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Hope Theory: A framework for understanding the relation between childhood maltreatment and adult suicidal action

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HOPE THEORY: A FRAMEWORK FOR UNDERSTANDING THE RELATION BETWEEN CHILDHOOD MALTREATMENT AND ADULT SUICIDAL ACTION

By

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ABSTRACT

This study was designed to increase our understanding of the mechanisms underlying the link between childhood maltreatment and suicidality in adulthood using the theoretical framework of Hope Theory (Snyder, 1991). Two hundred university students between the ages of 18 and 60 took part in the study. One hundred participants were pre-selected for having suicidal behaviour histories and 100 participants were pre-selected for having no previous suicidal behaviours. In total, 34 males and 166 females participated in groups of five to ten. The following measures were administered to all participants in the same order: Hope Scale (HS; Snyder et al.,1991); Beck Hopelessness Scale (BHS; Beck & Steer, 1988), Childhood Trauma Questionnaire (CTQ: Bernstein & Fink, 1998); Suicide Behaviours Questionnaire (SBQ-14; Linehan, 1996); and the Linehan Reasons for Living Inventory (LRFL; Linehan, Goodstein, Neilsen, & Chiles, 1983). The results revealed strong correlations between hope, suicidal behaviours, child maltreatment, reasons for living, and hopelessness. Participants with either a history of childhood maltreatment or a history of suicidal behaviours had lower hope, lower pathways thinking and lower agency than did participants without histories of either childhood maltreatment or suicidality. Although the interaction between hope and overall child maltreatment did not explain suicidal behaviours, suicidal behaviour was significantly affected by the interaction between emotional abuse and hope. Furthermore, hope partially mediated the relationship between childhood maltreatment and adult suicidal behaviours. In conclusion, this study shows that hope plays an important role in the relation between childhood maltreatment and suicidal action. The findings support

the notion that the development of hope can serve as a protective factor against suicidal behaviour in early adulthood.

DEDICATION

Without the support and guidance of my advisor, Dr. Jim Porter, this dissertation would never have been completed. I dedicate this work to him. Thank you Jim for your unwaivering faith in me.

I would also like to thank my two families for all their support and encouragement through this long process. I would also like to thank my husband, Ravi, for motivating me, my daughter Arya for inspiring me, and my daughter Raya, who's arrival we anxiously await, for literally kicking me into gear. I love you all and I share this accomplishment proudly with you.

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CHAPTER ONE

INTRODUCTION

Overview

Both childhood maltreatment and suicidality threaten the welfare of society. Research has demonstrated an intersection between these two tragic epidemics (Santa Mina & Gallop, 1998). Specifically, individuals with histories of childhood trauma are more likely to engage in suicidal behaviour, particularly in adulthood, compared to individuals with no history of childhood trauma. In addition, a high proportion of adults engaging in suicidal manifestations report incidents of abuse in childhood. Identifying a rationale for this association has been difficult (Santa Mina & Gallop, 1998). To explain the mechanisms supporting the link between childhood maltreatment and adult suicidality, theoretically-driven investigations are needed. These investigations also need to consider why and how some individuals with maltreatment histories are protected from suicidal behaviours, while others are vulnerable. To date, few theories have been used to understand the connection between child maltreatment and suicidal behaviour, and these have only been partially successful at shedding light on this association.

Is it possible that Snyder's (1994) hope theory can explain the path from childhood maltreatment to adult suicidal manifestations? Could this theoretical model be the bridge necessary to understand this association? Could this theory explain factors that increase vulnerability and resiliency to suicidal behaviours in individuals with histories of child maltreatment? Snyder describes hope as a thinking process that involves two fundamental goal-directed components – agency (goal-directed determination) and pathways (goal-directed planning). Could it be that childhood maltreatment negatively affects the development of hope, which later in adulthood may lead to an increase in

despair when goals are blocked, and eventually may lead to the acquisition of suicide as a goal to end the pain? Could it be that highly developed hope buffers stressors and protects individuals from suicide even in face of adversity? If indeed this theory can explain the relation between childhood trauma and adult suicidality, it may provide us with direction to prevent eventual suicide by encouraging the development of hope in childhood, adolescence, and even adulthood. More importantly, hope theory may make a contribution to suicidology, moving it forward by suggesting promising interventions.

The lack of theoretical investigations of the link between childhood maltreatment and adult suicidal behaviour highlights the need for a comprehensive research project which tests the utility of hope theory to investigate and explain this association. The purpose of this dissertation is to determine the role of hope, as proposed by Snyder et al. (1991), in the development and explanation of adult suicidal action subsequent to childhood maltreatment. In the following, a thorough review of research in the areas of child maltreatment and suicidality is presented. Then, research that has been conducted to examine the association between the two is explored. Further, in addition to the hope literature review, the construct of hope is explored as a possible explanation for the link.

CHAPTER TWO

LITERATURE REVIEW

Child Maltreatment

Childhood maltreatment is a widespread international problem. Potential consequences of childhood trauma are varied and may be immediate as well as long-term (e.g., De Arellano, Kipatrick, Saunders, & Resnick, 2005; Messman-Moore & Brown, 2004). Research on child trauma has suffered due to the absence of standardized definitions of child abuse and lack of theoretical investigations (Briere, 1992; Cole & Putnam, 1992). The maltreatment literature has identified possible psychological and behavioural consequences of child abuse, but describing the underlying mechanisms that influence the impact of maltreatment has generally been overlooked (Futa, Nash, Hansen, & Garben, 2003; Liem & Goudewyn, 1999).

Definitions

Often terms such as '*child maltreatment*', '*child trauma*', and '*child abuse*' have been used interchangeably in the literature. Childhood maltreatment is a challenging term to operationalize due to the social stigma attached to the phenomenon. The lack of consistent definitions has made it difficult to aggregate research findings and to accurately assess the prevalence of abuse and neglect. Although no uniform definitions for child maltreatment exist, many definitions have been offered (e.g., Heller, Larrieu, D'Imperio, & Boris, 1999; Oates, 1996). Commonly, child maltreatment is the general term used to describe all forms of child abuse and neglect, encompassing physical abuse, sexual abuse, neglect, emotional abuse, and more recently, witnessing family violence. Canada's Department of Justice defines child abuse as "the violence, mistreatment or neglect that a child or adolescent may experience while in the care of someone they trust

or depend on, such as a parent, sibling, other relative, caregiver or guardian" (Child Abuse: A fact sheet, p. 1, 2006). Other definitions, such as the one provided for the Child Abuse Prevention and Treatment Act (2003) in the United States, specify a maximum age for the victim (e.g., 18 years of age) along with defining the power relationship between the victim and the perpetrator (e.g., must be a parent or caregiver) (English, 1998). Abusive behaviour by other individuals, (whether known to the child or not) is considered assault and not maltreatment (English, 1998).

Individual forms of child maltreatment are defined in the childhood trauma literature (Bernstein & Fink, 1998; Crouch & Milner, 1993; Finkelhor, 1994; Knutson, 1995) as:

Physical Abuse: bodily assaults on a child by an older person that pose a risk of, or result in, injury (Bernstein & Fink, 1998).

Sexual Abuse: sexual contact or conduct between a child and older person; explicit coercion is a frequent but not essential feature of these experiences (Bernstein & Fink, 1998).

Emotional Abuse: verbal assaults on a child's sense of worth or well-being, or any humiliating, demeaning, or threatening behaviour directed toward a child by an older person (Bernstein & Fink, 1998).

Emotional Neglect: failure of caretakers to provide a child's basic psychological and emotional needs, such as love, encouragement, belonging, and support (Bernstein & Fink, 1998).

Physical Neglect: failure of caregivers to provide a child's basic physical needs, including food, shelter, safety and supervision (Bernstein & Fink, 1998).

Statistics

Many incidents of child maltreatment are not admitted or reported, and at times, the result is fatal (English, 1998). In 1996 alone, there were 47 children murdered by their parents in Canada; 34 (72%) of these victims were under the age of six (Fedorawycz, 1997). The U.S. Department of Health and Human Services Children's Bureau reported 1500 children died as a result of child maltreatment in 2003. More than three-quarters of the children who died were under four years of age (U.S. Department of Health & Human Services, 2005). There are approximately 1 million substantiated cases of child abuse and neglect in the United States each year and millions more reported cases (U.S. Department of Health and Human Services, 2005), translating to a national rate of 12.4 per 1000 children. Among the children confirmed by child protective service agencies as being maltreated, 61% experienced neglect, 19% were physically abused, 10% were sexually abused, and 5% were emotionally or psychologically abused. In Canada, through the Canadian Incidence Study of Reported Child Abuse and Neglect (CIS) (Trocme et al., 2001), a rate of 9.7 victims per 1000 children was revealed for 1998. According to the CIS, nearly three-quarters of children under six were victims of neglect (44%) or emotional maltreatment (29%). Furthermore, younger boys, two and three years old, are victimized more often than girls, whereas by age five, girls are victimized more often than boys (Trocme et al, 2001). Rates of investigated and substantiated maltreatment cases are lower in Canada than in the U.S.A., but higher than those reported in Australia (Paz, Jones, & Byrne, 2005). However, it is difficult to make inferences from direct comparisons between incidence rates in Canada and in other countries because of differences in reporting and investigation procedures (Trocme, 2005).

Some statistics are also available for the individual forms of maltreatment. One in two females and one in three males in Canada have been victims of unwanted sexual acts, including being subjected to sexual exposure, being sexually threatened, being sexually touched, or being the victim of an attempted or completed sexual assault. Eighty percent of these incidents occurred when the person was under 18 (Badgley, 1984). The CIS found that abuse victimization also varied significantly by gender, physical abuse (20%) being more common than sexual abuse (8%) for boys, whereas sexual abuse (15%) was more common than physical abuse (12%) for girls (Trocme et al., 2001). According to the Child Maltreatment Report (U.S. Department of Health and Human Services, 2005), "more than 60% of child victims were neglected, approximately 20% were physically abused, 10% were sexually abused, 17% suffered from other types of maltreatment, and 5% were emotionally maltreated" (Chapter 3).

The co-occurrence of multiple forms of maltreatment is often observed. For example, Arata, Langhinrichsen-Rohling, Bowers, and O'Farrill-Swails (2005) found that 60% of college students reporting a history of childhood maltreatment also reported more than one type of maltreatment. Another study revealed that individuals reporting a history of childhood sexual abuse were 2 to 3.4 times more likely to report experiences of physical abuse, emotional abuse, physical neglect, and emotional neglect also in childhood (Dong, Anda, Dube, Giles, & Felitti, 2003). Higgins and McCabe (2000) found that physical abuse and psychological maltreatment, and physical abuse and sexual abuse were highly likely to co-occur. Arata, Langhinrichsen-Rohling, Bowers, and O'Brien (2007) indicated that neglect was the only type of maltreatment that was most often experienced alone. The presence of intimate partner violence in a home not only increases the likelihood of witnessing domestic violence, but also increases the odds of a child

being physically abused, psychologically abused, and neglected (Berger, 2005; McGuigan & Pratt, 2001).

Short-term & Long-term Consequences

Child maltreatment impacts an individual's personal, physical, social and psychological development (Paz et al, 2005). The effects may be immediate or may appear in adolescence or adulthood, and may be direct or indirect (Paz et al., 2005). Although child abuse has been associated with negative outcomes, it is important to note that not all persons who report a history of maltreatment report debilitating symptoms (Steele, Sanna, Hammond, Whipple, & Cross, 2004). In fact, Williams (1993) suggested that individuals with similar abusive experiences may have varying outcomes depending on how the events are perceived, appraised, and processed. Other factors that affect the impact of maltreatment include the intensity and frequency of the abuse, the child's characteristics, the child's stage of development (O'Hagen, 1995), the child's relationship to the perpetrator, and the child's access to other supportive caregivers (English, 1998). Investigations have also found that coexisting multiple forms of abuse have a greater negative impact on children when compared to the consequences of single forms of maltreatment (e.g., English, Graham, Litrownik, Everson, & Bangdiwala, 2005; Higgins & McCabe, 2000).

Interpersonal Outcomes. Adults with a history of child maltreatment are more likely to have challenges "over a broad range of personal functioning, including adult love relationships, friendships, criminality and employment" (Collishaw et al., 2007, p. 213). Maltreatment impacting interpersonal relationships may not be exhibited until adolescence or adulthood when the victim becomes involved in intimate relationships

(Briere & Elliott, 1994). The interpersonal effects of one specific type of maltreatment may also differ from the consequences of multiple forms of maltreatment.

Male and female adults who have been abused reported significantly higher rates of relationship disruption (Colman & Widom, 2004). Abused and/or neglected women were less likely than control women to perceive their current partners as supportive, caring, and open to communication, and were less likely to be sexually faithful to their partners (Colman & Widom, 2004).

Adults with a history of childhood maltreatment are also at increased risk of revictimization, such as being victims of intimate partner violence (Coid et al., 2001). Victims of child maltreatment are also more likely to perpetuate youth violence and intimate partner violence in the future. In fact, the link between intimate partner violence perpetration and maltreatment in the forms of physical abuse and neglect was stronger in females than males (Fang & Corso, 2007). The link between child sexual abuse and future intimate partner violence perpetration was significant for males but not for females (Fang & Corso, 2007). Caregivers with histories of maltreatment as children are also vulnerable of providing compromised parenting (Wekerle, Wall, Leung, & Trocme, 2007). Theoretical approaches used to explain this links have included social learning and developmental psychopathology (Appel & Holden, 1998).

Social Outcomes. Maltreated children face several social problems. Physically abused children tend to be aggressive toward peers and adults, tend to have difficulty with peer relations, and tend to show a diminished capacity for empathy toward others (Tong, Oates, & McDowell, 1987). As adults, physical abuse has been found to be associated with anger and aggression (Loos & Alexander, 1997). As victims of child maltreatment get older, they are more likely to perform poorly in school and to commit crimes against

persons (Widom, 2000). They are also more likely than others to drop out of school before completion (Widom, 2000) and females become pregnant at a young age (Herrenkohl, Herrenkohl, Egolf & Russo, 1998). They more often experience emotional problems, depression, and sexual problems (Starr, MacLean, & Keating, 1991). Individuals who report abuse or neglect as children are also significantly more likely to report engaging in health risk behaviours, such as driving while intoxicated, engaging in unsafe sexual practices, and abusing substances (Dube et al., 2005; White & Widom, 2003). A recent study has shown that higher rates of substance abuse were found among youth reporting a combination of both physical abuse and neglect than any other type or combination of maltreatment (Arata et al., 2007). Victims of maltreatment also have a high prevalence of homelessness (Herman, Susser, Struening, & Link, 1997).

Physical Outcomes. Physical symptomology resulting from child maltreatment can be seen in childhood, as well as adulthood. Some studies have revealed differences in the brains of individuals with histories of maltreatment when compared with healthy control individuals. A recent study compared abused and neglected children with children without similar histories (Teicher et al., 2004) and found the neglected children's corpora collosa were reduced in size in neglected boys and in sexually abused girls.

An epidemiological study conducted by Goodwin and Stein (2004) showed an association between childhood maltreatment and physical outcomes in adults. These authors demonstrated that childhood physical abuse was associated with increased risk for lung disease, peptic ulcer, and arthritic disorders; sexual abuse was associated with an increased risk for cardiac disease; and neglect was associated with increased risk for diabetes and autoimmune disorders. In addition, as adults, abused and neglected

individuals report higher rates of physical illness including ischemic heart disease, cancer, chronic bronchitis, emphysema, and hepatitis (White & Widom, 2003).

Psychological Outcomes. Psychological problems are prevalent among victims of maltreatment. For example, childhood adversities have strong associations to the development of eating disorders and problems with eating and weight that persist into early adulthood (Johnson, Cohen, Kasen, & Brook, 2002). Hitchcock (1987) found that adults who were physically abused as children were less likely to have adequate coping skills, especially under high stress situations. Widom (2000) suggests that the development of maladaptive coping may result in problems for adjustment and dealing with stress later in life. Furthermore, people with histories of early abuse and neglect have repeatedly been found to suffer from profound and pervasive psychiatric problems (van der Kolk, 2001).

Childhood maltreatment has also been associated with post-traumatic stress disorder (PTSD), specifically complex PTSD (Herman, 1992; McLeer et al., 1998). While PTSD is the human response to experiencing a traumatic event, such as a car accident or rape, complex PTSD (Herman, 1992) is the result of chronic traumas that have continued over months or years, such as sexual abuse, held in control by another (Herman, 1997). Symptoms of complex PTSD include: "1) alterations in the regulation of affective impulses, including difficulty with modulation of anger and being self destructive, 2) alterations in attention and consciousness leading to amnesias and dissociative episodes and depersonalizations, 3) alterations in self perception, such as a chronic sense of guilt and responsibility, chronically feeling ashamed, 4) alterations in relationship to others, such as not being able to trust, not being able to feel intimate with people,

5) somatization the problem of feelings symptoms on a somatic level for which no medical explanations can be found, and 6) alterations in systems of meaning" (van der Kolk, 2001, p. 8 – p. 9). Changes in one's system of meanings may include a loss of sustaining faith or a sense of hopelessness and despair.

One consistent relation reported with child maltreatment has been the occurrence of non-suicidal self-injury, that is, the direct and deliberate harm of bodily tissue in the absence of suicidal intent (Glassman, Weierich, Hooley, Deliberto, & Nock, 2007; Nock & Kessler, 2006). For instance, sexual abuse has shown a strong association with self-injury, including non-suicidal self-injury and suicide (Bergen, Martin, Richardson, Allison, & Roeger, 2003). Other studies have shown a strong association between physical neglect and non-suicidal self-injury (Glassman et al., 2007; Joiner et al., 2007), while physical abuse and emotional neglect were not significantly associated with the presence of non-suicidal self-injury (Glassman et al., 2007).

Childhood maltreatment has also been associated with suicide attempts, that is, self-injury with the attempt to die (Fergusson, Horwood, & Lynskey, 1996). A study conducted by Coll, Law, Tobias, Hawton, and Tomas (2001) found that women admitted to hospital after having taken an overdose were significantly more likely to have been sexually and psychologically abused (but not physically abused) as children than women admitted to hospital on the same day for other reasons. In fact, studies have demonstrated links between childhood sexual (Bryant & Range, 1997; Zlotnick et al., 2001), physical (Silverman, Reinherz, & Giaconia, 1996), and emotional (Langhinrichsen-Rohling, Monson, Meyer, Caster & Sanders, 1998) maltreatment and suicidal behaviour.

Resilience to Maltreatment

Research shows that not all individuals with childhood maltreatment histories experience problems later in life (Collishaw et al., 2007). McGloin and Widom (2001) found that 48% of children with documented histories of abuse or neglect did not meet criteria for adult psychiatric disorders including depression, anxiety and PTSD. These authors also classified 22% of the maltreated population in their study as "resilient". Although the definition of resilience varies across researchers and much debate exists on how best to define the concept of resilience, one definition offered for resilience is "the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances" (Masten, Best, & Garmezy, 1990, p. 426).

Research has shown several factors are related to individual variability when examining responses to childhood adversity. Heller et al. (1999) found that the availability of emotional support at the time of childhood maltreatment engenders resiliency in adulthood. Peer relationships in adolescence have been shown to protect individuals with abuse histories and are strong predictors of resilience (Collishaw et al., 2007). Other protective variables against deleterious effects of child maltreatment include (1) dispositional/temperamental attributes of the child (e.g., self-esteem, intellectual ability); (2) a warm and secure family relationship; and (3) the availability of extrafamilial support (e.g., peers, teachers) (Luthar and Zigler, 1991).

Theory-Driven Investigations

Methodological Issues

The "childhood maltreatment body of literature is often disparaged because it tends to lack precision, specificity, and comparability across studies" (Riddle & Aponte, 1999, p. 1103). In addition to the lack of uniform definitions of the different forms of

childhood maltreatment (Manly, 2005), the current literature suffers from: (1) a propensity to study the effects of one or two types of child maltreatment in isolation, while overlooking the potential impact of other types, (2) a lack of psychometrically sound child maltreatment measures, and (3) a tendency to only consider the frequency of a particular type of maltreatment, while over-looking variables, such as the relation between the victim and the offender (Aber, Allen, Carlson, & Cicchetti, 1989).

Sexual abuse has received "a disproportionate amount of research attention while the risk associated with other types of maltreatment, such as psychological maltreatment and physical neglect, are being largely ignored" (Riddle & Aponte, 1999, p. 1104). Research on the consequences of maltreatment for children has tended to focus on one or two forms of child maltreatment, apart from others, which gives rise to confusion about the relative importance of each as a predictor of later outcomes (Edelson, 1999; Herrenkohl & Herrenkohl, 2007; Litrownik, Newton, Hunter, English, & Everson, 2003). This is a drawback for research especially since 90% of social service cases involve the co-occurrence of multiple types of abuse (McGee, Wolfe, Yuen, Wilson, & Carnochan, 1995), and these individuals experience the most deleterious outcomes (Claussen & Crittenden, 1991).

Many times when defining childhood maltreatment, multiple forms are aggregated together into one category (Heller et al., 1999). Each type of maltreatment may pose a risk to a child's future functioning, but the effects may vary according to the type of maltreatment (Cicchetti & Toth, 1995; Heller et al., 1999). Lumping together multiple forms of childhood maltreatment may over-simplify the important distinctions between various forms of abuse (Heller et al., 1999). However, given that single types of maltreatment are not common, and instead, multiple forms of maltreatment highly co-

occur, examining the combined (general) effects of various forms of child maltreatment is also necessary, and recently has been encouraged (Arata et al., 2007; Herrenkohl & Herrenkohl, 2007).

In addition, there is a lack of reliable measures of child maltreatment. Few instruments have been developed based on well-researched and validated constructs, and even fewer have been put through the scrutiny of rigorous psychometric testing (Riddle & Aponte, 1999). Briere (1992) suggests that the use of measurement instruments with unknown psychometric properties adds to the methodological problems faced by the maltreatment field.

Variables that may also affect outcomes of child maltreatment but have been overlooked in research include the age at onset, developmental period(s) of occurrence, relationship of the child to the perpetrator, duration, and the child's subjective perception of the experience. The age at onset and the developmental period during which the child is exposed to a given caregiver behaviour are of paramount importance to the child's adaptation because the same parental act is likely to have a different impact on children at different stages of development, such that early exposure is more detrimental (Garbarino, Guttman, & Seeley, 1986; Sroufe, 1979; Zigler & Hall, 1989). In addition, the impact of maltreatment varies according to the relationship between the child and the perpetrator (Mullen, Martin, Anderson, Romans, & Herbison, 1996). Finkelhor (1979) examined responses to sexual abuse and found victims react differently depending on whether the perpetrator was the individual's father, someone he or she knew, or a complete stranger.

Another problem with the childhood maltreatment literature is that most of it is cross-sectional research, as opposed to longitudinal in nature. Thus, potentially causal risk factors are difficult to identify (Whiffen & MacIntosh, 2005). In addition, this type of

research utilizes retrospective recall, which may be unreliable and invalid due to (1) the degree of forgetting over the years, (2) the tendency of people to seek meaning in their memories which may influence recall, (3) the ability to recall only those memories that they are aware of at the time of occurrence, (4) the inability to recall what happened during the first few years of life, also known as infantile amnesia, and (5) the propensity of memories to be influenced by mood state at the time of retrospective recall (Hardt & Rutter, 2004). Despite the substantial limitations of retrospective data with respect to causal inferences, such data has three crucial advantages: (1) convenience of sampling; (2) relatively low cost, and (3) a lack of any need to wait for results while the children grow up (Hardt & Rutter, 2004, p. 261).

Theories

Developmental theories are important when understanding the impact of childhood maltreatment. In fact, Harlow conducted experiments in the 1950s on maternal deprivation in rhesus monkeys bringing to light the effects of attachment and loss (Harlow, 1958). Harlow separated infant monkeys from their mothers a few hours after birth, then arranged for the young animals to be "raised" by two kinds of surrogate monkey mother machines, both equipped to dispense milk. One mother was made out of bare wire mesh while the other was a wire mother covered with soft terry cloth. Not only did Harlow observe that the monkeys spent more time with the terry cloth surrogates when given a choice, he also observed that those monkeys with only the bare wire mothers were frightened by strange, loud objects, rocked back and forth and screamed in terror when they were scared. Harlow and others have used these findings to run parallels with human beings and realized the importance of emotional attachment between parent and child for normal development. Consequently, other theories assume that when

children are deprived of the basic social and psychological necessities of life such as food, shelter and safety, they are at a greater risk for maladjustment than children who have had those needs met. Some research may identify consequences of child maltreatment, but usually do not explain them in terms of underlying determinants or developmental etiologies (Liem & Boudewyn, 1999). Developmental theories in the areas of attachment and social-cognitive perspectives have attempted to account for the short-term consequences experienced by maltreated children during early childhood (Aber, Allen, Carlson, & Cicchetti, 1989), but this conceptualization is rarely extended to the study of long-term consequences (Riddle & Aponte, 1999).

Some researchers have used Bowlby's (1990) concept of the internal working model to understand the mechanisms behind the consequences of child abuse and neglect. According to attachment theory, if the attachment figure acknowledges the child's need for comfort and provides protection for the child while respecting his or her need for autonomy and independence, a working model of the self as valued and self-reliant and the other as reliable and supportive may develop (Liem & Boudewyn, 1999). Conversely, if a parent frequently ignores their child's need for comfort or autonomy, a working model of the self as unworthy or incompetent and a working model of the other as rejecting or unreliable may result. Thus, according to the responsiveness of the parents, a child forms working models of self-in-relationships, which in turn may influence both the construction of new relationships and the ability to cope with the demands of new and stressful events later in development (Bowlby, 1980). Liem and Boudewyn (1999) used attachment theory as a framework for analyzing child maltreatment in early childhood and later adult problems in self- and social functioning. This study found that child

maltreatment did predict poor self-functioning in the form of higher levels of depression and lower levels of self esteem.

Other studies have used schemas to examine mechanisms through which child maltreatment may contribute to problems later in life. Schemas are defined as cognitive structures that guide the ways people attend to and interpret their environments (Kaysen, Scher, Mastnak, & Resick, 2005). These schemas lie dormant until they are activated by relevant stimuli, typically stress. Schemas develop from interactions with the environment, primarily from interactions that occurred during childhood (Beck, 1967, 1987). If early interactions are characterized by negativity, schemas may develop which guide attention to negative rather than positive events, and which lead to interpretations of benign events as negative. Findings generally support the idea that childhood maltreatment confers risks for information-processing biases and overt cognition characteristics of maladaptive schemas (Kaysen et al., 2005). Allen and Tarnowski (1989) found that maltreated children report more maladaptive cognitions (e.g., negative expectations about the future) compared to nonmaltreated children. In addition, negative cognitive styles have been shown to contribute vulnerability to the onset of depression (Gibb, Abramson, & Alloy, 2004). Since depression has been linked with suicidal behaviour, suicidal action may also be important to investigate. Although the association between child maltreatment and suicide has also received some attention, it still remains far from conclusive (Rogers, 2003).

Suicidal Ideation and Behaviour

Suicide is defined as an action and not an illness (Health Canada, 1994). Identifying the chain of causal events and factors that lead to the action of suicide is critically important for prevention and intervention. Predicting suicide is difficult,

primarily due to the paucity of theoretically guided investigations into suicide-related behaviour (Neuringer, 1976; Rogers, 2001; 2003). Many theories have been put forth to explain suicidal acts (Baechler, 1979; Baumeister, 1990; Durkheim, 1951; Menninger, 1959; Schneidman, 1985), but few of these outline potential causal pathways to suicidality (Cornette, Abramson, & Bardone, 2000). Some theories simply list potential risk factors that are thought to be associated with suicide (Clark & Fawcett, 1992; Mann, Waternaux, Haas, & Malone, 1999; Maris, 1981), and other investigations are often only correlational in nature (Santa Mina & Gallop, 1998). Despite the efforts of researchers, suicidology is filled with large gaps in knowledge and comprehension, predominantly in the areas of theory and intervention (Joiner and Rudd, 2000).

Definitions

Suicidology has been confused and stagnated due to the lack of adequate standard definitions for suicidal behaviour (O'Carroll et al., 1996; Kidd, 2003). The terms *"suicide", "suicide attempt", "self-harming behaviour",* and *"parasuicide"* are used commonly and sometimes interchangeably in the suicide literature (Santa Mina & Gallop, 1998). Leenaars et al.(1997) argue that the definitions are Cartesian in nature and have a tendency to ignore human elements of motivation, intention, and severity. Additionally, the terms are not applied uniformly in research and practice (Kidd, 2003), making it difficult to generalize findings and to extrapolate (Westefeld et al., 2000).

O'Carroll et al. (1996) proposed a nomenclature for suicide-related behaviour in an attempt to solve this dilemma. They define suicide as "death from injury, poisoning, or suffocation where there is evidence (either explicit or implicit) that the injury was self-inflicted and that the decedent intended to kill himself/herself" (p. 247). The definition for "suicide attempt" includes the intent to kill oneself but the outcome of this potentially

self-injurious behaviour must be nonfatal. However, it is not necessary for injuries to have occurred in order for this behaviour to be classified as a suicide attempt. The authors also used the terms "suicidal act" and "suicide-related behaviour" to incorporate both suicide and suicide attempt. They defined suicidal ideation as "any self-reported thoughts of engaging in suicide-related behaviour" (O'Carroll et al., 1996, p. 247).

Statistics

As a leading cause of premature death, suicide is a major public health problem (Health Canada, 1994). In 2001, at least 3692 Canadians died from suicide (Statistics Canada, 2002). This represented 2% of all deaths in Canada (Statistics Canada, 2002; Health Canada, 2002), and a rate of 11.7 per 100,000, compared to a lower rate of 10.4 per 100,000 in the United States during the same year (World Health Organization, 2003). However, rates vary among specific groups. For example, the suicide rate for Inuit peoples living in Northern Canada is between 60 and 75 per 100 000 people, significantly higher than the general population (World Health Organization, 2002). Suicidal rates also vary with gender and age. Men commit suicide at a rate four times higher than that of women, and rates are higher among the youth and the elderly (Weir & Wallington, 2001)

The actual number of suicide deaths may be considerably higher either because information about the nature of the death may become available only after the original death certificate is completed, or because determining the intent of a death is difficult in some situations (Health Canada, 2002). The stigma of suicide also influences coding on the death certificate, such that a number of suicides may be classified as accidents or natural deaths, thereby masking the actual incidence of suicide (Health Canada, 2002; Leenaars & Lester, 1998; Madge & Harvey, 1999; McClure, 1994; Moscicki, 1999). The suicide rate in Canada, despite the misclassifications, remains unacceptably high

compared to international rates. The World Health Organization (2003) reported the rate in Canada to be among the highest one-third (actual ranking was 26) compared to 97 European, American, and Asian countries.

Although public attention tends to focus on completed suicides, suicidal behaviours range from suicidal thoughts not acted upon, through failed suicidal attempts, to eventual suicides (Beautrais, 2003). Twenty-five percent of young people today report having suicidal thoughts (Beautrais, 2000). Beautrais (2000) also identified that 4% to 8% of young people report a lifetime history of suicidal attempts by age 20. Women report considerably higher rates of both suicidal ideation and suicide attempt than men (Fergusson, Woodward & Horwood, 2000). According to a report released by the World Health Organization, there are 10 to 20 times more failed suicide attempts that result in injury, hospitalization, emotional and mental trauma than suicide completions (World Health Organization, 2004).

Risk Factors.

A predominant focus in contemporary suicidology has been the identification of risk factors that influence suicide-related behavior (Rogers, 2001). This focus has revealed various biological (e.g., low brain serotonin, Asberg, Nordstrom, & Traskman-Bendz, 1986; Asberg, Traskman, & Thoren, 1976), psychological (e.g., mental disorders, Tanney, 1992), sociological (e.g., unemployment, Moser, Goldblatt, Fox, & Jones, 1987), and cultural variables (e.g., ethnicity, Kirmayer, 1994) as contributors to the ultimate goal of suicide (Matheson, 2002; Rogers, 2001). Childhood maltreatment (Johnson, Cohen, Gould et al., 2002), lack of social support (Bellini & Matteucci, 2001), alcoholism (Lester, 1992; Smart & Mann, 1990), previous suicide attempts (Rudd, Joiner, & Rajab, 1996), psychiatric diagnoses (Lesage et al., 1994; Miles, 1977; Tanney, 1992), loneliness

(Kidd, 2004), and a family history of suicide (Runeson & Asberg, 2003) are all examples of risk factors associated with suicide.

Depression has also been identified as a strong predictor of suicidal action. Many studies, involving both clinical and non-clinical populations, have shown that individuals who have engaged in suicidal acts (Westefeld et al., 2000; Tanney, 1992) or have indicated suicidal ideation (Vandivort & Locke, 1979; Brown & Vinokur, 2003) have high indices of depression, primarily assessed by depression scales (e.g., Beck's Depression Inventory; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Depression is the most common psychiatric disorder among individuals who have attempted suicide (Davis, 1995; Isometsa & Lonnqvist, 1998).

Although depression is a useful psychological construct for predicting suicide (Beck, 1963, 1974; Dyck, 1991), hopelessness may be an even more precise indicator of suicide-related behavior. In fact, hopelessness is found to correlate better with suicidal ideation than depression (Weishaar & Beck, 1992; Wetzel, Margulies, Davis, & Karam, 1980) and is believed to be a better predictor of eventual suicide than depression (Beck, Steer, Beck & Newman, 1993; Chance, Kaslow, & Baldwin, 1994; Chioqueta & Stiles, 2003).

Theory-Driven Investigations

Methodological Issues

Suicidology has also been plagued with imprecise definitions. Additionally, this field too has had to rely on retrospective data (e.g., from suicide attempters) or data on attitudes to predict and understand suicidal behaviour. Research also tends to overlook the use of theories to identify mechanisms behind suicidal behaviour.

Theories

Sociological Theories. Durkheim's work from the late 1800s has provided the basis for most sociological theories of suicide. Durkheim (1951) conceptualized the phenomenon of suicide as a social act, related to particular social surroundings and conditions. He explained suicide using social rather than individual characteristics and variables. His theory states that there are two dimensions of social influence on individuals, social integration (the degree of connection between an individual and a social network) and social regulation (the degree of influence that society has over an individual). Due to these two forces, four different types of suicide exist.

Within the dimension of social integration, Durkheim described two types of suicide: egoistic and altruistic. Egoistic suicide results from a lack of social integration because the individual's emotional ties with his social network are loose. He is not able to sustain himself in relationships with others and is isolated and detached. He derives little satisfaction from his connections with his social group or its achievements. Conversely, extreme social integration can also culminate in altruistic suicide. In this social condition, an individual sacrifices his life for the goals of the social group to which he or she feels overly obligated in his or her duties. Fatalistic and anomic suicides are functions of social regulation. Those who commit fatalistic suicides do so because they have been rejected by society, a very weak social regulation. Individuals attempting to deviate from social expectations in their death commit anomic suicides.

Durkheim's sociological perspective of suicide excludes the reality of the person who engages in the behavior. The idea of individual choice is not acknowledged. The potential for prevention and intervention resides external to the individual. He is dependent upon society to change in order for him to be removed from his or her

imminent suicide. Although Durkheim's sociological perspective has contributed extensively to the knowledge of social factors in suicide, the omission of the individual as responsible for himself has made it problematic. There is also limited empirical research conducted using Durkheim's perspective.

Suicide as a Choice. At the center of Shneidman's (1976) theory is the notion that suicide is caused by intense psychological pain – termed by Shneidman as "psychache". The emotions which are common in a suicidal state are: hostility, despair, shame, guilt, dependency, hopelessness, apathy, and emotional impotence. Shneidman (1987) argues that suicide is not caused by depression, alcoholism, unemployment, or any of the other factors that are commonly studied in contemporary suicidology, but rather, suicide is caused mainly by psychological factors. He asserts that psychache creates such an overwhelming amount of distress in an individual that he or she perceives suicide as the only way to escape from pain. Schneidman included cognitive aspects, conceptualizing the idea of suicide as a conscious solution to a problem and emphasizing the constriction of intellectual functioning. It is then the dichotomous thinking and lack of clear insight and useful communication that allows one to think of suicide as the only option. The combination of perturbation (e.g. psychache) and lethality (the willingness and ability to kill oneself) results in suicide (Shneidman, 1985, 1996). Although recent research has started to examine Shneidman's ideas, little empirical research supporting his theory exists.

Cognitive Theories. Cognitive theories of suicide focus on the thoughts of suicidal individuals. Hopelessness has been put forward as a significant risk factor, not only of mental disorders generally, but of depression and suicidal-related behaviours specifically (Beck, Rush, Shaw, & Emery, 1979; Hanna, 1991; Melges & Bowlby, 1969). Beck

(Beck, 1963; 1974; Beck et al., 1979) defined hopelessness as "negative cognitions about the future". Beck developed his theory of hopelessness focusing on the antecedents of psychopathology and mental illness (Snyder, Shorey, & Berg, in press). This concept of hopelessness refers specifically to one (the self in relation to the future) of the three cognitive features that a depressed individual possesses: a) a negative view of the self, b) of the self in relation to the world, and c) of the self in relation to the future (Beck, 1963, 1974). In order to measure hopelessness, Beck, Weissman, Lester, and Trexler (1974) developed the Beck Hopelessness Scale (BHS). This scale, defining hopelessness as the degree to which an individual's cognitive schemata are dominated by negative expectations toward the future (Beck et al., 1974), is a 20-item, true/false forced choice questionnaire where a higher score is associated with a higher degree of hopelessness (O'Connor, Connery, & Cheyne, 2000). Beck's concept of hopelessness has been utilized to understand and predict suicide-related behaviour (Beck, 1963; 1974; Beck et al., 1979).

According to Beck, Kovacs, and Weissman (1975), hopelessness is a useful construct to understand suicidal behaviour, and has substantial clinical utility for suicide risk assessment and prediction. In fact, hopelessness, as assessed by the BHS, has been strongly linked empirically with suicidal ideation (Beck et al., 1979; Chioqueta & Stiles, 2003; Holden, Mendonca, & Mazmanian, 1985; Snyder 1994), suicide attempts (Esposito, Spirito, Boergers & Donaldson, 2003: Salter & Platt, 1990), and completed suicides (Beck, Brown & Steer, 1989; Beck, Brown, Berchick, Stewart & Steer, 1990; Snyder, 1994).

The identification of the relation between hopelessness and suicidal behaviour has been an important discovery in suicidology that has advanced our understanding of the relation between depression and suicidal behaviour. Beck (1963) considered hopelessness

to be the key factor in connecting depression and suicide. Since then, research has revealed that the construct of hopelessness plays a significant role in the etiology and maintenance of depression (Beck et al., 1989; Minkoff, Bergman, Beck, & Beck, 1973; Salter & Platt, 1990). Hopelessness not only predicts various indices of suicide potential, but also mediates the indirect relationship between depression and suicidal behaviour (Beck et al., 1975; Petrie & Chamberlain, 1983; Beck et al., 1990). In fact, some studies reveal that the correlation between suicidal ideation and depression becomes nonsignificant when the effect of hopelessness is controlled for (Wetzel et al., 1980; Beck et al., 1975). Beck's crucial contribution to the conceptualization of suicide is that cognition has the capacity to influence the nature and content of emotions.

Snyder's Hope Theory

Hope theory, introduced by C. R. Snyder (1994; 2000a), may offer an alternative cognitive model to explain suicidality. This theory incorporates several elements of the previously mentioned suicide and child maltreatment theories. This model describes suicide as a choice, related to the lack of hope, and influenced by one's upbringing and attachment to caregivers. In contrast to Beck's focus on attempting to avoid negative outcomes, Snyder recognized the significance of hope for adaptive functioning (Snyder et al., in press). Snyder (2000b) suggests that hope is a more complex construct than previously described by other scholars. Snyder describes hope as a bidimensional phenomenon, a thinking process that involves two fundamental goal-directed components: agency and pathways (Snyder, 1994; Snyder et al., 1991; Snyder, Cheavens & Sympson, 1997). The agency component entails goal-directed determination, whereas the pathways component implies goal-directed planning (Snyder et al., 1991).

Goals represent the cognitive targets for hope and vary on a number of levels (Snyder, 1994). Goals may be visual, virtual, or verbal in nature, and may vary temporally from short- to long-term (e.g., "I want to get this sentence written" versus "I want to complete my doctoral degree") (Snyder, 1994; Snyder et al, 2000). Goals may also vary with respect to attainability, such that even the perceived "impossible" goal may be achieved through planning and determination (Lopez, Snyder, Teramoto-Pedrotti, 2003). Goals may vary in importance, although a given goal must be of at least moderate importance before a person will pursue it (Snyder et al., 2000). An important principle of hope theory is that the expectation of goal attainment will be positively associated with greater levels of both agentic and pathways thinking which, in turn, will result in greater psychological adjustment (e.g., greater life satisfaction, less dysphoria) (Chang, 2003).

Agency thinking is the motivational component of hope theory (Snyder, 1994). Agency reflects self-perceptions about one's capability to meet goals in the past, present, and future (Snyder, 1994, 2000a). Agency is the "belief that one can begin and sustain movement along the envisioned pathways toward a given goal" (Snyder et al., 2000, p. 749). Individuals with high levels of hope endorse agentic personal self-talk phrases (e.g., "I won't give up;" Snyder, LaPointe, Crowson, & Early, 1998) Agency is especially important in applying the motivation to the appropriate alternative pathways when confronted by impediments (Lopez et al., 2003). Pathways thinking reflects "the person's perceived ability to generate plausible routes to goals" (Snyder, 2000b, p. 13). Pathways also taps positive self-talk about being able to find ways to desired outcomes (e.g., "I'll find a way to solve this;" Snyder et al., 1998). Individuals can usually generate at least one primary path to achieve a goal. Some, especially those with high hope, may produce multiple routes (Snyder, 2000b).

Unlike previous conceptualizations of hope that describe it as a unidimensional construct, Snyder proposes that two interrelated dimensions -- agency and pathways -- are necessary throughout the goal-directed behavior, and critical in defining hope. According to Snyder et al. (1991), "these two components of hope are reciprocal, additive, and positively related, although they are not synonymous" (p. 571.). To sustain movement toward the goals in one's life, both the sense of agency and the sense of pathways must be operative (Snyder et al., 1991).

Development of Hope

According to Snyder (1994), hopeful thought is an active process that is learned, and is crucial for survival and thriving. The development of hope begins early in life and is established during the infant and toddler stage. Newborns undertake pathways thinking and begin to understand the process of causation that allows events to happen (Snyder, 1994, 2000a). This cause and effect thinking enables the child to conceptualize goals and pathways to reach them (Snyder, 1994, 2000a). By the time babies are a year old, they are able to anticipate events and engage in intentional acts (Snyder, 1998). Hopeful, goal-directed thinking is learned in the context of other people (Snyder, 2002). Each child needs encouragement from caregivers and instruction on how to overcome impediments (Snyder, 1998). For the facilitation of hope, a child needs a secure attachment with one or more caregivers, who in turn need to provide a model for effective goal related activities (Snyder, 1994, 2000a). Agency develops when a child learns that he or she can accomplish goals and then receives praise and support in the pursuit of accomplishing age appropriate tasks (McDermott & Snyder, 2000). Thus, the foundation of hope lies in the ability to make linkages between desires and the ability to use strategies that fulfill them (Hinton-Nelson, Roberts, & Snyder, 1996).

Several factors may hinder the development of hope, and are especially damaging when encountered earlier in life (Snyder, 1998). Negative events, such as childhood neglect and abuse, can harm the establishment of hope. Snyder (2002) posits that neglected children lack someone to teach them to think hopefully. The neglected child, by definition, has the attention of no caregivers (Rieger, 1993). Hope cannot develop because the time spent with caregivers is not attentive, interactive, or evocative (Snyder, 1994). Neglect kills hopeful thinking in a passive manner, whereas hope is destroyed actively through physical and sexual maltreatment (Snyder, 2002). In these situations, the caregiver's actions are no longer a source of stability or support, but instead cause the infant to shut down his or her goal-directed thinking (Snyder, 1994, 2000a). Other events, such as parental loss or family suicide, may also have similar negative effects on hope. The hope that develops during the first years of childhood becomes the template for the future and influences the remainder of the person's life (Snyder, 1994, Snyder et al., 1991).

Hope Measures

Self-report hope scales emerging from different theoretical conceptualizations are available. The 1975 Hope Scale (Erickson, Post, and Paige, 1975) was devised based on Stotland's view of hope as "an expectation greater than zero of achieving a goal (1969, p. 2). It consists of a list of 20 focused goals that are not situation-specific in nature, asking participants to rate each goal using a 7-point Likert scale. Psychometrics for this measure appear adequate with test-retest reliability over a one-week period and moderate internal consistency (Lopez et al., 2003). The Hope Index (Staats & Stassen, 1985) is designed to measure the cognitive side of hope. This measure specifically focuses on

particular events and outcomes, instead of a more general focus and has displayed moderate test-retest reliabilities and internal consistency (Staats, 1989).

Snyder and his colleagues have also developed and validated instruments that reflect their hope theory structure. The Hope Scale (HS; Snyder et al., 1991) measures hope as a relatively stable personality trait. The State Hope Scale (Snyder et al., 1996) assesses goal-directed thinking at a given moment in time. Both measures have been psychometrically tested and utilized with a variety of different populations.

High-hope versus Low-hope Persons. A variety of differences are exhibited between persons of high-hope and low-hope with respect to goals, agency and pathways thinking. These differences are even apparent at a young age. High-hope children, as opposed to low-hope children, view others as available and supportive into adulthood (Snyder, 1994). Over time, high-hope people view the world as consistent and safe, and view themselves as worthy of support while low-hopers report less life satisfaction, less self-worth, and higher depressive symptoms (Chang, 1998; Snyder, 1994). Consequently, people with high hope, in contrast to low-hope individuals, focus on success and experience positive emotional states.

In terms of goals, high-hope persons have more goals, and set more challenging goals for themselves than individuals with low hope. Low-hope, compared to high-hope people, are less likely to "let go" of goals that are no longer feasible (Snyder, 1998), or are unable to identify plausible alternative goals (Snyder, Wrableski, Parenteau, & Berg, 2004). When a given pathway no longer leads to a goal, high-hope persons quickly will identify alternative paths so as to continue their goal pursuits. Low-hope persons, however, cannot find new routes. In a testing environment, low-hopers are more prone to anxious, self-critical ruminations while high-hopers stay focused on the appropriate task

and do well (Michael, 2000). Differences in agency are also apparent between people with high and low hope. High hope individuals have a greater sense of agency, even in situations of hindrance, when compared to individuals with low-hope.

How Does Hope Theory Explain Suicide-Related Behavior?

Hope theory does not assess the desirability of the goals selected by people (Snyder, 1994, 2000a). A goal does not have to be prosocial or positive (Snyder, 2002), or even societally condoned (Snyder, 2000b). Suicide, despite its negative nature, can be a goal. Snyder (1994) describes suicide as the final act of hope (Snyder, 1994). He suggests that when people have met "profound, chronic, and seemingly unending goal blockages, they may abandon their usual life goals in favor of a suicide goal" (Snyder, 2002, p. 267).

Life Goals

Goals are an essential component of everyone's daily lives (Snyder, 1994, 2000a). People have many personal life goals they hold to be of high importance, ranging from interpersonal relationships to career-oriented goals (Snyder, 1994). Nevertheless, during the course of life, people often experience having their goals obstructed (Snyder 1994, 2000a). Snyder explains that when certain intended goals are met by failure, some individuals may abandon some or all life goals. This is the first step towards adopting the goal of suicide (Snyder, 1994, 2002).

Literature has revealed that the presence of life goals, as suggested by Snyder, protects against suicide (Gutierrez et al., 2002; Wingate et al., 2006). Individuals reporting prior suicidal behavior have reported that they had fewer important reasons for living when they were considering suicide than they had when they were not considering suicide (Ivanoff, Jang, Smyth, & Linehan, 1994; Linehan, Goodstein, Nielsen, & Chiles, 1983). This trend has been observed with family responsibility, such that the importance

of family and children has been negatively related to suicidal ideation (Linehan et al., 1983). Canetto and Lester (2002) identified reasons for suicide by exploring suicide notes left behind by men and women. They concluded that obstacles in love relationships were leading issues for both genders. Maris (1981) used path analysis to identify salient failures related to suicide and discovered differences and similarities between men and women. Both genders cited sex-related problems. In addition, men identified failures that were work- and achievement-related, whereas women identified marriage-related and family-related failures.

A recent study conducted by Vincent, Boddana, and MacLeod (2004) examined two aspects of positive future-thinking in suicidal and non-suicidal populations: the ability to think of goals and the presence of cognitions related to achieving those goals, including plans, perceived control, and perceived likelihood of success. Although suicidal patients were able to think of positive life goals, they were unable to generate methods to achieve those goals. Schotte and Clum (1987) found that suicidal psychiatric patients were less capable of interpersonal problem solving than psychiatric controls. Regardless of whether it is the poor ability to think of life goals or the absence of cognitions related to achieving those goals, the blockage of life goals has been noted in individuals exhibiting suicidal behavior. These findings lend support to Snyder's proposition that blocked life goals may lead to suicidal action.

The Final Goal of Suicide. The obstruction of important life goals elicits frustration (Snyder, 1994, 2000a, 2002). Snyder clarifies that this "sense of being blocked and frustrated – a sense of hopelessness – is the catalyst that unleashes the goal of dying" (Snyder, 1994, p.150). Eventually, the pain is unbearable, and there are no more important and apparently achievable life goals. Stopping the pain through suicide

becomes the only remaining apparently achievable goal (Snyder, 1994, 2002). Snyder (1994, 2000a, 2002) theorizes that the motivation for suicide is to stop the pain by killing oneself. Many other researchers have also asserted that the primary reason for suicide is to escape from unbearable pain (Shneidman, 1993; Baumeister, 1990; Kral, 1994; Boergers, Spirito & Donaldson, 1998). Although some theorists have posited that suicide attempts are a means of communicating anger or affirming that one is loved, relatively little research supports this assertion (Bancroft et al., 1979). Michel, Valach, and Waeber (1994) conducted a study with individuals who had made a suicide attempt. These participants were asked to reflect back to immediately before their suicide attempt and to indicate the motives which were relevant to their suicidal behavior. The results revealed that reasons related to the wish to escape from an unbearable situation (e.g., "The situation was so unbearable that I could not think of any other alternative", "My thoughts were so unbearable, I could not endure them any longer", p. 216) were indicated most frequently. Extrapunitive or manipulative motivations (e.g., "making people sorry for the way they treated me") have been found to be poor predictors for suicide, while internal perturbation reasons (e.g., "to deal with an unbearable situation") were significant motivators for suicide (Johns & Holden, 1997).

Shneidman (1985) hypothesized that, when individuals become increasingly upset, they move into dichotomous thinking in which they view suicide as the only solution. The ability to think of alternatives to suicide may decline, possibly due to depleted problem-solving thoughts noted in suicidal individuals when compared to non-suicidal people (Levenson & Neuringer, 1971). In addition, Snyder suggested that "suicidal people are frozen in an unbearable here and now and cannot think about any changes in the future" (Snyder, 1994, p. 151). Thus, pain, hopelessness, or depression

may set the mental stage for suicide by fixating the person on the goal of death, but the will- and way-related thoughts are essential for completing the sequence.

Pathways Thinking

The next marker of suicide lethality, according to Snyder (1994, 2002), is one that signals a far more serious threat. Namely, when the person begins to describe the means (pathways) by which he or she is going to carry out suicide, the intent for suicidal behavior is strengthened. Suicidal pathway thinking may include a person purchasing a handgun or accumulating antidepressant medications to accomplish suicide (Snyder, 2002). Other suicidologists have also described suicidal preparation as more lethal than suicidal ideation (Holden & Kroner, 2003; Lewinsohn, Rohde, & Seeley, 1996). A study conducted by Joiner, Walker, Rudd, and Jobes (1999) revealed that resolved plans and preparation (e.g., availability of means to and opportunity for attempt, specificity of plan for attempt, preparation for attempt) were more highly related to pernicious suicide indicators than were suicidal desire and ideation. There is also evidence that, among suicide ideators, individuals who have formulated a plan for suicide or have been engaging in preparation for a suicide attempt are at greater risk (Mann, 2002; Kessler, Borges & Walters, 1999). Research indicates that access to the means of suicide also heightens the risk of suicidal action (Neale, 2000). The availability of highly lethal suicide methods and rates of suicide appear to be related (Mann, 2002). Brent, Perper, Moritz and Allman (1993) compared adolescent suicide victims with suicide attempters who survived their attempts. Guns were twice as likely to be found in the homes of the suicide victims as in those of the surviving attempters. If highly lethal means of suicide are inaccessible, it is probable that a less lethal method may be used thereby increasing the likelihood of survival from the suicide attempt (Mann, 2002). There is even some

evidence that restriction of access to firearms may deter some people from selecting another method altogether (Lester & Leenaars, 1993).

Agency Thinking

Agency thinking is the motivational component and reflects the self-perceptions about one's capability to achieve the suicide goal. When a person's life goals are blocked, the goal of suicide may emerge out of depression and frustration. However, in addition to the pathway, one needs to be motivated to accomplish the goal. Snyder (1994, 2002) suggests that a person's mood lifts from lethargy or depression roughly ten days before a suicide act, and during this phase, the person has the energy to make a suicide attempt or commit suicide. This boost of energy is by far the most serious indicator of suicide according to Snyder (1994, 2002). It is this agency that, in the presence of the goal to kill oneself and with the means to do it, leads to suicidal acts. Snyder's definition of agency and its role in suicide-related behavior is a relatively new and important addition to the suicide literature. There has only been limited support for this assertion. Anecdotal reports have indicated a window of heightened suicide risk when people become more energetic in the context of continued depressive symptoms (e.g., problems with low energy subside, but other symptoms persist) (Meehl, 1973). According to this view, individuals may acquire energy to act on their ongoing suicidality and/or gain cognitive clarity to act on their suicidal intent (Joiner, Pettit, & Rudd, 2004). A few others have also noted that the lifting of depression may raise the energy so that the person may act on continued suicidality (Isaacson & Rich, 1997). Shneidman (1985) too theorizes that a situation of high probability for suicide is created when psychache is accompanied with motivation toward egression (e.g., departure from distress). Although agency in suicidal people is inherently difficult to study empirically, such research is certainly needed. If

indeed agency increases shortly prior to a suicide attempt in the manner described by Snyder, this may be a key opportunity for intervention and prevention of suicide.

Hope theory appears to represent a useful framework for understanding suicidal action. Unfortunately, it remains incomplete as an explanation for suicide. It does not clarify how an individual who is low on the personality trait of hope manages to develop sufficient (state) hope to pursue the goal of suicide. A second problem is that this novel approach for understanding suicide has not been subjected to sufficient investigation. Other than Snyder and his colleagues, few investigators have tested the assertions of hope theory. Further theoretical development and empirical scrutiny is clearly needed in this area.

Differences between Beck's Hopelessness Theory and Snyder's Hope Theory

It is important to note that, although Beck's hopelessness construct and Snyder's hope construct appear to be at opposite ends of a single dimension, they are outcomes of independent research programs and describe their respective constructs using entirely different rationales (Henry, 2004). Snyder's concept of hope is not simply the inverse of Beck's hopelessness construct, and the two may differ qualitatively. Primarily, these two constructs have distinct foundations: hopelessness theory was developed to account for depression (Beck et al., 1975) and hope theory originated from the positive psychology movement (Lopez et al., 2003; Snyder, 1994). Accordingly, hopelessness theory tends to focus on the negative "immobilizing side of human behavior" (Henry, 2004, p. 352) whereas Snyder's hope theory has a positive viewpoint maintaining that change is possible (Henry, 2004).

Hope theory may predict suicide-related behavior differently than hopelessness theory. The view of the future is thought to play a central role in suicidal behavior,

predicting suicide attempts (Petrie, Chamberlain, & Clarke, 1988) and completed suicides (Beck et al., 1989). Beck's hopelessness model describes hopelessness as having more negative thoughts about the future (Beck, 1986), whereas Snyder's hope theory equates low hope with having a lack of positive anticipation for the future. According to MacLeod, Rose, and Wiliams (1993), decreased positive expectancies and increased negative expectancies are not functionally equivalent. In a study conducted by these authors, patterns of future thinking shown by individuals high in hopelessness were examined. Participants, patients who had made a recent suicide attempt and matched hospital patient controls, were asked to generate thoughts of what they were looking forward to and not looking forward to, for a variety of future time periods (MacLeod et al., 1993). Individuals who had recently engaged in a suicide attempt were distinguished from controls by having fewer positive thoughts about the future, as implied by hope theory. These individuals did not indicate more negative thoughts about the future, as suggested by Beck's hopelessness model (Conaghan & Davidson, 2002; MacLeod et al., 1993; MacLeod, Pankhania, Lee, & Mitchell, 1997; O'Connor, O'Connor, O'Connor, Smallwood, & Miles, 2004).

Hope theory explains the development of hope whereas Beck's hopelessness theory does not address developmental issues. The developmental approach is especially useful for understanding risk factors (e.g., the link between child sexual abuse and adult suicidal behavior; Santa Mina & Gallop, 1998), and thus theorizing at a macro level. Hope theory also satisfies some criticisms faced by Beck's hopelessness theory (Glanz, Haas, & Sweeney, 1995; Linehan, & Nielsen, 1981). Snyder (1994, 2000a) describes both the construct of hope and hopeless, indicating that they are at opposite poles of one dimension. Hope theory asserts that hope develops into a trait, but also recognizes that

hope can be influenced in a given moment, thus resembling a state (Snyder, 1994, 2000a). Separate instruments were developed to measure state and trait hope. These measures have been shown to be resistant to bias and allow hope to be measured without the prior assumption that a relationship exists between depression and suicide, unlike the BHS. Inverse correlations between the two constructs have been high, ranging from -.51 (Glanz et al., 1995) to -.74 (Steed, 2001), suggesting a close relationship between hope and hopelessness. For better understanding, the Hope Scale should be explored further due to its brevity (Range & Penton, 1994), factor structure stability (Babyak, Snyder, & Yoshinobu, 1993), and increased applicability to normal populations since it was "developed with healthy characteristics and behaviors in mind" (Steed, 2001, p.314).

Beck's hopelessness theory appears to emphasize agency-like thought (Snyder, 1994, 2000a), whereas hope theory places equal emphasis on agency and pathways thinking (Snyder, Cheavens, & Michael, 1999). Thus, the theory of hope adds to the existing concept of hopelessness and provides a unique framework through which suicide-related behavior can be examined. Researchers have explored and realized the significance of hopelessness and suicidal action. To add to the understanding of suicidal behaviours, the value of hope theory needs to be investigated.

Can Hope Theory Explain the Link Between Childhood Maltreatment and Suicide?

Several authors have underlined the importance of a developmental approach to suicide, as opposed to a static traditional medical illness model (Michel & Valach, 1997). Unfortunately there are too few developmental models to explain suicide, but Snyder's hope theory may begin to fill this gap. Hope theory may also explain the mechanisms behind suicidal risk factors. According to hope theory, people with a history of childhood adversity tend not to acquire the agency and pathways thinking necessary to develop hope

(Snyder, 1994). As adults, their "trait hope" remains low. When such people face blockages in adulthood, they may experience intense stress. Without well-developed skills in agency and pathways thinking, they may suffer psychache (or psychological pain) and no longer be able to see any attainable and meaningful goals other than to end their pain. At this point, they may adopt the goal of suicide as a solution to bring the pain to an end, and consider no alternative goals. Thus, although hope may be low, these individuals are able to set one last goal, to end their pain, and to find pathways thinking and the agency to acquire it. In order to realize this goal, these people may generate a plan for suicide, such as acquiring a gun. Finally, as Snyder suggests, a burst of energy may allow them to utilize the pathway to achieve the suicide goal.

Applications of Hope Theory

Until now, hope theory has seen limited application. Recent investigations have already begun to change this. In order to empirically test whether the development of hope could increase well-being, decrease depression and suicidal ideations, and possibly prevent suicide, a recent personal goals intervention program was examined (Dube, Lapierre, Bouffard, and Alain, 2007; Lapierre, Dube, Bouffard, & Alain, 2007). Participants in this study were newly retired individuals. Newly retired people have shown to become distressed with the free time and social isolation. These individuals are also more prone to become clinically depressed (Jonssonn, Borell, & Gaynar, 2000). The program incorporated elements overlapping with some of Snyder's hope theory concepts, such as enhancing the ability to set, plan and pursue goals, for the ultimate development of hope and increasing well-being. Dube et al. (2007) demonstrated that, compared to the control group, participants in the goal management program significantly increased their level of hope, developed their ability to set, plan and purse their goals, and increased their

psychological well-being. Participants' also increased their determination to move into action (will power) and developed their ability to find alternative means to reach their goals (pathways thinking). Of a small portion (n = 21) of the participants (N = 294) who expressed suicidal ideations, 80% of the individuals in the goal management group and only 36% of the control group reported the absence of suicidal ideation in the previous week and the 6-month follow-up (Lapierre et al, 2007). This intervention provides validation and encourages initiatives to create prevention and intervention programs for suicidal behaviours based on protective factors, such as hope (Lapierre et al., 2007).

Although this goal-focused suicidal prevention initiative is promising, the above intervention could be improved to exhibit a more sound theory application and utilize empirical procedures to ensure the results are meaningful. First of all, this study was intended to increase only well-being, through goal management techniques, in recently retired adults. As a result, participants were not selected based on the presence of suicidal behaviours or the absence of suicidal behaviours. In fact, since this study was looking primarily at well-being, information regarding suicidal behaviours prior to the study was not collected. Additionally, the number of participants who had had suicidal behaviours during the course of the study was very small. Secondly, although Snyder's Hope Scale was used to verify the impact of the experimental manipulation (i.e., to determine if the program has an effect on goals), the goal management program was not solely based on hope theory, but rather "in accordance with the literature on goal intervention". This description appeared a little vague, and it would have been more helpful if Snyder's hope theory was used directly to develop the program and to investigate the theory thoroughly. Thirdly, participants were not randomly assigned to the control or experimental groups as mentioned by the authors, a limitation that has strong implications. Despite these

limitations, this intervention has provided a promising outlook on hope theory and suicidal prevention.

A few other studies have also examined the impact of hope as a resilience factor, including hope in mothers of children with chronic physical conditions (Horton & Wallander, 2001) and hope in children who have survived burns (Barnum, Snyder, Rapoff, Mani, & Thompson, 1998), and even fewer have assessed changes in hopeful thinking as a result of a psychosocial intervention (Cheavens, Feldman, Gum, Michael, & Snyder, 2006). For example, Brown and Roberts (2001) reported positive changes in agency hope for at-risk children who participated in an intensive summer camp including dance and positive development activities. Recently, McNeal et al. (2006) investigated changes in hope among youth at a residential treatment facility that used a teaching family model (Kirigin, 1996). This approach incorporating features such as a token economy motivation system, a self-government system managed by the youths, a standardized social skills training program, and an ongoing program evaluation system that incorporated youth and consumer feedback with administrative performance evaluations (Handwerk, Field, & Friman, 2001). Although the program was not based solely on Snyder's theory, the authors described it as incorporating "elements that emulate many of the recommendations made by Snyder and colleagues (McDermott & Snyder, 1999; Snyder, 1994; Snyder et al., 2000) for improving hope in children" (McNeal et al., 2006, p. 305). The child and adolescent participants met criteria for a range of emotional and behavioural disorders. Unfortunately, information on childhood maltreatment and suicidal behaviours was not obtained and so was not addressed by this study. They did, however, find hope scores significantly improved over the 6 months of treatment, indicating hope can be increased. There was no control group used for the

study, so it is difficult to conclude that increases in hope were caused by the intervention and not by some other variable (McNeal et al., 2006). All of these recent studies have given support for investigating hope, especially for the association between childhood maltreatment and suicidal thoughts and behaviour.

Future Implications

In addition to the empirical importance of this research, it is also critical to note the value of its application in the real world. A better understanding of the dynamics of maltreatment would "provide a foundation for the development of appropriate programs to prevent or ameliorate the effects of abuse and neglect on children" (English, 1998, p. 39-40). This is especially necessary for those individuals with childhood maltreatment histories experiencing suicidality in later adulthood. Comparably, suicidal behaviour interventions are just as much in need.

If hope is a factor in the association between child maltreatment and suicidal behaviours, it is necessary to determine if hope can be developed, fostered and restored to undo the effects of abuse and possibly prevent suicidal behaviours and thoughts in this population. More significantly, this study may indicate the need for the development of hope in the school system, particularly since the environment at home may not capable of doing so. In order to foster hope, one needs to be informed on how to inspire hope, in children and suicidal individuals, a possible direction for future research.

Cognitive-behavioural therapy, a popular strategy used to counter distorted thinking patterns that lead to hopelessness and suicidal thoughts, may be a tangible way to foster, instill, or restore hope. This therapy is based on the concept that thoughts – not external events – dictate feelings and behaviour, and that altering negative thought patterns can improve how one feels and lives. The therapy employs individual counseling,

as well as practical applications and assignments outside of sessions, to help people develop healthy responses to stressors and understand that psychological suffering can end without resorting to suicide. Thus, cognitive-behaviour therapy may be an instrumental tool for hope development.

Snyder (1994; 1995) has discussed several useful ways for promoting hope. For example, to enhance agency and pathways, Snyder suggests thinking of goals and setbacks as challenges and not failures, recalling past successes, and engaging in activities, such as physical exercise. Snyder also suggests finding role models to emulate, developing a supportive social network, and asking others for help (Chang & deSimone, 2001; Snyder, 1995). Snyder believes the advantages of elevated hope are many, ranging from having a greater number of goals to having greater happiness and less distress (Snyder, 1995).

Rationale for Study

Statement of the Problem

Snyder's hope theory appears to offer an explanation for the relation between childhood maltreatment and suicide behaviour in adulthood (Grewal & Porter, 2006). However to date, no empirical investigations have examined the childhood maltreatment-adult suicidality link from a hope theory perspective.

Purpose of the Study

The purpose of this study was to investigate the role of hope, as proposed by Snyder et al. (1991), in the development of adult suicidal behaviour subsequent to childhood maltreatment. Specifically, the study utilized hope theory to obtain a greater understanding of suicidality, the consequences of childhood maltreatment, and the

relation between childhood abuse and suicidal action. Additionally, the possibility that hope mediates the path between childhood maltreatment and adult suicidal behaviour was explored.

Methodological Issues

It is very important that multiple forms of child maltreatment are examined. Individuals who have experienced more than one form of maltreatment are not only overlooked in the literature, but also face more problematic outcomes (Claussen & Crittenden, 1991). Thus, it is critical to utilize assessment instruments that measure several types of abuse and possess strong psychometric properties (Briere, 1992). Investigating the effects of multiple forms of childhood maltreatment simultaneously will provide information that research has overlooked in previous studies.

Although prospective findings are valuable, retrospective data also has its benefits. Retrospective findings measure a segment of the population of adult survivors missed by prospective studies, and thus provide invaluable information to the maltreatment field (Kendall-Tacket & Becker-Blease, 2004; Dube, Williamson, Thompson, Felitti & Anda, 2004; Paz et al., 2005). Some researchers have suggested that retrospective responses are generally stable over time, and reliability statistics support the use of retrospective cohort studies (Dube et al., 2004). Retrospective data is helpful when getting information on past suicidal behaviours and histories of childhood maltreatment, information usually difficult to obtain in other ways.

In addition, it is more effective to ask individuals if they have made a suicide attempt in the past than to label their behaviour yourself. Intentions are important because individuals can make a cognitive distinction between engaging in a self-harming behaviour (a coping strategy, but no intention to die from the behaviour) and suicide

(Favazza, 1996, 1998). It has been "assumed that self-harming behaviour is conducted with a motivation to live and suicide is associated with a motivation to cease living" (Muehlenkamp & Gutierrez, 2004, p.13). However, these intentions are not always obvious, so it is important to let individuals define their own behaviour.

Population

While most research investigating suicidality utilizes a clinical population (e.g. individuals hospitalized for a suicide attempt), a community sample is just as important. First of all, collecting data "during a time of extreme personal crisis (e.g., a suicide attempt)" raises questions about the accuracy of the reports and the validity of the conclusions made by the researchers (Meadows & Kaslow, 2002, p. 669). Additionally, there is a substantial body of evidence indicating that many suicide attempters do not receive medical attention (Choquet & Menke, 1989; Hawton, Rodham, Evans, & Weaterall, 2002) and those who do receive medical attention may differ in demographic and psychosocial characteristics from those who do not (Kann et al., 1999; Evans, Hawton, & Rodham, 2004).

Selecting participants based on the presence of suicidal behaviour and/or ideation was thought to be a better option than selecting individuals with child maltreatment histories. This is because the presence/absence of suicidality in the past is easier to assess using fewer screening questions than the presence of child abuse and/or neglect.

Moreover, research has shown that there are discrepancies at times between self-labeling and actual experiences (Magley, Hulin, Fitzgerald, & DeNardo, 1999). In order to identify participants with suicidal behaviours and/or ideations, this study used self-report to screen participants, in addition to using an item from the behavioural measure to support the experience. Thus, only data from participants with coherent answers

concerning self-labeling of suicidal behaviours and experiencing suicidality were included, and data from individuals with discrepancies were discarded.

Research Question

Can hope theory explain the mechanisms for the relation between childhood maltreatment and subsequent adult suicidal behaviours?

Specific Hypotheses

1) It was predicted that the hope would correlate more highly with the presence of suicidal behaviours and childhood maltreatment than would hopelessness.
2) It was predicted that hope would be positively correlated with reasons for living.
3) It was predicted that suicidal ideation/attempts would be negatively correlated with reasons for living.
4) It was predicted that people with both childhood maltreatment and lower hope would exhibit higher suicidality. It was also thought that people without childhood maltreatment and with higher hope would exhibit lower suicidality.
5) It was predicted that individuals with a history of childhood maltreatment would exhibit lower trait hope, lower agency, and lower pathways thinking than individuals without a history of childhood maltreatment.
6) It was predicted that individuals who had engaged in suicidal behaviours would have lower hope, lower agency, and lower pathways thinking than individuals without suicidal behaviours histories.
7) It was predicted that hope would mediate the relationship between childhood maltreatment and suicidality.
8) It was predicted that the age at which abuse first started (in cases of sexual, physical, and emotional abuse) would be positively correlated with hope.

9) It was predicted that participants would have higher hope when abuse (in cases of sexual, physical, and emotional abuse) had been perpetrated by a person other than a caregiver than when abuse had been perpetrated by a caregiver.

CHAPTER THREE

Method

Research Participants

Undergraduate students from the University of Windsor were recruited for this study. A total of 315 individuals participated in the study, while data from only 200 participants was utilized, 100 participants with previous suicidal manifestations (suicide attempt and/or suicidal ideation) and 100 undergraduate students without previous suicidal behaviours. Participants were pre-selected from the participant pool. Students enrolled in psychology courses registering for the pool were asked to submit responses to a variety of screening questions, including two items pertaining to suicidal behaviour: 1) Have you ever considered taking your own life? (suicidal ideation) and 2) Have you ever attempted to take your own life? (suicide attempt). These two items were used by Walker, Utsey, Bolden and Williams (2005) to differentiate between individuals who had engaged in suicidal acts in the past from those who had not. Participation in this study was contingent on responses to these two screening questions. From the individuals who responded with "yes" to either question, 135 participants were randomly selected to participate in the study. From the individuals who answered "no" to both questions, 180 participants were selected for the group with no suicidal manifestations. Thus, participants were randomly selected based on their responses to the suicidal manifestation items. In return for their participation, participants received bonus points towards their final mark in a psychology course of their choice.

After participants completed the study, their responses on the Suicide Behaviors Questionnaire (SBQ; see Appendix G) were compared to the initial screening question responses. If responses to the SBQ question "Have you thought about or attempted to kill

yourself in your lifetime?" did not correspond with their initial screening questions, then those participants' data was not utilized in this study. Participants who indicated they had no suicidal behaviours and ideation in the past must have responded with a 0 ("No") to the question in order to remain in the study. Participants who said they had thought of committing suicide in the past must have responded with one of four responses: 1 ("it was just a passing thought"), 2 ("I briefly considered it, but not seriously"), 3 ("I thought about it and was somewhat serious), or 4 (I had a plan for killing myself which I thought would work and seriously considered it"). Lastly, participants who reported a history of suicidal attempts must have provided one of the answers: 5 (I attempted to kill myself, but I do not think I really meant to die") or 6 ("I attempted to kill myself, but I think I really hoped to die"). After this process was complete, 100 participants were in the suicidal group and 100 participants were in the non-suicidal group.

In terms of the gender breakdown, 34 males (17%) and 166 females (83%) took part in the study. Ages of the participants ranged between 18 and 60, with the average age of 22.6. The majority (78.5%) of participants described themselves as Caucasian, while 21.5% described themselves as Asian (4.5%), First Nations (3.0%), South Asian (1.0%), Hispanic (0.5%), African/Black (5.5%), Middle Eastern (5.0%), or other (2%).

Design

This study employed a quantitative, comparative design. The variables under investigation included past suicidality (those with or without suicidal ideation and/or attempts) and childhood maltreatment (those with or without histories of child maltreatment assessed by the second demographic questionnaire). There was no manipulation in this study; participants were placed in one of two groups according to their responses. Manipulation checks were performed on the variables using standardized

measures of suicidal behaviour (Suicide Behaviors Questionnaire) and childhood maltreatment (Childhood Trauma Questionnaire). The variables being measured included hope, childhood maltreatment, hopelessness, and reasons for living.

Measures

The measures below were administered in the order listed, leaving the most difficult instruments towards the end, but finishing off the battery of instruments with an uplifting measure reminding participants of their reasons for living. The consent form was administered first (*Appendix A).*

Demographic Questionnaire (Appendix B)

The demographic questionnaire asked participants to indicate their age, gender, and cultural background. This questionnaire was specifically created for this study.

Trait Hope (Appendix C)

The Hope Scale (HS; Snyder et al., 1991), measuring hope as a relatively stable personality trait, consists of four agency items (e.g., "I energetically pursue my goals"), four pathways items (e.g., "There are lots of ways around any problem"), and four distractor items. In completing the items, respondents are asked to imagine themselves across time and situation contexts, and to rate items on a scale of 1 (definitely false) to 8 (definitely true). This brief self-report measure of hope has been constructed with careful attention to psychometric properties and used with various populations, including inpatients (Snyder et al., 1991). Cronbach alphas have ranged from .74 to .84 for the total score (Lopez et al, 2003), and test-retest reliability have been .80 or higher over time periods exceeding 10 weeks (Snyder et al., 1991). In addition, a principal-components factor analysis yielded a two factor solution, pathways thinking and agency (Snyder et al.,

1991), and the HS appears to be relatively uninfluenced by social desirability (Hollorer & Snyder, 1990).

Hopelessness (Appendix D)

The Beck Hopelessness Scale (BHS; Beck & Steer, 1988) is a self-report instrument that consists of 20 true-false statements (e.g., "I have enough time to accomplish the things I want to do" and "I can look forward to more good times than bad times"). It is designed to assess the extent of positive and negative beliefs about the future during the past week. Each of the 20 statements is scored 0 or 1, with the total score calculated by summing the pessimistic responses of each of the 20 items. The total BHS score ranges from 0 to 20.

The scale has excellent internal consistency ratings among both clinical and non-clinical youth samples with an alpha of .93 (Beck et al., 1974). The Beck Hopelessness Scale also has adequate one-week and three-week test-retest reliability (Beck et al., 1974). The concurrent validity has been well established across a wide variety of populations and frequently has been used in treatment outcome studies. There have been several studies that have supported the predictive validity of the BHS for suicide attempts and completed suicide.

Childhood Maltreatment (Appendix E)

The Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998) is a 28-item brief self-report questionnaire that retrospectively assesses childhood abuse experiences among adolescents and adults. The scale consists of five subscales, Emotional Abuse, Sexual Abuse, Physical Abuse, Emotional Neglect, and Physical Neglect. Each item is measured using a 5-point Likert scale ranging from "Never True" to "Very Often True". There is also a three-item Minimization-Denial subscale to check for extreme responses,

specifically attempts by respondents to minimize their childhood abuse experiences. Each subscale ranges from 5 (no history of abuse or neglect) to 25 (very extreme history of abuse and neglect). Principal component analysis has revealed a five-factor solution comprised of emotional, physical, and sexual abuse, as well as emotional, and physical neglect (Paivio & Cramer, 2004). All factors, except physical neglect, have demonstrated good internal consistency and test-retest reliability (Paivio & Cramer, 2004). Specifically, Cronbach's alpha for the factors have ranged from .79 to .94, and test-retest reliability over a 2- to 6-month interval has revealed an intraclass correlation of .88 (Bernstein et al., 1994). Items for the scale were constructed based on a review of the child abuse literature. Examples of items include "When I was growing up, I didn't have enough to eat" and "When I was growing up, I believe that I was physically abused."

For each subscale, cutoff scores have also been provided and allow for maximum sensitivity (probability that the abuse victims using the measure will be classified as abused) and specificity (probability that nonvictims will be classified as nonabused using the measure (Bernstein & Fink, 1998). Utilizing the cutoffs provides dichotomous information about the presence or absence of abuse for each type. In order for the abuse to be present, scores must be greater than the following: Physical Abuse > 7; Sexual Abuse > 5; Emotional Abuse > 8; Emotional Neglect > 9; and Physical Neglect > 7.

Demographic Sheet #2 (Appendix F).

This questionnaire, also created specifically for this study, consisted of additional questions not asked in the CTQ. Participants were asked about their physical, sexual, and emotional abuse experiences, the age at first incident, the duration of the abuse, and the relationship to the perpetrator. One question asked participants to indicate whether they were currently in treatment with a psychologist, psychiatrist, or counsellor.

Suicidal Behaviors (Appendix G)

The Suicide Behaviors Questionnaire (SBQ-14; Linehan, 1996) is a self-report measure that examines suicidal ideation, suicide attempts and suicidal acts (without intent to commit suicide) as defined by O'Carroll et al. (1996). This scale consists of 34 items that assess the presence or absence of current, past or expected suicidal behaviours. The SBQ-14 items measure five behavioural domains: past suicidal ideation, future suicidal ideation, past suicide threats, future suicide attempts, and the likelihood of dying in a future suicide attempt. Each of these are rated according to the past several days including today, the last month, the last 4 months, the last year and over a lifetime. The five behaviours are then scored using a weighted summary score across each time interval. Items include "How often have you thought about killing yourself?" and "How likely is it that you will attempt suicide?" Nine additional items assess the severity of lifetime suicidal behaviour, current suicidal plan, availability of a method, social deterrents, and attitudes towards suicide behaviour and distress tolerance. A total score is calculated using 10 of the 14 items.

The five SBQ-14 behaviours have high internal reliability with coefficients ranging from .73 to .92 (Addis & Linehan, 1989). Four of the five SBQ-14 behaviours were positively correlated (*r*s = .36 to .51) with items from the Scale for Suicidal ideation and the Suicide Coping Interview. The SBQ-14 total score was positively correlated (*r*s = .55 to .62) with the Scale for Suicidal ideation, the Beck Depression Inventory and the Beck Hopelessness Scale, and negatively correlated (*r* = -.46) with the Linehan Reasons for Living Inventory.

Reasons for Living (Appendix H)

The Linehan Reasons for Living Inventory (LRFL; Linehan, Goodstein, Nielsen, & Chiles, 1983) is a 48-item self-report measure that assesses reasons for living. Each item is rated on a 6-point Likert scale ranging from 1 ("not at all important") to 6 ("extremely important"). The LRFL consist of six subscales, Survival and Coping Beliefs, Responsibility to Family, Child-Related Concerns, Fear of Suicide, Fear of Social Disapproval, and Moral Objections, in addition to a total scale, and each are scored by summing the items and dividing by the number of items. This scale has been standardized using many populations and has shown high internal reliability with Cronbach alpha coefficients ranging from .72 to .92 for each subscale and .89 for the LRFL total score (Linehan et al., 1983; Osman et al., 1993). The test-retest reliability is good and concurrent validity has been established with a number of scales including the Beck Depression Inventory ($\underline{r}$ = .68). Items on this scale include "I have a desire to live" and "I am afraid of death".

Procedure

All participants, regardless of whether they had previous suicidal manifestations or not, were administered an identical battery of tests in the same order. Participants were administered the instruments in groups of 5 to 10, as seen in Paivio and McCulloch (2004). Participants were informed that their participation was voluntary and that they could refuse to answer any questions. Participants were given contact information for counselling services within their copy of the consent form in case they felt distressed (Appendix A). All survey responses were stored in a secure location.

In addition to providing contact information for counselling services, participants' responses to items 17, 22, 27, and 28 on the Suicide Behaviors Questionnaire (SBQ;

Appendix G) were reviewed. If the responses to these questions indicated that a participant was currently suicidal and further, that he/she was not in treatment as indicated in the Demographic Sheet #2 (Appendix F), then the participant would have been contacted by the researcher via telephone within 48 hours. At that time, the participant would have been encouraged to go for help immediately to one of the services listed in the consent form. However, no participant was contacted because no incident of this nature arose. Items would have been flagged if a rating of 4 (very likely) was given to the following questions on the SBQ: 17. "What chance is there that you will consider the possibility, no matter how remote, of killing yourself today or in the next several days?" 22. "How likely is it that you will attempt suicide today or in the next several days?", and #27. "If you did attempt suicide, for any reason, how likely is it that you would die as a result today or in the next several days?"; or if a rating of 2 (yes, a definite plan) was given to item 28. "Do you currently have a plan for how you would go about killing yourself, if you decide to die?".

CHAPTER FOUR

Results

Data Analysis

All analyses were conducted with the Statistical Package for Social Sciences (SPSS) Version 15.0. Variables that were both continuous and categorical in nature included suicidal behaviours and/or ideation, childhood maltreatment, and age of onset of sexual abuse, physical abuse and emotional abuse. The manner in which the variables were categorized is explained.

Data Categorization

Categorization of Suicidality

Suicidality was categorized from self-labeling and one item on the Suicide Behaviours Questionnaire to assess experience. Participants first indicated if they had experienced suicidal attempts and/or suicidal ideation in the past during the pre-screening phase. This answer was then compared to their response on item #1 on the SBQ ("Have you thought about or attempted to kill yourself in your lifetime?"). If their answers matched up, they were included in the study. Each group, with suicidal behaviours and without, consisted of 100 participants. In addition, the group with suicidality was subdivided into two subgroups (1) suicidal ideation with attempt ($n = 42$) and (2) ideation only ($n = 58$) based on their self-label and questionnaire responses.

Categorization of Abuse

Abuse was categorized by utilizing the cutoff scores provided by the authors of the Childhood Trauma Questionnaire (Bernstein & Fink, 1998). One hundred and sixteen participants had a history of childhood maltreatment (including any or all of sexual abuse, physical abuse, emotional abuse, emotional neglect, and physical neglect), while 84 did

not. The breakdown of numbers (presented in Appendix I) for the presence and absence of childhood maltreatment by each type are: physical abuse (presence $n = 38$; absence $n = 162$), sexual abuse (presence $n = 34$; absence $n = 166$), emotional abuse (presence $n = 86$; absence $n = 114$), emotional neglect (presence $n = 82$; absence $n = 118$), and physical neglect (presence $n = 40$; absence $n = 160$).

A method to calculate an overall abuse score was not provided by the authors of the Childhood Trauma Questionnaire (Bernstein & Fink, 1998). Thus, z scores for each subscale were calculated and then added, in order to ensure equal weighting for each subscale when determining an overall score for the CTQ. However, in order to assess an overall total z score, certain criteria were met. For one, the five subscales were correlated to ensure that they were all positively correlated with each other. The correlations (displayed in Appendix J) ranged from $r = .43$ ($p < .001$) for physical neglect and sexual abuse to $r = .81$ ($p < .001$) for emotional neglect and emotional abuse. Secondly, an alpha coefficient calculated for the entire scale was relatively high (.83). Having a meaningful alpha, along with positive correlations of at least moderate magnitude between subscales allowed the calculation of a total score for the CTQ using z scores of the subscales.

Although the hypotheses do not speak to specific types of maltreatment (emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect), for each analysis, the different forms of maltreatment were also investigated. When differences for the types of maltreatment were observed from the general childhood maltreatment variable (the aggregating variable for all forms of maltreatment), the results are reported.

Categorization of Age of Onset of Abuse

Information on age of onset of physical abuse, sexual abuse, and emotional abuse

was obtained from the participants. The number of participants that provided information on age and physical abuse ($n = 17$), emotional abuse ($n = 47$), and sexual abuse ($n = 15$) was lower than participants identified as having abuse histories by the Childhood Trauma Questionnaire. Age of onset of maltreatment was assessed using two classifications: (a) continuous (ages 0 - 18 years) and (b) dichotomous (early [ages 0 – 5] vs. later [ages 6 – 18]). Information on how to divide ages into the dichotomous categories was obtained from Kaplow & Widom (2007), but was altered to increase the maximum age of abuse from 11 (as cited by the authors) to 18. The numbers are provided in Appendix K.

Categorization of Relationship with Abuser

If participants indicated their relationship with the abuser, it was categorized as either caregiver (e.g., mother, father, stepfather, stepmother) or other (e.g., uncle, neighbour, friend etc). Of the individuals reporting physical abuse, 14 (60.9%) participants indicated the physical abuse was at the hands of a caregiver, while 9 (39.1%) indicated other. For 47 (72.3%) participants, emotional abuse was perpetrated by a caregiver and 18 (9%) participants indicated emotional abuse took place by a person other than a care provider. Five individuals (20.8%) indicated the perpetrator of sexual abuse was a caregiver, while 19 (79.2%) indicated other. This data was only collected for sexual, physical, emotional abuse.

Normality Assumptions

Initial data entry and screening involved conducting analyses for outliers, skewness, and kurtosis. To analyze the data for outliers, frequency counts were completed for each of the variables to determine whether any variables might have been entered incorrectly. Skewness and kurtosis were examined and are shown in Appendix L. While most variables were relatively normal, significant skewness was observed for the Physical

Abuse, Sexual Abuse, and Physical Neglect subscales of the Childhood Trauma Questionnaire, and the Suicide Behaviors Questionnaire score. All of these variables measured behaviour that is not normally distributed in the population. For these variables, transformations were considered but were not chosen because interpretation of the variables would become problematic (Tabachnick & Fidell, 2007). Categorization was also considered, and was used more frequently in the analyses due to the skewed nature of the data.

Reliability for Measures

Alpha reliability coefficients were computed for all scales and subscales and are presented in Table 1. Each of the measures and subscales demonstrated adequate reliability, with Cronbach's alpha reliability coefficients ranging from .67 for the Physical Neglect subscale of the Childhood Trauma Questionnaire to .96 for the Sexual Abuse subscale of the CTQ. The summary item means and standard deviation for each scale and subscales are also provided in Table 1.

Validity Checks

A one-way ANOVA was executed to determine whether individuals who indicated the presence of suicidal behaviour and/or ideation also behaviourally exhibited the behaviour. A significant effect was found for the total score of the Suicide Behaviors Questionnaire, F (1, 198) = 106.18, $p < .001$, such that individuals who indicated the presence of suicidal ideation and/or attempts had a higher score (M = 16.76, SD = 14.79) for suicidal behaviour than individuals who said they did not engage in suicidal ideation and/or attempts (M = 1.42, SD = 1.68) (see Figure 1).

Given that the standard deviations were large for the Suicide Behaviours Questionnaire in the previous one-way ANOVA, a Kruskal-Wallis test was conducted to

Table 1

Reliability Coefficients, Summary Item Means, and Standard Deviations

SCALE	SUBSCALE	ALPHA	MEAN	S.D.
HS	Total	0.84	6.16	0.19
	Pathways	0.81	6.33	0.18
	Agency	0.77	6.25	0.21
BHS	Total	0.85	0.18	0.44
CTQ	Emotional Abuse	0.87	1.88	0.37
	Physical Abuse	0.83	1.31	0.32
	Sexual Abuse	0.96	1.32	0.05
	Emotional Neglect	0.92	1.95	0.22
	Physical Neglect	0.67	1.28	0.09
RFL	Total	0.93	4.23	0.87
	Survival Coping	0.95	4.73	0.33
	Responsibility to Family	0.89	4.87	0.39
	Child-Related Concerns	0.83	4.16	0.54
	Fear of Suicide	0.78	2.92	0.63
	Fear of Social Disapproval	0.84	3.34	0.29
	Moral Objections	0.86	3.12	0.44
SBQ	Total	0.94	0.44	0.48

Note: HS → Hope Scale; BHS → Beck Hopelessness Scale; CTQ → Childhood Trauma Questionnnaire; RFL → Reasons for Living Inventory; SBQ → Suicide Behaviors Questionnaire

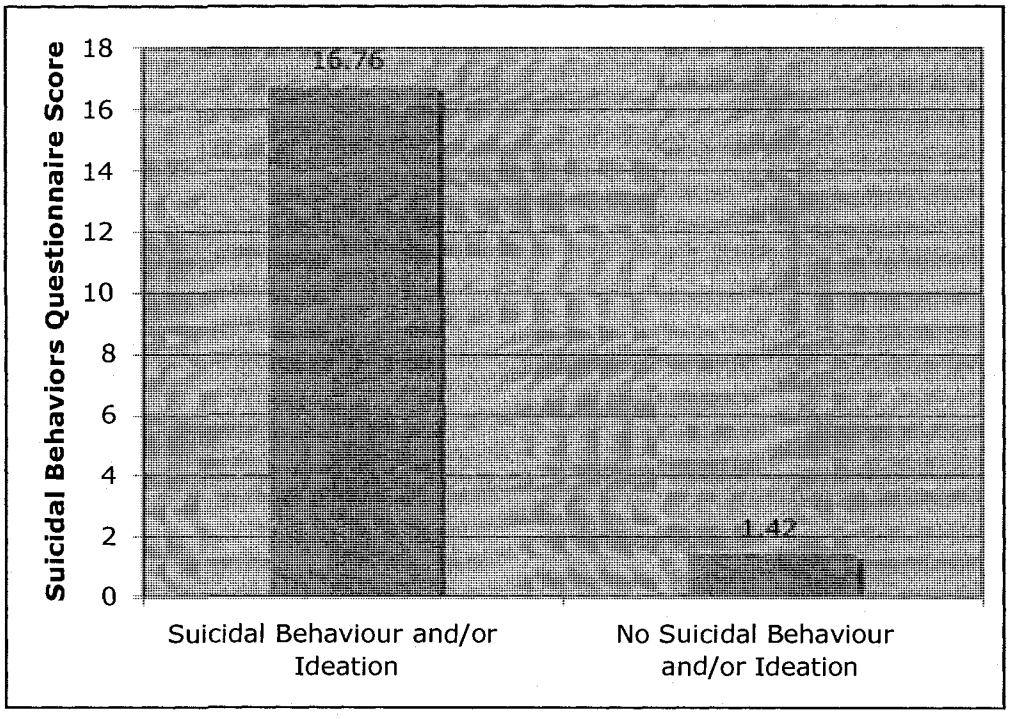


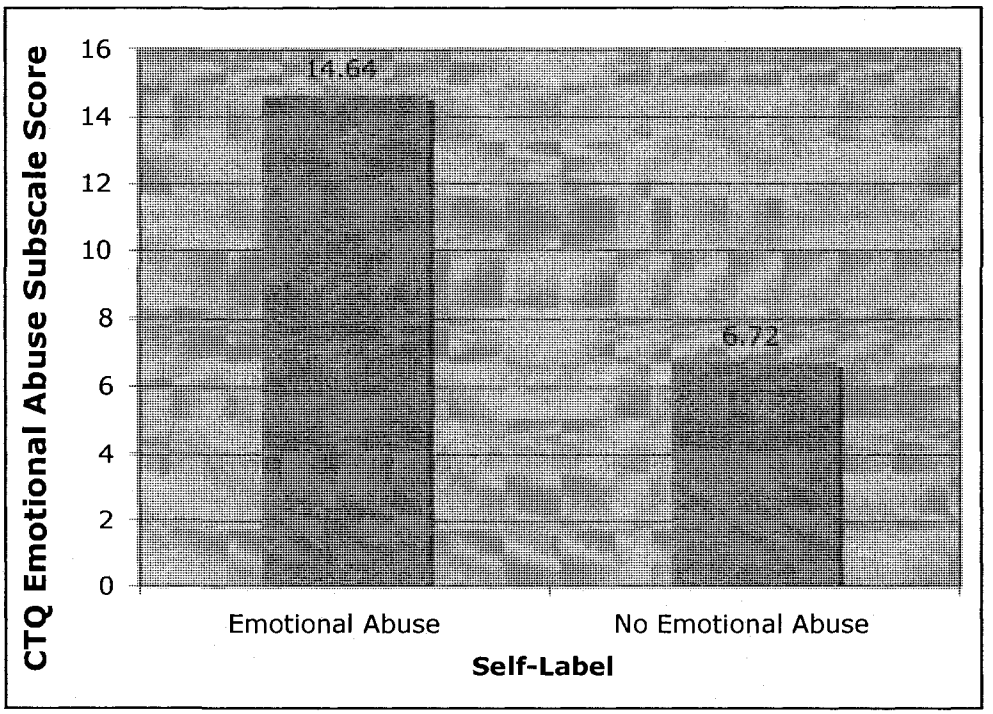
Figure 1. Suicidal Behaviors Questionnaire score by suicide history.

evaluate differences among the two groups, participants with and without suicidal behaviours, on median change in suicidality. The results of this analysis indicated that there were significant differences in the medians between the two groups, X^2 (1, N = 200) = 107.78, $p < .001$, providing support for the previous one-way ANOVA. Individuals who had self-labeled themselves as having suicidal behaviours had higher suicidality (as assessed by the SBQ) than did participants who indicated the lack of suicidal histories.

A series of one-way ANOVAs were performed to investigate whether individuals who self-labeled the presence of emotional and/or sexual and/or physical abuse also exhibited these experiences behaviourally, assessed by their subscale scores on the Childhood Trauma Questionnaire. A significant effect was seen for emotional abuse, F (1, 198) = 288.79, $p < .001$. Individuals who indicated the lack of emotional abuse had lower scores on the Emotional Abuse subscale (M = 6.72, SD = 2.27) than participants who indicated the presence of emotional abuse (M = 14.64, SD = 4.33) (see Figure 2). Physical abuse also revealed a significant effect, F (1, 198) = 205.20, $p < .001$. Individuals who indicated the presence of physical abuse scored higher on the Physical Abuse subscale of the CTQ (M = 12.48, SD = 4.69) than individuals who indicated the lack of physical abuse (M = 5.76, SD = 1.51) (see Figure 3). Another significant effect was found for sexual abuse using the Sexual Abuse subscale, F (1, 198) = 499.93, $p < .001$, revealing that individuals reporting the presence of sexual abuse indeed scored higher on the Sexual Abuse subscale (M = 16.67, SD = 5.95) than individuals who indicated no sexual abuse (M = 5.22, SD = 1.27) (see Figure 4).

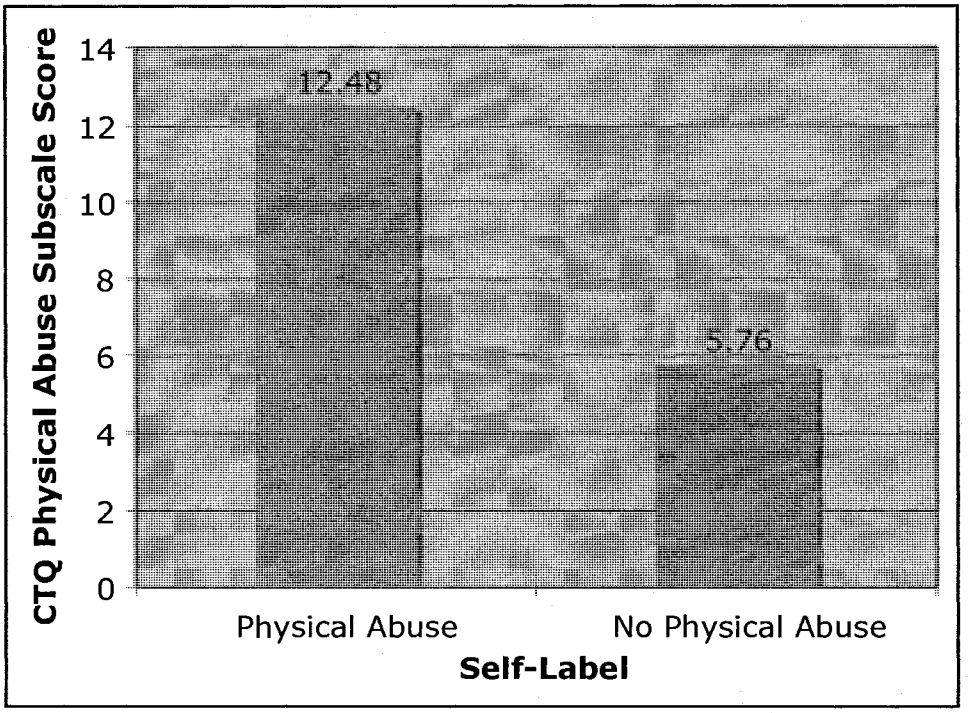
Demographics

In terms of gender and suicidal behaviour, nearly half of the female (see Figure 5) and male (see Figure 6) participants had engaged in suicidal behaviours and half had not.



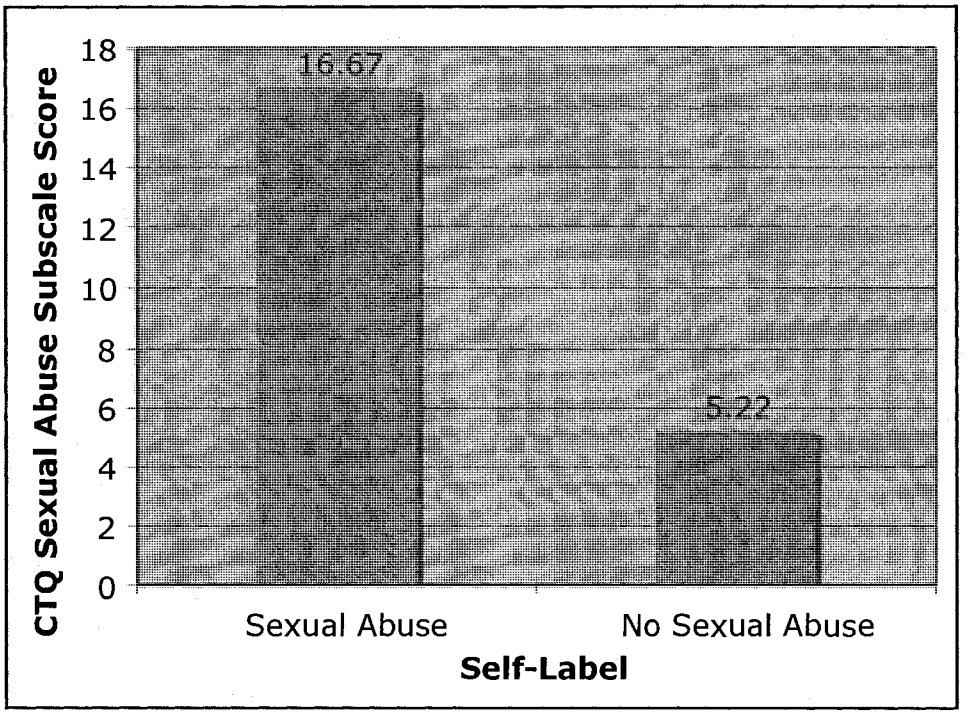
Note: CTQ → Childhood Trauma Questionnaire

Figure 2. CTQ Emotional Abuse Subscale Score by emotional abuse history



Note: CTQ → Childhood Trauma Questionnaire

Figure 3. CTQ Physical Abuse subscale by physical abuse history.



Note: CTQ → Childhood Trauma Questionnaire

Figure 4. CTQ Sexual Abuse subscale by sexual abuse history.

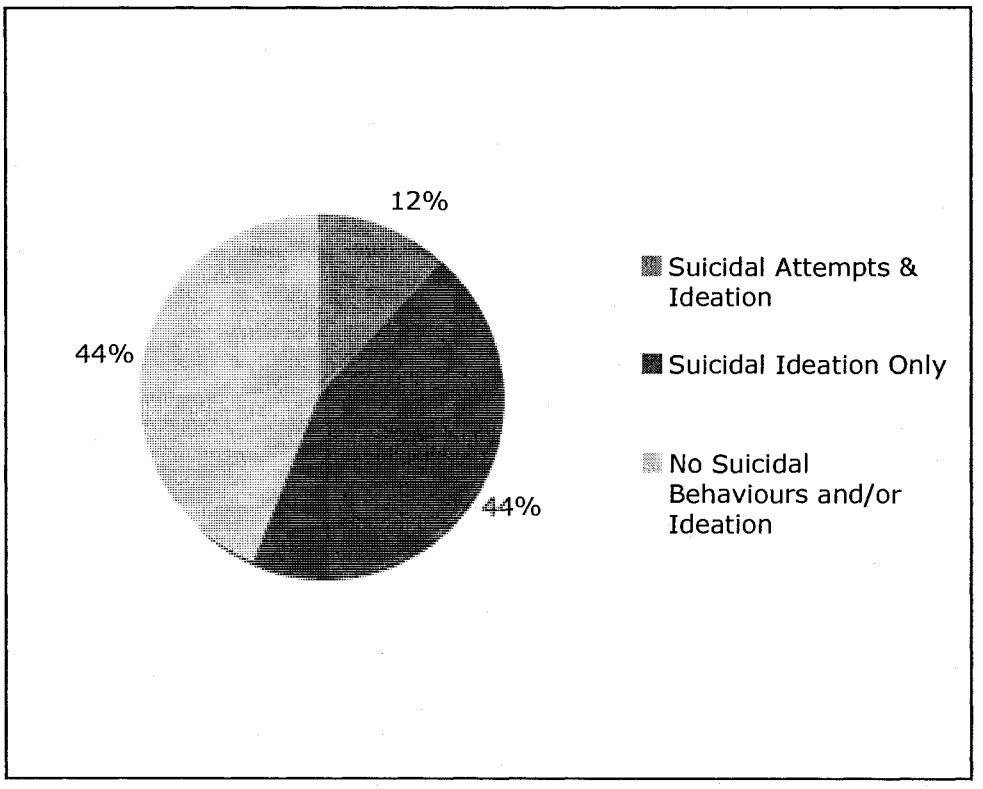


Figure 5. Suicidal Behaviour and Ideation according to the Male Participants.

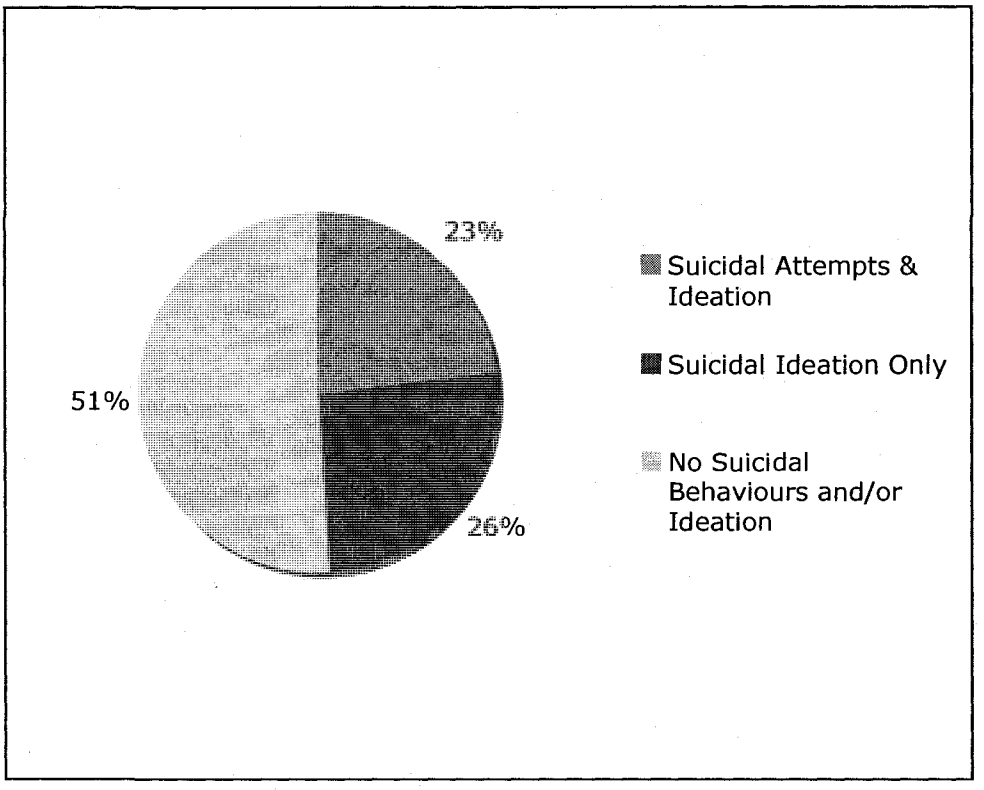


Figure 6. Suicidal Behaviour and Ideation according to the Female Participants

For males, 56% (19) had experiences of suicidal attempts and/or ideation, while 44% (15) had not. Similarly, 49% (81) of females had engaged in suicidal attempts and/or ideation, while 51% (85) had not. A chi-square test was conducted to investigate whether there was a relationship between gender and the presence or absence of suicidal behaviour. This test revealed there was no significant association between gender and the presence or absence of suicidal behaviour, X^2 (1, N = 200) = .57, p = .45.

Furthermore, 21% (4) of the male participants from the suicidal group engaged in both suicidal ideation and attempt(s), while 79% (15) of the male participants engaged only in ideation. However, of the female participants engaging in suicidality, 47% (38) participants engaged in suicide attempt(s) and ideation, while 53% (43) reported only engaging in suicidal ideation. A chi-square test was also conducted to investigate whether there was a relationship between gender and suicidal behaviour (suicidal attempts and ideation vs. ideation only). There was a significant association revealed between the type of suicidal behaviour and gender X^2 (1, N = 100) = 4.22, p = .04. Thus, gender was significantly associated with suicidal behaviour, such that a higher proportion of males engaged in suicidal ideation only versus both ideation and attempts, while females almost equally engaged in suicidal attempts and ideation and ideation only (see Table 2).

A chi-square analysis was used to investigate whether there was a relationship between gender and the presence or absence of childhood maltreatment (see Table 3). This analysis revealed there was no relationship between gender and childhood maltreatment, X^2 (1, N = 200) = .07, p = .78. The same was true for the other childhood maltreatment types, such that there was no significant relationship revealed between gender and emotional abuse X^2 (1, N = 200) = .27, p = .60, physical abuse X^2 (1, N = 200)

Table 2

Relationship between gender and suicidal behaviour after Chi-square analysis revealed a significant relationship.

$X^2(1, N = 100) = 4.22, p = .04$		Gender		Total
		Male	Female	Male
Suicidal Behaviour	Both Ideation & Attempt	4	38	42
	Ideation Only	15	43	58
Total		19	81	100

Table 3.

Relationship between gender and childhood maltreatment (and the 5 types of maltreatment).

X^2 (1, N = 200) = .07, p = .78		Childhood Maltreatment		
		No	Yes	Total
Gender	Male	15	19	34
	Female	69	97	166
Total		84	116	200
X^2 (1, N = 200) = .27, p = .60		Emotional Abuse		
		No	Yes	Total
Gender	Male	18	16	34
	Female	96	70	166
Total		114	86	200
X^2 (1, N = 200) = .55, p = .46		Physical Abuse		
		No	Yes	Total
Gender	Male	26	8	34
	Female	136	30	166
Total		162	38	200
X^2 (1, N = 200) = .80, p = .37		Sexual Abuse		
		No	Yes	Total
Gender	Male	30	4	34
	Female	136	30	166
Total		166	34	200
X^2 (1, N = 200) = 1.37, p = .24		Emotional Neglect		
		No	Yes	Total
Gender	Male	17	17	34
	Female	101	65	166
Total		118	82	200
X^2 (1, N = 200) = .14, p = .71		Physical Neglect		
		No	Yes	Total
Gender	Male	28	6	34
	Female	132	34	166
Total		160	40	200

Note: Childhood maltreatment, Emotional Abuse, Physical Abuse, Sexual Abuse, Emotional Neglect and Physical Neglect scores from the Childhood Trauma Questionnaire

= .55, p = .46, sexual abuse X^2 (1, N = 200) = .80, p = .37, emotional neglect X^2 (1, N = 200) = 1.37, p = .24, and physical neglect X^2 (1, N = 200) = .14, p = .71.

Childhood Maltreatment and Suicidal Behaviours

Correlation analyses revealed significant associations between the five subscales of the Childhood Trauma Questionnaire and the Suicide Behaviours Questionnnaire. The correlations, increasing in strength, were as follows: sexual abuse and suicide (r = .20, p = .005), physical abuse and suicide (r = .29, p < .001), physical neglect and suicide (r = .37, p < .001), emotional abuse and suicide (r = .51, p < .001), and emotional neglect and suicide (r = .52, p < .001). The overall score for the Childhood Trauma Questionnaire and the Suicide Behaviours Questionnaire also had a significant correlation of .48.

Chi-square analyses were conducted to assess whether there was a relationship between childhood maltreatment and suicidality. Suicidality (the presence or absence of suicidal behaviours) and childhood maltreatment (the presence of at least one or the absence of all maltreatment forms) revealed a significant relationship, X^2 (1, N = 200) = 39.74, p < .001, such that when participants had histories of suicidal behaviour (n = 100), they were more likely to also have had experience with at least one form of childhood maltreatment (80%) than no experience with maltreatment (20%) at all. However, participants without suicidal histories were less likely to have had childhood maltreatment experiences (36%) than no maltreatment histories (64%).

Similarly for emotional abuse X^2 (1, N = 200) = 55.16, p < .001 and emotional neglect X^2 (1, N = 200) = 51.67, p < .001, the presence of suicidal behaviours also exhibited higher frequencies of emotional abuse (69%) and emotional neglect (66%) than the absence of emotional abuse (31%) and emotional neglect (34%) (see Table 4). However, participants without suicidal behaviour histories were more likely to have had

Table 4

Relationship between childhood maltreatment (and the 5 types of maltreatment) and suicidal Behaviour.

$X^2(1, N = 200) = .39.74, p < .001$		Childhood Maltreatment		Total
		No	Yes	No
Suicidal Behaviour	Yes	20	80	100
	No	64	36	100
Total		84	116	200
$X^2(1, N = 200) = 55.16, p < .001$		Emotional Abuse		Total
		No	Yes	No
Suicidal Behaviour	Yes	31	69	100
	No	83	17	100
Total		114	86	200
$X^2(1, N = 200) = 10.53, p = .001$		Physical Abuse		Total
		No	Yes	No
Suicidal Behaviour	Yes	72	28	100
	No	90	10	100
Total		162	38	200
$X^2(1, N = 200) = 10.53, p = .001$		Sexual Abuse		Total
		No	Yes	No
Suicidal Behaviour	Yes	74	26	100
	No	92	8	100
Total		166	34	200
$X^2(1, N = 200) = 51.67, p < .001$		Emotional Neglect		Total
		No	Yes	No
Suicidal Behaviour	Yes	34	66	100
	No	84	16	100
Total		118	82	200
$X^2(1, N = 200) = 24.50, p < .001$		Physical Neglect		Total
		No	Yes	No
Suicidal Behaviour	Yes	66	34	100
	No	94	6	100
Total		160	40	200

Note: Childhood maltreatment, Emotional Abuse, Physical Abuse, Sexual Abuse, Emotional Neglect and Physical Neglect scores from the Childhood Trauma Questionnaire.

the absence of emotional abuse (83%) and emotional neglect (84%) than the presence of emotional abuse (17%) and emotional neglect (16%) histories. Sexual abuse X^2 (1, N = 200) = 10.53, p = .001, physical abuse X^2 (1, N = 200) = 10.53, p = .001, and physical neglect X^2 (1, N = 200) = 24.50, p < .001 had significant relationships with suicidal behaviours; however, they had slightly different trends compared to the other types of maltreatment (see Table 4). Individuals with experiences of suicidal behaviours were more likely to not have experiences of sexual abuse (74%), physical abuse (72%), and physical neglect (66%) than to have experiences of sexual abuse (26%), physical abuse (28%), and physical neglect (34%). Individuals without histories of suicidal behaviours were more likely to not have experiences of sexual abuse (92%), physical abuse (90%), and physical neglect (94) than to have had sexual abuse (8%), physical abuse (10%), and physical neglect (6%).

Analyses According to Hypotheses

Hypotheses 1, 2, & 3

In order to answer the first three hypotheses, bivariate correlations were conducted between the Hope Scale and the Beck Hopelessness Scale, the Suicide Behaviors Questionnaire and the Childhood Trauma Questionnaire subscales. The Pearson's correlations were compared using the Fisher's Z test (Hays, 1988). The correlations were also explored through scatterplots and Spearman's *rho* to rule out problems with the data (e.g., outliers), but none were observed and results were consistent with the Pearson's correlation. Bivariate correlations were also conducted for the second and third hypotheses to test whether a positive relationship existed between the Hope Scale and the Reasons for Living Inventory, and whether a negative correlation existed between the

Suicidal Behaviors Questionnaire and the Reasons for Living Inventory. Just to note, Cohen (1988) provides the following guidelines for the social sciences: small effect size $r = .10$, medium effect size $r = .30$, and a large effect size $r = .50$.

Hope & Hopelessness

The Hope Scale subscales were correlated with each other, such that Pathways and Agency had a correlation of $r = .55$ ($p < .001$). Although agency and pathway correlated with the Beck's Hopelessness Scale, agency correlated more highly ($r = -.64$, $p < .001$) than pathways ($r = -.43$, $p < .001$). These two correlations were significantly different as assessed by the Fisher's Z test ($Z = -2.97$, p [two tailed] $< .001$). The correlations are displayed in Table 5.

The Hope Scale was negatively correlated with the Beck Hopelessness Scale ($r = -.60$, $p < .001$) (see Table 5). However, when the data were analyzed separately for the groups with (see Table 6) and without suicidal behavior histories (see Table 7), the correlations between the Hope Scale and the Beck Hopelessness Scale differed. The correlation between the Hope Scale and the Beck Hopelessness Scale for the group with suicidal behaviours was more than double ($r = -.62$, $p < .001$) that of the non-suicidal group ($r = -.29$, $p = .003$) ($Z = -2.95$, p [two tailed] $< .001$). In the non-suicidal group, the correlation between the BHS and pathways was not significant ($r = -.15$, $p = .125$) while the correlation between the BHS and agency was significant ($r = -.40$, $p < .001$). On the other hand, the Beck Hopelessness Scale was significantly correlated with both pathways ($r = -.46$, $p < .001$) and agency ($r = -.61$, $p < .001$) in the group with suicidal behaviour histories. The correlations between agency and hopelessness differed significantly between the two suicide groups (presence of and absence of) ($Z = 1.92$, p [two tailed] = .05)

Table 5

Correlation Table for the Hope Scale, Pathways, Agency, and the Beck Hopelessness Scale

N = 200		Hope Total (HS)	Hope: Pathways	Hope: Agency	Hopelessn ess (BHS)
Hope Total (HS)	Pearson Correlation	---	.880**	.879**	-.604**
Hope: Pathways (HS)	Pearson Correlation		--	.546**	-.425**
Hope: Agency (HS)	Pearson Correlation			--	-.637**
Hopelessn ess (BHS)	Pearson Correlation				--

** Correlation is significant at the 0.01 level (2-tailed).
Note: HS → Hope Scale; BHS → Beck Hopelessness Scale

Table 6

Correlation Table for the Hope Scale, Pathways, Agency, and the Beck Hopelessness Scale within the Group with Suicidal Behaviours

N = 100		Hope Total (HS)	Hope: Pathways	Hope: Agency	Hopelessness (BHS)
Hope Total (HS)	Pearson Correlation	--	.861**	.868**	-.620**
Hope: Pathways (HS)	Pearson Correlation		--	.496**	-.464**
Hope: Agency (HS)	Pearson Correlation			--	-.607**
Hopelessness (BHS)	Pearson Correlation				--

** Correlation is significant at the 0.01 level (2-tailed).
Note: HS → Hope Scale; BHS → Beck Hopelessness Scale

Table 7

Correlation Table for the Hope Scale, Pathways, Agency, and the Beck Hopelessness Scale within the Group with No Suicidal Behaviours

N = 100		Hope Total (HS)	Hope: Pathways	Hope: Agency	Hopelessness (BHS)
Hope Total (HS)	Pearson Correlation	--	.922**	.864**	-.293**
Hope: Pathways (HS)	Pearson Correlation		--	.601**	-.155
Hope: Agency (HS)	Pearson Correlation			--	-.404**
Hopelessness (BHS)	Pearson Correlation				--

** Correlation is significant at the 0.01 level (2-tailed).
Note: HS → Hope Scale; BHS → Beck Hopelessness Scale

According to the first hypothesis, it was expected that the Hope Scale would correlate more highly with suicidal behaviours (assessed by the Suicide Behaviours Questionnaire) and childhood maltreatment (assessed by the Childhood Trauma Questionnaire) than the Beck Hopelessness Scale. Results revealed that although the Hope Scale negatively correlated with the Suicide Behaviours Questionnaire (r = -.40, p < .001), the Emotional Abuse (r = -.20, p = .004), Physical Abuse (r = -.17, p = .02), Sexual Abuse (r = -15, p = .04), and Emotional Neglect (r = -.31, p < .001) subscales of the Childhood Trauma Questionnaire, and the total Childhood Trauma Questionnaire score (r = -.24, p = .001), the correlations were not as high as those between the Beck Hopelessness Scale and the Suicide Behaviours Questionnaire (r = .66, p < .001), the Emotional Abuse subscale (r = .41, p < 001), the Physical Abuse subscale (r = .22, p = .002), the Sexual Abuse subscale (r = .22, p = .001), the Emotional Neglect subscale (r = .50, p < .001), and the total Childhood Trauma Questionnaire (r = .40, p < .001). The correlation between the Physical Neglect subscale and the Hope Scale was not significant (r = -.12, p = .08), but the correlation was significant between the Physical Neglect subscale and Beck's Hopelessness Scale (r = .66, p < .001) (see Table 8). With the exception of physical neglect, all other correlations between hope and suicidal behaviours/childhood maltreatment/emotional abuse/physical abuse/sexual abuse/emotional neglect differed statistically from correlations between hopelessness and suicidal behaviours (Z = - 12.03, p [two tailed] < .001) /childhood maltreatment (Z = - 6.63, p [two tailed] < .001) /emotional abuse (Z = - 6.34, p [two tailed] < .001)/ physical abuse (Z = - 3.92, p [two tailed] < .001)/sexual abuse (Z = - 3.72, p [two tailed] < .001)/emotional neglect (Z = - 8.63, p [two tailed] < .001). Thus, the first hypothesis was not supported.

Table 8

Correlation Table for the Hope Scale, Beck Hopelessness Scale, Suicidal Behaviors Questionnaire, and Childhood Trauma Questionnaire

Scale	N = 200	Hope Scale (HS)	Beck Hopeless-ness Scale (BHS)	Suicidal Behaviour (SBQ)	Emotional Abuse (CTQ)	Physical Abuse (CTQ)	Sexual Abuse (CTQ)	Emotional Neglect (CTQ)	Physical Neglect (CTQ)	Total Childhood Maltreatment (CTQ)
Hope Total (HS)	Pearson Correlation	--	-.604**	-.399**	-.200**	-.170*	-.146*	-.309**	-.122	-.240**
Beck Hopelessness Scale (BHS)	Pearson Correlation		--	.658**	.409**	.222**	.224**	.500**	.220**	.398**
Suicidal Behaviours (SBQ)	Pearson Correlation			--	.512**	.295**	.198**	.519**	.366**	.477**
Emotional Abuse (CTQ)	Pearson Correlation				--	.502**	.439**	.806**	.545**	.832**
Physical Abuse (CTQ)	Pearson Correlation					--	.486**	.467**	.534**	.755**
Sexual Abuse (CTQ)	Pearson Correlation						--	.485**	.434**	.719**
(Emotional Neglect (CTQ)	Pearson Correlation							--	.634**	.857**
Physical Neglect (CTQ)	Pearson Correlation								--	.795**
Total Childhood Maltreatment (CTQ)	Pearson Correlation									--

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

NOTE: HS → Hope Scale; BHS → Beck Hopelessness Scale
CTQ → Childhood Trauma Questionnaire

Reasons for Living

Subscales and the total score for the Reasons for Living Inventory were correlated with the Hope Scale to determine whether scores on the Reasons for Living Inventory correlated positively with the Hope Scale, as hypothesized by Hypothesis 2. Positive correlations were observed between the Hope Scale and the Total Reasons for Living Inventory ($r = .42, p < .001$), and the following RFL subscales: Survival Coping ($r = .51$, $p < .001$), Responsibility to Family ($r = .26, p < .001$), Child-related Concerns ($r = .21$, $p = .002$), and Moral Objections ($r = .16, p = .03$) (see Table 9). However, significant correlations were not observed for the subscales Fear of Suicide ($r = -.07, p = .32$) and Fear of Social Disapproval ($r = -.03, p = .65$). Thus, hypothesis 2 was supported.

The third hypothesis predicted that the Suicide Behaviours Questionnaire would negatively correlate with the Reasons for Living Inventory. As expected, negative correlations were observed between the total Suicide Behaviours Questionnaire score and the Reasons For Living Inventory subscales: Survival Coping ($r = -.66, p < .001$), Responsibility to Family ($r = -.37, p < .001$), Child-related Concerns ($r = -.31, p < .001$), and Moral Objections ($r = -.26, p < .001$), in addition to the Total RFL score ($r = -.58$, $p < .001$). Significant correlations were again not revealed for the subscales Fear of Suicide ($r = .05, p = .51$) and Fear of Social Disapproval ($r = -.02, p = .75$). All these correlations are displayed in Table 10. Hypothesis 3 was supported, although two subscales of the Reasons for Living Inventory did not significantly correlate with suicidal behaviour.

Hypothesis 4

The fourth hypothesis predicted that participants with childhood maltreatment experiences and lower hope would exhibit higher levels of suicidal behaviour. Inversely,

Table 9

Correlation Table for the Hope Scale and Reason For Living Inventory

Scale	N = 200	Hope Total (HS)	Beck Hopelessness Scale (BHS)	Survival Coping (RFL)	Responsibility to Family (RFL)	Child-related Concerns (RFL)	Fear of Suicide (RFL)	Fear of Social Disapproval (RFL)	Moral Objections (RFL)	RFL Total
Hope Total (HS)	Pearson Correlation	--	-.604**	.514**	.263**	.214**	-.071	-.032	.157*	.416**
Beck Hopelessness Scale (BHS)	Pearson Correlation		--	-.706**	-.309**	-.293**	.063	.016	-.208**	-.570**
Survival Coping (RFL)	Pearson Correlation			--	.371**	.413**	.015	.175*	.288**	.838*
Responsibility to Family (RFL)	Pearson Correlation				--	.313**	.180*	.457**	.279**	.650**
Child-related Concerns (RFL)	Pearson Correlation					--	.226**	.180*	.186**	.590**
Fear of Suicide (RFL)	Pearson Correlation						--	.339**	.214**	.387**
Fear of Social Disapproval (RFL)	Pearson Correlation							--	.273**	.491**
Moral Objections (RFL)	Pearson Correlation								--	.540**
RFL Total	Pearson Correlation									--

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Note: HS → Hope Scale; RFL → Reasons for Living Inventory
BHS → Beck Hopelessness Scale

Table 10

Correlation Table for the Suicidal Behaviors Questionnaire and the Reasons For Living Inventory.

Scale	N = 200	Suicidal Behaviour (SBQ)	Survival Coping (RFL)	Responsib -ility to Family (RFL)	Child-related Concerns (RFL)	Fear Of Suicide (RFL)	Fear of Social Disapprov al (RFL)	Moral Objections (RFL)	RFL Total
Suicidal Behaviour (SBQ)	Pearson Correlation	--	-.661**	-.369**	-.307**	.047	-.023	-.262**	-.577**
Survival Coping (RFL)	Pearson Correlation		--	.371**	.413**	.015	.175*	.288**	.838**
Responsibility to Family (RFL)	Pearson Correlation			--	.313**	.180*	.457**	.279**	.650**
Child-related Concerns (RFL)	Pearson Correlation				--	.226**	.180*	.186**	.590**
Fear of Suicide (RFL)	Pearson Correlation					--	.339**	.214**	.387**
Fear of Social Disapproval (RFL)	Pearson Correlation						--	.273**	.491**
Moral Objections (RFL)	Pearson Correlation							--	.540**
RFL Total	Pearson Correlation								--

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Note: SBQ → Suicide Behaviours Questionnaire
RFL → Reasons for Living Inventory

it was expected that individuals without childhood maltreatment and higher hope would express the lowest degree of suicidality. To address this hypothesis, a regression analysis was conducted to investigate the effect of childhood maltreatment (categorical), hope (continuous), and the interaction between maltreatment (categorical) and hope (continuous) on suicidal behaviour (continuous).

The analysis investigated childhood maltreatment utilizing the cut off scores provided for each subscale of the Childhood Trauma Questionnaire. If at least one of the following: sexual abuse, physical abuse, emotional abuse, physical neglect, or emotional neglect was present in the past, the participant was defined as having childhood maltreatment. The absence of all of these was categorized as not having childhood maltreatment. This variable was then dummy coded so that participants with childhood maltreatment experiences were coded with a 1, and individuals without maltreatment histories were coded with a 0. For the interaction term, hope was not centered because maltreatment was categorical.

Regression Analysis with an Interaction between Hope and Childhood Maltreatment

The regression analysis investigated hope, childhood maltreatment histories (the presence and absence), and the interaction between hope and childhood maltreatment to understand suicidal behaviours (assessed by the Suicide Behaviors Questionnaire). The created model was significant F (3, 196) = 21.39, $p < .001$ and accounted for 25% of the variance (see Table 11). This model revealed that the interaction between maltreatment and hope did not significantly explain suicidal behaviour, although it was approaching significance ($p = .07$). There was a significant main effect observed for childhood maltreatment ($p = .02$) but not for hope ($p = .23$). Thus, the hypothesis, expecting a significant impact from the interaction on suicidal behaviour, was not fully supported.

Table 11

Regression Analysis with predictors: childhood maltreatment (categorical,) hope (continuous), and the interaction between hope and maltreatment and the dependent variable, suicidal behaviour.

Variable	*b*	SE (*b*)	*B*	*t*	Sig. (*p*)	95% Confidence Interval for *b* Lower Bound	95% Confidence Interval for *b* Upper Bound
Hope (HS) (continuous)	-.252	.212	-.146	-1.191	.235	-.669	-.165
Maltreatment (CTQ) (categorical)	30.087	12.779	1.144	2.354	.020*	4.884	55.290
Hope (HS) X Maltreatment (CTQ)	-.444	.248	-.845	-1.789	.075	-.933	.045

Note: $R^2 = .247$ ($N = 200, p < .001$); $*p < .05$
HS – Hope Scale; CTQ – Childhood Trauma Questionnaire

Regression Analysis with an Interaction between Hopelessness and Child Maltreatment

This regression analysis investigated hopelessness (using the Beck Hopelessness Scale), childhood maltreatment (the presence of at least one form or the absence of all forms), and the interaction between hopelessness and childhood maltreatment to understand suicidal behaviours. The model was significant F (3, 196) = 56.79, $p < .001$, and accounted for 47% of the variance (see Table 12). In addition to observing a significant main effect for hopelessness ($p = .02$), the model revealed a significant interaction between hopelessness and childhood maltreatment ($p = .02$). The interaction was plotted in Figure 7. The plot revealed that for individuals with childhood maltreatment experiences, as hopelessness increased, suicidal behaviours increased sharply. For individuals without maltreatment experiences, as hopelessness increased, suicidal behaviours increased also, but not as sharply as seen in the individuals with child maltreatment.

Additional Analyses Investigating the Interactions Between Different Forms of Childhood Maltreatment and Hope/Hopelessness to Explain Suicidal Behaviour

To understand childhood maltreatment further, individual forms of maltreatment (emotional abuse, sexual abuse, physical abuse, emotional neglect, and physical neglect) were investigated separately. Thus, several regression analyses were conducted to investigate the effect of emotional abuse/sexual abuse/physical abuse/emotional neglect/physical neglect (categorical – the presence or absence), hope/hopelessness (continuous), and the interaction between the individual forms of maltreatment (categorical) and hope/hopelessness (continuous) on suicidal behaviour (continuous). Only those results that differed from the use of childhood maltreatment as an aggregated variable are described.

Table 12

Regression Analysis with predictors: childhood maltreatment (categorical), hopelessness (continuous), and the interaction between hopelessness and maltreatment and the dependent variable, suicidal behaviour.

Variable	*b*	SE (*b*)	*B*	*t*	Sig. (*p*)	95% Confidence Interval for *b* Lower Bound	95% Confidence Interval for *b* Upper Bound
Hopelessness (BHS) (continuous)	.990	.430	.317	2.301	.022*	.141	1.839
Maltreatment (CTQ) (categorical)	1.069	1.856	.041	.576	.565	-2.591	4.730
Hopelessness (BHS) X Maltreatment (CTQ)	1.089	.471	.360	2.311	.022*	.160	2.018

Note: $R^2 = .465$ ($N = 200, p < .001$); *$p < .05$
BHS – Beck Hopelessness Scale; CTQ – Childhood Trauma Questionnaire

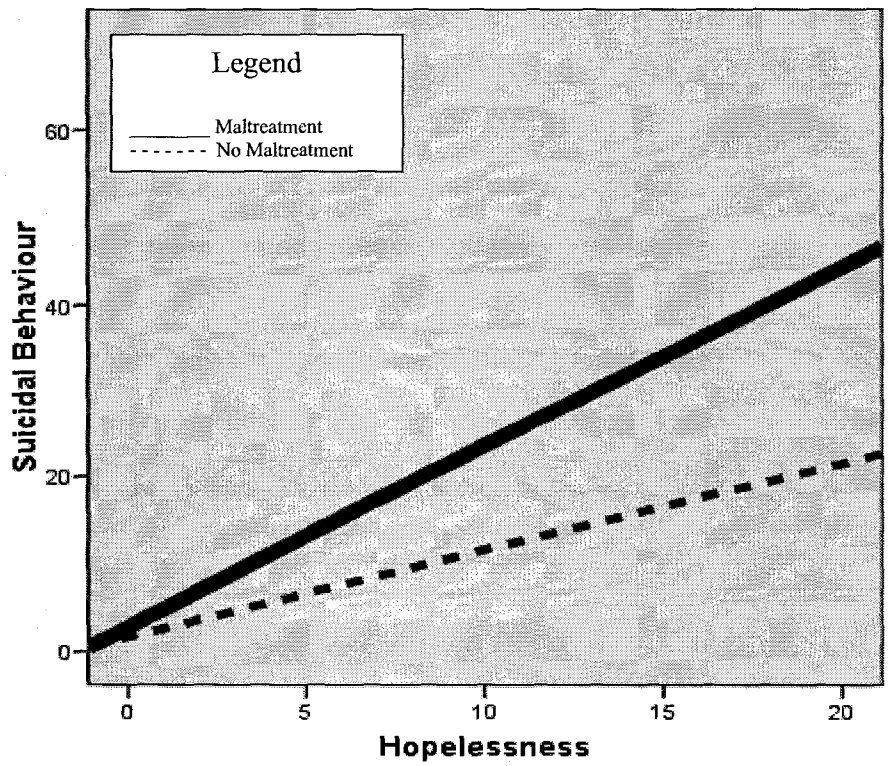


Figure 7. The Interaction between Hopelessness and Childhood Maltreatment for Suicidal Behaviours.

A unique finding was revealed when a regression analysis was conducted investigated hope, emotional abuse (the presence and absence), and the interaction between hope and emotional abuse to understand suicidal behaviours. The model was significant F (3, 196) = 33.61, $p < .001$ and accounted for 34% of the variance (see Table 13). This model revealed that the interaction between emotional abuse and hope did significantly ($p = .02$) explain suicidal behaviour, along with a main effect for emotional abuse ($p = .001$), and a nearly significant main effect for hope ($p = .058$). The interaction is plotted in Figure 8. Within individuals with experiences of emotional abuse, low hope was associated with higher suicidal behaviours. In individuals without emotional abuse histories, lower hope was associated with higher suicidal behaviours, but not nearly as high as the group with emotional abuse experiences. As hope increased, suicidal behaviours decreased for both groups, but the decrease was much more gradual in the group without emotional abuse than individuals with emotional abuse.

For hopelessness, emotional abuse F (3, 196) = 76.05, $p < .001$ (see Table 14) and physical neglect F (3, 196) = 59.95, $p < .001$ (see Table 15) revealed significant models and unique findings. In regards to emotional abuse, the model revealed that the interaction between emotional abuse and hopelessness did significantly ($p < .001$) explain suicidal behaviour, along with a main effect for hopelessness ($p = .003$), but no main effect for emotional abuse ($p = .16$) was observed. In regards to physical neglect, the model revealed that the interaction between physical neglect and hopelessness did significantly ($p = .03$) explain suicidal behaviour, along with a main effect for hopelessness ($p < .001$), but no main effect for physical neglect ($p = .49$) was observed. The interaction between emotional abuse and hopelessness is plotted in Figure 9. The plot revealed that for individuals with emotional abuse experiences, as hopelessness increased,

Table 13

Regression Analysis with predictors: emotional abuse (categorical), hope (continuous), and the interaction between hope and emotional abuse, and the dependent variable, suicidal behaviour.

Variable	*b*	SE (*b*)	*B*	*t*	Sig. (*p*)	95% Confidence Interval for *b* Lower Bound	95% Confidence Interval for *b* Upper Bound
Hope (HS) (continuous)	-.292	.153	-.168	-1.905	p = .058	-.594	.010
Emotional Abuse (CTQ) (categorical)	34.462	10.394	1.314	3.315	p =.001**	13.963	54.961
Hope (HS) X Emotional Abuse (CTQ)	-.475	.206	-.897	-2.304	p = .022*	-.881	-.068

Note: R^2 = .340 (N = 200, p < .001); *p < .05, ***p < .001
HS – Hope Scale; CTQ – Childhood Trauma Questionnaire

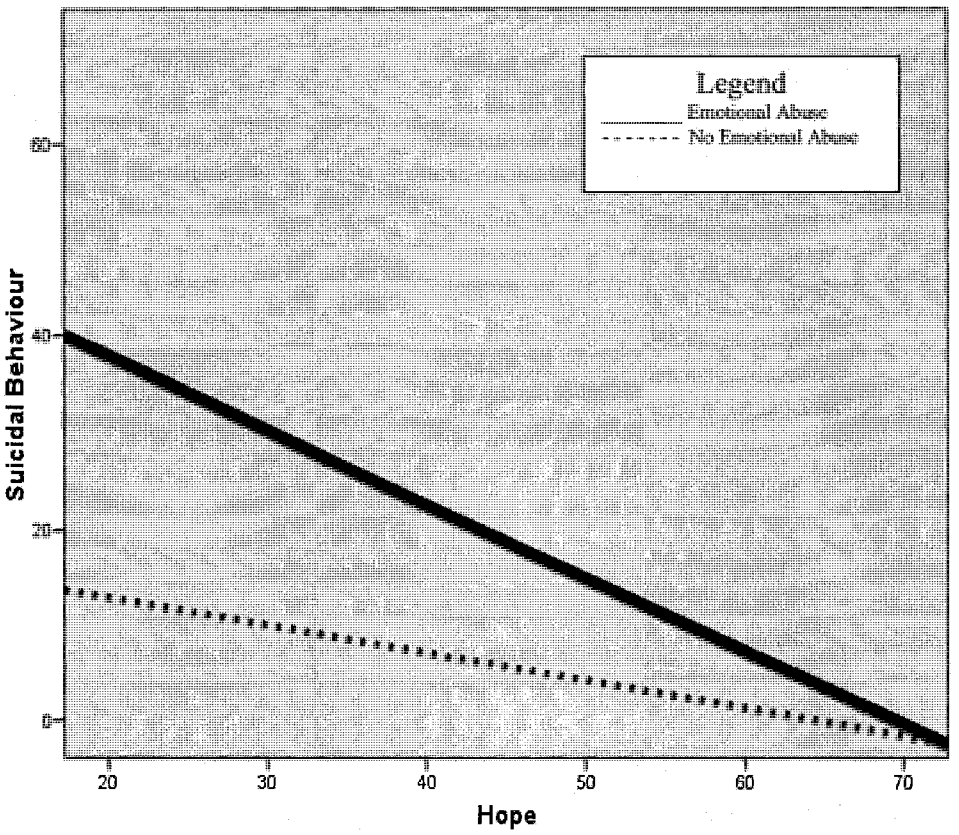


Figure 8. The Interaction between Hope and Emotional Abuse for Suicidal Behaviours.

Table 14
Regression Analysis with predictors: emotional abuse (categorical), hopelessness (continuous), and the interaction between hopelessness and emotional abuse, and the dependent variable, suicidal behaviour.

Variable	*b*	SE (*b*)	*B*	*t*	Sig. (*p*)	95% Confidence Interval for *b* Lower Bound	95% Confidence Interval for *b* Upper Bound
Hopelessness (BHS) (continuous)	.842	.278	.269	3.030	$p = .003$**	.294	1.390
Emotional Abuse (CTQ) (categorical)	2.491	1.789	.095	1.392	$p = .165$	-1.038	6.019
Hopelessness (BHS) X Emotional Abuse (CTQ)	1.384	.342	.439	4.045	$p <.001$***	.709	2.059

Note: $R^2 = .538$ ($N = 200, p < .001$); **p < .01, ***$p < .001$
BHS – Beck Hopelessness Scale; CTQ – Childhood Trauma Questionnaire

Table 15
Regression Analysis with predictors: physical neglect (categorical), hopelessness (continuous), and the interaction between hopelessness and physical neglect, and the dependent variable, suicidal behaviour.

Variable	*b*	SE (*b*)	*B*	*t*	Sig. (*p*)	95% Confidence Interval for *b* Lower Bound	95% Confidence Interval for *b* Upper Bound
Hopelessness (BHS) (continuous)	1.697	.194	.543	8.752	p <.000***	1.315	2.080
Physical Neglect (CTQ) (categorical)	1.742	2.516	.054	.692	p = .490	-3.220	6.704
Hopelessness (BHS) X Physical Neglect (CTQ)	.844	.373	.199	2.266	p = .025*	.109	1.579

Note: R^2 = .479 (N = 200, p < .001); *p < .05, ***p < .001
BHS – Beck Hopelessness Scale; CTQ – Childhood Trauma Questionnaire

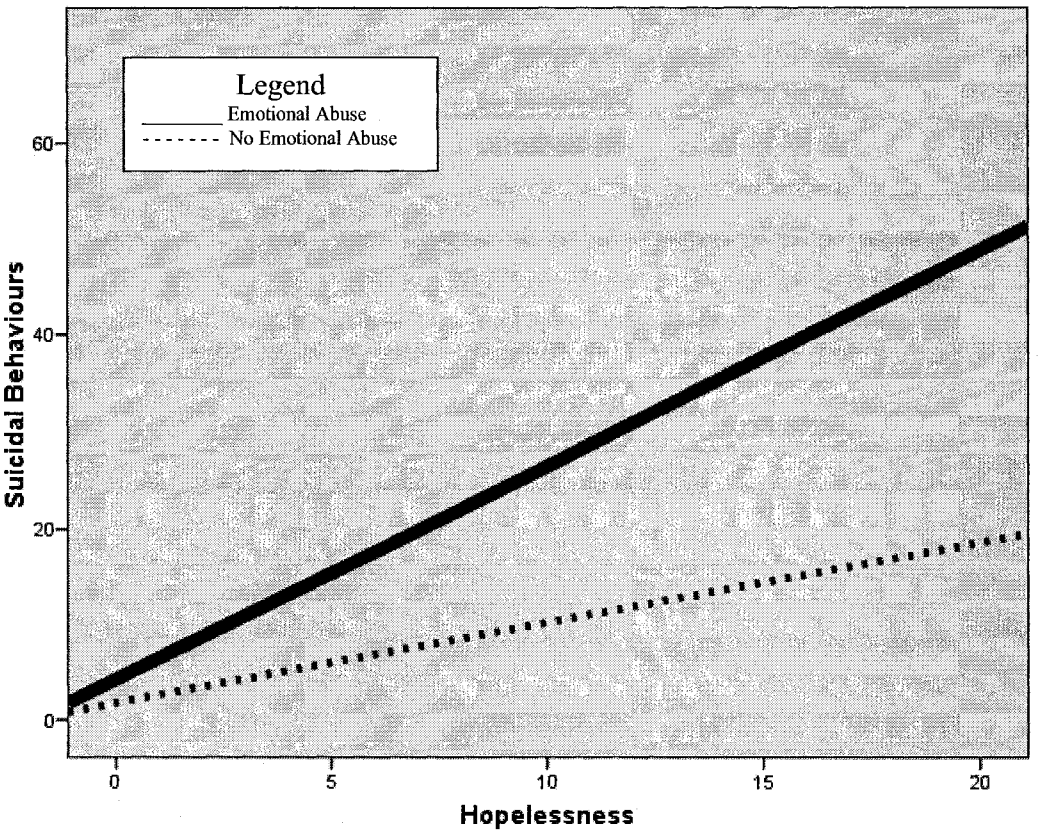


Figure 9. The Interaction between Hopelessness and Emotional Abuse for Suicidal Behaviours.

suicidal behaviours increased sharply. For individuals without emotional abuse experiences, as hopelessness increased, suicidal behaviours increased also, but not as sharply as seen in participants with histories of emotional abuse. A similar trend was observed for the interaction between physical neglect and hopelessness (see Figure 10).

Hypothesis 5 & 6

In order to address the fifth and sixth hypotheses, one-way ANOVA analyses were conducted. The fifth hypothesis predicted that individuals with a history of childhood maltreatment would exhibit lower hope, lower agency, and lower pathways thinking than individuals without such histories. For Hypothesis 5 then, hope, agency and pathways were examined for a history of childhood maltreatment (the presence or absence of childhood maltreatment was determined by the cut scores for the Childhood Trauma Questionnaire subscales). The sixth hypothesis predicted that participants with histories of suicidal behaviours and/or ideation would have lower agency, pathways, and hope than participants without suicidality. To address this hypothesis, hope, agency, and pathways were examined for a history of suicidal behaviours, using the dichotomous variable for suicide.

One-way ANOVAs

One-way analysis of variance was conducted to examine the relationship of the Hope Scale Total, Pathways Subscale and Agency Subscale with childhood maltreatment (the presence and absence of it). The analysis revealed significant results (see Table 16) for pathways $F\,(1, 198) = 4.86, p = .03$, agency $F\,(1, 198) = 14.59, p < .001$, and hope $F\,(1, 198) = 11.77, p = .001$. Individuals with experiences of childhood maltreatment displayed lower pathways ($M = 24.08$, $SD = 4.68$), agency ($M = 24.37$, $SD = 4.79$), and

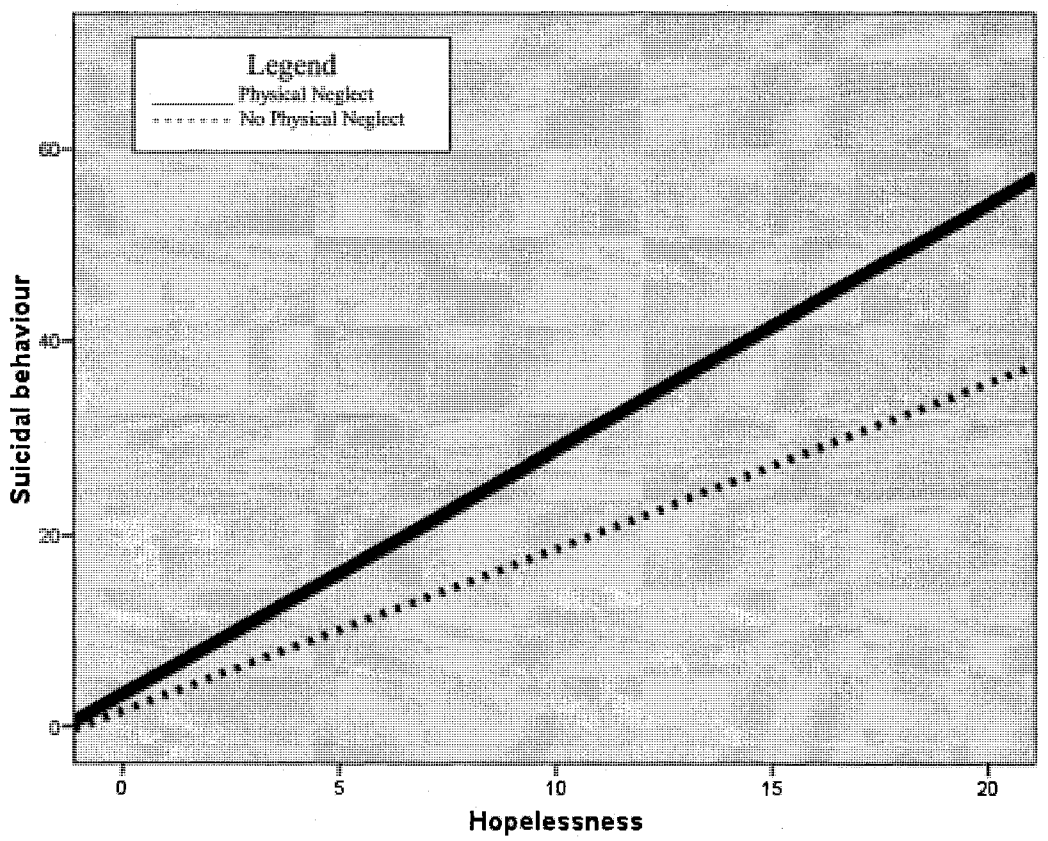


Figure 10. The Interaction between Hopelessness and Physical Neglect for Suicidal Behaviours.

Table 16

Hope, Agency and Pathway Means and Standard Deviations for Childhood Maltreatment

Mean, S.D. and Significant Value	**Childhood Maltreatment (n = 116)**	**No Childhood Maltreatment (n = 84)**
Hope Mean & S.D. ***F* (1, 198) = 11.77, *p* = .001****	*M* = 48.45 *SD* = 8.19	*M* = 52.05 *SD* = 5.91
Agency Mean & S.D. ***F* (1, 198) = 14.59, *p* < .001*****	*M* = 24.37 *SD* = 4.79	*M* = 26.63 *SD* = 2.98
Pathway Mean & S.D. ***F* (1, 198) = 4.86, *p* = .03***	*M* = 24.08 *SD* = 4.68	*M* = 25.42 *SD* = 3.53

*$p < .05$, ** $p < .01$, ***$p < .001$

hope ($M = 48.45$, $SD = 8.19$) than individuals without childhood maltreatment experiences (pathways $M = 25.42$, $SD = 3.53$; agency $M = 26.63$, $SD = 2.98$; hope $M = 52.05$, $SD = 5.91$). Hypothesis 5 was supported.

A one-way ANOVA was also conducted to examine the relationship between the Hope Scale Total, Pathways subscale, and Agency subscale and the two groups of suicidality (group with suicidal behaviours and the group without). This test revealed a significant outcome for Pathways F (1, 198) = 7.77, p = .01, Agency F (1, 198) = 29.78, $p < .001$, and Hope Total F (1, 198) = 21.97, $p < .001$, with higher levels of pathways ($M = 25.47$, $SD = 3.43$), agency ($M = 26.86$, $SD = 2.64$), and hope ($M = 52.33$, $SD = 5.44$) for individuals with no suicidal behaviours, and lower levels of pathways ($M = 23.81$, $SD = 4.87$), agency ($M = 23.78$, $SD = 4.99$), and hope ($M = 47.59$, $SD = 8.52$) for individuals with suicidal behaviours and/or ideation (see Table 17). Hypothesis 6 was supported.

Hypothesis 7

Mediation analysis was planned to test the seventh hypothesis, which predicted that the relationship between childhood maltreatment and suicidal behaviours would be mediated by hope. For this analysis, Baron and Kenny's (1986) procedure, involving a series of regression analyses to calculate the effect of a mediating variable, was used. Using their formulation, a variable mediates another if four conditions are met: 1) The predictor variable significantly correlates with the criterion variable (Step 1); 2) The predictor variable, when regressed on the proposed mediator, is statistically significant (Step 2); 3) The proposed mediator variable, when regressed on the criterion variable, is statistically significant (Step 3); and 4) when the predictor and mediator variables are regressed onto the criterion variable simultaneously in the same regression equation, the

Table 17

Hope, Agency, and Pathway Means and Standard Deviation for Suicide Groups

	Suicidal Behaviours (n = 100)	**No Suicidal Behaviours (n = 100)**
Hope Mean & S.D. ***F* (1, 198) = 21.97, *p* < .001 ***	*M* = 47.59 *SD* = 8.52	*M* = 52.33 *SD* = 5.44
Agency Mean & S.D. ***F* (1, 198) = 29.78, *p* <.001***	*M* = 23.78 *SD* = 4.99	*M* = 26.86 *SD* = 2.64
Pathway Mean & S. D. ***F* (1, 198) = 7.77, *p* = .006****	*M* = 23.81 *SD* = 4.87	*M* = 25.47 *SD* = 3.43

*$p < .05$, ** $p < .01$, ***$p < .001$

mediator variable is significantly associated with the criterion, while the predictor variable is not, indicating a full mediation (Step 4). For a partial mediation, the effect of the predictor variable on the criterion variable must be less in Step 4 compared to Step 1. However, the difference is of a nontrivial amount and the decrease between the two steps is greater than zero. The predictor was childhood maltreatment (which was achieved by adding the z scores of all the Childhood Trauma Questionnaire subscales). The proposed mediator was hope, and the criterion variable was suicidal behaviour (scored using the Suicide Behaviors Questionnaire).

To further test whether hopelessness mediated the relationship between maltreatment and suicidal behaviours, hopelessness measured by Beck's Hopelessness Scale was examined in a separate mediation test as a proposed mediator. The predictor was again childhood maltreatment and the criterion was suicidal behaviour.

Mediation of Childhood Maltreatment and Suicide By Hope

Hope as a mediating factor of childhood maltreatment and suicide was explored. When conducting the analyses for childhood maltreatment, the first three steps of the Baron and Kenny's (1986) procedure were met, but failed to meet the last requirement for a full mediation. However, hope did partially mediate the relationship. The first step was to regress the predictor variables onto the criterion variable (see Table 18). Childhood maltreatment was regressed onto suicidal behaviours, and significantly predicted suicide ($R = .48$, $R^2 = .23$, $p < .001$). The second step was to regress the predictor, childhood maltreatment, onto the mediator, hope. This was also significant ($R = .24$, $R^2 = .06$, $p = .001$). For the third step, when the mediator variable hope was regressed onto suicidal behaviours, a significant relationship was observed ($R = .40$, $R^2 = .16$, $p < .001$). Finally, childhood maltreatment was paired with the proposed mediator, hope, and both were

Table 18

Four Steps of Baron and Kenny's Mediation Test: Regressing Childhood Maltreatment Onto the Criterion Variable Suicide And Mediating Hope

Predictor	Unstandardized Coefficients		Standardized Coefficients						
Variable	*B*	Std. Error	Beta	*t*	Significance	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
STEP 1									
Childhood Maltreatment → Suicide	1.570	.205	.477	7.645	$p < .001$***	.477	.228	.224	11.46
STEP 2									
Childhood Maltreatment → Hope	-.455	.131	-.240	-3.472	$p = .001$**	.240	.057	.053	7.317
STEP 3									
Hope → Suicide	-.691	.113	-.399	-6.121	$p < .001$***	.399	.159	.155	11.96
STEP 4									
Childhood Maltreatment → Suicide	1.332	.200	.405	6.663	$p < .001$***				
Hope → Suicide	-.523	.105	-.302	-4.966	$p < .001$***	.560	.314	.307	10.88

Childhood Maltreatment measured by the Childhood Trauma Questionnaire; Hope measured by the Hope Scale; Suicide measured by the Suicide Behaviours Questionnaire *Note:* *$p < .05$, ** $p < .01$, ***$p < .001$

Step 1: $F(1, 198) = 58.44, p < .001$

Step 2: $F(1, 198) = 12.06, p = .001$

Step 3: $F(1, 198) = 37.47, p < .001$

Step 4: $F(2, 197) = 45.04, p < .001$

regressed onto suicidal behaviours. Hope can be considered to be a mediator variable if, when it and a predictor are regressed onto the criterion, the previously significant relationship between the predictor and criterion is no longer significant. However, this did not occur. Although there was a decrease in the *t* value (from 7.64 to 6.66) and between the *B* (from .48 to .40), the previous significant relationship remained significant ($B = .40$, $p < .001$), indicating that hope did not fully mediate the relationship. Since both coefficients remained significant, and the effect of childhood maltreatment on suicidal behaviours was decreased to a nontrivial amount (but not to zero in the final model), support for a partial mediation was observed (Shrout & Bolger, 2002). Thus, hope did not fully mediate the relationship between childhood maltreatment and suicide, but did so partially. Thus hypothesis 7 was only partially supported.

Mediation of Childhood Maltreatment and Suicide By Hopelessness

Additionally, the same mediation test was conducted replacing the mediator, hope, with hopelessness. Once again, the first three steps of Baron and Kenny's (1986) mediation test were met, but failed when it came to meeting the requirements of the last step for a complete mediation (Table 19). The relationship between childhood maltreatment and suicidal behaviours remained significant in the final model, $F(2, 197) = 94.11$, $p < .001$. While the effect of childhood maltreatment on suicidal behaviours was significant in the first step ($B = .48$, $p < .001$), its significance was reduced in the last step ($B = .26$, $p < .001$) once the mediation of hopelessness was introduced. This implied that hopelessness did not fully mediate the relationship between maltreatment and suicide, but did partially mediate the relationship such that there was a decrease in the effect of childhood maltreatment on suicidal thoughts and attempts as a result of hopelessness.

Table 19

Four Steps of Baron and Kenny's Mediation Test: Regressing Childhood Maltreatment Onto the Criterion Variable Suicide And Mediating Hopelessness

Predictor Variable	Unstandardized Coefficients *B*	Std. Error	Standardized Coefficients Beta	*t*	Significance	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
STEP 1									
Childhood Maltreatment→ Suicide	1.570	.205	.477	7.645	$p < .001$***	.477	.228	.224	11.46
STEP 2									
Childhood Maltreatment → Hopelessness	.419	.069	.398	6.107	$p < .001$***	.398	.158	.154	3.83
STEP 3									
Hopelessness → Suicide	2.057	.167	.658	12.310	$p < .001$***	.658	.434	.431	9.82
STEP 4									
Childhood Maltreatment → Suicide	.841	.183	.256	4.605	$p < .001$***				
Hopelessness → Suicide	1.739	.174	.557	10.02	$p < .001$***	.699	.489	.483	9.35

Childhood Maltreatment measured by the Childhood Trauma Questionnaire; Hopelessness measured by the Beck Hopelessness Scale; Suicide measured by the Suicide Behaviours Questionnaire; Note: *$p < .05$, ** $p < .01$, ***$p < .001$

Step 1: $F(1, 198) = 58.44, p < .001$

Step 2: $F(1, 198) = 37.29, p < .001$

Step 3: $F(1, 198) = 151.04, p < .001$

Step 4: $F(2, 197) = 94.11, p < .001$

Additional Analyses using the Five Types of Maltreatment.

When hope and hopelessness were investigated as mediators between the five different forms of maltreatment and suicidal behaviour, a full mediation by hopelessness was observed for the relationship between sexual abuse and suicidal behaviours. Once again, the first three steps of Baron and Kenny's (1986) mediation test were met, in addition to the last step (see Table 20). The relationship between sexual abuse and suicidal behaviours became non-significant in the final model, F (2, 197) = 76.19, $p < .001$. While the effect of sexual abuse on suicidal behaviours was significant in the first step ($B = .19, p = .005$), its significance was reduced to a non-significant level in the last step ($B = .05, p = .34$) once the mediation of hopelessness was introduced. This implied that hopelessness fully mediated the relationship between sexual abuse and suicide. This was the only unique finding. Otherwise, like childhood maltreatment used as an aggregated variable, hope and hopelessness partially mediated the relationship between emotional abuse/physical abuse/emotional neglect/physical neglect and suicidal behaviours.

Hypothesis 8

The eighth hypothesis predicted the earlier the onset of abuse, the less hope one would have. Inversely, the later the onset of sexual, physical or emotional abuse, the more the hope an individual would possess. To address this hypothesis, bivariate correlation analysis was conducted between hope and the age at which the first incident of emotional abuse, sexual abuse, and physical abuse occurred. The information on age and abuse was obtained from the second demographic questionnaire. This demographic questionnaire did not inquire about the age of onset of neglect. Significant results were not obtained for emotional abuse ($r = -.04, p = .78$), physical abuse ($r = -.28, p = .20$), or sexual abuse

Table 20

Four Steps of Baron and Kenny's Mediation Test: Regressing Sexual Abuse Onto the Criterion Variable Suicide And Mediating Hopelessness

Predictor Variable	Unstandardized Coefficients *B*	Std. Error	Standardized Coefficients Beta	*t*	Significance	*R*	*R* Square	Adjusted *R* Square	Std. Error of Estimate
STEP 1									
Sexual Abuse → Suicide	.584	.206	.198	2.836	p = .005**	.198	.039	.034	12.79
STEP 2									
Sexual Abuse → Hopelessness	.212	.065	.224	3.236	p = .001**	.224	.050	.045	4.07
STEP 3									
Hopelessness → Suicide	2.057	.167	.658	12.310	p < .001***	.658	.434	.431	9.82
STEP 4									
Sexual Abuse → Suicide	.156	.162	.053	.959	p = .339				
Hopelessness → Suicide	2.020	.172	.647	11.78	p < .001***	.660	.436	.430	9.822

Sexual abuse measured by the Sexual Abuse subscale from the Childhood Trauma Questionnaire; Hopelessness measured by the Beck Hopelessness Scale; Suicide measured by the Suicide Behaviours Questionnaire; *p < .05, ** p < .01, ***p < .001

Step 1: F (1, 198) = 8.04, p = .005

Step 2: F (1, 198) = 10.47, p = .001

Step 3: F (1, 198) = 151.54, p < .001

Step 4: F (2, 197) = 76.20, p < .001

($r = .03$, $p = .89$). Thus, the results using the continuous variable for age did not support this hypothesis.

A one-way ANOVA was performed using a dichotomous variable for age, specifically classifying age into two groups, early (ages 0 – 5 years) versus later (ages 6 and over) (see Appendix K). For individuals with experiences of sexual abuse (early n = 3; later n = 12), physical abuse (early n = 8; later n = 9), and emotional abuse (early n = 13; later n = 34), analyses were conducted to assess whether the degree of hope differed between the groups depending on onset age. However, differences in hope were not obtained for sexual abuse $F(1, 13) = .02$, $p = .89$, physical abuse $F(1, 15) = 1.23$, $p = .29$, and emotional abuse $F(1, 45) = .18$, $p = .67$.

Hypothesis 9

The ninth hypothesis predicted that if the perpetrator of abuse was a caregiver, and not a person other than a caregiver, that this relationship would be associated with lower hope. Consequently, it was thought that if abuse was perpetrated by a person other than a caregiver, it would be related to higher hope. A one way ANOVA was performed to test whether the relationship with the abuser was a factor in hope of those participants that identified a perpetrator. The information about relationship type and abuse was obtained from the second demographic questionnaire. Only information on abuse, but not neglect, was obtained.

A one-way ANOVA was conducted to investigate whether hope differed when abuse (physical, sexual and emotional) was perpetrated by a person classified as a caregiver or an "other". Significant results, shown in Table 21, were only obtained for physical abuse $F(1, 21) = 4.70$, $p = .04$, such that higher hope ($M = 49.50$, $SD = 8.55$) was observed when the perpetrator was a caregiver than when the perpetrator was of an

Table 21

Means and Standard Deviations of Hope When the Perpetrator of Physical Abuse was a Caregiver versus Other

$F(1, 21) = 4.70, p = .04$*

Perpetrator of Physical Abuse	Hope Mean	S.D.
Caregiver (n = 14)	49.50	8.55
Other (n = 9)	41.11	9.83

Note: *$p < .05$

"other" status ($M = 41.11$, $SD = 9.83$). Since these results were counter-intuitive to the hypothesis, the analysis was broken down further to investigate the effect of perpetrator on pathways and agency. However, significant results were not obtained for the type of perpetrator and its effect on pathways $F\,(1, 21) = 3.32$, $p = .08$ and agency $F\,(1, 21) = 4.70$, $p = .07$. Nonsignificant results were obtained for sexual abuse $F\,(1, 22) = .06$, $p = .80$ and emotional abuse $F\,(1, 63) = 1.29$, $p = .26$. Thus, hypothesis 9 was not supported.

Secondary Analyses

Secondary analyses were performed on the three groups of suicidal behaviours (suicidal attempt(s) & ideation, suicidal ideation only, and no suicidal behaviours) to investigate the levels of hope, pathway, and agency in each of these groups (see Table 22). ANOVA's revealed significant results for hope, $F\,(2, 197) = 11.53$, $p < .001$, pathways, $F\,(2, 197) = 4.31$, $p = .01$, and agency, $F\,(2, 197) = 15.28$, $p < .001$. Hope ($M = 52.33$, $SD = 5.44$), pathways ($M = 25.47$, $SD = 3.43$), and agency ($M = 26.86$, $SD = 2.64$) were all higher in the group without suicidal behaviours when compared to the other two groups. Hope was also higher in the group with ideation only ($M = 48.22$, $SD = 7.81$) than with both ideation and attempt(s) ($M = 46.71$, $SD = 9.44$). Similarly, pathway was higher for the group with ideation only ($M = 24.14$, $SD = 4.30$) when compared to individuals with suicide attempt and ideation ($M = 23.36$, $SD = 5.57$). And lastly, agency was higher for the ideation only group ($M = 24.09$, $SD = 4.54$) than the group with suicidal ideation and attempt(s) ($M = 23.36$, $SD = 5.57$).

Although the mediation test did not reveal a full mediation for childhood maltreatment and suicidal behaviour, moderator analyses were performed to examine whether hope played the role of a moderator between childhood maltreatment and adult

Table 22

Hope, Pathways and Agency Means and Standard Deviations Based on Three Suicidal Groups

	Hope **F (2, 197) = 11.53, p < .001*****	**Pathways** **F (2, 197) = 4.31, p = .015***	**Agency** **F (2, 197) = 15.28, p < .001*****
Suicide Attempt & Ideation (n = 42)	M = 46.71 SD = 9.44	M = 23.36 SD = 5.57	M = 23.36 SD = 5.57
Suicide Ideation Only (n = 58)	M = 48.22 SD = 7.81	M = 24.14 SD = 4.30	M = 24.09 SD = 4.54
No Suicide Attempt & Ideation (n = 100)	M = 52.33 SD = 5.44	M = 25.47 SD = 3.43	M = 26.86 SD = 2.64

Note: $*p < .05$, $** p < .01$, $***p < .001$

suicidality. Hierarchical, multiple linear regressions were utilized to conduct moderator analyses predicting suicidal behaviour, scored as a continuous measure, according to accepted guidelines (Baron & Kenny, 1986). Variables and covariates were entered on the first step, and the interaction term was entered on the second step. Predictor variables of hope and childhood maltreatment were centered prior to analyses to reduce multicollinearity occurring as a result of the moderator interaction (Aiken & West, 1991).

A moderator model of suicidal behaviour (the dependent variable) was fit using hope (centered) and childhood maltreatment (z scores) as predictors entered on the first step (see Table 23). The interaction of hope (centered) and childhood maltreatment (*z* scores) was added in the second step and found not to be significant (t = -.21, p = .83, B = -.01). In this model, R^2 for Step One was .314 and was unchanged for Step Two ($p < .001$). Thus hope was not a moderator for the relationship between childhood maltreatment and suicidal behaviour.

Furthermore, an additional moderator analysis (see Table 24) was performed to assess whether hopelessness moderated the relationship between childhood maltreatment and suicidal behaviour. In the regression analysis, first the main effects (childhood maltreatment and hopelessness) were entered, and then second, the interaction term (centered hopelessness multiplied with the total *z* score for childhood maltreatment) was entered. The interaction between hopelessness and childhood maltreatment was nearly significant (t = 1.94, p = .053, B = .112). In this model, R^2 for Step One was .489 and an overall change in R^2 of .01 was observed for Step Two ($p < .001$). This implied that hopelessness nearly moderated the relationship between childhood maltreatment and suicidal thoughts and attempts.

Table 23

Coefficients for Model Testing Whether Hope Moderates the Relationship between Childhood Maltreatment and Suicidal Behaviour

Variable	*b*	SE (*b*)	*B*	*t*	Sig. (*p*)	95% Confidence Interval for *b* Lower Bound	95% Confidence Interval for *b* Upper Bound
Model 1							
Hope (HS)	-.523	.105	-.302	-4.966	$p < .001$***	-.730	-.315
Maltreatment (CTQ)	1.332	.200	.405	6.663	$p < .001$***	.938	1.726
Model 2							
Hope (HS)	-.517	.108	-.299	-4.774	$p < .001$***	-.731	-.304
Maltreatment (CTQ)	1.324	.204	.403	6.493	$p < .001$***	.922	1.726
Hope (HS) X Maltreatment (CTQ)	-.004	.020	-.013	-.215	$p = .830$	-.044	.036

Dependent Variable: Suicidal Behaviour (Suicide Behaviours Questionnaire)

Predictors: CTQ - Childhood Trauma Questionnaire; HS – Hope Scale; ***$p < .001$

Model 1: F (2, 197) = 45.04, $p < .001$
$R = .56$, $R^2 = .314$, Adjusted $R^2 = .307$

Model 2: F (3, 196) = 29.897, $p < .001$
$R = .56$, $R^2 = .314$, Adjusted $R^2 = .303$

Table 24

Coefficients for Model Testing Whether Hopelessness Moderates the Relationship between Childhood Maltreatment and Suicidal Behaviour.

Variable	*b*	SE (*b*)	*B*	*t*	Sig. (*p*)	95% Confidence Interval for *b* Lower Bound	95% Confidence Interval for *b* Upper Bound
Model 1							
Hopelessness (BHS)	1.739	.174	.557	10.021	$p < .001$***	1.397	2.081
Maltreatment (CTQ)	.841	.183	.256	4.605	$p < .001$***	.481	1.201
Model 2							
Hopelessness (HS)	1.601	.186	.512	8.584	$p < .001$***	1.233	1.968
Maltreatment (CTQ)	.788	.183	.240	4.300	$p < .001$***	.427	1.150
Hopelessness (BHS) X Maltreatment (CTQ)	.069	.036	.112	1.943	$p = .053$	-.001	.139

Dependent Variable: Suicidal Behaviour (Suicide Behaviours Questionnaire)
Predictors: CTQ - Childhood Trauma Questionnaire; BHS – Beck Hopelessness Scale; ***$p < .001$
Model 1: F (2, 197) = 94.108, $p < .001$
$R = .699$, $R^2 = .489$, Adjusted $R^2 = .483$

Model 2: F (3, 196) = 64.88, $p < .001$
$R = .706$, $R^2 = .498$, Adjusted $R^2 = .491$

The five forms of child maltreatment were also used to investigate whether hope or hopelessness moderated the relationship between emotional abuse/physical abuse/sexual abuse/emotional neglect/physical neglect and suicidal behaviour. The results revealed that only hopelessness moderated the relationship between emotional abuse and suicidal behaviours, and between physical neglect and suicidal behaviours. The interaction between emotional abuse and hopelessness (see Table 25) was significant ($t = 2.93$, $p = .004$, $B = .168$), and the interaction between physical neglect and hopelessness (see Table 26) was also significant ($t = 2.57$, $p = .01$, $B = .452$).

Table 25

Coefficients for Model Testing Whether Hopelessness Moderates the Relationship between Emotional Abuse and Suicidal Behaviour

Variable	*b*	SE (*b*)	*B*	*t*	Sig. (*p*)	95% Confidence Interval for *b* Lower Bound	95% Confidence Interval for *b* Upper Bound
Model 1							
Hopelessness (BHS)	1.685	-.172	.539	9.812	$p < .001$***	1.346	2.024
Emotional Abuse (CTQ)	.779	.147	.291	5.301	$p < .001$***	.489	1.069
Model 2							
Hopelessness (BHS)	1.478	.183	.473	8.091	$p < .001$***	1.118	1.838
Emotional Abuse (CTQ)	.691	.147	.259	4.692	$p < .001$***	.401	.982
Hopelessness (BHS) X Emotional Abuse (CTQ)	.087	.030	.168	2.931	$p = .004$**	.028	.145

Dependent Variable: Suicidal Behaviour (Suicide Behaviours Questionnaire)

Predictors: CTQ - Childhood Trauma Questionnaire; BHS – Beck Hopelessness Scale; $^{**}p < .01$, $^{***}p < .001$

Model 1: F (2, 197) = 100.19, $p < .001$
$R = .710$, $R^2 = .504$, Adjusted $R^2 = .499$

Model 2: F (3, 196) = 72.231, $p < .001$
$R = .725$, $R^2 = .525$, Adjusted $R^2 = .518$

Table 26

Coefficients for Model Testing Whether Hopelessness Moderates the Relationship between Physical Neglect and Suicidal Behaviour

Variable	*b*	SE (*b*)	*B*	*t*	Sig. (*p*)	95% Confidence Interval for *b* Lower Bound	95% Confidence Interval for *b* Upper Bound
Model 1							
Hopelessness (BHS)	1.897	.164	.607	11.584	$p < .001$***	1.574	2.220
Physical Neglect (CTQ)	1.315	.297	.232	4.433	$p < .001$***	.730	1.900
Model 2							
Hopelessness (BHS)	.547	.550	.175	.995	$p = .321$	-.537	1.631
Physical Neglect (CTQ)	1.289	.293	.228	4.404	$p < .001$***	.712	1.866
Hopelessness (BHS) X Physical Neglect(CTQ)	.196	.076	.452	2.570	$p = .011$*	.046	.347

Dependent Variable: Suicidal Behaviour (Suicide Behaviours Questionnaire)

Predictors: CTQ - Childhood Trauma Questionnaire; BHS – Beck Hopelessness Scale; $*p < .05$, $***p < .001$

Model 1: F (2, 197) = 92.73, $p < .001$

$R = .696$, $R^2 = .485$, Adjusted $R^2 = .480$

Model 2: F (3, 196) = 65.78, $p < .001$

$R = .708$, $R^2 = .502$, Adjusted $R^2 = .494$

Summary of Findings

1. The Hope Scale was expected to correlate more highly with suicidal behaviours and childhood maltreatment than the Beck's Hopelessness Scale. This hypothesis was not supported in that, although hope significantly correlated with Suicidal Behaviours Questionnaire, and the Childhood Trauma Questionnaire (including the Emotional Abuse, Physical Abuse, Sexual Abuse, and Emotional Neglect subscales), the correlations were not as high as those with the Beck Hopelessness Scale.

2. Scores on the Reasons for Living Inventory and its subscales were hypothesized to positively correlate with the Hope Scale. This hypothesis was supported for the total RFL score, and four out of six subscales went in the predicted direction (Survival Coping, Responsibility to Family, Child-related Concerns, and Moral Objections).

3. It was also predicted that suicidal ideation and/or attempts (as measured by the total score on the Suicide Behaviours Questionnaire) would be negatively correlated with the Reasons for Living Inventory. This hypothesis too was supported in that the total RFL score and four subscale scores (Survival Coping, Responsibility to Family, Child-related Concerns, and Moral Objections) out of a possible six were negatively correlated with suicidal behaviours.

4. It was hypothesized that people with both childhood maltreatment experiences and lower hope would exhibit higher degrees of suicidal behaviour, while individuals without childhood maltreatment and higher hope would express lower suicidality. This hypothesis was not fully supported. No interactions were observed, while significant main effects were obtained for hope.

5. Individuals with a history of childhood maltreatment were expected to exhibit lower hope, lower agency, and lower pathways thinking than those without histories of childhood maltreatment. This hypothesis was fully supported.

6. Participants with histories of suicidal behaviours and/or ideation were thought to have lower agency, pathways and hope when compared to participants without suicidality. This hypothesis was fully supported. Individuals without histories of suicidality indicated higher hope, pathways and agency than those with suicidal behaviours and/or ideation.

7. It was also expected that hope would mediate the relationship between childhood maltreatment and suicidality. This hypothesis was not fully supported, but hope did partially mediate the relationship between maltreatment and suicidal thoughts and attempts.

8. It was hypothesized that the age at first incident of abuse would correlate positively with hope. This hypothesis was not supported for emotional abuse, physical abuse, or sexual abuse.

9. It was predicted that if the perpetrator of abuse was a caregiver versus other, it would result in lower hope. This hypothesis was not supported for emotional abuse and sexual abuse. Furthermore, contrary to the hypothesis, participants with physical abuse perpetrated by a caregiver exhibited more hope than when the perpetrator was of an "other" status.

CHAPTER FIVE

Discussion

A primary contribution of this investigation is that it addresses the relationship between childhood maltreatment and suicidal thoughts and behaviours using a variable relatively unexplored in the literature, hope. As expected, hope was found to be a useful construct to investigate when assessing the association between maltreatment and suicide. This research project provides direction for future interventions and research opportunities, and contributes to several bodies of literature including childhood maltreatment, suicidology, hope theory, and positive psychology at large.

Characteristics of the Sample

Although the participants in this study were pre-selected based on histories of suicidal behaviours, of the individuals with suicidal behaviours, 58% only engaged in suicidal ideation, while 42% engaged in both suicidal ideation and attempt(s). Having a higher proportion of participants disclosing experiences of suicidal ideation than both attempt(s) and ideation coincides with the literature. For example, a study conducted by Brener, Hassan, & Barrios (1999) showed approximately 1.5% of college students made a suicide attempt while 10% had "seriously considered" attempting suicide.

The sample consisted of a gender ratio of 5:1 females to males. This is representative of the proportion of females and males enrolled in the Psychology Research Participant Pool (verbal communication with Pool Coordinator, May 2007) at the University of Windsor from where the participants were recruited. Differences between genders were observed for the type of suicidal behaviours one engaged in. A larger proportion of males engaged only in suicidal ideation (79%) than both suicide attempt(s) and ideation (21%). However, for women, these differences were not observed

and roughly equal number of women engaged in suicidal ideation and attempt(s) (47%) and suicidal ideation only (53%). Previous literature has demonstrated that females make more suicidal attempts than men, however, their approach is not as severe (e.g., will cut themselves) as that of men (e.g., use a gun) (Weir & Wallington, 2001).

The reported prevalence of maltreatment in this study was as follows: childhood maltreatment of at least one type 58%, physical abuse 19%, sexual abuse 17%, emotional abuse 43%, emotional neglect 41%, and physical neglect 20%. These findings are consistent with other studies demonstrating that maltreatment is a widespread phenomenon (e.g., Scher, Forde, McQuaid & Stein, 2004). Prevalence rates in this study were higher for emotional abuse and emotional neglect, also found by Kaplan, Pelcovitz, and Labruna (1999), than other types of abuse and neglect.

Studies in the past have also shown differences in the prevalence of childhood maltreatment between men and women. In a review of studies examining the prevalence of sexual abuse, Gorey and Leslie (1997) reported a 22.3% prevalence of sexual abuse among women and an 8.5% prevalence of sexual abuse among men. Other studies have found that men are twice more likely to report histories of physical neglect than women, whereas women are twice more likely to report experiences of sexual abuse than men (e.g., Scher et al., 2004). However, significant differences between genders were not observed in this study for childhood maltreatment (of at least one form), sexual abuse, physical abuse, emotional abuse, emotional neglect, and physical neglect. Black, Slep, and Heyman (2001) and Kaplan et al. (1999) have also found the absence of a relationship between gender and maltreatment in their research. It is important to bear in mind that differences in prevalence rates between studies may be attributed to sample differences (Scher et al., 2004). Given that some studies use samples of children referred

to protective service agencies, and other studies, such as this one, utilize community samples, differences in prevalence rates ought to be expected.

In the following sections, the findings are explained within categories of 1) childhood maltreatment and its relation to hope, 2) hope and its relation to suicidal behaviours, 3) childhood maltreatment and its relation to suicidal behaviours, 4) hope and the relation between childhood maltreatment and suicidal behaviours, and 5) hope and hopelessness. Limitations of this research are discussed and future implications for this work are outlined as well.

The Relation between Childhood Maltreatment and Hope

The relationship between childhood maltreatment and hope was thoroughly explored in this research endeavour. This relationship has not yet received much attention in research, and thus it was critical to explore it as thoroughly as possible. This study found an inverse relationship between childhood maltreatment and hope in adulthood; people with histories of childhood maltreatment were more likely to have lower levels of hope.

When individual forms of maltreatment were assessed, hope had the strongest inverse relationship with emotional neglect, and a smaller inverse relationship with emotional abuse, physical abuse, and sexual abuse. That is, emotional neglect and hope were more strongly related; as one was higher (e.g., emotional neglect), the other was lower (e.g., hope). Research has found that neglected children, particularly emotionally neglected children, have impaired attachments as infants (a critical component for the development of hope) and also exhibit poorer social and emotional functioning from childhood into adulthood (Schumacher, Smith Slep, & Heyman, 2001). These effects of neglect are thought to be more far reaching than those of other forms of maltreatment,

such as sexual abuse (Azar, Pavilaitis, Lauretti, & Pouquette, 1998), and might explain why emotional neglect may have such a negative and more significant impact on the development of hope when compared to other forms of maltreatment. The findings also revealed, however, that hope was not associated with physical neglect. Physical neglect, defined as a deprivation of basic physical needs (e.g., food and shelter) (Bernstein & Fink, 1998), appears to not relate with hope directly. The development of hope seems to be more connected with psychological needs being met and emotional attachments being formed than physical needs being met.

Upon further investigation, the findings revealed that participants with histories of childhood maltreatment (the presence of any or all of sexual abuse, physical abuse, emotional abuse, physical neglect and/or emotional neglect) reported significantly lower levels of hope, agency, and pathway thinking than individuals without histories of maltreatment. According to hope theory, aversive events in childhood were linked to lower levels of hope, and support for this has been provided by this study. Although comments cannot be made on the temporal ordering of this association (e.g., child maltreatment led to lower development of hope vs. lower hope led to higher recall of childhood maltreatment experiences), individuals with and without childhood maltreatment differ significantly on hope, agency and pathway thinking. Individuals with childhood maltreatment experiences have shown decreased ability to formulate goals, decreased ability to construct sufficient pathways, and decreased ability to generate agency thoughts necessary to achieve goals than individuals without histories of maltreatment, who are likely to exhibit higher hope, higher pathways and higher agency. Although it is difficult to make a sequential link between childhood maltreatment and hope with retrospective data, Snyder's hope theory does claim that the development of

hope is based upon a trusting connection with a caregiver, and so events such as childhood maltreatment may compromise the formation of hope. Furthermore, according to the hope theory, individuals with lower hope, such as individuals with childhood maltreatment histories, may not be equipped to deal with stressors of life, making them more prone to illness, and even suicidal behaviours.

Although previous investigations have not empirically examined maltreatment and hope, elevations in negative life experiences have been associated with increased hopelessness (e.g., Konick & Gutierrez, 2005; Rudd, 1990; Hirsch, Wolford, LaLonde, Brunk, & Morris, 2007). Other literature, also not directly investigating childhood maltreatment and its consequences on hope development, has shown child maltreatment has been consistently related to lower levels of self-esteem (e.g., Stein, Burden, & Nyamathi, 2002) and problem-solving deficits (e.g., Locke & Newcomb, 2005). It has been documented that the experience of childhood abuse and neglect is often accompanied by wide-ranging mental and psychological consequences (Collishaw et al., 2007; Scher et al., 2004), and now with the results of this research project, histories of maltreatment have been associated with lower levels of hope, agency and pathways. This important finding provides a better understanding of childhood maltreatment and its association with hope.

Characteristics of maltreatment experiences, such as timing, duration, frequency, severity, degree of threat and relationship to the perpetrator, have also been associated with better or worse outcomes (e.g., Collishaw et al., 2007; Keiley, Howe, Dodge, Bates, & Pettit, 2001). For this study, timing and the relationship to the perpetrator were investigated. These results revealed no association between hope and age of onset of sexual abuse, physical abuse and emotional abuse. In fact, when age was examined in

dichotomous groups (early vs. later), hope was still not related to age. This was contrary to what was expected.

Although previous research has demonstrated that children who are abused or neglected earlier in life are more likely to develop insecure attachment relationships with their primary caregivers, and thus, have emotion-regulation difficulties and problem-solving deficits (e.g., Cicchetti & Barnett, 1991; Shorey, Snyder, Yang, & Lewin, 2003), these results did not find significant associations between age of abuse onset and hope, possibly due to the fewer number of participants that provided information regarding age of abuse onset. In fact, fewer individuals reported the presence of abuse than individuals identified with experiences of abuse by the Childhood Trauma Questionnaire, and so, data from fewer individuals was obtained regarding age of onset of abuse. If the participants did not have any memory of abuse, or refused to acknowledge experiences of abuse while answering the direct question, participants did not then need to indicate a date of onset of abuse, leading to fewer responses. Although this study did not find a significant relation between age and hope, other studies have found associations between age and negative consequences. For example, Kaplow & Widom (2007) found that an earlier onset of maltreatment, measured dichotomously and developmentally (four developmental age groups), predicted more symptoms of anxiety and depression in adulthood, while Bolger, Patterson, and Kupersmidt (1999) associated abuse at an earlier age (measured continuously: range = 0-12 years) with lower levels of self-esteem than children who were abused later.

The relationship with the perpetrator and its effect on hope has not been explored much in the literature. Based on hope theory, it was thought that when the abuser was a person other than a caregiver, then the child would a have greater chance of having a

caregiver who is able to provide support and guidance crucial for the child, especially given the abuse, and that the child still would have a greater chance to develop hope in his or her own capacities (agency) and strategies (pathways) to face difficult problems (Hagen, Myers, & Mackintosh, 2005) than when the abuser was a caregiver. However, no differences in the degree of hope were observed when sexual abuse and emotional abuse were perpetrated by a caregiver or a person other than a caregiver. Once again, the lack of significant results between relationship of perpetrator and hope may be attributed to the low number of participants that acknowledged experiences of abuse, and subsequently, identified their relationship to the perpetrator. Interestingly enough, physical abuse showed the opposite of what was expected. When the abuser of physical abuse was a caregiver, this was associated with higher levels of hope than when the physical abuse was at the hands of a person other than a caregiver. Of course the numbers were small, and may have contributed to these unique findings. It may also be the case that as children, these individuals formed a stronger attachment to another caregiver, allowing for the development of hope despite the physical abuse. However, these are only speculations and a replication of the results is in order to further understand this anomalous finding.

The Relation between Hope and Suicidal Behaviours

Exploring hope and its relation to suicidal behaviours was also highly important for the purpose of this research. These findings demonstrated that hope and suicidality are indeed strongly related. Specifically, participants with lower hope indicated a higher frequency of suicidal behaviours. In turn, when the degree of hope was higher, suicidal behaviours were reported less frequently. This is the first empirical study that has explored this relationship and has revealed the negative relationship between hope and

suicide. However, parallel relationships between suicidal behaviours and protective factors have been previously shown for optimism (Hirsch & Conner, 2006; Hirsch, Wolford, Lalonde, Brunk, & Morris, 20007). Although optimism and hope share some attributes, optimism has been described as conceptually different from hope (Snyder, 2000a).

Individuals who had engaged in suicidal behaviours (ideation and/or attempts) had lower levels of hope, pathways and agency than individuals who had no experiences of suicidal ideation and/or attempts. Although these results do not speak to the sequence of events (e.g., lower levels of hope lead to higher frequencies of suicidal behaviours vs. higher frequency of suicidal behaviours leads to decreased hope), they do indicate significant differences in hope, agency and pathways between suicidal and non-suicidal individuals. Research in fields other than suicidology has demonstrated that setting new goals and looking to the future can benefit those going through vulnerable times in their lives (e.g., Schmuck & Sheldon, 2001), implying the significant role hope may play in suicidal behaviours.

Furthermore, not only did the presence or absence of suicidal behaviours show differences in the degree of hope, but also the type of suicidal behaviour (suicidal ideation only vs. suicidal ideation and attempt) revealed differences in hope. As suicidal behaviours were more serious (ideation and attempt versus ideation only), the level of hope was lower. Hope was higher among individuals with suicidal ideation than individuals with suicidal ideations and attempts, and even higher among individuals that did not have any histories of suicidality. This pattern was also demonstrated for pathways and agency. In short, individuals with higher hope may not get stuck in problematic behaviours and may be able to adjust behaviours and goals towards more functional

adaptation, rather than resort to suicidal thoughts and behaviours, which may appear to be the only option after repeated and profound goal blockage as experienced by students with lower hope.

Reasons for living strongly related to hope. This finding further establishes the association between higher hope and more reasons for living, as one with higher hope would be expected to have various goals to fill. On the other hand, lower hope was associated with fewer reasons for living. Having more goals, as expected by hope theory, provides one with higher hope and resiliency. As expected, this study also revealed a strong relationship between reasons for living and suicidal behaviours. In fact, a previous study by Malone et al. (2000) had found a weaker relationship ($r = -.48$) between reasons for living and suicidal behaviours (measured by a scale other than the Suicide Behaviors Questionnaire used in this study) than this study, which found a relatively large effect size ($r = -.61$) between Suicide Behaviors Questionnaire and the Reasons for Living Inventory. Previous studies have shown that, despite a diagnosis of major depressive disorder and borderline personality disorder, more reasons for living protected against acting on suicidal thoughts at vulnerable times (Linehan et al., 1983; Wang, Lightsey, Pietruszka, Uruk, & Wells, 2007).

The Relation Between Childhood Maltreatment and Suicidal Behaviours

A relation between suicidal behaviour and childhood maltreatment has been demonstrated in the literature and was further supported in this study. A strong association emerged between childhood maltreatment and suicidal behaviours in this student population. Higher rates of childhood maltreatment were associated with higher rates of suicidal behaviours in adulthood. Inversely, individuals with fewer experiences of childhood maltreatment engaged in lower rates of suicidal behaviours. A similar pattern

was observed between the five individual forms of maltreatment (sexual abuse, physical abuse, emotional abuse, emotional neglect and physical neglect) and suicide. Other studies have also shown an association between exposure to harsher, more abusive childhood experiences and many negative young adult outcomes, including suicidal ideation and behaviour (Fergusson & Lynskey, 1997; Mullen, Martin, Anderson, Romans, & Herbison, 1996; Yang & Clum, 1996). As this study and other studies have shown, childhood maltreatment is associated with elevated risk for adult suicidal actions.

Individuals with histories of suicidal behaviours overwhelmingly had reported the presence of maltreatment experiences in childhood. Of the individuals with histories of suicidal behaviour, 80% had indicated experiences of at least one form of childhood maltreatment while 20% of these individuals did not have histories of childhood maltreatment. On the other hand, of the individuals without histories of suicidal behaviours, only 36% of individuals had experiences of at least one type of maltreatment, whereas 64% had no childhood maltreatment histories.

When the different forms of maltreatment were examined separately, individuals with suicidal behaviour experiences were more likely to have had histories of emotional abuse (69%) and emotional neglect (66%) than physical neglect (34%), physical abuse (28%), and sexual abuse (26%). The differences between the types of abuse and neglect may be due to the overall prevalence of the five maltreatment types in the student population. Emotional abuse and emotional neglect occurred at roughly twice the frequency in this study sample of sexual abuse, physical abuse, and physical neglect. Of the individuals without suicidal behaviours, fewer had histories of emotional abuse (17%), emotional neglect (16%), physical neglect (6%), physical abuse (10%), and sexual abuse (8%) than individuals with suicidal pasts.

There is a lot of empirical support for the association between maltreatment and suicide. Previous findings indicate that being abused as a child makes an adolescent or an adult three to four times more likely to become depressed or suicidal (Brown, Cohen, Johnson, & Smailes, 1999). Other studies examining the different forms of childhood maltreatment have found support for differences between the long-term effects of differing categories of abuse. With regard to suicide, Mullen et al. (1996) reported that a history of physical abuse increased a participant's odds of attempting suicide by almost 5 times, while a history of emotional abuse increased the odds of a suicide attempt by more than 12 times. Although these findings did not demonstrate as high odds for emotional abuse over physical abuse, the odds of suicidal behaviours were still increased two fold if one had experiences of emotional abuse over physical abuse.

Hope and its Role in the Relation between Childhood Maltreatment and Suicidality

Based on previous research, I had expected that suicidal behaviours would be affected by the interaction between childhood maltreatment and hope. Although the results did not reveal an interaction for general childhood maltreatment and hope, an interaction was evident when emotional abuse was investigated separately. Under conditions of lower hope, larger differences emerged between participants with and without emotional abuse. Individuals with emotional abuse histories experienced higher suicidality than those without emotional abuse histories. In contrast, the difference in suicidality was less significant in conditions of higher hope, although suicidality was still higher among participants with emotional abuse histories.

Futhermore, it was important to know whether hope played any role in causing the relationship between childhood maltreatment and suicidal behaviours to exist. It was

thought that if hope exerted a buffering effect, then in its presence, the relationship between maltreatment and suicide may subside. However, the results revealed that the causal relationship between childhood maltreatment and suicidal behaviours is more complicated when hope is considered. Although hope did not directly cause the relationship between childhood maltreatment and suicide to exist (or in its presence, not exist), it was certainly connected with the relationship. However, how hope is associated with this relationship is still not clear. It may be the case that hope causes the association to exist only within a subpopulation of the sample not specified before the design of the study was developed (Collins, Graham, & Flaherty, 1998). This relationship needs to be further explored in future research, and specifically, the role that hope plays must be extracted.

Hirsch et al. (2007) found that optimism moderated (strengthened and weakened) the relationship between negative life events and suicide behaviours in a college student sample. However, these results revealed that hope, although related to optimism (Chang & deSimone, 2001), did not play the same role as optimism when considering the relationship between childhood maltreatment and suicidal behaviours. Hope did not strengthen or weaken this relationship.

Hope and Hopelessness

Hope and hopelessness revealed a strong relationship (r = -.60), but not nearly as strong (r = -74) as described in the literature previously (Steed, 2001). This further supported the notion that hope and hopelessness indeed are related but are distinct constructs, and are not simply at opposite ends of the same continuum (Hirsch & Conner, 2007). Similarly, research that has focused on optimism and pessimism, two constructs thought to be opposites, has shown that a person's expectation for the future may be

negative even when an optimistic explanation is given for a particular experience (Gillham, Shatte, Reivich, & Seligman, 2001). This may also be true for hope and hopelessness and the two constructs may coexist.

Since Steed (2001) and Cole (1988) had recommended that the Hope Scale may be more appropriate for a normal population, the data was broken down to investigate correlations between the Beck Hopelessness Scale and the Hope Scale within the suicidal and non-suicidal groups, presuming the non-suicidal group would be more similar to what was termed as a "normal population". The results revealed that the two scales actually had a weaker relationship (r = -.29) in the group without suicidal behaviours and a stronger relationship (r = -.62) in the suicidal group.

Additionally, hopelessness related more strongly to suicide, emotional abuse, physical abuse, sexual abuse, emotional neglect, physical neglect, and childhood maltreatment than did hope. Physical neglect appeared to be unrelated to hope, but was related to hopelessness. The Beck Hopelessness Scale was also correlated with the Reasons for Living Inventory. This study found similar correlations between the BHS and the RFL (r = -.57), as has previous literature (Malone, et al., 2000), whereas hope correlated less with the Reasons for Living Inventory (r = .42).

Hopelessness also played a significant role in explaining the relation between childhood maltreatment and suicidal behaviours. Specifically, hopelessness interacted with maltreatment when explaining suicidal behaviour. That is, within individuals with experiences of maltreatment, as hopelessness increased, so did the reporting of suicidal behaviours. On the other hand, within individuals without maltreatment histories, as hopelessness increased, suicidal behaviours also increased but not as sharply as the individuals with childhood maltreatment. A similar trend was observed for hopelessness

when understanding the relation between emotional abuse or physical neglect and suicide. Hopelessness not only moderated the relation between emotional abuse or physical neglect and suicide, but also partially mediated it. In addition to its relationship to maltreatment (general), emotional abuse, and physical neglect, hopelessness also fully mediated the relation between sexual abuse and suicidal behaviours. Thus, sexual abuse exerts its effect on suicidal behaviour primarily through hopelessness.

All in all, these results demonstrate that hope and hopelessness have defining properties that distinguish them from one another (Snyder, 1995), and are comparably important in suicide research. This study, consistent with other studies (Konick & Gutierrez, 2005; Beck, Steer, Kovacs, & Garrison, 1985), found that the relationship between hopelessness and suicidal ideation remains significant even in a general student population. Hopelessness has been shown to play quite a pivotal role in suicidal behaviours, such that Swedo et al. (1991) identified 93% of suicide attempters based on hopelessness and suicidal ideation scores. In fact, these authors further suggested that severity of hopelessness may be the best predictor of repeated attempt and lethality (Swedo et al., 1991). Although hope and its role should be further investigated within the relation of childhood maltreatment and hopelessness, hopelessness too is very important and should not be overlooked.

Limitations

Self-report Measures

Identification of both suicidality and childhood maltreatment histories was based solely on individuals' retrospective interpretation of events. Such retrospective self-reporting of behaviour can be affected by a number of factors, including social desirability concerns, normal memory limitations, and mood state at the time of recall

(Brewin, Andrews, & Gotlib, 1993; Scher et al., 2004). In order to address this issue, this study utilized both self-labelling and behavioural measures to confirm the absence and presence of suicidal behaviours. Although, ideally, longitudinal research would be preferable, it would also be ideal to obtain objective (not self-report) measures for suicidal behaviour and childhood maltreatment experiences. However, in doing so, the population may be more clinical than community-based, which should be taken into consideration when designing the study.

One additional limitation was that the data were obtained retrospectively (Glassman et al., 2007). This makes it impossible to determine the directionality of the observed relations. For example, it would be difficult to conclude that the lack of hope resulted in increased suicidal behaviour, or in contrast, that suicidal behaviours led to lower hope. Thus it is not possible to conclude temporal ordering of these events. An important direction for future research would involve using prospective designs in order to best describe temporal ordering (Wagner, Silverman, & Martin, 2003) of childhood maltreatment, hope and suicidal outcome variables.

Lack of Sample Variation

The generalizability of these results is limited since only university students were used as the sample for this study. Suicide completion rates among university students are approximately one-half the U.S. national rate (Silverman, Meyer, Sloane, Raffel, & Pratt, 1997), yet the average level of suicide ideation experienced by university students is reported to be higher than that experienced by same-aged adults in the community (Konick & Gutierrez, 2005; Reynolds, 1991). Thus, elements of the college "experience" itself may contribute as a risk factor due to academic demands, loneliness and separation from support networks, and financial pressures (Richardson, Bergen, Martin, Roeger, &

Allison, 2005), which may not be true of other populations. Surveys of college students have indicated as many as 50% of them have experienced some degree of suicide ideation over the past year (Konick & Gutierrez, 2005), giving credence for investigating this sample. It is also critical to focus on this population to minimize issues of retrospective reporting and increase opportunities for early intervention (Arata et al., 2007). Concurrently, it is important to be cognizant of the limitations of generalizability.

Future Directions

The recent applications of hope theory and the results of this study point to promising directions for future research. One important aspect of this study is that it utilizes positive psychology and examines hope as a strength rather than a weakness. Future research should continue to focus on examining hope as a protective factor and further understanding its implications, especially when trying to understand relations among factors such as childhood maltreatment and suicidal behaviours (Cicchetti, Rappaport, Sandler, & Weissberg, 2000). Future research should also be involved in designing interventions, embedded in hope theory, to build or rebuild agency and pathways (Snyder, 1995), empirically assess the implications of increasing hope to reduce negative consequences of childhood maltreatment, and provide protection against suicidal thoughts and behaviours.

Hope interventions that have been utilized so far (Cheavens et al., 2006; Dube et al., 2007) have involved 2-hour long weekly group sessions held over 8 to 12 weeks. The objective of these interventions was primarily to help participants define their goals and pursue them effectively (Dube et al., 2007), and were based on the theoretical work of C. R. Snyder (1994). As a result, during the meetings, participants focused on hope-related skills (e.g., selecting goals that have a higher priority and evaluating goals using different

characteristics such as stress and difficulty). Between meetings, participants completed homework assignments related to goal setting, goal planning and goal pursuit. The two hope interventions observed in recent literature have shown promise, although one program only reported improvements in agency (Cheavens et al., 2006), while the other noted improvements in hope and well-being (Dube et al., 2007). These programs would be useful templates for future hope interventions.

Interventions should also be geared at prevention, particularly in the community. These interventions must be aimed at parents, so that they have resilient hope skills in place to protect them from being vulnerable to stress and other factors that might lead them to maltreat their children. It would also be important to have hope interventions available in the school settings so that students of all ages learn the process of goal setting, planning and pursuit (Dube et al., 2007), and thus, are able to apply those specific skills in all realms of life.

Deeper understanding of factors that influence the development and expression of suicidal thoughts and behaviours may also lead to the development of better treatments, and must be further researched. Of particular interest, psychological variables such as self-esteem, optimism, resiliency, meaning in life, and intelligence should be pursued to attain a bigger picture of variables that could lead to the discovery of new protective factors against suicidal behaviours (Cheavens et al, 2006; Lapierre et al., 2007).

Future research should also examine the comparative effects of physical abuse, sexual abuse, emotional abuse, emotional neglect and physical neglect. Focusing only on one type of abuse may be misleading not only because different types of abuse often co-exist (McGee, 1995), but also because some long-term psychological sequelae may be specifically associated with certain types of abuse (Briere & Runtz, 1990). Investigating

all forms and analyzing them separately and in different combinations can provide directions for intervention and understanding.

Conclusions

De Leo (2002) suggested that it might be productive to focus new suicidal prevention research on protective factors instead of risk factors. This research endeavour began with the belief that positive psychology constructs that help protect vulnerable persons from suicidal behaviour, such as hope, are vital in understanding resiliency and suicide prevention (McNeal et al., 2006; Wang et al., 2007). It was the intention of this work to demonstrate that the relationship between childhood maltreatment and suicidal thoughts and behaviour is above and beyond the psychopathology constructs alone. Thus, there is a need to explore hope to understand the holistic makeup of individuals, including resiliency, to fully understand the relation of childhood maltreatment and suicidality.

This research study has paved the way for a better understanding of the construct of hope, and especially how it relates to the link between childhood maltreatment and suicidal behaviours. Strong relationships between hope and childhood maltreatment and between hope and suicidal behaviours have been revealed in this study. Furthermore, the link between childhood maltreatment and suicidality is related to hope.

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Appendix A
Letter of Informed Consent

Letter of Informed Consent

Title of Study: Suicidal Behaviours and Experiences in Childhood.

You are being asked to participate in a research project being carried out by Parveen Grewal, a graduate student at the University of Windsor in the Department of Psychology. This project is one of the requirements for her doctoral degree. The Research Assistant, _____, will administer and collect the questionnaires. This research is being supervised by Dr. Jim Porter.

Please feel free to ask any questions about the project before, during, or after your participation. If you require any further information about the project or have concerns, please contact Parveen Grewal at (XXX) XXX-XXXX, or Dr. Jim Porter at (519) 253-3000 ext. XXXX.

PURPOSE OF THE STUDY
The purpose of this project is to examine suicidal behaviours and experiences in childhood. Understanding this phenomenon will better help doctors and therapists provide services to patients who are thinking about suicide, or have tried to take their own lives.

PROCEDURES
Participation in this project involves filling out a number of pencil-and-paper questionnaires, and will take approximately one hour and a half on one occasion.

POTENTIAL RISKS AND DISCOMFORTS

The one possible risk of participation is that you may become upset by some of the questions. Should this happen, you have several options:

- the research assistant will be available following your participation if you wish to discuss the impact of your participation, and any upset feelings you are having
- you may contact the Hotel-Dieu Crisis Centre (519-973-4435) or the Distress Centre (519-256-5000) to speak with someone about how you are feeling
- you may contact the Student Counselling Services (519-253-3000 ext. 4616; 226 Sunset Avenue)
- in an emergency, you may go to the Crisis Centre at the Hotel-Dieu Grace Hospital, Hotel-Dieu site (1030 Ouelette Avenue).

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY
The benefits to participating in the study include having a chance to express your feelings on paper and knowing that the research findings may help other people.

PAYMENT FOR PARTICIPATION
You will also receive 1.5 bonus points to a psychology course of your choice.

CONFIDENTIALITY
Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. Your identity will only be known by Parveen Grewal, the research assistant, and Dr. Porter. Any documents with identifying information will be placed in a locked file cabinet. The data will be number coded to maintain confidentiality. Your responses are confidential and individual responses will not be shared with others.

PARTICIPATION AND WITHDRAWAL
You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

FEEDBACK OF THE RESUTS OF THIS STUDY TO THE SUBJECTS
When the study is completed, the results will be available under Parveen Grewal at:
http://web4.uwindsor.ca/units/researchEthicsBoard/studyresultforms.nsf/VisitorView?OpenForm

SUBSEQUENT USE OF DATA
The data will be stored in anonymous form, with all information that could identify individual participants removed. Future studies might make use of this anonymous data.

RIGHTS OF RESEARCH SUBJECTS
You may withdraw your consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research subject, contact: Research Ethics Coordinator, University of Windsor, Windsor, ON N9B 3P4; telephone: (519) 253-3000 ext. 3916; e-mail: lbunn@uwindsor.ca

SIGNATURE OF RESEARCH SUBJECT/LEGAL REPRESENTATIVE
I understand the information provided for the study "Suicidal Behaviours and Experiences in Childhood" as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

_____ _____
Name of Subject Phone Number

_____ _____
Signature of Subject Date

SIGNATURE OF INVESTIGATOR
These are the terms under which I will conduct research.

_____ _____
Signature of Investigator Date

Appendix B
Demographic Questionnaire

Number: _____

Please indicate the following (please circle the response or fill in the blank):

AGE: _____

GENDER: _____

CULTURAL BACKGROUND: (Check off as many as apply)

_____ Asian
_____ South Asian
_____ White
_____ Middle Eastern
_____ First Nations
_____ Hispanic
_____ African/Black
_____ Pacific Islander
_____ Other(s)

If Other(s), Specify_____

Appendix C
The Trait Hope Scale

Read each item carefully. Using the scale shown below, please select the number that best describes YOU and put that number in the blank provided.

1 = Definitely False
2 = Mostly False
3 = Somewhat False
4 = Slightly False
5 = Slight True
6 = Somewhat True
7 = Mostly True
8 = Definitely True

_____ 1. I can think of many ways to get out of a jam.

_____ 2. I energetically pursue my goals.

_____ 3. I feel tired most of the time.

_____ 4. There are lots of ways around any problem.

_____ 5. I am easily downed in an argument.

_____ 6. I can think of many ways to get the things in life that are most important to me.

_____ 7. I worry about my health.

_____ 8. Even when others get discouraged, I know I can find a way to solve the problem.

_____ 9. My past experiences have prepared me well for my future.

_____10. I've been pretty successful in life.

_____11. I usually find myself worrying about something.

_____12. I meet the goals that I set for myself.

Appendix D
Beck Hopelessness Scale (BHS)

This questionnaire consists of 20 statements. Please read the statements carefully one by one. If the statement describes your attitude, circle the "T" indicating TRUE in the column next to the statement. If the statement does not describe your attitude, circle the "F" indicating FALSE in the column next to this statement. Please be sure to read each statement carefully.

1. I look forward to the future with hope and enthusiasm. T F
2. I might as well give up because there is nothing I can do about making things better for myself. T F
3. When things are going badly, I am helped by knowing that they cannot stay that way forever. T F
4. I can't imagine what my life would be like in ten years. T F
5. I have enough time to accomplish the things I want to do. T F
6. In the future, I expect to succeed in what concerns me most. T F
7. My future seems dark to me. T F
8. I happen to be particularly lucky, and I expect to get more of the good things in life than the average person. T F
9. I just can't get the breaks, and there's no reason I will in the future. T F
10. My past experiences have prepared me well for the future. T F
11. All I can see ahead of me is unpleasantness rather than pleasantness. T F
12. I don't expect to get what I really want. T F
13. When I look ahead to the future, I expect that I will be happier than I am now. T F
14. Things just won't work out the way I want them to. T F
15. I have great faith in the future. T F
16. I never get what I want, so it's foolish to want anything. T F
17. It's very unlikely that I will get any real satisfaction in the future. T F

18. The future seems vague and uncertain to me. T F

19. I can look forward to more good times than bad times. T F

20. There's no use in really trying to get anything I want because I probably won't get it. T F

Appendix E
Childhood Trauma Questionnaire (CTQ)

These questions ask about some of your experiences growing up as a child and a teenager. Although these questions are of a personal nature, please try to answer them as honestly as you can. For each question, circle the dot under the response that best describes how you feel. If you wish to change your responses, put an X through it and circle your new choice.

When I was growing up.....	Never True	Rarely True	Sometimes True	Often True	Very Often True
1. I didn't have enough to eat.	●	●	●	●	●
2. I knew there was someone to take care of me and protect me.	●	●	●	●	●
3. People in my family called me things like "stupid," "lazy," or "ugly."	●	●	●	●	●
4. My parents were too drunk or high to take care of the family.	●	●	●	●	●
5. There was someone in my family who helped me feel that I was important or special.	●	●	●	●	●
6. I had to wear dirty clothes.	●	●	●	●	●
7. I felt loved.	●	●	●	●	●
8. I thought that my parents wished I had never been born.	●	●	●	●	●
9. I got hit so hard by someone in my family that I had to see a doctor or go to the hospital.	●	●	●	●	●
10. There was nothing I wanted to change about my family.	●	●	●	●	●
11. People in my family hit me so hard that it left me with bruises or marks.	●	●	●	●	●

12. I was punished with a belt, a board, a cord, or some other hard object. ● ● ● ● ●

13. People in my family looked out for each other. ● ● ● ● ●

14. People in my family said hurtful or insulting things to me. ● ● ● ● ●

15. I believe that I was physically abused. ● ● ● ● ●

16. I had the perfect childhood. ● ● ● ● ●

17. I got hit or beaten so badly that it was noticed by someone like a teacher, neighbour, or doctor. ● ● ● ● ●

18. I felt that someone in my family hated me. ● ● ● ● ●

19. People in my family felt close to each other. ● ● ● ● ●

20. Someone tried to touch me in a sexual way, or tried to make me touch them. ● ● ● ● ●

21. Someone threatened to hurt me or tell lies about me unless I did something sexual with them. ● ● ● ● ●

22. I had the best family in the world. ● ● ● ● ●

23. Someone tried to make me do sexual things or watch sexual things. ● ● ● ● ●

24. Someone molested me. ● ● ● ● ●

25. I believe that I was emotionally abused. ● ● ● ● ●

26. There was someone to take me to the doctor if I needed it. ● ● ● ● ●

27. I believe that I was sexually abused. ● ● ● ● ●

28. My family was a source of strength and support. ● ● ● ● ●

Appendix F
Demographic Sheet #2

Please answer the questions below.

1. I believe that I was physically abused. Yes _____ (if yes, see a, b, c)
No _____ (if no, see #2)

a) Age at first physical abuse incident.

_____

b) Duration of physical abuse.
_____ [day(s)] _____ [month(s)] _____ [year(s)]

c) Who did this to you?
The person was (indicate relationship):

---

2. I believe that I was emotionally abused. Yes _____ (if yes, see a, b, c)
No _____ (if no, see #3)

a) Age at first emotional abuse incident.

_____

b) Duration of emotional abuse.
_____ [day(s)] _____ [month(s)] _____ [year(s)]

c) Who did this to you?
The person was (indicate relationship):

---

3. I believe that I was sexually abused. Yes _____ (if yes, see a, b, c)
No _____ (if no, go to the end)

d) Age at first sexual abuse incident.

_____

e) Duration of sexual abuse.
_____ [day(s)] _____ [month(s)] _____ [year(s)]

f) Who did this to you?
The perpetrator is (indicate relationship):

---

4. Are you currently in treatment with a psychologist, psychiatrist, or counsellor?
Yes _____
No _____

Appendix G
Suicide Behaviors Questionnaire

INSTRUCTIONS: Please answer every item with the number that applies to you. Please put only ONE number per space. DO NOT leave any empty spaces.

1. _____ Have you thought about or attempted to kill yourself in your lifetime?

0 = No
1 = It was just a passing thought.
2 = I briefly considered it, but not seriously.
3 = I thought about it and was somewhat serious.
4 = I had a plan for killing myself which I thought would work and seriously considered it.
5 = I attempted to kill myself, but I do not think I really meant to die.
6 = I attempted to kill myself, and I think I really hoped to die.

A) Your age(s) at that time _____ (If 0, go to question #2)

How often have you thought about killing yourself...

0 = Not at all 1 = Rarely 2 = Sometimes 3 = Often 4 = Very often

2. _____ in your lifetime? (If 0, go to questions #7-11)

A) Your age(s) at that time _____

3. _____ in the last year? (If 0, go to questions #7-11)

4. _____ within the last four months? (If 0, go to questions #7-11)

5. _____ within the last month? (If 0, go to questions #7-11)

6. _____ within the last several days, including today?

Have you ever told someone that you were going to commit suicide, or that you might do it...

0 = No 1 = Yes, during one short period of time. 2 = Yes, during more than one period of time.

7. _____ in your lifetime? (If 0, go to questions #12)

A) Your age(s) at that time _____

8. _____ in the last year? (If 0, go to questions #12)

9. _____ within the last four months? (If 0, go to questions #12)

10. _____ within the last month? (If 0, go to questions #12)

11. _____ within the last several days, including today?

12. In the past year, have you attempted suicide or intentionally harmed or injured yourself? _____

0 = No (If "No," go to question #13) 1 = Yes (If "Yes," go to question #12a-12k)

Think back over the past year and try to remember what has happened.

In the last year, how many times have you attempted suicide or intentionally harmed or injured yourself? Listed below are several methods which you may have used to attempt suicide or intentionally harm yourself. Please write in the number of times you used each method and whether or not you intended to die at that time while using that method.

For example, if you cut yourself once in the last year with the intent to die, place a "1" in the "Intent to die" column on cutting yourself, if you weren't sure about dying, place a "1" in the "Ambivalent/Not sure" column, and if you didn't intend to die, place a "1" in the "No intent to die" column. Or, for example, if you burned yourself twice on purpose in the last year with no intent to die both times, place a "2" in the "No intent to die" column. If you didn't use a method, please place a check in the "Didn't do this" column.

METHOD	NUMBER OF TIMES WITH INTENT TO DIE			
	Didn't do this	Intent to die	Ambivalent/ Not sure	No intent to die
12 a. cut yourself on purpose?	_____	_____	_____	_____
12 b. intentionally overdosed on drugs?	_____	_____	_____	_____
12 c. burned yourself on purpose?	_____	_____	_____	_____
12 d. attempted to strangle or hang yourself?	_____	_____	_____	_____
12 e. jumped from a high place to cause self injury?	_____	_____	_____	_____
12 f. shot yourself with a gun?	_____	_____	_____	_____
12 g. swallowed poisons/caustic substances on purpose?	_____	_____	_____	_____
12 h. asphyxiated/smothered yourself?	_____	_____	_____	_____
12 i. tried to drown yourself?	_____	_____	_____	_____
12 j. stabbed/punctured yourself on purpose?	_____	_____	_____	_____
12 k. other (describe): _____ _____ _____	_____	_____	_____	_____

What chance is there that you will consider the possibility, no matter how remote, of killing yourself…

0 1 2 3 4
No chance at all Some chance Very likely

13. _____ in your lifetime? (If 0, go to questions #18-22)

14. _____ within the next year? (If 0, go to questions #18-22)

15. _____ within the next 4 months? (If 0, go to questions #18-22)

16. _____ within the next month? (If 0, go to questions #18-22)

17. _____ today or in the next several days?

How likely is it that you will attempt suicide…

0 1 2 3 4
No chance at all Some chance Very likely

18. _____ in your lifetime? (If 0, go to questions #23-27)

19. _____ within the next year? (If 0, go to questions #23-27)

20. _____ within the next 4 months? (If 0, go to questions #23-27)

21. _____ within the next month? (If 0, go to questions #23-27)

22. _____ today or in the next several days?

If you did attempt suicide, for any reason, how likely is it that you would die as a result…

0 1 2 3 4
No chance at all Some chance Very likely

23. _____ in your lifetime? (If 0, go to question #28)

24. _____ within the next year? (If 0, go to question #28)

25. _____ within the next 4 months? (If 0, go to question #28)

26. _____ within the next month? (If 0, go to question #28)

27. _____ today or in the next several days?

28. Do you currently have a plan for how you would go about killing yourself, if you decided to do it?

0 = No 1 = Yes, a vague plan 2 = Yes, a definite plan

Describe: _____

_____

_____

29. Sometimes people who decide to kill themselves want to do it but can't find a way to actually carry through with their plan because the means are not available to them. If you decided to kill yourself at this point in your life, would the means for carrying out such an action be available to you?

0 = No 1 = Yes, possibly 2 = Yes, definitely

30. If you decide to kill yourself at this point in your life, is there someone in your environment who would want to stop you?

0 = No 1 = Yes, to a small degree 2 = Yes, very much so

31. Some individuals say they cannot even imagine or conceive of the idea of attempting or committing suicide. For these people, suicidal behavior is as alien as the thought of becoming a tree or lifting the Empire State Building. Other people, even though they might never actually consider the idea, can at least imagine the idea of attempting or considering suicide. Which group of people do you belong to?

0 = Group who definitely can't imagine 1 = Group who can somewhat imagine 2 = Group who can definitely imagine

32. Would any of your problems be solved if you committed suicide?

0	1	2	3	4
No, definitely not	Maybe		Yes, definitely	

33. Thinking about the way your life is today, that is, given the good things in your life now and any problems you might be having. If you knew the QUALITY of your life would never change, that is, it would never get better or worse, do you feel that suicide would be a good way out?

0	1	2	3	4
No, definitely not	Maybe		Yes, definitely	

34. If the QUALITY of your life were to get worse (very bad), do you feel that attempting suicide would solve any of your problems?

0	1	2	3	4
No, definitely not	Maybe		Yes, definitely	

Appendix H
Reasons for Living Inventory

INSTRUCTIONS: Many people have thought of suicide at least once. Others have never considered it. Whether you have considered it or not, we are interested in the reasons you would have for **not** committing suicide if the thought were to occur to you or if someone were to suggest it to you.

On the following pages are reasons people sometimes give for **not** committing suicide. We would like to know how important each of these possible reasons would be to you at this time in your life as a reason to **not** kill yourself. Please rate this in the space at the left of each question.

Each reason can be rated from 1 (Not At All Important) to 6 (Extremely Important). If a reason does not apply to you or if you do not believe the statement is true, then it is not likely important and you should put a 1. Please use the whole range of choices so as not to rate only at the middle (2, 3, 4, 5) or only at the extremes (1, 6).

In each space put a number to indicate the importance to you of each reason for **not** killing yourself.

1. Not At All Important (as a reason for **not** killing myself, **or**, does not apply to me, I don't believe this at all).
2. Quite Unimportant
3. Somewhat Unimportant
4. Somewhat Important
5. Quite Important
6. Extremely Important (as a reason for **not** killing myself, I believe this very much and it is very important).

Even if you never have or firmly believe you never would seriously consider killing yourself, it is still important that you rate each reason. In this case, rate on the basis of **why killing yourself is not or would never be an alternative for you.**

In each space put a number to indicate the importance to you of each for **not** killing yourself.

1. Not At All Important
2. Quite Unimportant
3. Somewhat **Unimportant**
4. Somewhat **Important**
5. Quite Important
6. Extremely Important

_____ 1. I have a responsibility and commitment to my family.

_____ 2. I believe I can learn to adjust or cope with my problems.

_____ 3. I believe I have control over my life and destiny.

1.	Not At All Important	4.	Somewhat **Important**
2.	Quite Unimportant	5.	Quite Important
3.	Somewhat **Unimportant**	6.	Extremely Important

_____ 4. I have a desire to live.

_____ 5. I believe only God has the right to end a life.

_____ 6. I am afraid of death

_____ 7. My family might believe I did not love them

_____ 8. I do not believe that things get miserable or hopeless enough that I would rather be dead.

_____ 9. My family depends upon me and needs me.

_____ 10. I do not want to die.

_____ 11. I want to watch my children as they grow.

_____ 12. Life is all we have and is better than nothing.

_____ 13. I have future plans I am looking forward to carrying out.

_____ 14. No matter how badly I feel, I know that it will not last.

_____ 15. I am afraid of the unknown.

_____ 16. I love and enjoy my family too much and could not leave them.

_____ 17. I want to experience all that life has to offer and there are many experiences I haven't had yet which I want to have.

_____ 18. I am afraid that my method of killing myself would fail.

_____ 19. I care enough about myself to live.

_____ 20. Life is beautiful and precious to end it.

_____ 21. It would not be fair to leave the children for others to take care of.

_____ 22. I believe I can find other solutions to my problems.

1.	Not At All Important	4.	Somewhat **Important**
2.	Quite Unimportant	5.	Quite Important
3.	Somewhat **Unimportant**	6.	Extremely Important

_____ 23. I am afraid of going to hell.

_____ 24. I have a love of life.

_____ 25. I am too stable to kill myself.

_____ 26. I am a coward and do not have the guts to do it.

_____ 27. My religious beliefs forbid it.

_____ 28. The effect on my children could be harmful.

_____ 29. I am curious about what will happen in the future.

_____ 30. It would hurt my family too much and I would not want them to suffer.

_____ 31. I am concerned about what others would think of me.

_____ 32. I believe everything has a way of working out for the best.

_____ 33. I could not decide where, when, and how to do it.

_____ 34. I consider it morally wrong.

_____ 35. I still have many things left to do.

_____ 36. I have the courage to face life.

_____ 37. I am happy and content with my life.

_____ 38. I am afraid of the actual "act" of killing myself (the pain, blood, violence).

_____ 39. I believe killing myself would not really accomplish or solve anything.

_____ 40. I have hope that things will improve and the future will be happier.

_____ 41. Other people would think I am weak and selfish.

_____ 42. I have an inner drive to survive.

1.	Not At All Important	4.	Somewhat **Important**
2.	Quite Unimportant	5.	Quite Important
3.	Somewhat **Unimportant**	6.	Extremely Important

_____ 43. I would not want people to think I did not have control over my life.

_____ 44. I believe I can find a purpose in life, a reason to live.

_____ 45. I see no reason to hurry death along.

_____ 46. I am so inept that my method would not work.

_____ 47. I would not want my family to feel guilty afterwards.

_____ 48. I would not want my family to think I was selfish or a coward.

Appendix I

Breakdown of Participants according to the Abuse and Neglect Subscales of the Childhood Trauma Questionnaire

ABUSE CATEGORY	YES	NO	TOTAL
Childhood Maltreatment	116 (58%)	84 (42%)	200
Sexual Abuse	34 (17%)	166 (83%)	200
Physical Abuse	38 (19%)	162 (81%)	200
Emotional Neglect	82 (41%)	118 (59%)	200
Physical Neglect	40 (20%)	160 (80%)	200
Emotional Abuse	86 (43%)	114 (57%)	200

Appendix J

Correlations between the Five Subscales of the Childhood Trauma Questionnaire.

		CTQ Emotional Abuse	CTQ Physical Abuse	CTQ Sexual Abuse	CTQ Physical Neglect	CTQ Emotional Neglect
CTQ Emotional Abuse	Pearson Correlation	--	.502**	.439**	.545**	.806**
CTQ Physical Abuse	Pearson Correlation		--	.486**	.534**	.467**
CTQ Sexual Abuse	Pearson Correlation			--	.434**	.485**
CTQ Physical Neglect	Pearson Correlation				--	.634**
CTQ Emotional Neglect	Pearson Correlation					--

** Correlation is significant at the 0.01 level (2-tailed).
CTQ → Childhood Trauma Questionnaire

Appendix K

Frequencies of individuals with early and later age of onset for physical abuse, sexual abuse and emotional abuse.

Physical Abuse		Frequency	Percent	Valid Percent	Cumulative Percent
	Early	8	4.0	47.1	47.1
	Later	9	4.5	52.9	100.0
	Total	17	8.5	100.0	
Total		200	100.0		
Emotional Abuse		**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
	Early	13	6.5	27.7	27.7
	Later	34	17.0	72.3	100.0
	Total	47	23.5	100.0	
Total		200	100.0		
Sexual Abuse		**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Early	3	1.5	20.0	20.0
	Later	12	6.0	80.0	100.0
	Total	15	7.5	100.0	
Total		200	100.0		

Appendix L
Skewness and Kurtosis for Scales and Subscales

		SKEWNESS		KURTOSIS	
SCALE	SUBSCALE	STATISTIC	STD. ERROR	STATISTIC	STD. ERROR
HS	Total	-1.048	0.172	0.991	0.342
	Pathways	-1.139	0.172	2.008	0.342
	Agency	-1.454	0.172	2.792	0.342
BHS	Total	1.562	0.172	1.815	0.342
CTQ	Emotional Abuse	1.131	0.172	0.373	0.342
	Physical Abuse	2.707	0.172	7.667	0.342
	Sexual Abuse	2.863	0.172	7.118	0.342
	Emotional Neglect	0.935	0.172	0.024	0.342
	Physical Neglect	2.977	0.172	12.367	0.342
RFL	Total	-0.424	0.172	0.001	0.342
	Survival Coping	0.962	0.172	0.763	0.342
	Responsibility to Family	-1.672	0.172	2.781	0.342
	Child-Related Concerns	-0.472	0.172	-0.968	0.342
	Fear of Suicide	0.307	0.172	-0.331	0.342
	Fear of Social Disapproval	0.069	0.172	-1.013	0.342
	Moral Objections	0.318	0.172	-1.177	0.342
SBQ	Total	1.911	0.172	3.252	0.342

HS → Hope Scale
BHS → Beck Hopelessness Scale
CTQ → Childhood Trauma Questionnaire
RFL → Reasons for Living Inventory
SBQ → Suicide Behaviors Questionnaire

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