- Lee, R., Draper, M., & Lee, S. (2001). Social connectedness, dysfunctional interpersonal behaviors, and psychological distress: Testing a mediator model. *Journal of Counseling Psychology, 48*(3), 310-318.
- Lee, R. & Robbins, S. (1995). Measuring belongingness: The social connectedness and the social assurance scales. *Journal of Counseling Psychology, 42*, 232-241.
- Leslie, M., Stein, J., & Rotheram-Borns, M. (2002). Sex-specific predictors of suicidality among runaway youth. *Journal of Clinical Child Adolescent Psychology, 31*(1), 27-40.
- Lewinsohn, P., Rohde, P. & Seeley, J. (1994). Psychosocial risk factors for future adolescent suicide attempts. *Journal of Consulting and Clinical Psychology, 62*(2), 297-305.
- Lubkin, I. & Larsen, P. (2002). Chronic illness: Impact and interventions 5th edition. Toronto: Jones and Bartlett Publishers.
- MacLean, G. (1990). Clinical Perspective. In G. MacLean (Ed.), *Suicide in children and adolescents* (pp. 15-39). Toronto: Hogrefe & Huber Publishers.
- MacNamee, J., & Offord, D. (2006). Youth suicide report- Canadian task force on preventative health care. Canadian Children Rights Council. Retrieved May 18, 2006 from www.canadiancrc.com/Youth_suicide_in_Canada.htm.

- Magnus, K., Cowen, E., Wyman, P., Fagen, D., & Work, W. (1999). Correlates of resilient outcomes among highly stressed African-American and white urban children. *Journal of Community Psychology*, 27, 473-488.
- Major, B., Barr, L., Zubek, J., & Babey, S. (1999). Gender and self-esteem. A meta analysis. In W. Swann & J. Langlois (Eds), *Sexism and stereotypes in modern society: The gender science of Janet Taylor Spence* (pp. 223-253). Washington, DC: American Psychological Association.
- Malone, K., Oquendo, M., Haas, G., Ellis, S., Li, S., & Mann, J. (2000). Protective factors against suicidal act in major depression: Reason for living. *American Journal of Psychiatry*, 157(7), 1084-1088.
- Masten, A., Best, K., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, 2, 425-
- Masten, A., & Coatsworth, D. (1998). The development of competence in favorable and unfavorable environment: Lessons from research on successful children. *American Psychologist*, 53, 205-220.
- Masten, A., Hubbard, J., Gests, S., Tellegen, A., Garmezy, N., & Ramirez, M. (1999). Competence in the context of adversity: Pathway to resilience and maladaptation from childhood to late adolescence. *Development and Psychopathology*, 11, 143-169.
- Mayor's Action Task Force (1999). *Taking responsibility for homelessness: An action plan for Toronto*. Retrieved January 16, 2006, from <http://www.toronto.ca/mayor/homelessnessstf.htm>.

- McAdam-Crisp, J., Aptekar, L., & Kironyo, E. (2005). The theory of resilience and its application to street children in the minority and majority worlds. In M. Ungar (Ed.). *Handbook for working with children and youth: Pathway to resilience across culture and contexts* (pp.71-88). London: Sage Publication.
- McElroy, A. (2004). Suicide prevention and the broad-spectrum approach to health promotion. *Health Education Research*, 19(4), 476-480.
- McGee, R., Williams, S., & Nada-Raja, S. (2001). Low self-esteem and hopelessness in childhood and suicidal ideation in early adulthood. *Journal of Abnormal Child Psychology*, 29(4), 281-291.
- McNaught, A. & Spicer, J. (2000). Theoretical perspective on suicide in gay men with AIDS. *Social Science & Medicine*, 51, 65-72.
- Miller, P., Donahue, P., Este, D., & Hofer, M. (2004). Experiences of being homeless or at risk of being homeless among Canadian youths. *Adolescence*, 39(156), 735-755.
- Molnar, B., Shade, S., Kral, A., Booth, R., & Watters, J. (1998). Suicidal behavior and sexual/physical abuse among street youth. *Child Abuse and Neglect*, 22(3), 213-222.
- Morano, C., & Cisler, R. (1993). Risk Factors for adolescent suicidal behavior: Loss, insufficient familial support, and hopelessness. *Adolescence*, 112(28), 851-866.
- Noell, J. & Ochs, L. (2001). Relationship of sexual orientation to substance use, suicidal ideation, suicide attempts, and other factors in a population of homeless adolescents. *Journal of Adolescent Health*, 29, 31-36.
- Norman, G. & Streiner, D. (2000). *Biostatistics: The Bare Essentials Second Edition*. Hamilton, Ontario: B.C. Decker Inc.

- Olley, B.O. (2006). Social and health behavior in youth of the street of Ibadan, Nigeria. *Child Abuse and Neglect*, 30, 217-282.
- Pages, F., Arvers, P., Hassler, C., & Choquer, M. (2004). What are the characteristics of adolescent hospitalized suicide attempters. *European Child and Adolescent Psychiatry*, 13, 151-158.
- Pfeffer, C. (1990). Manifestation of Risk Factor. In G. MacLean (Ed.), *Suicide in children and adolescents* (pp. 65-73). Toronto: Hogrefe & Huber Publishers.
- Pinhey, T. & Millman, S. (2004). Asian/Pacific adolescent sexual orientation and suicide risk in Guam. *American Journal of Public Health*, 94(7), 1204-1206.
- Placidi, G., Oquendo, M., Malone, K., Brodsky, B., Ellis, S., & Mann, J. (2000). Anxiety in major depression: Relationship to suicide attempts. *American Journal of Psychiatry*, 157(10), 1614-1618
- Raphael, D., Rukholm, E., Brown, I., Hill-Bailey, P., & Donato, E. (1996). The quality of life profile- Adolescent version: Background, description, and initial validation. *Journal of Adolescent Health*, 19, 366-375.
- Remafedi, G., Farrow, J. & Deisher, R. (1991). Risk factors for attempted suicide in gay and bisexual youth. *Pediatrics*, 87, 869-875.
- Remafedi, G., French, S., Story, M., Resnick, M., & Blum, R. (1998). The relationship between suicide risk and sexual orientation: Results of a population based study. *American Journal of Public Health*, 88, 57-60.
- Resnick, M., Bearman, P., Blum, R., Bauman, K., Harris, K., Jones, J., Tabor, J., Beuhring, T., Sieving, R., Shew, R., Ireland, M., Bearinger, L., & Udry, J. (1997). Protecting adolescents from harm: Findings from the national longitudinal study on adolescent

- health. *Journal of the American Medical Association*, 278, 823-832.
- Rew, L. & Horner, S. (2003). Youth resilience framework for reducing health-risk behaviors in adolescents. *Journal of Pediatric Nursing*, 18(6), 379-388.
- Rew, L., Taylor-Seehafer, M., & Fitzgerald, M. (2001a). Sexual abuse, alcohol and other drug use and suicidal behaviors in homeless adolescents. *Pediatric Nursing*, 24, 225-240.
- Rew, L., Taylor-Seehafer, M., Thomas, N., & Yockey, R. (2001b). Correlates of resilience in homeless adolescents. *Journal of Nursing Scholarship*, 33(1), 33-40.
- Rew, L., Thomas, N., Horner, S., Resnick, M., & Beuhring, T. (2001c). Correlates of recent suicide attempts in a triethnic group of adolescents. *Journal of Nursing Scholarship*, 33(4), 361-367.
- Rice, E., Milburn, N., & Mallet, S. (2005). The effect of peer group network properties on drug use among homeless youth. *American Behavioral Scientist*, 48(8), 1102-1123.
- Richardson, G. (2002). The metatheory of resilience and resiliency. *Journal of Clinical Psychology*, 58(3), 307-32.
- Robins, R., Trzesniewski, K., Tracy, J., & Gosling, S. (2002). Global self-esteem across the life span. *Psychology and Aging*, 17(3), 423-434.
- Rotheram-Borus, M. (1993). Suicidal behavior and risk factors among runaway youth. *American Journal of Psychiatry*, 150(1), 103-107.
- Rouse, K., Ingersoll, G., & Orr, D. (1998). Longitudinal health endangering behavior risk among resilient and non-resilient early adolescents. *Journal of Adolescent Health*, 23, 297-302.

- Roy, E., Haley, N., Leclerc, P., Sochanski, B., Bourdreau, J., & Boicin, J. (2004). Mortality in a cohort of street youth in Montreal. *Journal of American Medical Association*, 292, 569-574.
- Russel, S. & Joyner, K. (2001). Adolescent sexual orientation and suicide risk: Evidence from a National Study. *American Journal of Public Health*, 91(8), 1276-1281.
- Rutter, M. (1987). Psychosocial resilience and protective mechanism. *American Journal of Orthopsychiatry*, 57(3), p.316-331.
- Ryan, K., Kilmer, R., Cauce, A., Watanabe, H., & Hoyt, D. (2000). Psychological consequences of child maltreatment in homeless adolescents: untangling the unique effects of maltreatment and family environment. *Child Abuse and Neglect*, 24(3), 333- 352.
- Santa Mina, E. & Gallop, R. (1998). Childhood sexual and physical abuse and adult self harm and suicidal behaviour: A literature review. *The Canadian Journal of Psychiatry*, 43, 793-800.
- Sarjeet, K., N. Sharma, Shivananda, J., Saha, R., & Ingie, GK (2004). Mental health status of runaway adolescents. *The Indian Journal of Pediatrics*, 71(5), 405-409.
- Savin-Williams, R. (1994). Verbal and physical abuse as stressors in the lives of lesbian, gay male and bisexual youths: Associations with school problems, running away, substance abuse, prostitution, and suicide. *Journal of Consulting Clinical Psychology*, 62, 261-269.
- Shneidman, E. (1979). An Overview: Personality, motivation and behavior theories. In L.D. Hankoff and B. Einsidler. *Suicide: Theory and Clinical Aspect* (pp. 143-178). Littleton: PSG Publishing Company.

- Sieger, C., & Meyer, L. (1999). Hope and resilience in suicide ideation and behavior of gay and bisexual men following notification of HIV infection. *AIDS education and Prevention*, 11(1), 53-65.
- Silverman, A., Reinhertz, H., & Giaconia, R., (1996). The long term sequelae of child and adolescent abuse: A longitudinal community study. *Child Abuse and Neglect*, 20, 709-723.
- Smalley, N., Scourfield, J., & Greenland, K. (2005). Young People, gender and suicide. *Journal of Social Work*, 5(2), 133-154.
- Stein, D., Apter, A., Ratzoni, G., Har-Even, D. & Avidan, G. (1998). Association between multiple suicide attempts and negative affects in adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 37(5), 488-494.
- Stewart, M., Reid, G., & Mangham, C. (1997). Fostering children's resilience. *Journal of Pediatric Nursing*, 12, 21-31.
- Sudak, H., Ford, A., & Rushforth, N. (1984). Adolescent Suicide. *American Journal of Psychopathology*, 13(3), 350-363.
- Thompson, E., Moody, K. & Eggert, L. (1994). Discriminating suicide ideation among high risk youth. *Journal of School Health*, 64(9), 361-367.
- Tusaie, K. & Dyker, J. (2004). Resilience: A historical view of the construct. *Holistic Nursing Practice*, 18(1), 3-8.
- Ungar, M. (2004). The importance of parents and other caregivers to the resilience of high-risk adolescents. *Family Process*, 43, 23-41.
- Votta, E. & Manioin, I. (2004). Suicide, high-risk behaviors, and coping style in homeless adolescent males' adjustment. *Journal of Adolescence Health*, 34(3), 237-243.

- Wang, J., Hughes, J., Murphy, G., Rigby, J. & Langille, D. (2003). Suicidal behavior among adolescents in Northern Nova Scotia: Gender difference, risk factors and health service utilization. *Canadian Journal of Public Health*, 94(3), 207-211.
- Warren, J., Gary, F., & Moorhead, J. (1994). Self-reported experiences of physical and sexual abuse among runaway youths. *Perspectives in Psychiatric Care*, 30(1), 23-28.
- Werner, E. (1993). Risk, resilience, and recovery: Perspectives from the Kauai longitudinal study. *Development and Psychopathology*, 5, 503-515.
- Widom, C., Dumont, K., & Czaja, S. (2007). A prospective investigation of major depressive disorder and comorbidity in abused and neglected children grown up. *Archive of General Psychiatry*, 64(1), 49-56.
- Wilburn, V., & Smith, D. (2005). Stress, self-esteem, and suicidal ideation in late adolescents. *Adolescence*, 157(40), 33-45.
- Wild, L., Flisher, A., Bhana, A., & Lombard, C. (2004). Substance abuse, suicidality, and self-esteem in South African adolescents. *Journal of Drug Education*, 34(1), 1-16.
- Wincup, E., Buckland, G. & Baylisss, R. (2003). Youth homelessness and substance use: report to the drug and alcohol research unit. *Home Office Research Study*, 258. Retrieved February 15, 2006 from www.homeoffice.gov.uk/rds/.
- Woodward, J. (2005). *Teen Suicide*. New York: Thomson Gale.
- Yoder, K. (1999). Comparing suicide attempters, suicide ideators, and non suicidal homeless and runaway adolescents. *Suicide and Life threatening Behavior*, 29(1), 25-36.
- Zhang, J. (1998). Suicide in the world: Toward a population increase theory of suicide. *Death Studies*, 22(6), 525-539.