PSYCHOLOGICAL DISTRESS IN CANADIAN MALES AND FEMALES REPORTING CHILDHOOD SEXUAL ABUSE: EXPLORING THE ROLE OF SOCIAL SUPPORT

by © Cally Pevie

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Abstract

Childhood sexual abuse (CSA) is a severe form of childhood maltreatment that has consistently been associated with deleterious biopsychosocial outcomes spanning into adulthood. CSA prevalence rates in the Canadian adult population have been estimated at 8% with females demonstrating higher rates (12% - 15.2%) than males (4% - 4.8%; Burczycka, 2015; Pereda et al., 2009). While perceived social support has been identified as a potential protective factor for CSA survivors, further investigation is required to elucidate the types of social support that are beneficial for males and females in this population. Data associated with a sample of 1,328 Canadian adults (20-64-years-old) reporting CSA before the age of 16 were extracted from the 2012 Canadian Community Health Survey of Mental Health (Statistics Canada, 2013a) and analysed. It was observed that the CSA sample had significantly higher levels of distress, and lower levels of social support (overall and for each subscale) than the entire adult Canadian sample, with the male CSA sample reporting significantly lower levels of social support (overall and for each subscale) compared with the CSA female sample. Subsequent hierarchical regressions revealed that social support predicted 18.5% of the variance in psychological distress in the overall CSA sample after controlling for age, personal income, and biological sex, with guidance, reassurance of worth, and social integration significantly predicting lower levels of psychological distress in females reporting CSA, and attachment (presence of close secure relationships) predicting lower distress in males reporting CSA. These findings provide further cross-sectional support for the stress-buffering hypothesis in CSA adults and suggest that individuals with trauma histories may benefit from having their social support systems tailored to the type of trauma they experienced and their biological sex. These results are discussed in terms of their clinical relevance in the psychological treatment of adults with CSA histories.

Keywords: childhood sexual abuse, attachment, psychological distress, social support, sex differences

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Chapter 1: Literature Review

1.1 Defining Childhood Maltreatment

Research widely indicates the disconcerting pervasiveness of childhood trauma and maltreatment. A large subset of literature has focused on the lack of consensus in operationally defining child maltreatment and its subtypes (e.g., Barnett et al., 1993; Herrenkohl, 2005; Runyan et al., 2005). Geffner (1996) advocated for the use of the term maltreatment to describe "acts of aggression, abuse, and trauma inflicted by one family or relationship member toward another who has less power or authority" (p.3). Righthand et al. (2003) more broadly defined childhood maltreatment as any act of physical abuse, sexual abuse, psychological abuse, or neglect toward a child. Barnett et al. (1993) developed a Maltreatment Classification System which identified six subtypes of maltreatment (physical abuse, sexual abuse, failure to provide, failure to supervise, emotional maltreatment, and moral, legal, and educational maltreatment) and provided research definitions and severity ratings for each. The World Health Organization (2020) defines childhood maltreatment as encompassing any form of physical, emotional, or sexual abuse, negligence, neglect, or exploitation to a child under the age of 18 perpetrated by an individual in a position of trust or power that harms or has the potential to harm the child's survival, health, development or dignity. The Royal Canadian Mounted Police (2008) defined child abuse as any early trauma that endangers a child's sense of safety, survival, growth, and self-esteem. Ultimately, definitions of childhood maltreatment are dependent on the cultural, legal, or theoretical lens through which they are viewed.

1.2 Childhood Maltreatment in Canada

Findings from the 2014 Canadian General Social Survey (GSS; Statistics Canada, 2015), provide valuable information regarding the prevalence and frequency of various forms of self-

reported childhood maltreatment in a Canadian sample. They measured three forms of maltreatment: physical abuse, sexual abuse and witnessing domestic violence. Approximately 30% of all respondents reported experiencing some form of maltreatment or observing violence at least once before the age of 15 (Perreault, 2015), with approximately 8% reporting sexual abuse, 26% reporting physical abuse, and 10% witnessing violence by a caregiver toward another adult in the home (Burczycka, 2015). The 2014 GSS (Statistics Canada, 2015) further revealed that approximately 70% of individuals observing domestic violence also reported being abused physically and sexually, with 16% of those reporting that they experienced both physical and sexual abuse (Burczycka, 2015). These findings suggest that specific forms of abuse and witnessing domestic violence during childhood tend not to occur in isolation.

Data from the 2014 GSS (Statistics Canada, 2015) also reported information on the frequency of physical and sexual abuse in children. They found that of those children reporting physical and/or sexual abuse, 65% experienced between one and six instances of abuse, 20% between seven and 21 instances, and 15% more than 21 instances (Burczycka, 2015). 93% of maltreatment instances were not reported to police or child protective services. However, as the frequency and severity of the abuse increased, so too did the probability of reporting to authorities (Perreault, 2015). Moreover, 23% of individuals who reported childhood physical and sexual abuse recalled confiding in family members, while 10% disclosed to friends, with a smaller proportion informing teachers, doctors, or nurses (2% respectively). Sex differences were also evident in abuse disclosure, with females more likely to confide in family members (26%) or friends (12%) compared with males (20% and 9%, respectively; Burczycka, 2015).

1.3 Impacts of Childhood Maltreatment in Adulthood

Research widely implicates the potential impact of child maltreatment into adulthood. For instance, the Adverse Childhood Experiences (ACE) Study conducted in the late 1990s was the

first to examine the relationship between the breadth of exposure to abuse (i.e., emotional, physical, or sexual) or household dysfunction during childhood, and health risk behaviour and disease in adulthood (Felitti et al., 1998). Of the 9,508 adult respondents, 52% reported exposure to one or more categories of ACE, 25% reported experiencing two or more categories of ACE, and approximately 6.2% reported exposure to four or more categories of ACE (Felitti et al., 1998). The researchers found a graded relationship between the number of ACEs experienced, and several adulthood diseases, including skeletal fractures, cancer, heart, liver, and lung disease (Felitti et al., 1998). Moreover, a comparison between respondents with no ACE exposure versus those with four or more ACEs yielded significant findings with respect to adult health risk behaviours, including a 1.4-1.6-fold increase in physical inactivity and severe obesity, 2-4-fold increase in poor self-rated health and sexually transmitted diseases, and 4-12-fold increase health risk for depression, suicide attempt, drug abuse, and alcoholism (Felitti et al., 1998). As such studies indicate, experiencing childhood abuse is a risk factor for various future maladaptive outcomes including increased incidences of sexual, physical, and emotional abuse in adulthood, higher rates of depression, and lower levels of self-esteem (Liem & Boudewyn, 1999). Similarly, the 2014 GSS (Statistics Canada, 2015) revealed that the Canadian adults reporting childhood physical and sexual abuse had been victims of violence in the past year at over twice the rate of their non-abused counterparts (7% compared with 3%), and were more likely to report poor physical health, and mental and psychological limitations (Burczycka, 2015). Studies have also found that endorsing self-blame about the abuse predicted poorer social and personal functioning levels as adults (Liem & Boudewyn, 1999), as well as lower levels of education, employment, and earnings (Currie, 2010).

1.3.1 Poly-victimization

Finkelhor et al. (2007) put forth the notion of classifying a specific group of individuals who experience numerous different types of victimization in childhood (including sexual and physical abuse, neglect, and witnessing domestic violence) as "poly-victims". Subsequently, the literature on poly-victimization has shown a trend where an increase in the number of childhood adverse experiences corresponds with a rise in the level of deleterious outcomes (Appleyard et al., 2005; Felitti et al., 1998, as cited in Finkelhor et al., 2009). For instance, one national survey reported that in a sample of youth ages 2-17 years, 22% had experienced victimization in four or more different ways in the past year, while 10% had experienced seven or more types of victimization (Finkelhor et al., 2009). Dong et al. (2003) investigated the relationships between CSA and nine other adverse childhood experiences (i.e., emotional abuse, emotional neglect, physical abuse, physical neglect, battered mother, household substance use, household mental illness, parental separation/divorce, and criminal household member) and found that for both males and females, the experience of CSA significantly increased the likelihood of experiencing each of the other nine ACEs, and was strongly associated with experiencing emotional abuse, physical abuse and neglect, and having a mother who experienced domestic violence (Dong et al., 2003).

1.3.2 Impact of Childhood Maltreatment on Development

Literature suggests that trauma during development is commonly followed by a variety of consequences, such as interpersonal problems, including difficulties with self-assertion, problems setting boundaries and limits in interpersonal relationships, difficulties with intimacy and trust, marital and parenting problems, and feelings of isolation (Paivio & Pascual-Leone, 2010; van der Kolk, 2003). Further, it has been theorized that emotion regulation may mediate this relationship between CSA and various deleterious outcomes in adulthood (e.g., Kim & Cicchetti, 2010).

In terms of the potential mechanisms mediating such outcomes, literature in human development has demonstrated that the human brain is exceptionally malleable early in life, and that environmental experiences are significantly influential (Greenough et al., 1987). Suffering abuse and trauma during the early stages of development violates the norm of acceptable environmental experiences, which can severely impact the developing brain, and capacity to cope with life stressors (De Bellis, 2001; Humphreys & Zeanah, 2015).

1.4 Childhood Sexual Abuse

CSA is defined as forced sexual activity perpetrated on a child which can include, but is not limited to, sexual touching, oral and/or genital penetration using a penis, fingers, or foreign objects, and/or non-contact sexual abuse such as exhibition of one's genitals (Pulverman et al., 2018), achieved through manipulation, force, or abuse of power (Shevlin et al., 2018). In terms of prevalence, a large-scale study of child abuse in Ontario conducted by MacMillan et al. (2013) revealed that 13% of females and 4% of males in the sample reported rates consistent with other national and international estimates (Finkelhor, 1994b; Yamamoto et al., 1999). A more recent meta-analysis conducted in 2009 using Canadian community and student samples reported an average CSA prevalence rate of 15.2% of females and 4.8% of males (Pereda et al., 2009). However, Burczycka (2015) reported that overall, 8% of Canadians experienced CSA, specifically 12% of females and 4% of males reported histories of CSA.

Inconsistencies have been detected between register-based data and self-report surveys, suggesting that the prevalence of CSA cases is underestimated and underreported (Kuoppamäki et al., 2011; United Nations, 2006). Indeed, many factors could prevent CSA cases from being reported, including the reliance that children have on adults to bring assaults to the attention of the authorities (Kuoppamäki et al., 2011; United Nations, 2006). While Perreault (2015) noted a trend whereby the likelihood of reporting the abuse to authorities increased as the frequency and

severity of CSA increased, even in cases when CSA was repeated (i.e., more than ten occurrences), it was only reported to the authorities 27% of the time. An examination of data from the Canadian Community Health Survey of Mental Health (CCHS-MH; Statistics Canada, 2013a) found that 13.01% of adult females (age 20-64) reported a history of CSA before age 16 (Brooks, 2019).

An essential factor in understanding the deleterious impact that CSA has on the health and wellness of those victimized is the nature of the child/perpetrator relationship. In particular, Jonzon and Lindblad (2004) classified CSA perpetrators into three categories; 1) nuclear family (i.e., parents and siblings, including those who were biological, adoptive, foster and step), 2) extended family (i.e., grandparents, uncles, aunts, and cousins), and 3) other close persons (i.e., neighbour, teacher, coach). Indeed, Perreault (2015) observed that 70% of Canadians who experienced CSA reported that they knew their perpetrator, with 18% of the offenders being part of the victim's immediate family, 20% being part of their extended family, 12% reported being an acquaintance, 8% being a neighbour, 6% being a friend, and another 6% being a teacher (Perreault, 2015).

Since most perpetrators tend to be known to the child, CSA typically involves a severe betrayal of trust, whereby the child is likely to experience denial or minimization of the abuse, as well as feelings of social isolation (Paivio & Pascual-Leone, 2010). Indeed, Cloitre et al. (2019) identify CSA as a "betrayal" trauma that encapsulates any situation where an individual's trust and sense of well-being is violated by individuals or institutions whom the individual relies on to survive. Further, betrayal trauma research does reveal that closeness to the perpetrator strongly predicts the severity of issues experienced by the victim (Goldberg & Freyd, 2006, as cited in Cloitre et al., 2019).

The fact that perpetrators of CSA are known to victims is one of several factors known to impact the severity of CSA (e.g., degree of trauma, frequency of experiences, number of perpetrators, etc.) which has been associated with the degree of adult psychopathology experienced (Mullen et al., 1993). For instance, Mullen et al. (1993) specifically found that the main contributor of adult psychopathology in a sample of females reporting CSA was experiencing violations involving intercourse (Mullen et al., 1993).

Accordingly, a significant amount of literature has explicitly focused on the potential impact of CSA and later adult physical, psychological, and social functioning (Nurcombe, 2000). For instance, experiencing CSA has been associated with poorer physical health consequences including less engagement with preventive health care, and overall shorter lifespan (Banyard et al., 2004; O'Leary & Gould, 2009). In terms of psychological outcomes, studies have specifically identified CSA as a risk factor for a variety of psychopathologies including affective disorders, PTSD, substance abuse disorder, and borderline personality disorder (Beitchman et al., 1992; Chartier et al., 2009; Felitti et al., 1998).

A revealing longitudinal study, spanning 23 years, conducted by Trickett et al. (2011) examined the biopsychosocial effects of CSA using a sample of 84 females reporting CSA between age 6 and 16, that was perpetrated by a family member (i.e., parent, grandparent, older sibling, or uncle), and a comparison sample of 82 demographically similar females who had not experienced CSA. The results from this study documented specific detrimental biopsychosocial impacts of experiencing intrafamilial CSA including earlier onset of puberty, higher obesity rates, abnormal physical development, irregular stress responses, immune system dysfunction, increased levels of somatic symptoms, as well as a higher prevalence of major illnesses, medical visits, and hospitalizations (Trickett, et al., 2011). The study noted that the developmental trajectory of cortisol levels in the CSA sample differed from what is expected in typical

development. That is, while a steady increase in cortisol occurs from middle childhood to early adulthood when levels stabilize, the CSA sample experienced higher cortisol levels in childhood but lowered resting cortisol levels in adulthood compared to the non-CSA sample (Trickett, et al., 2011). In terms of psychosocial outcomes, those in the CSA sample were more likely to qualify for at least one Diagnostic and Statistical Manual of Mental Disorders diagnosis (4th ed.; DSM–4; American Psychiatric Association [APA], 1994), experience more lifetime traumas, PTSD (particularly dissociative symptoms), depression, and cognitive deficits (in fluid and crystallized abilities) than those in the non-CSA sample. In terms of risk behaviours, CSA victims were also more likely to abuse drugs and alcohol, engage in self-mutilation, engage in risky sexual activity, be involved with an abusive partner, be physically and sexually re-victimized, leave high school prematurely, become a teen mother, and have a premature baby (Trickett, et al., 2011).

In another study, Hillberg et al. (2011) conducted a systematic review of seven meta-analyses on the association between CSA and adult mental health and found that all seven indicated that CSA increases an individual's vulnerability to developing adult mental health difficulties. Incidentally, the effect sizes varied across meta-analyses from small (.04) to moderate (.25), and it was noted that studies using community samples yielded smaller effect sizes than studies using clinical samples, and larger samples also yielded larger effect sizes (Hillberg, et al., 2011).

More recent Canadian population-based research using a sample of adult females found that those who reported CSA histories were significantly more likely to meet both lifetime and 12-month diagnostic criteria for major depressive disorder, generalized anxiety disorder, bipolar disorder, and substance and alcohol use disorders (Brooks, 2019). A prior diagnosis of PTSD and lifetime and 12-month suicidal ideation were also significantly higher in the CSA sample (Brooks, 2019).

1.5 Complex PTSD

Of note is the relationship between CSA and PTSD. While diagnoses of PTSD have been found to be higher in CSA samples, some research suggests that the psychological difficulties experienced by individuals reporting CSA or other interpersonal traumas are not adequately captured by a diagnosis of PTSD (Brooks, 2019; van der Kolk et al., 2005). As a result, the concept of complex PTSD (complex trauma) emerged to incorporate the symptomatology of individuals who have experienced chronic interpersonal traumas (Herman, 1992). In 2000, the president of the International Society for Traumatic Stress Studies (ISTSS) selected a group of 11 individuals to form the Complex Trauma Task Force (CTTF; Cloitre et al., 2012). The mandate of the CTTF was to increase understanding of how individuals are impacted by repeated or prolonged interpersonal trauma by amalgamating empirical and clinical knowledge in the area and making recommendations regarding the study and treatment of complex trauma (Cloitre et al., 2012). The CTTF conducted an expert opinion survey where 50 trauma experts provided their opinions of treatment approaches and interventions for complex PTSD through mail-in surveys (Cloitre et al., 2011). The results of this survey indicated that 84% of the experts in trauma viewed phase-based therapy (including interventions tailored to client's specific symptom profile) as the most appropriate treatment approach for this population (Cloitre et al., 2011). After reviewing empirical and clinical literature on complex trauma and the results from the expert consensus survey, the CTTF released expert consensus guidelines for complex PTSD treatment in adults (Cloitre et al., 2012). In these consensus guidelines, the CTTF adopts Herman's (1992) conceptualization of complex PTSD, stating that it is the result of exposure to either multiple types of interpersonal trauma or instances of this trauma that are either repeated or prolonged, and that typically occur in situations where the individual is unable to escape due to psychological, physical, family/environmental, maturational or social constraints (Cloitre et al.,

2012). They stipulate that CSA is one of several traumatic stressors that can be categorized under the umbrella of complex PTSD (Cloitre et al., 2012). The task force outlines that PTSD and complex PTSD have several core symptoms that overlap including, re-experiencing, hyperarousal, avoidance, and numbing, but that complex PTSD encompasses a range of disturbances in self-regulatory capacities that span five domains, i.e., disturbance in relational capacities, emotion regulation difficulties, and alterations in attention and consciousness (e.g., dissociation), adversely affected belief systems, and somatic distress or disorganization (Cloitre et al., 2012). While all these disturbances and self-regulatory capacities are extremely important in understanding the experience of individuals with complex PTSD, of particular relevance is the potential impact of trauma on belief systems and, subsequently, one's ability to engage in interpersonal social systems.

1.6 Exploring Potential Mechanisms: The Association Between CSA and Poor Life Outcomes

The CSA literature previously discussed illustrates the harsh realities of victims, as their fundamental human rights have been violated by either a caregiver or an individual or institution (family, neighbour, teacher, coach, acquaintance, etc.) that they rely on for virtually all essentials of life (Perreault, 2015). Psychosocially, experiencing CSA predicts such outcomes as insecure attachment styles, emotion regulation difficulties, and relational difficulties later in life (Cloitre et al., 2012; Kim & Cicchetti, 2010; Steine et al., 2020). Since CSA is an interpersonal betrayal trauma occurring early in development that widely impacts an individual's sense of self, emotion regulation, and relationships with others, viewing CSA through the lens of attachment theory (Bowlby, 1969) is a valuable way to deepen our understanding of the deleterious downstream effects that frequently follow CSA.

1.6.1 Implications of Attachment Theory

Bowlby (1969) initially developed attachment theory to help explain a child's connection to their caregiver. He postulated that because children need care, support, and resources, they are predisposed to attach to a few key adults who can satisfy their needs, foster feelings of security, and ensure their survival (Carter et al., 2014). Further, the quality of care provided to the child via the attachment figures plays a vital role in developing into an emotionally and socially competent adult, capable of flourishing in their social context (Carter et al., 2014). An abundance of literature has documented how attachment-related experiences influence the development of personality and social skills across the lifespan and, more specifically, an individual's cognition, emotion, and behaviour in the context of close relationships (Simpson & Karantzas, 2018). As such, to fully appreciate the significant and damaging influence of CSA, one must first consider the fundamentals of attachment theory.

People have an innate need for security and are equipped with several behavioural systems to achieve this through interpersonal relationships (Feeney & Collins, 2018). The attachment system is vital as it utilizes contact with caregivers to promote safety and security (Bowlby, 1982) and is activated by experiences of distress (e.g., loss, fear, pain, or separation), which triggers proximity seeking behaviours (Simpson & Karantzas, 2018).

The attachment system interacts with other behavioural systems such as the 'exploration system', which encourages individuals to explore their environment, interact with others, play, discover, work toward goals, and establish independence (Bowlby, 1988). While such exploration promotes health and well-being, it can only occur if the individual's attachment needs are met. They know that they can reliably access their attachment figure when necessary (Feeney & Collins, 2018). Hence, the caregiving system allows attachment and exploration through interactions with a caregiver (Bowlby, 1988). When at least one caregiver provides a safe haven (i.e., is reliably accessible and comforting to child), and a secure base (i.e., encourages

exploration and independence), the individual can thrive emotionally and socially (Feeney & Collins, 2018; Feeney & Van Vleet, 2010; Feeney & Woodhouse, 2016).

While the attachment system is particularly essential for childhood survival, its evolutionary role persists across the lifespan, impacting cognitive, emotional, and behavioural outcomes into adulthood (Szepsenwol & Simpson, 2018). Specifically, adults also need to know that others will be responsive or available to provide affection, advice, or reassurance, particularly in times of adversity (Sable, 2008). In this regard, Bartholomew and Horowitz (1991) proposed a four-category model of adult attachment styles which differentiated them on IWM of self and other. In particular, they posed the idea that individuals view themselves as either worthy or unworthy of support and love, whereby others are viewed as either reliable and accepting or unreliable and rejecting.

In their research, Bartholomew and Horowitz (1991) found that those who lacked a sense of worthiness and viewed others negatively were labelled as fearful-avoidant. The category labelled dismissive-avoidant included those who had established a sense of self-worth but could not view others in a positive light. The preoccupied category consisted of those who felt unworthy of love and support but viewed others as receptive and trustworthy. Finally, the fourth attachment style, securely attached, consisted of those who had a sense of self-worth and felt that others are generally accepting and dependable. A secure attachment style has been associated with several positive outcomes, including feelings of competence and success in close relationships (Carter et al., 2014).

Attachment literature has continuously demonstrated that secure attachment is associated with a plethora of positive life outcomes, including resilience in the face of adversity (Mikulincer & Shaver, 2016). In comparison, insecure attachment has been associated with poor life

outcomes predicting difficulties in interpersonal relationships and poorer physical and mental health (Mikulincer & Shaver, 2007; Simpson & Rholes, 2012).

A review of literature on the securely attached by Mikulincer and Shaver (2016) suggests that secure individuals more appropriately evaluate threatening and dangerous events, they are more confident that they have the capacity to cope with these events, and they utilize more effective and productive emotion regulation strategies, including problem-solving, reappraisal, and support seeking. Securely attached individuals are better able to openly experience events without distorting them and accurately communicate their emotions to others easily (Mikulincer & Shaver, 2016). When an infant is faced with unreliable and insufficient caregiving, secondary attachment (deactivating or hyper-activating) strategies are often adopted as an attempt to regulate distress. However, these strategies are suboptimal and inadequate ways to regulate distress, and they undermine the development of successful inner coping strategies (Bowlby, 1973; Mikulincer & Shaver, 2019). These secondary strategies perpetuate the use of distorted IWM of self and others and promote the continuous activation or suppression of negative emotions (Mikulincer & Shaver, 2016, 2019). Specifically, when avoidant attached individuals are faced with rejection, separation, or betrayal in relationships, they tend to use deactivating strategies to block or suppress any emotion that could activate attachment needs (Fraley & Shaver, 2000; Mikulincer & Shaver, 2016). Their effort is directed at blocking emotions associated with threat or vulnerability, including distress, anxiety, fear, anger, sadness, guilt, and shame (Mikulincer & Shaver, 2019). These individuals have been found to often avoid their emotional reactions, suppress thoughts and memories that are emotionally laden, and inhibit expression of emotion verbally and nonverbally (Mikulincer & Shaver, 2016; Shaver & Mikulincer, 2002). This strategy decreases the likelihood of integrating emotional experiences

into cognitive-affective structures, subsequently impacting information and social behaviour relating to emotions (Mikulincer & Shaver, 2019).

Several studies assessing thought suppression have demonstrated the tendency of avoidant individuals to suppress the experience of negative emotions (Edelstein & Gillath, 2008; Fraley & Shaver, 1997; Gillath et al., 2005). One study demonstrated that experiences of chronic, uncontrollable, or extremely distressing events similarly hindered avoidant individuals' ability to retain self-control and suppress strong negative emotions (Berant et al., 2011). Conversely, anxiously attached individuals tend to use hyper activating strategies, focusing on or amplifying negative emotions to meet their attachment needs (Mikulincer & Shaver, 2019). Anxiously attached individuals are inclined to be hypervigilant to internal indicators of distress (Cassidy & Kobak, 1988), particularly physiological indicators of emotions, recollection of threatening events and tend to ruminate on existing and prospective threats (Mikulincer & Shaver, 2016). They may hold beliefs that threat-related events result from their shortcomings or factors outside their control and believe they are incapable of coping with distress (Mikulincer & Shaver, 2016). Their self-view as vulnerable and helpless may occasionally prompt proximity and care from attachment figures (Cassidy & Berlin, 1994).

Kobak and Bosmans (2019) put forth a dynamic model to provide a more nuanced explanation of the role of adult attachment as a predisposing and maintaining factor for various forms of psychopathology. They proposed a cycle where IWM and relational communication mutually impact one another: insecure aspects of IWM can be either amplified by mistuned relational communication or moderated by secure communication in relationships. In contrast, secure aspects of IWM can be further fostered by attuned/responsive dyadic communication or diminished by insensitive dyadic communication (Kobak & Bosmans, 2019). According to this model, the role of attachment in the development and maintenance of psychopathology is greatest

when insecure IWM are exacerbated by insensitive relational communication (Kobak & Bosmans, 2019).

Given that CSA is a significant interpersonal violation during the early stages of human development, it is unsurprising that it has been found to interfere with the successful development of attachment security (Crittenden, 1988; Egeland & Sroufe, 1981; Godbout et al., 2007, as cited in Brassard et al., 2014). Experiencing CSA affects IWM of both self and others, contributing to beliefs of self as unlovable, weak, and unsafe and others as threatening and unworthy of trust (Finkelhor, 2008; Lisak, 1994; Spaccarelli, 1994, as cited in Brassard et al., 2014). If CSA can precipitate or exacerbate negative views of self, it may subsequently increase the use of hyper activating strategies characteristic of anxious attachment. The increased distrust of others and development of hostile attribution biases toward others subsequently increases the deactivating strategies characteristic of avoidant attachment styles (Brassard et al., 2014).

Several articles have investigated the potential role of attachment style in the psychological function of CSA victims. A study of 307 female Canadian undergraduate students found that CSA significantly predicted attachment style and psychological adjustment and found that attachment mediated the relationship between CSA and psychological adjustment, suggesting that quality of attachment experienced by CSA victims can impact the psychological distress they experience (Shapiro & Levendosky, 1999). Another study of 324 female U.S. undergraduate students found that reporting CSA was associated with less attachment security in significant adult and peer relationships and greater trauma symptomology (Aspelmeier et al., 2007). Results further suggested that attachment security in parent-child and peer-to-peer relationships may buffer the deleterious impacts of CSA.

Of those traumas identified as precipitants of PTSD, sexual trauma has been documented as the type of trauma most strongly associated with PTSD (Nooner et al., 2012). A meta-analysis

including 46 studies by Woodhouse et al. (2015) found insecure attachment styles were associated with greater PTSD symptomology, particularly attachment anxiety demonstrated a stronger association with PTSD symptoms when compared to attachment avoidance. Conversely, the meta-analysis found that attachment security was associated with lower levels of PTSD symptomology (Woodhouse et al., 2015). Some more recent research has begun to consider the ability of a subset of CSA survivors to become well-adjusted adults or experience post-traumatic growth (positive transformation following experiencing trauma or significant adversity (Tedeschi & Calhoun, 2004, as cited in Nelson et al., 2019). Nelson, et al. (2019) found positive correlations between trauma and attachment insecurity in a sample of 292 American adults with a history of CSA. Interestingly, when they controlled for the effects of trauma, attachment remained a significant predictor of post-traumatic growth. They posit that the impact of CSA on their view of self and others (IWM) may alter the attachment system (Nelson et al., 2019).

1.6.2 Potential Impact of Social Support

Connections within a community, social support and kindness of strangers have all been associated with therapeutic effects on overall well-being and health (Cacioppo & Cacioppo, 2018). Conversely, Social Baseline Theory asserts that social isolation poses a threat because human evolution occurs with a social context and contributes to perceptual and metabolic adaptations (Coan & Sbarra, 2015). Indeed, Bessel van der Kolk (2014) states that "we are profoundly social creatures; our lives consist of finding our place within the community of human beings" (p. 112).

Social support depends on a person's access to interpersonal connections and ability to use those connections to meet basic social needs, facilitate intimacy and attachment, and help cope with life stressors (Karren et al., 2014). The concept of social support is thought to encompass emotional, tangible, informational, and appraisal support (Cutrona & Russell, 1987;

Karren et al., 2014). Specifically, tangible support is considered the provision of concrete help or services such as financial support, while informational support consists of the provision of information, suggestions, or advice. Moreover, emotional support may include empathy, trust, caring or concern while appraisal support occurs when one receives constructive feedback that reassures worth (Cutrona & Russell, 1987; Karren et al., 2014). Beyond general definitions of subtype, the complexity of social support is reflected in the notion that many factors may mediate its potential impact. For example, the availability, strength, and perception of social support may be influenced by personality, interpersonal experiences in childhood, and a lifetime of close relationships (Uchino, 2006). Some social support literature has noted a distinct difference between received and perceived social support. Received social support is conceptualized as the actual support provided by a social support network at a particular time, while perceived social support is theorized as an individual's subjective perception that support has or will be provided in times of need (Cohen & Wills, 1985; Steine et al., 2020). Of the two, perceived social support is more strongly associated with positive health outcomes (Cohen, 2004; Sarason, Sarason & Pierce, 1994, as cited in Steine et al., 2020). Cohen and Wills (1985) suggested that the perception of available social support has a more significant influence on stress appraisal than the actual availability of social support. As a result, the study at hand will focus on the perception of social support.

In discussing research on social support, it is important to acknowledge variability in theoretical frameworks used and differences in how social support is operationally defined and measured (Karren et al., 2014). Weiss (1974) proposed six provisions of social relationships, which are frequently used in the literature to measure the overall level of social support: attachment, social integration, reliable alliance, guidance, and reassurance of worth, opportunity for nurturance (Weiss, 1974). While both attachment and social integration fit the definition of

emotional support in that they provide a sense of belonging, comfort, and safety, there are differences between them. In particular, attachment is directly linked to the sense of security people acquire from emotional closeness and is typically provided by a spouse or a close family member or friend, whereas social integration is generally obtained from friends, and it involves the sense of belonging to groups with mutual interests and concerns (Cutrona et al., 1986).

Other social support subtypes (i.e., guidance and reliable alliance) may involve helping an individual problem solve during challenging or stressful situations, but guidance takes the form of informational support or advice that mentors, parental figures, or teachers typically provide whereas reliable alliance involves being certain that others (mainly family members) can be relied on for tangible support (Cutrona, et al., 1986). Yet others (e.g., reassurance of worth) occur when an individual receives positive feedback about their skills, competence, and value to others, which can fall under the category of appraisal support (Cutrona et al., 1986), and opportunity for nurturance involves feeling needed by others in a social network, which Weiss (1974) proposed is an essential interpersonal relationship component. However, there is some debate about whether opportunity for nurturance can be considered social support since it involves offering support rather than receiving it (Cutrona et al., 1986). Based on the Weiss (1974) theoretical framework, Cutrona et al. (1986) developed the Social Provisions Scale, which is a psychometrically sound mode of measuring social support (Caron, 2013).

A significant body of literature has demonstrated the positive impacts of social support on individuals (e.g., DiMatteo, 2004; Uchino et al., 1996). Specifically, a strong correlation has been found between social support and psychological health, which is believed to be a result of experiencing a heightened sense of purpose, belonging, and worth (Karren et al., 2014). Many studies have found that having high levels of social support is associated with a lower risk of psychological distress (including depression) and serves a protective factor for better mental

well-being (Kawachi & Berkman, 2001). Conversely, experiencing violence, abuse, or trauma in relationships can negatively impact one's mental and physical health (Berkman et al., 2000). Given that CSA has been associated with difficulties in interpersonal emotions and relationships, a closer consideration of how CSA survivors function socially is warranted.

1.6.3 Direction of Impact – Social Causation and Social Erosion Hypotheses

Cohen and Wills (1985) posited that the positive correlation between social support and well-being repeatedly noted in the literature could be explained through the lens of the social causation hypothesis. They suppose that social support can bolster well-being via the main effects model or the buffering model. The main effects model suggests that social support enhances health regardless of whether an individual is experiencing stress while the buffering model suggests that the individual's social resources can act as a protective factor for their well-being following a stressful event (Cohen & Wills, 1985). Briere and Scott (2015) suggest that social support is "one of the most powerful determinants of the ultimate effects of trauma" (p.30). Receiving psychological support including non-blaming responses, care, nurturing, and tangible support from others (e.g., family, friends, aid agencies) after experiencing trauma has been found to reduce the intensity of post-traumatic outcomes (Briere & Scott, 2015). Further, research in adult survivors of CSA has documented that higher levels of perceived social support are associated with a decrease in symptom severity (Hyman et al., 2003; Runtz & Schallow, 1997).

The social causation hypothesis highlights the positive impact social support can have on individuals. In contrast, the social erosion hypothesis considers the inverse relationship, where the individual negatively impacts their existing social support systems, diminishing the support system over time (King et al., 2006). The deleterious impact of an individual's distress on their social support system can be better understood by considering how individuals displaying severe symptoms of psychopathology relate to their social environment. Individuals experiencing

psychopathology after trauma (i.e., PTSD) often display symptoms or behaviours that, over time, may distress and overwhelm their existing social supports. Individuals may perseverate on their own negative experiences or symptoms, struggle to feel or express interest in other individuals or be responsive in social situations (Steine et al., 2020). While social support is a protective factor that can moderate outcomes after trauma (APA, 2013), it is essential to consider how symptoms frequently experienced by traumatized individuals may negatively impact the individual's ability to make use of their social support network. Several of the hallmark symptoms of PTSD reflect inherent changes in how traumatized individuals think of and engage with their social environment. For example, individuals with PTSD commonly experience persistent exaggerated negative beliefs about themselves, others, the world, or the future (e.g., I am broken, others cannot be trusted, the world is an unsafe place, things will never get better; APA, 2013). These persistent and exaggerated cognitions can also impact the individual's beliefs about the cause of their trauma resulting in blame directed inward or onto others (e.g., "it is all my fault that my uncle abused me"). Individuals who have been impacted by trauma also frequently experience persistent negative mood states (e.g., fear, horror, anger, guilt, shame). Moreover, they commonly experience a persistent inability to feel positive emotions (e.g., happiness, joy, satisfaction, emotional intimacy, tenderness, and sexuality; APA, 2013). Individuals impacted by trauma histories can also feel detached or estranged from other people and experience rapid changes in temper. They can engage in aggressive verbal and physical behaviour with little or no provocation (e.g., yelling at people, getting into fights, destroying objects). They may also engage in reckless or self-destructive behaviour such as dangerous driving, excessive alcohol or drug use, or self-harm or suicidal behaviour (APA, 2013). It appears that while traumatized individuals stand to benefit from social support, their emotional state, beliefs, and behaviours may thwart their ability to acquire it.

Several studies have investigated social causation and social erosion hypothesis in prospective longitudinal studies of trauma survivors. The results of these studies suggest inconsistent patterns of social support and symptom severity over time. Four studies have indicated evidence supporting social erosion theory exclusively; these studies were conducted on male war veterans, war veterans being treated for PTSD, survivors of traumatic injury and individuals who had experienced an orofacial injury (King et al., 2006; Laffaye et al., 2008; Lui et al., 2009; Nickerson et al., 2017, as cited in Steine et al., 2020). Strong evidence for social erosion and partial evidence for social causation has been documented in the literature, particularly in a four-wave study of children impacted by Hurricane Katrina (Lai et al., 2018). It has also been suggested that social erosion and social causation processes may be active at varying time points following a traumatic event (Steine et al., 2020). Specifically, results from a study on adult earthquake survivors found evidence of social causation theory at 12 months follow up where social support predicted the severity of post-traumatic stress symptoms (Kaniasty & Norris, 2008). While a reciprocal relationship was found from 12-18 months follow up (social support and post-traumatic stress symptoms predicted each other), followed by evidence of social erosion hypothesis from 18-24 months (post-traumatic stress symptoms predicted perceived support levels; Kaniasty & Norris, 2008). After careful consideration of these findings, Steine et al. (2020) questioned the utility of using a general model to assess the temporal association between social support and symptoms across all different trauma types. They advocate for the use of trauma-specific samples in future studies of CSA survivors.

Gabert-Quillen et al. (2012) also advocated for a trauma-specific lens to the research suggesting that this approach could help delineate which forms of social support are tailored to specific types of traumas. As research develops in this area, it is becoming clear that a “one size fits all” approach to social support for trauma survivors is insufficient. For example, Glass et al.

(2007) studied a sample of urban female survivors of violence and found that tangible social support was most appropriate for this population. Whereas, in a sample of 235 primarily Caucasian MVA victims, Gabert-Quillen et al. (2012) found that the stress-buffering effect of social support in those reporting high post-traumatic stress symptoms was primarily attributable to appraisal social support.

Hyman et al. (2003) studied a sample of 172 females who were adult survivors of CSA; their results support the stress-buffering hypothesis in female CSA survivors and the use of specific types of perceived social support to benefit specific trauma populations. Higher levels of perceived self-esteem support and perceived appraisal support were associated with lower post-traumatic stress symptoms. Self-esteem support was found to be the most strongly related to the prevention of PTSD symptoms (Hyman et al., 2003). Together, these studies support the necessity of matching specific types of social support to specific trauma populations.

The long term and bidirectional associations between symptom severity and social support in adult sexual assault survivors have been demonstrated in two previous studies using a single sample of 1,863 individuals who had experienced sexual assault in adulthood (Ullman & Peter-Hagene, 2016; Ullman & Relyea, 2016). These 3-wave studies provided strong support for social erosion and partial support for social causation. The results suggested that higher levels of post-traumatic stress symptoms and maladaptive coping predicted greater negative social reactions, while positive social reactions predicted a decrease in maladaptive coping (Ullman & Relyea, 2016). Steine et al. (2020) was the first study to investigate the longitudinal association between symptom outcomes and perceived social support in a sample of adult survivors of CSA. They recruited 506 CSA survivors from support centres for sexual abuse in Norway and conducted a three-wave four-year longitudinal study. They examined associations between perceived social support and symptoms of post-traumatic stress, anxiety, depression, and

insomnia. Cross-sectional measures from the first wave of the study found that relational problems were a strong predictor of perceived social support. Steine et al. (2020) propose relational problems as a possible underlying mechanism that may help elucidate the inverse association between experiencing CSA and perceived levels of social support in adulthood. Early interpersonal traumas can impact the ability to trust and attach to others which would impact an individual's ability to create, engage with, and maintain a flourishing social support network which subsequently could decrease their perceived experience with social support.

1.7 Clinical Implications

Treatment guidelines for complex PTSD in adults were outlined in 2012 by the complex trauma task force. Prolonged exposure to complex trauma is thought to either impede proper development of, or deteriorate emotional, cognitive, psychological, and social competencies. The symptom profile of complex PTSD, therefore, reflects deficits in these areas (Cloitre et al., 2012). Consequently, the complex trauma task force proposes that the treatment for complex PTSD not only aim to reduce psychiatric symptoms but also move to improve key functional capacities for self-regulation and consider ways in which psychosocial and environmental resources can be strengthened (Cloitre et al., 2012). They recommend a phasic approach to the treatment of complex PTSD; phase one is aimed at improving the safety of the individual, symptom reduction, and increasing competencies in psychological, social, and emotional realms; phase two is tailored toward helping the individual process and reappraise their trauma memories, and integrate them into adaptive IWM/representations of self, others and the world; phase three serves to consolidate improvements made throughout treatment and to ease the transition out of treatment and into improved engagement in various functional areas of the individual's life (relationships, community life, work or education; Cloitre et al., 2012).

Each phase emphasizes the importance of the development of social and relational competencies in individuals with complex PTSD. Specifically, phase one of treatment provides psychoeducation on how sustained early life or cumulative trauma impact an individual's development, view of the world, relationships, life course, and symptoms. At this phase, the treatment also focuses on building skills in social relationships, emotion regulation, cognitive restructuring, and stress management. The task force also highlights the importance of the therapeutic relationship itself, as a model of a healthy relationship, and a source of validation,

encouragement, and support which promotes the cultivation of social and emotional skills in the client (Cloitre et al., 2012). Phase two states that the review and reappraisal of trauma memories are in the interest of the reorganization and integration of the traumas in a way that creates a more adaptive, positive, compassionate, and coherent sense of self and relatedness to others. Finally, phase three intends to consolidate improvement in social, relational, and emotional capacities and applying and generalizing these skills to strengthen safe and supportive social networks including intimate and familial relationships (Cloitre et al., 2012). It is intuitive that early childhood traumas occurring in the context of interpersonal relationships (e.g., CSA) would subsequently require the creation or restoration of social and relational competencies in the context of supportive interpersonal relationships (i.e., individual/group therapy).

1.8 Tying It All Together: CSA, Attachment, and Social Support

Given the many negative impacts that experiencing CSA can have on an individual's life, it is interesting that some people who experience CSA can live functional lives without developing psychopathologies (Walsh et al., 2010). It is vital to gain a clearer understanding as to why experiencing CSA sets some individuals on a trajectory for adverse life outcomes while others can develop into socially and emotionally competent adults. Liem and Boudewyn (1999) postulated that differences between CSA survivors who languish or flourish in adulthood could result from their IWM of self and their coping styles. An individual's coping styles demonstrate how they generally respond to daily life demands or stressors and likely provide insight into the underlying style of attachment they have (Liem & Boudewyn, 1999). Liem and Boudewyn (1999) asserted that attachment theory (specifically IWM of self and others) would prove beneficial in understanding differential responses to CSA. Those securely attached individuals are generally considered to have developed a sense of worthiness and believe that others are generally trustworthy and reliable (Bartholomew & Horowitz, 1991). For these individuals,

experiencing CSA may lead them to use social supports as a method of coping with their experiences (Liem & Boudewyn, 1999). Generally, individuals with fearful-avoidant attachment lack a sense of worthiness and competence and view others as rejecting and unreliable (Bartholomew & Horowitz, 1991). For an individual with this internal working model, experiencing harmful input such as CSA could activate self-blame and reduce help-seeking behaviours, which could, in turn, prevent the effective utilization of available social supports (Liem & Boudewyn, 1999). Adaptive coping responses to experiencing CSA, including seeking social support and appropriately placing blame on the offender, may help mitigate the short and long-term effects of CSA; however, an individual's ability to engage in these adaptive coping responses may be dictated in part by their IWM (Liem & Boudewyn, 1999).

1.9 Differences in Biological Sex

Much literature has documented the disparity in CSA prevalence in males and females, as reports of CSA have been found to be consistently higher in females (Finkelhor, 1994a; MacMillan et al., 2013). Consequently, many studies exploring the long-term impacts of CSA have exclusively focused on females (e.g., Briere & Runtz, 1987, 1988; Fromuth, 1986; Harter et al., 1988; Saunders et al., 1999; Trickett, et al., 2011). Dube et al. (2005) used data from the adverse childhood experiences (ACE) study to explore sex differences in long term-consequences of CSA and found that 25% of females and 16% of males reported CSA, similar to other estimates found in the general populations (Dube et al., 2005; Finkelhor et al., 1990). They also observed that while the sex of the perpetrator was predominantly male, males were more frequently the perpetrators of female CSA (approximately 92%) in comparison to male CSA (approximately 72%), suggesting that a significant portion of males are sexually abused by female perpetrators (Dube et al., 2005). In terms of long-term consequences of CSA, Dube et al. (2005) found that outcomes were similar for males and females, in that, compared to their non-

CSA counterparts, males and females who reported CSA were significantly more likely to have a history of suicide attempts and were at a significantly greater risk for marrying an alcohol-dependent partner, and experiencing marital problems (Dube et al., 2005). In another study, males who reported experiencing CSA had lower levels of positive mental health than males in the general population, suggesting that they perceive themselves as having lower social, emotional, and psychological well-being than their male counterparts (Randell, 2017).

It has been proposed that the pathways linking adverse childhood events (such as CSA) to negative health outcomes may be sex-specific (Tietjen & Peterlin, 2011). Further, it has been posited that the sex differences in the development of psychopathology may be comparable to the moderating role of sex in the relationship between CSA and maladaptive outcomes in adulthood (Widom, 1998). Sex differences in how young children are impacted by abuse have been documented in the literature. It is suspected that while the same underlying distress may encumber these children, their coping strategies may be sex-specific and subsequently result in distinctive manifestations of the distress produced by the abuse (Widom, 1998). One study specifically found that in children reporting histories of sexual abuse, males were at a higher risk for developing conduct disorder while their female counterparts were at a higher risk for developing depression (Livingston, 1987).

1.10 Objective of The Present Study

In light of the preceding discussion, the present study sought to investigate the relationships between CSA, social support (and its subtypes), and psychological distress. To accomplish this goal, psychological distress, social support, and relevant sociodemographic variables (age, income, and sex) were examined in a sample of Canadian males and females who reported experiencing CSA before age 16, using data from the Canadian Community Health Survey of Mental Health (CCHS-MH; Statistics Canada, 2013a). More specifically, the first aim

of the study was to identify whether the CSA sample and the non-CSA sample differed in terms of psychological distress and social support. The second aim of the study was to investigate whether CSA males and CSA females differed in terms of psychological distress and social support. The third aim of this study was to explore whether, and the degree to which social support subtypes, as well as age, sex, and personal income, predicted psychological distress for the CSA sample. The fourth aim was to identify whether, and the degree to which social support subtypes, as well as age, sex, and personal income, predicted psychological distress in males and female CSA samples separately.

1.11 Hypotheses

In line with previous research, there is reason to predict that adults with a history of CSA will generally exhibit higher levels of psychological distress and lower levels of perceived social support compared with the entire adult sample (e.g., Hillberg et al., 2011). Building on prior research (Domhardt et al., 2015), it is predicted that social support will negatively predict psychological distress for adults with a history of CSA (i.e., higher levels of social support will be associated with lower psychological distress). Personal income is considered an important socio-demographic variable to consider in this study as lower levels of income have been consistently linked to higher distress (Marum et al., 2014). Additionally, childhood maltreatment has been identified as a risk factor for financial and employment-related difficulties in adulthood (Zielinski, 2009). Furthermore, Schetky (1988, as cited in Jumper, 1995) cautions that student samples may include more well-adjusted survivors of CSA with higher I.Q.'s and higher socioeconomic backgrounds, which may influence the psychological adjustment processes of sexual abuse victims. Therefore, it is predicted that income and distress will have an inverse relationship in the CSA sample. Age was another sociodemographic variable that was considered relevant in the present study based on previous research outlining a developmental trajectory of

psychological distress (Keyes et al., 2014). Distress has been found to emerge in adolescence, heighten throughout late adolescence/early adulthood and lower in mid-adulthood and beyond (Hasin et al., 2005; Jager, 2011, as cited in Keyes et al., 2014). Keyes et al. (2014) investigated demographic correlates of psychological distress measured by the Kessler Psychological Distress Scale in the National Health Interview Survey (NHIS) in the United States and the CCHS in Canada. They found that in the CCHS distress was highest between ages 21 and 25 and in the NHIS, distress was highest in young adulthood, declined in early adulthood and increased again through mid-adulthood (Keyes et al., 2014). The sample used in the present study only includes ages 20-64, therefore, it is expected that an inverse relationship between age and distress will be found in the CSA sample. With regards to sex, Keyes et al. (2014) found that females in the general population (in Canada and the United States) reported higher levels of distress than males. Research previously discussed on sex differences in CSA includes Dube et al.'s (2005) finding that CSA males and females have similar long-term outcomes and Widom's (1998) supposition that CSA males and females may experience the same distress but differ in their coping strategies and therefore differentially exhibit this distress. As a result, is unclear whether the trend of females reporting higher distress levels in the general population will hold for the current sample of individuals reporting CSA or if CSA males and females will report similar levels of psychological distress. Previous research has suggested that social support requirements of traumatized individuals may differ depending on the type of trauma they experienced (Gabert-Quillen et al., 2012; Steine et al., 2020). The present study contributes to the literature by exploring whether specific types of social support predict the psychological distress of adult CSA survivors, particularly within the context of sex.

Chapter 2: Method

2.1 Data Collection Method

Data were extracted from the CCHS-MH public use microdata file (Statistics Canada, 2013a). The CCHS-MH (Statistics Canada, 2013a) is a national survey which serves to assess mental health status and functioning, access to and use of mental health services and supports, and the links between mental health and covariates in Canadians. Data collection occurred between January 2, 2012, and December 31, 2012, using computer-assisted personal interviewing, and while some interviews were conducted over the phone, many participants were interviewed in person (Statistics Canada, 2013a). Residents of the three Canadian territories, residents living on reserves or in Indigenous settlements, individuals living in institutions, and full-time members of the Canadian Forces were excluded from taking the survey. The 2012 CCHS-MH (Statistics Canada, 2013a) includes data from 25,113 respondents aged 15 years or older representing the ten Canadian provinces. Relevant to the current study, adults aged 20-64 were specifically selected for the purposes of the study, resulting in a sample size of 16,883 respondents. The most recent version of the data set for the CCHS-MH placed 15 to 19 year-olds in one category which precluded the inclusion of 18 and 19 year-olds from this study.

2.2 Measures

2.2.1 CSA Measure

To identify adult respondents with a history of CSA for this study, an item from the Childhood Experiences of Violence Questionnaire – Short Form (Statistics Canada, 2013a) was employed. While this instrument explores various physical and sexual abuse scenarios that might have occurred before 16 years of age, one primary item was selected to measure CSA directly and clearly in the sample (i.e., “How many times did an adult force you or attempt to force you into any unwanted sexual activity, by threatening you, holding you down, or hurting you in some way?”). In the CCHS-MH (Statistics Canada, 2013a), participants were instructed to respond to this question using a five-point scale, which included the following responses: (1) *never*, (2) *1- 2*

times, (3) *3-5 times,* (4) *6-10 times,* and (5) *more than 10 times* (Statistics Canada, 2013a). Any response other than (1) *never,* was used to assign respondents to the CSA sample to minimize the potential memory limitations of respondent's retrospective self-reports.

2.2.2 Social Support Measure

The original Social Provisions Scale (SPS) is a 24-item measure that was developed by Cutrona and Russell (1987) to assess the types of social support described by Weiss (1974). The SPS was adapted for use in the CCHS-MH (Statistics Canada, 2013b) resulting in an abbreviated version, the Social Provisions Scale 10-item (SPS-10), a ten-item questionnaire used to determine perception of social support (Cutrona & Russell, 1987; Statistics Canada, 2013b). Social support was examined in the present study using the SPS-10, which measures five subtypes of social support including guidance, reliable alliance, reassurance of worth, attachment, and social integration. An example of an item on the SPS-10 measuring attachment social support is as follows: "I have close relationships that provide me with a sense of emotional security and well-being". Item seven on the SPS-10 provides an example of how social integration is measured: "I feel part of a group of people who share my attitudes and beliefs". While item six demonstrates the concept of guidance support: "There is a trustworthy person I could turn to for advice if I were having problems". Reassurance of worth is in part measured by item five on the SPS-10: "I have relationships where my competence and skills are recognized". The fifth and final subtype of social support is reliable alliance which is in part assessed by item one on the SPS-10: "There are31eoplee I can depend on to help me when I really need it" (see Appendix A for full SPS-10 measure). Each question is rated on the following scale: (1) *strongly agree,* (2) *agree,* (3) *disagree,* and (4) *strongly disagree.* An overall score of social support is created using the sum of all types of social support, as well as a separate score for each of the five different types of social support. Overall scores can range from 10-40. Scales were reverse coded for higher scores to

indicate a higher level of social support and lower scores to indicate a lower level of social support (Statistics Canada, 2013b). The SPS-10 has retained the construct validity of the original measure; it has high internal consistency (i.e., Cronbach's alpha for the global scale is .88) and has demonstrated robust concurrent validity with the original scale (Caron, 2013).

2.2.3 Psychological Distress Measure

The Kessler Psychological Distress Scale (K-10) was used to measure psychological distress (Kessler et al., 2002). It is a 10-question scale that assesses mood and anxiety over the past month. An example of a question on the K-10 is as follows: "During the past month, how often did you feel worthless?" (See Appendix B for full K-10 questionnaire). On the K-10, respondents rate each question on the following scale: (0) *none of the time,* (1) *a little of the time,* (2) *some of the time,* (3) *most of the time,* (4) *all of the time*. Scores from the 10 questions are summed to create a total score and final scores can range from zero to 40. Low scores indicate low levels of psychological distress, and high scores indicate high levels of psychological distress. The K-10 has demonstrated high internal consistency, yielding a Cronbach's alpha of .93 (Kessler et al., 2002). Additionally, obtaining a total score of 25 or above has been found to indicate that the respondent may meet criteria for a DSM diagnosis (4^{th} ed.; DSM–4; APA, 1994; Andrews & Slade, 2001).

2.2.4 Sociodemographic Variables

Sociodemographic variables were categorical in nature and included age (i.e., 20-24,25-29,30-34,35-39, 40-44,45-49, 50-54,55-59,60-64), and personal income in Canadian dollars (i.e., less than $10,000, $10,000-$19,999, $20,000-$29,999, $30,000-$39,999, $40,000-$49,999, and $50,000 and above), and a binary measure of biological sex (i.e., male or female; Statistics Canada, 2013b).

2.3 Data Analysis

Data were analyzed using SPSS version 27. A series of one-sample t-tests were conducted to compare the sample means of adults reporting CSA with derived population means representing the entire adult sample in terms of psychological distress (as measured by total scores on the K-10), and social support (using overall and subscale scores from the SPS-10). To examine the CSA sample specifically, independent sample t-tests were conducted to assess sex differences in psychological distress and social support. Subsequent hierarchical regression analyses were carried out to explore whether, and the degree to which social support, as well as age, sex, and personal income, predicted psychological distress for the CSA sample as a whole, and subsequently for the male and female CSA samples individually. Psychological Distress score as measured by the K 10 was selected as the outcome variable for all three hierarchical regressions. The first hierarchical regression was conducted using the entire CSA sample. Personal income, age, and sex were placed in block one to allow for examination of the impact of social support after controlling for the effects of age and income. All five subtypes of social support measured by the SPS-10 (attachment, social integration, guidance, reassurance of worth, and reliable alliance) were identified as relevant predictor variables and placed in block two of the regression. The second hierarchical regression was conducted using the sample of males who had reported CSA. Personal income and age were identified as relevant control variables and placed in block one. The five subtypes of social support measured by the SPS-10 were placed in block two of the regression. The third and final regression was conducted using the female sample who indicated experiencing CSA. Again age and personal income were controlled for in block one and all five subtypes of social support measured by the SPS-10 were placed in block two.

Chapter 3: Results

3.1 Prevalence of CSA

Of the 16, 972 adult respondents aged 20-64 years in the 2012 CCHS-MH (Statistics Canada, 2013a) data file, 1,328 individuals (7.8%) reported at least one incident whereby an adult forced (or attempted to force) them into an unwanted sexual activity before the age of 16 years. Of the 1,328 individuals self-reporting CSA, approximately 23% self-identified as male (n =301) and approximately 77% self-identified as female (n =1027).

3.2 Assessment of Psychological Distress and Social Provision Scale Subtypes in both CSA Sample and Entire Adult Canadian Sample

Table 1 presents the means, standard deviations, t-values, degrees of freedom, and Cohen's d values associated with psychological distress, the SPS-10, and each of the SPS-10 subscales for the entire Canadian adult and CSA samples. Accordingly, The mean psychological distress of the CSA sample (M = 9.74; SD = 7.82) was significantly higher than the derived population mean representing the overall CCHS-MH adult sample (M = 5.79; SD = 5.81) [t(1320) =18.37, p < .001, d = .505]. The table also indicates that the overall SPS-10 mean was significantly lower for the CSA sample (M = 34.73; SD = 5.30) compared to the derived population mean representing the entire adult CCHS-MH sample (M = 36.01; SD = 4.43) [t(1299) = -8.75, p < .001, d = -.242]. The CSA sample was also significantly lower than the entire CCHS-MH sample on each subtype of social support: attachment (M = 7.04 ; SD = 1.21) [t(1325) = -6.44, p <.001, d = -.174], guidance (M = 7.06; SD = 1.27) [t(1325) = -7.55, p <.001, d = -.205], reliable alliance (M = 7.11 ; SD = 1.20) [t(1327) = -7.97, p <.001, d = -.217], social integration (M = 6.62; SD = 1.34) [t(1317) = -10.079, p <.001, d = -.275], and reassurance of worth (M = 6.80; SD = 1.20) [t(1310) = -6.539, p <.001, d = -.184].

3.3 Comparison of Psychological Distress and Social Provision Scale Subtypes in CSA Males and Females

Comparisons between males and females in the CSA sample in terms of psychological distress and social support are presented in Table 2. Mean levels of psychological distress were not significantly different between the male (M = 9.80; SD = 8.18) and female (M = 9.73; SD = 7.72) CSA samples. However, male CSA respondents reported significantly lower levels of social support overall (M = 33.55; SD = 5.68) [$t(442) = -4.12$, $p < .001$, $d = .289$], and subsequently lower levels of each social support subtype including attachment (M = 6.78 ; SD = 1.35) [$t(435) = -3.92$, $p < .001$, $d = .275$], guidance (M = 6.84; SD = 1.30) [$t(1324) = -3.32$, $p < .05$, $d = .221$], reliable alliance (M = 6.93 ; SD = 1.24) [t (1326) = -3.00, $p < .05$, $d = .193$], social integration (M = 6.37; SD = 1.32) [$t(1316) = -3.56$, $p < .05$, $d = .239$], and reassurance of worth (M = 6.63; SD = 1.33) [$t(429) = -2.57$, $p < .05$, $d = .184$].

3.4 Analysis of Variables Predicting Psychological Distress in CSA Sample

Table 3 displays results from a hierarchical regression analysis conducted on the CSA sample to determine whether social support subtypes (Block 2) predicted psychological distress after controlling for total personal income, age, and sex (Block 1). Age (B = -.277, SE = .088, $p < .001$) and total personal income (B = -1.302, SE = .136, $p < .001$) were significantly associated with psychological distress, accounting for 8.1% of the variance [F (3, 1222) = 35.763, $p < .001$]. Specifically, personal income and age were significantly inversely correlated with distress in the CSA sample.

In Block 2, three specific subscales of social support significantly predicted psychological distress: guidance (B = -.666, SE = .272, $p < .05$), social integration (B = -1.139, SE = .232, $p < .001$), and reassurance of worth (B = -.806, SE = .245, $p < .05$). These three subscales accounted for an additional 18.5% of the variance [F (8, 1217) = 55.001, $p < .001$] and higher scores on guidance, social integration, and reassurance of worth were all associated with lower psychological distress.

3.5 Analysis of Variables Predicting Psychological Distress for CSA Males

A hierarchical regression of the male CSA sample aimed to determine whether social support subtypes (Block 2) predicted psychological distress after controlling for total personal income and age (Block 1). The results are displayed in Table 4. Overall Block 1 accounted for 18.9% of the variance in psychological distress [F (2, 281) = 32.780, $p < .001$] whereby there was a significant inverse association between total personal income and distress (B = -2.14, SE = .273, $p < .001$). Attachment was the lone social support subtype that significantly predicted psychological distress (B = -1.336, SE = .530, $p < .05$) for CSA males, accounting for an additional 18.5% of variance [F (7, 276) = 23.593, $p < .001$]. The relationship between attachment and psychological distress in CSA males was inverse in nature, with higher levels of attachment predicting lower levels of psychological distress.

3.6 Analysis of Variables Predicting Psychological Distress for CSA Females

A hierarchical regression of the female CSA sample was conducted to clarify whether social support subtypes (Block 2) predicted psychological distress after controlling for total personal income and age (Block 1). Hierarchical regression results for the female CSA sample are presented in Table 5. Both age (B = -.274, SE = .099, $p < .05$) and total personal income (B = -1.041, SE = .156, $p < .001$) were significant, inverse predictors in Block 1, accounting for 5.6% of the variance [F (2, 939) = 27.999, $p < .001$]. Specifically, lower age and income predicted higher levels of psychological distress. In Block 2, guidance (B = -.828, SE = .317, $p < .05$), social integration (B = -1.431, SE = .267, $p < .001$), and reassurance of worth (B = -.781, SE = .286, $p < .05$) were found to be significant predictors of psychological distress, accounting for an additional 18.8% of the variance [F (7, 934) = 43.105, $p < .001$]. Specifically, guidance, social integration and reassurance of worth were all inversely related to psychological distress.

Chapter 4: Discussion

4.1 Summary of Findings

Based on a review of the research literature on CSA, social support, and psychological distress, I hypothesized that the CSA sample would report higher levels of distress and lower levels of overall and specific subtypes of social support compared to the general population. Females in the general population have reported higher levels of distress than males, and I hypothesized that this trend would hold for the CSA population (Mohr et al., 2003). Research has identified childhood abuse as a risk factor for low income (Marum et al., 2014) and lower-income levels have been associated with greater levels of distress (Marum et al., 2014; Zielinski, 2009). As a result, it was hypothesized that lower-income would be a significant predictor of higher distress in the CSA sample.

Data analyses revealed that the CSA sample was significantly more distressed than the general population and had significantly lower levels of overall social support and each subtype of social support (i.e., reassurance of worth, social integration, guidance, reliable alliance, and attachment). The regression analyses demonstrated inverse relationships between social support and psychological distress for male and female CSA survivors; however, the relationship between social support and psychological distress was quantitatively different for males and females reporting CSA histories. Income was found to be significantly inversely related to distress for both CSA males and females as expected. An increase in age significantly predicted decreased distress for CSA females but not males. Reassurance of worth, guidance and social integration significantly predicted decreases in psychological distress for CSA females whereas, for CSA males, attachment was the lone social support subtype that significantly predicted lower distress.

4.1.1 CSA and Psychological Distress

The observation that the CSA sample had significantly higher levels of distress than the general adult sample is consistent with a plethora of literature that profiles the deleterious impact of CSA on adult psychological functioning/distress. A comprehensive systematic review and meta-analysis conducted by Chen et al. (2010) investigated the relationship between CSA and lifetime diagnosis of psychiatric disorders. The authors' definition of CSA included rape and widespread sexual violence. Lifetime psychiatric disorders considered in this paper included anxiety disorders, bipolar disorder, depression, eating disorders, obsessive-compulsive disorder, PTSD, schizophrenia, sleep disorders, somatoform disorders, and suicide attempts. The authors reviewed 37 eligible studies from January 1980-December 2008 with over 3,000,000 participants in total (Chen et al., 2010). They found significant associations between CSA and lifetime diagnosis of PTSD, eating disorders, depression, anxiety disorders, sleep disorders, and suicide attempts. 27 of the 37 studies assessed CSA (before age 18) exclusively, and two studies investigated adult and childhood abuse separately (Chen et al., 2010).

Jumper (1995) conducted a meta-analysis on the relationship between CSA (before age 16) and impairments in adult psychological adjustment, including depression, self-esteem, and psychological symptomatology, including psychological difficulties experienced by individuals including anxiety-related problems, personality disorders, suicidal behaviour, and psychiatric illnesses. The results suggest that across 26 published studies (with varying sampling methods and definitions of CSA), experiencing CSA accounts for approximately 3% of the variance in impaired self-esteem, 5% of the variance in depression and 7% of the variance in psychological symptomatology (Jumper, 1995). A meta-analysis by Paolucci et al. (2001) on 37 studies published from 1981 and 1995 spanning data from 25,367 participants found that experiencing CSA impacted PTSD, depression, and suicide outcomes significantly. The weighted effect sizes

of these associations ranged from .4 -.44 (Paolucci et al., 2001). This is comparable with the medium effect size (*d*=.505) of CSA on psychological distress in this study.

4.1.1.1 Sex, CSA, and Psychological Distress. While male and female CSA respondents were more distressed overall than the general population, there was no significant difference between the psychological distress experienced in CSA males and females. This is convergent with the finding that PTSD males and females were not significantly different in psychological distress (Fowler et al., 2020). This is also consistent with a meta-analysis on CSA and adult psychological adjustment that found that adult psychological adjustment in CSA survivors did not differ significantly between male and female survivors (Jumper, 1995). This is discrepant from the trend noted in the general population, where females tend to report significantly higher levels of psychological distress than males (Mohr et al., 2003). It appears that the distress associated with experiencing significant trauma, specifically CSA, may be felt equally by males and females.

4.1.1.2 Income, CSA, and Psychological Distress. An inverse relationship between total personal income and psychological distress scores was found in the overall CSA sample and male and female CSA samples. This is consistent with the trend found in general populations where lower-income levels have been linked to higher distress (Marum et al., 2014). Further this result is consistent with research citing childhood maltreatment as a risk factor for financial and employment-related difficulties in adulthood (Zielinski, 2009). In the present study, there were 3.4 times more female CSA respondents than male CSA respondents. It is unsurprising then that the separate hierarchical regression conducted for the female CSA group yielded identical significant predictors of distress (significant inverse relationships with age, income, social integration, guidance, and reassurance of worth) as the hierarchical regression for the overall CSA sample.

4.1.1.3 Age, CSA, and Psychological Distress. While age was found to be significant in both the overall CSA sample and the female CSA sample, it was not found to be a significant predictor for male CSA respondents. This is inconsistent with findings from Easton (2014), who found an inverse relationship between age and mental distress in a nonclinical sample of 487 males with histories of CSA. To understand this discrepancy, note several salient characteristics of the sample analyzed in Easton's (2014) study: The average household income was between 60,000 and 69,999, 97% had told someone about the CSA outside of their participation in the survey and 81% of the participants were members of a survivor organization. The decrease in mental distress may indicate the individual's disclosure of CSA or involvement in a survivor organization rather than the construct of age itself. O'Leary et al. (2010) studied a sample of 172 CSA survivors in Australia and found that respondents in the age range of "20-29" and "50 and older" reported fewer mental health symptoms than those in the 30-49 age range. The researchers suppose that stage of life may be an essential factor concerning the mental health symptoms reported by adult survivors of CSA but needs to be investigated further (O'Leary et al., 2010). The sample used in this study was predominantly female (80.2%), which indicates that the results disproportionately represent the experience of the female CSA survivor. This aligns with the significant association between age and psychological distress in CSA females found in our sample.

4.1.2 CSA and Social Support

Compared to the general population sample, the CSA sample had significantly lower levels of overall social support, including attachment, reassurance of worth, social integration and guidance consistent with our hypothesis. Adult CSA survivors in this sample exhibit a social profile assessed by the SPS-10 that is depleted in every sense. In light of the literature that has documented that CSA survivors can benefit from social support (Briere & Scott, 2015), it is

essential to consider *why* this subset of the population has significantly lower levels of social support. Social support depends on an individual's ability to access and use interpersonal connections in a way that helps them facilitate intimacy and attachment, meet basic social needs and cope with life stressors (Karren et al., 2014). CSA has been identified as a betrayal trauma with a deleterious impact on social, emotional, cognitive, and psychological competencies (Cloitre et al., 2019). It is unsurprising then that CSA would impact individuals' capacity to seek out or utilize their social supports in adulthood. As such, several factors have been identified in the literature that could impact an adult CSA survivor's ability to access and use available social supports effectively.

4.1.2.1 Sex, CSA, and Social Support. The impact of biological sex became pronounced when analyzing data on social support within the CSA sample. CSA males reported significantly lower levels of each subtype of social support (attachment, guidance, reliable alliance, social integration and reassurance of worth). This finding is surprising considering findings from a PTSD sample (drawn from the same data set) where males and females only differed significantly in the attachment social support subtype (Fowler et al., 2020). This suggests that CSA males are socially depleted in every way compared to their CSA female counterparts, whereas PTSD males were only found to be depleted in attachment compared to PTSD females.

4.1.3 CSA Females, Social Support, and Distress

Hyman et al. (2003) investigated the relationship between social support and PTSD symptomology in a sample of 172 adult female survivors of CSA. Social support was measured using the Interpersonal Support Evaluation List (ISEL), and intrusion and avoidance PTSD symptoms were measured using the Impact of Events Scale (IES). The ISEL measures four types of perceived social support: belonging support, self-esteem support, appraisal support, and tangible support. These four types of social support conceptually map onto four of the five types

of social support measured in this study using the SPS-10. The ISEL outlines belonging support as encompassing the feeling of belonging to a social group with shared interests (Hyman et al., 2003). This maps onto the concept of social integration from SPS-10 as social integration captures a sense of belonging to groups with mutual interests and concerns. The ISEL defines *self-esteem support* as communication demonstrating that an individual is valued (Hyman et al., 2003). The SPS-10 counterpart of self-esteem support is reassurance of worth: receiving positive feedback about an individual's value to others, competence, and skills. One inconsistency between the ISEL and the SPS-10 is the designation of the term "appraisal support". Literature on the SPS-10 suggests that reassurance of worth is subsumed under the category of appraisal support, whereas the ISEL defines appraisal support as advice or guidance in coping with problems (Hyman et al., 2003). This definition matches the SPS-10 guidance concept, which is informational support or advice typically given by mentors, parental figures, or teachers to help solve problems in stressful situations. This highlights the importance of considering semantics and which scales are used to measure social support. Establishing conceptual consistency between these measures allows for a more accurate comparison of the findings. In the current study, social integration, guidance, and reassurance of worth emerged as significant predictors of psychological distress in Block two of the hierarchical regression for CSA females. This is partially consistent with Hyman et al.'s (2003) results.

4.1.3.1 Reassurance of Worth. In the current study, reassurance of worth significantly buffered psychological distress (measured by the K-10) in CSA females. This is consistent with Hyman et al.'s (2003) finding that the most potent form of social support for buffering the development of core PTSD symptoms in CSA females was self-esteem support. Together these findings suggest that having their value affirmed by another is particularly significant for CSA females as it has been found to buffer both psychological distress and PTSD intrusion and

avoidance symptoms. Hyman et al. (2003) suggest that the perception that others value the individual could counteract the self-blame commonly experienced in adult survivors of CSA and challenge the development of negative core self-beliefs (Hyman et al., 2003). This is particularly salient because endorsing self-blame about abuse has been found to predict lower social and personal functioning levels as adults (Liem & Boudewyn, 1999).

4.1.3.2 Guidance. Results from the current study found that guidance significantly predicts lower levels of psychological distress in CSA females. This is partially consistent with the Hyman et al. (2003) finding that the most parsimonious model included appraisal support (advice or guidance in coping with problems) in addition to self-esteem support and accounted for 10.6% of the variance in PTSD symptoms. Together, findings from the present study and those reported by Hyman et al. (2003) suggest that perceived availability of informational support in the form of advice or guidance (in coping with problems) has a buffering effect on both psychological distress and core PTSD symptoms in adult female survivors of CSA.

Conversely, Fowler et al. (2020) used data from the 2012 CCHS-MH and found that guidance significantly predicted higher levels of psychological distress in PTSD females. This discrepancy between CSA and PTSD females drawn from the same dataset warrants closer consideration as to why guidance may be beneficial for CSA females but not PTSD females. This is particularly interesting given the high rates of PTSD in females reporting experiences of sexual assault (Creamer et al., 2001; Kessler et al., 1995). Specifically, one study using data from the Australian National Survey of Mental Health and Well-being found that females who reported sexual assault had a 50% lifetime prevalence of PTSD (Creamer et al., 2001) while results from a National Comorbidity Survey in the United States found that 46% of women who reported experiencing sexual assault as an adult, developed PTSD over their lifespan (Kessler et al., 1995). Van Ameringen et al. (2008) analysed a sample of 645 Canadian males and females with lifetime

PTSD and found that females with lifetime diagnoses of PTSD were far more likely to report experiencing sexual assault (25.8%) than CSA (5.6%). It is clear from these findings that a significant portion of women with PTSD have experienced sexual violence in adulthood while a smaller portion have experienced CSA. Several authors have proposed using a trauma-specific lens when analyzing the effects of social support (Gabert-Quillen et al., 2012; Steine et al., 2020) The discrepancy noted between PTSD and CSA females in this data set provide further support for the notion that the buffering effects of social support would be most salient when the type of social support provided aligns with the coping requirements necessitated by the stressor (Cohen & Wills, 1985; Gabert-Quillen et al., 2012).

It is also important to be mindful that the definition of guidance used in the SPS-10 (informational support or advice provided by mentors, parental figures, or teachers) identifies perceived availability of guidance or advice, not whether that guidance or advice is effective/helpful to the individual. For example, Ullman and Relyea (2016) describe the concept of unsupportive acknowledgement of sexual assault as when a concerned support person engages in ineffective or harmful support such as telling a victim to "stop thinking about the assault". This demonstrates the idea that a concerned support person who believes the victim may still provide advice that is ineffective or harmful to the victim. Further, Ullman and Relyea (2016) found that unsupportive acknowledgement predicted increased maladaptive coping in sexual assault survivors both one- and two-years post-baseline and that levels of post-traumatic stress symptoms and maladaptive coping predicted unsupportive acknowledgement social reactions. This highlights a need for future literature to delineate which types of guidance or advice are effective and helpful or ineffective and harmful for CSA survivors. Several studies have noted that when rape disclosures are met with even well-intentioned assertive, opinionated, and overbearing responses, it can exacerbate lack of control in the victims (Herbert & Dunkel-Schetter, 1992;

Peter-Hagene & Ullman, 2014; Sit & Schuller, 2015; Ullman et al., 2007, as cited in Fowler, et al., 2020). This literature offers a possible explanation as to why guidance was found to predict higher distress in PTSD females. However, given that CSA females also frequently experience a lack of control in the wake of their abuse and seek to gain psychological control as a long-term coping strategy (Walsh et al., 2010), it remains unclear why receiving advice or guidance in coping with problems may be a welcome form of support for adult CSA females. Future research may benefit from considering what type of guidance or advice is being provided to CSA adults and who is providing that support (e.g., a family member, significant other, friend, mental health practitioner).

4.1.3.3 Social Integration. This study found that social integration was a significant inverse predictor of distress in female CSA survivors. The experience of CSA frequently includes feelings of social isolation and degradation, and these feelings of isolation can persist into adulthood (MacGinley et al., 2019; Paivio & Pascual-Leone, 2010; van der Kolk, 2003). In the adult CSA population, shame is associated with feeling disconnected from the world and difficulties and conflict in close relationships (MacGinley et al., 2019). A sense of belonging to a group with mutual interests and concerns may help combat the experience of isolation and disconnection experienced by female victims of CSA. However, this is partially inconsistent with Hyman et al.'s (2003) finding that belonging support did not significantly add to the model over and above self-esteem and appraisal support.

4.1.4 CSA Males, Social Support, and Distress

4.1.4.1 Attachment. After controlling for age and income in block one, attachment was the lone significant predictor of psychological distress scores for males who reported CSA. The attachment subscale on the SPS-10 represents a sense of emotional closeness, security and comfort provided by a close other (i.e., spouse, close family member or friend). The two items associated with this subscale included "I have close relationships that provide me with a sense of emotional well-being" and "I feel a strong emotional bond with at least one other person".

CSA males and females were found to have lower levels of perceived availability of attachment support in comparison to the general population. This is consistent with the abundance of literature documenting the deleterious impact of CSA on relational capacities (Briere & Elliott, 1994; Cloitre et al., 2012; Paivio & Pascual-Leone, 2010; van der Kolk, 2003). It is peculiar that attachment was the *only* subtype of social support that significantly predicted lower levels of distress in CSA males; however, it did not significantly predict distress for CSA females. This suggests that CSA males may benefit from receiving different forms of social support than their female counterparts, specifically support from close others that provide a sense of emotional closeness and sense of security and comfort. While this preliminary finding will require further investigation, it is vital to consider it within the context of the sequelae of CSA in males.

"Turning points" have been defined in literature as a time of significant, lasting change in an individual's view of self, other, or world and how they respond to opportunity (Cappeliez et al., 2008; Ferraro & Shippee, 2009; Hutchison, 2011, as cited in Easton et al., 2015). Negative turning points can spark a downward spiral in functioning, whereas positive turning points are potent facilitators/motivators for engaging in the recovery progress (Ochocka et al., 2005; Wethington, 2003, as cited in Easton et al., 2015). Easton et al. (2015) analyzed the responses of

250 male survivors of CSA on the 2010 Health and Well-Being Survey. Content analysis of the data yielded three broad categories of positive turning points (influential relationships, insights and new meanings, and action-oriented communication), which encompassed seven subtypes of positive turning points (professional and group support, personal relationships, cognitive realizations, the necessity to change, spiritual transformation, disclosure of CSA and the pursuit of justice; Easton et al., 2015). The findings from the influential relationship category and disclosure of the CSA subtype are of particular relevance to the current study.

The positive turning point for many male CSA survivors in the study by Easton et al. (2015) occurred within the context of close relationships. These turning points occurred either in light of support offered from positive relationships or in the face of actual or potential loss of close relationships. Many males described the support of a strong relationship with a spouse, close friend, or child as "transformative, uplifting and, ultimately, healing" (Easton et al., 2015). Many participants also reported that the possibility of divorce or separation from their partner was a turning point that was a catalyst for their recovery journey. A small number of males identified the death of a close other (parent, partner, friend) as a turning point in their healing (Easton et al., 2015). These findings demonstrate the importance of close relationships in positive turning points toward recovery in male CSA survivors. Similarly, the current study suggests that provision of emotional closeness, security and comfort by close family members, spouses or close friends may be a particularly potent safeguard from distress in adult male CSA survivors.

Another important factor to consider when discussing CSA in males is that they experience many unique socio-political, interpersonal, and personal barriers to disclosure (Easton et al., 2014). Adult CSA males have been found to have lower rates of disclosure than CSA females in both childhood and adulthood (Burczycka, 2015; Easton et al., 2014) and CSA males have been found to delay disclosure by 21 years on average (Easton, 2012). CSA of males is

frequently perpetrated by a same-sexed adult, which is a significant factor that impacts their disclosure (Dube et al., 2005). However, societal attitudes towards CSA of males are a barrier to disclosure regardless of the perpetrator's sex (Easton et al., 2014). Easton et al.'s (2015) study on positive turning points in recovery for male CSA survivors discussed the disclosure of abuse as a positive turning point for many males even if the disclosure had been delayed for years or decades. The males in the study described disclosing to their therapists as a turning point as they began processing the traumatic experience. Disclosure to close others, including family and friends, was cited by the survivors as a turning point that led to processing the abuse and moving along in their recovery (Easton et al., 2015). There are many barriers to disclosure for male CSA survivors; however, disclosure can be a positive turning point in healing for many of these males. Easton (2014) proposed the health-enhancing effects of supportive relationships for male CSA survivors as these relationships may help them disclose their abuse and perhaps make meaning of it. In light of our finding that attachment is inversely associated with distress in male CSA survivors future research may benefit from closely considering the nuances of the relationship between attachment (sense of emotional closeness, security and comfort provided by a close other), disclosure, and distress in CSA males.

4.2 Directions for Future Study

Analyzing a nationally representative sample is a strength of this study; however, future research should investigate whether these findings generalize to other countries. It is also important to note that the exclusion of full-time members of the Canadian forces, institutionalized individuals, those living on an Indigenous settlement or in the Canadian territories, and transgender and gender diverse individuals considerably impairs the generalizability of these findings. This is particularly salient, given that trauma survivors from marginalized populations (including racial minorities and LGBTQ2S+ individuals) have been found to be more likely to

experience prejudice (Briere & Scott, 2015). Future research should investigate the experience of CSA in these subgroups.

4.2.1 CSA and Transgender and Gender Diverse Populations

Both the 2016 Canadian Census and the 2012 CCHS-MH (Statistics Canada, 2013a) measured biological sex based on two response categories (male and female), thereby excluding the experience of transgender and gender diverse individuals (Statistics Canada, 2020). While little is known about Canada's transgender and non-binary population, a 2019 census test suggested that the percentage of transgender and non-binary individuals may be approximately .35% (Statistics Canada, 2020). This is consistent with a 2017 study conducted in the U.S. that examined data from 12 national surveys estimating a population of approximately .39% transgender individuals in the U.S. (Meerwijk, & Sevelius, 2017).

Gender nonconformity has been defined as the extent to which a person's gender identity or expression differs from prescribed conventional or cultural gender norms (Adhia et al., 2021; Coleman et al., 2012; Zucker & Wood, 2011). Roberts et al. (2012) investigated gender nonconformity as a risk factor for childhood abuse and post-traumatic stress using data from the 2007 wave of U.S. community-based longitudinal cohort, which assessed childhood maltreatment, PTSD, and sexual orientation (n = 9864). These researchers defined gender nonconforming children as those who do not conform to the typical expression of their biological sex based on their clothing choices, activities, mannerisms, and interests. This concept was measured using the Recalled Childhood Gender Identity/Gender Role Questionnaire, which assessed feelings of femininity or masculinity, favourite toys and games, and roles are taken in pretend play and media characters imitated or admired in a child under age 11 (Roberts et al., 2012). After controlling for sex, age, and race, they found that individuals in the top decile of nonconformity were at an elevated risk of experiencing all types of childhood abuse, including

CSA under age 17 compared with those below the median of nonconformity (Roberts et al., 2012).

Further, within the non-binary and transgender population, biological sex assigned at birth is a significant predictor of CSA (Rimes et al., 2019). One study from the U.K. using online survey data from 677 gender diverse (non-binary and transgender youth) participants ages 16-25 found that participants assigned female at birth reported significantly higher levels of CSA than participants who were designated male at birth. (Rimes et al., 2019). This is consistent with the plethora of research using binary classifications of gender that suggest that females are disproportionately at risk of experiencing CSA. (Finkelhor, 1994a; MacMillan et al., 2013). While the transgender and non-binary community likely make up a small percentage of the overall population, they appear to be disproportionately at risk of CSA. To accurately capture and understand the relationship between sex and CSA, future research in this area should invariably include the experience of transgender and gender diverse individuals.

4.2.2 CSA and Indigenous Populations

Regrettably, the data used in this study excluded those living on an Indigenous settlement or in the Canadian territories, which thwarts our ability to generalize our findings to this sub-group of Canadians. It would be negligent to discuss CSA in Canada's Indigenous population without acknowledging the CSA experienced by Indigenous children in the context of residential schools. The First Nations Regional Longitudinal Health Survey (which studied 10,962 adults, 4,983 adolescents, and 6,657 children) found that 32.6% of those who reported being negatively impacted by their stay at a residential school also reported CSA (First Nations Centre, 2005). This data provides evidence that CSA exists in this population and further suggests that this subgroup of Canadians may be particularly at-risk for and impacted by CSA. Research on the unique experience of Indigenous adult survivors of CSA in Canada would be a small but essential

step toward providing culturally competent psychological care to this subset of the population. A statistical profile of Canadian adults who experienced childhood maltreatment completed in 2015 found that Indigenous participants experienced higher rates of CSA before age 15 (13%) than their non-Indigenous counterparts (8%; Burczycka, 2015). Indigenous females were found to have the highest rate of CSA, with over one in five (21%) reporting CSA. This is compared to 12% of non-Indigenous females who reported CSA. While the prevalence of CSA was lower in males, in general, Indigenous males were found to have higher rates of CSA (7%) than their non-Indigenous counterparts (4%; Burczycka, 2015). Another Canadian study conducted on 358 Indigenous individuals (164 males and 194 females) from urban and First Nation reserves found that 35.2% of the sample reported CSA (Ross et al., 2015).

4.2.3 Characteristics of CSA

Given that severity of CSA (more severe CSA, repeated experiences of CSA, multiple perpetrators, or intrafamilial perpetrators) has been associated with the degree of adult psychopathology experienced (Mullen et al., 1993), future research in this area should assess the severity of the abuse. High rates of poly-victimization (ACEs) have been documented in male and female CSA survivors found in those who report CSA, and increased severity of CSA has been associated with experiencing more ACEs (Dong et al., 2003). Given that an increased number of ACEs has been linked with an increase in the level of adverse outcomes (Appleyard et al., 2005; Felitti et al., 1998, as cited in Finkelhor et al., 2009) it may be prudent to measure levels of poly-victimization in future studies of adult survivors of CSA. The nature of the relationship to the perpetrator has been discussed in CSA literature, and it was recently implicated as a differential risk factor for complex PTSD versus PTSD. Cloitre et al. (2019) found that the perpetrator being a caregiver was a risk factor for complex PTSD, whereas the perpetrator not being in a caregiving role was a risk factor for PTSD. This suggests that the

nature of the relationship to the perpetrator should be included in future population-based studies on CSA.

4.3 Strengths and Limitations

The present study has many strengths. It serves to investigate social support variables in a nationally representative sample of Canadian males and females who reported experiencing CSA. It analyzed data from the CCHS-MH (Statistics Canada, 2013a), which provided a large nationally representative sample of a population (adult CSA survivors) that may have been otherwise difficult to study. The survey explicitly defined CSA allowing for separation of CSA males and females from the general population. Many studies of adult CSA survivors are conducted on clinical samples, which impacts the generalizability of the findings. In other research, generalizability has been impeded by the recruitment process (i.e., selecting participants from support centres for sexual abuse survivors). Specifically, studying social support in CSA survivors involved with support centres may introduce sampling bias as these individuals have disclosed their abuse and are involved with an establishment that provides social support, particularly social integration (sense of belonging to groups with mutual interests or concerns). This study also boasts a large sample of 301 adult males reporting historic CSA. Many other studies on the experience of CSA either exclude males or report findings on the male experience based on small sample sizes. The current study used the K-10 to measure psychological distress in participants. The K-10 has demonstrated high internal consistency and has utility as a screening measure for mood and anxiety disorders. This study used the SPS-10 to measure perceived social support (overall support and five specific subtypes of social support). The SPS-10 has a robust construct and concurrent validity, and high internal consistency. Measuring perceived social support rather than actual availability of social support can also be considered a

strength of this study as the perception of available social support is thought to impair stress appraisal more than the concrete availability of social support (Cohen & Wills, 1985).

As with any research, some limitations warrant closer review. First and foremost, the cross-sectional and correlational design of the study precludes us from inferring causality or from measuring any temporal or bidirectional relationships. This is particularly salient considering the theorized bidirectional effects of social support and recent findings that these effects may be time-dependent. In this study, the CCHS-MH (Statistics Canada, 2013a) data set examined in this study excluded full-time Canadian forces members, individuals who were institutionalized, living on an Indigenous settlement or in the Canadian territories. By the function of measuring gender in a binary method, the CCHS-MH (Statistics Canada, 2013a) also excluded transgender and gender-diverse individuals. Therefore, results from this study are not generalizable to these sub-populations of Canadians. All variables assessed in this study (age, income, biological sex, history of CSA, social support, and psychological distress) were collected through participants' self-reports. Some research has indicated that abuse is frequently underreported when retrospective adult reports are used to capture individuals' childhood experiences (Hardt & Rutter, 2004). Furthermore, estimates of CSA prevalence from self-report versus register-based data suggest that CSA is underestimated and underreported (Kuoppamäki et al., 2011; United Nations, 2006). It is also important to note that within the context of this research, it was not feasible to assess several essential variables frequently reviewed in CSA literature, including the severity of CSA, the nature of the relationship with the perpetrator(s) or the presence of concurrent adverse childhood experiences.

More research is needed to elucidate the longitudinal relationships between social support and functioning/distress in adult CSA survivors. The present cross-sectional study supports social causation theory as greater social support was associated with less distress in the CSA sample.

However, it is important to be cognizant of recent findings from longitudinal research. Steine et al. (2020) proposed that relational problems could be a possible mechanism to explain the relationship between CSA and perceived levels of social support in adulthood. They found that relational problems predicted social support longitudinally in CSA survivors, but there was no evidence of a longitudinal relationship between relational problems and mental health symptoms in this population. Steine et al. (2020) suggest that social causation and erosion may occur at varying time points after the trauma in this population. The bidirectional nature of social support in the CSA population requires further investigation.

4.4 Clinical Implications

Decades of research have extensively documented the deleterious psychological impacts of CSA. It has been consistently associated with impaired self-esteem, suicide attempts/outcomes, diagnoses of depression, PTSD, anxiety disorders, sleep disorders, and eating disorders (Chen et al., 2010; Jumper, 1995; Paolucci et al., 2001). The complex trauma task force has identified that complex PTSD can encompass several traumatic stressors, including the experience of CSA (Cloitre et al., 2012). The clinical presentation of complex PTSD is characterized by disturbances in self-regulatory capacities in several domains, including relational and negatively impacted belief systems (Cloitre et al., 2012). The treatment guidelines suggest reductions in psychiatric symptoms, improvement in fundamental functional capacities and strengthening psychosocial and environmental resources (Cloitre et al., 2012), and their phasic approach to treatment repeatedly addresses social and relational deficits. The very essence of the therapeutic relationship is considered a model of a healthy relationship and a source of validation, encouragement, and support for the client. Further, the phases of treatment include providing education on the impact of trauma self, other and world view, providing skill-building for social relationships, reviewing and reappraising trauma memories to create a more adaptive,

positive, compassionate, and coherent sense of self and relatedness to others. Lastly, the final phase of treatment focuses on applying and generalizing newly acquired social and relational skills to strengthen safe and supportive social networks (Cloitre et al., 2012).

Research has demonstrated that perceived social support has a more significant impact on the appraisal of stress than available social support (Cohen & Wills, 1985). This has positive implications for clinically treating individuals as mental health practitioners cannot alter the availability of social support, but they may foster modification of the client's perception of social support (Cohen & Wills, 1985). Therefore, clinicians working with adult CSA survivors should also consider modifying the client's perception of social support by providing resources and group therapy.

There have been studies that provide cross-sectional support for the buffering effects of perceived social support on the severity of symptoms in adult CSA survivors (Hyman et al., 2003; Runtz & Schallow, 1997). Hyman et al. (2003) suggest that identifying which forms of social support are beneficial for adult CSA survivors could guide the development of interventions to reduce and eliminate symptoms in this population. Thrasher et al. (2010) found that high levels of social support moderated the efficacy of exposure therapy and cognitive restructuring in PTSD. Further research is needed to ascertain the impact of social support on intervention with adult CSA survivors. Steine et al. (2020) suggest that early interpersonal traumas like CSA impair the individual's capacity to trust and attach to others, which consequently diminishes their ability to build, effectively utilize and maintain a healthy social support network that could, in turn, damage their perception of social support.

This study provides further cross-sectional support that social support buffers distress in a nationally representative group of adult CSA survivors. The imperative role of social support in the wake of trauma is intuitive; however, recent research has highlighted the need to investigate

which types of social support are better suited to specific forms of trauma. For example, individuals who survived natural disasters require different forms of social support to ameliorate distress than veterans (Gabert-Quillen et al., 2012; Steine et al., 2020). Our research supports this notion by demonstrating the specific forms of social support that predict distress levels in adult CSA survivors. Furthermore, our study suggests that even within a specific trauma population (such as the CSA population), there may be an added benefit in taking a gendered lens when considering which social support types are helpful. Our study was disproportionately female; however, separate hierarchical regressions of male and female CSA survivors indicated that the types of social support that significantly predict a decrease in psychological distress are different for males than females. Social integration, guidance and reassurance of worth were predictive of lower distress in CSA females, while attachment was the lone significant predictor of lower distress in CSA males.

When providing psychological treatment to adult female survivors of CSA, it may be important to assess the extent to which they integrate into social groups or relationships where they feel they belong and have common concerns. It may also be beneficial to assess the extent to which they receive positive feedback about their skills, competence, and value to others or informational support or advice from their social network. In addition to assessing social support in female CSA survivors, the therapeutic relationship can reassure the individual's strengths, competencies, and worth and provide accurate psychoeducation/information about the impacts of trauma. Group therapy for female CSA survivors may also serve to enhance their social integration as the group would, in essence, have similar concerns and could serve to foster a sense of belonging.

As outlined consistently in the literature, the male experience of CSA presents many unique complications in accessing and utilizing social support. Our results suggest that

attachment alone predicted lower distress in a large nationally representative sample of male CSA survivors. Easton et al. (2019) suggest that research on the positive impact of social support on mental health in male CSA survivors supports evaluating the size, strength, and quality of their social support networks in these individuals by mental health care practitioners. The low disclosure rates and the average length of disclosure delay suggest that many male CSA survivors may not be engaging in support services or therapy to help them process their trauma. It is also possible that some males who are in therapy may not readily disclose CSA. This underscores the importance of assessing attachment in male clients and assessing whether they have relationships (spouse, family, friends) in their life that provide them with a sense of emotional closeness and security. Furthermore, the therapeutic relationship can provide male clients with the opportunity to engage in a healthy and secure relationship that may allow them to disclose their abuse and help them process psychological distress related to their abuse.

4.5 Conclusion

CSA is a severe form of maltreatment that has been extensively examined in scientific research over the past several decades. A vast collection of literature consistently demonstrates many detrimental biopsychosocial outcomes experienced by CSA survivors beginning in childhood and persisting into adulthood. A significant amount of research has focused on understanding the sequelae of CSA and identifying risk factors and potential protective factors. Cross-sectional and longitudinal research has identified positive social support as a protective factor for CSA survivors. However, studies including the male experience of CSA and studies focusing on specific forms of social support and CSA are sparse.

The present study aimed first to determine overall levels of social support and psychological distress in a large Canadian population-based sample of male and female adults who reported experiencing CSA. Additionally, this study sought to identify the extent to which

specific subtypes of social support (i.e., attachment, guidance, reliable alliance, reassurance of worth, and social integration) predicted psychological distress in CSA males and females, controlling for relevant demographic variables. Results demonstrated that adult CSA survivors not only had higher levels of distress but were also socially depleted in every way. Lower-income levels predicted higher levels of distress in both CSA males and females, whereas an increase in age only predicted a decrease in distress for CSA females, not CSA males. Furthermore, the relationship between specific types of social support and psychological distress was quantitatively different for males and females reporting CSA after controlling for age and income. Social integration, reassurance of worth, and guidance significantly predicted lower levels of psychological distress in CSA females. In contrast, attachment was the solitary form of social support that significantly predicted lower levels of psychological distress in CSA males.

This study provides further cross-sectional evidence for the stress-buffering hypothesis, as various forms of social support were associated with mitigating distress in both males and females reporting CSA. The results of this study highlight the value of taking a trauma-specific approach to social support research. Furthermore, the results identify that it may be beneficial to consider sex differences when researching social support in CSA samples. Specifically, the findings of this study suggest that CSA females may benefit from support focusing on instilling a sense of belonging to groups with mutual concerns, providing informational support or advice, and providing positive feedback about their skills, competence, and value to others. Conversely, CSA males may benefit from receiving social support that allows them to acquire a sense of security and emotional closeness from those in their intimate circle (e.g., spouse or close family or friends). Future research is needed to replicate these findings and improve the generalizability by studying understudied and high-risk populations in Canada (e.g., gender diverse individuals and Indigenous individuals). Future research in this area would also benefit from assessing

whether the associations between type of social support and distress in CSA individuals vary temporally and exploring potential mechanisms that may explain these associations. A more nuanced understanding of why and at what point in recovery male and female survivors of CSA may benefit from specific types of social support is needed. This knowledge would likely help clinicians tailor their approach to treatment with this population and subsequently improve treatment outcomes for survivors of CSA.

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Table 1

Psychological Distress and Social Provision Scale Subtypes Means and Standard Deviations for CSA Sample and Entire Adult Canadian Sample

	CSA Sample (n=1,328)		Entire CCHS-MH Sample (N=16,972)					
	M	SD	M	SD	*t*	*df*	*p*	Cohen's *d*
Distress scale: K-10	9.74	7.82	5.79	5.81	18.369	1320	.000	.505
Social Provisions Scale								
Overall	34.73	5.30	36.01	4.43	-8.75	1299	.000	-.242
Attachment	7.04	1.21	7.25	1.014	-6.44	1325	.000	-.174
Guidance	7.06	1.27	7.32	1.022	-7.55	1325	.000	-.205
Reliable Alliance	7.11	1.20	7.37	0.94	-7.97	1327	.000	-.217
Social Integration	6.62	1.34	6.99	1.11	-10.079	1317	.000	-.275
Reassurance of Worth	6.80	1.20	7.02	1.030	-6.539	1310	.000	-.184

Table 2

Psychological Distress and Social Provision Scale Subtypes Means and Standard Deviations for CSA Sample by Sex

	CSA Male Sample (n=301)		CSA Female Sample (n=1027)					
	M	SD	M	SD	*t*	*df*	*p*	Cohen's *d*
Distress scale: K-10	9.80	8.18	9.73	7.72	.151	1319	ns (.880)	
Social Provisions Scale								
Overall	33.55	5.68	35.07	5.13	-4.12	442	.000**	.289
Attachment	6.78	1.35	7.11	1.15	-3.92	435	.000**	.275
Guidance	6.84	1.30	7.12	1.26	-3.32	1324	.001*	.221
Reliable Alliance	6.93	1.24	7.16	1.18	-3.00	1326	.003*	.193
Social Integration	6.37	1.32	6.69	1.34	-3.56	1316	.000*	.239
Reassurance of Worth	6.63	1.33	6.85	1.15	-2.57	429	.011*	.184

Note. * $p < .05$
** $p < .001$

Table 3

Summary of Hierarchical Regression Analysis for Variables Predicting Psychological Distress

	Block 1			Block 2		
Variable	*B*	*S.E. B*	*β*	*B*	*S.E. B*	*β*
Age	-.277	.088	-.086*	-.317	.080	-.099**
Income	-1.302	.136	-.268*	-.748	.126	-.154**
Sex	-.912	.522	-.049	.327	.474	.018
Attachment				-.164	.306	-.025
Guidance				-.666	.272	-.106*
Reliable alliance				-.457	.264	-.069
Social integration				-1.139	.232	-.193**
Reassurance of worth				-.806	.245	-.122*
R^2			.081			.266
F for change in R^2			35.763**			55.001**

Note. * $p < .05$

** $p < .001$

Table 4

Summary of Hierarchical Regression Analysis for Variables Predicting Psychological Distress for CSA Male Respondents

	Block 1			Block 2		
Variable	*B*	*S.E. B*	*β*	*B*	*S.E. B*	*β*
Age	-.309	.196	-.085	-.150	.177	-.041
Income	-2.14	.273	-.421**	-1.468	.255	-.290**
Attachment				-1.336	.530	-.222*
Guidance				-.144	.532	-.023
Reliable alliance				-.437	.524	-.067
Social integration				-.414	.474	-.066
Reassurance of worth				-.793	.473	-.130
R^2			.189			.374
F for change in R^2			32.78**			23.59**

Note. * $p < .05$
** $p < .001$

Table 5

Summary of Hierarchical Regression Analysis for Variables Predicting Psychological Distress for CSA Female Respondents

	Block 1			Block 2		
Variable	*B*	*S.E. B*	*β*	*B*	*S.E. B*	*β*
Age	-.274	.099	-.088*	-.355	.089	-.115**
Income	-1.041	.156	-.213**	-.517	.144	-.106**
Attachment				.391	.373	.057
Guidance				-.828	.317	-.130*
Reliable alliance				-.511	.304	-.076
Social integration				-1.431	.267	-.245**
Reassurance of worth				-.781	.286	-.115*
R^2			.056			.244
F for change in R^2			27.999**			43.105**

Note. * $p < .05$
** $p < .001$

Appendix A: Social Provisions Scale – 10

Please indicate how much each statement describes your situation by using these responses. If you feel a statement is very true, select "Strongly Agree". If you feel a statement clearly does not describe your relationships, select "Strongly Disagree".

Items	Strongly Disagree	Disagree	Agree	Strongly Agree
1. There are people I can depend on to help me if I really need it.	1	2	3	4
2. There are people who enjoy the same social activities I do.	1	2	3	4
3. I have close relationships that provide me with a sense of emotional security and well-being	1	2	3	4
4. There is someone I could talk to about important decisions in my life	1	2	3	4
5. I have relationships where my competence and skills are recognized	1	2	3	4
6. There is a trustworthy person I could turn to for advice if I were having problems	1	2	3	4
7. I feel part of a group of people who share my attitudes and beliefs	1	2	3	4
8. I feel a strong emotional bond with at least one other person	1	2	3	4
9. There are people who admire my talents and abilities	1	2	3	4
10. There are people I can count on in an emergency	1	2	3	4

Appendix B: Kessler Psychological Distress Scale (K-10)

The following questions are about how you have been feeling during the past 30 days.

During the past 30 days…	None of the time	A little of the time	Some of the time	Most of the time	All of the time
1. About how often during the past 30 days did you feel tired out for no good reason?	0	1	2	3	4
2. About how often did you feel nervous?	0	1	2	3	4
3. How often did you feel so nervous that nothing could calm you down?	0	1	2	3	4
4. How often did you feel hopeless?	0	1	2	3	4
5. How often did you feel restless or fidgety?	0	1	2	3	4
6. How often did you feel so restless that you could not sit still?	0	1	2	3	4
7. How often did you feel depressed?	0	1	2	3	4
8. How often did you feel so depressed that nothing could cheer you up?	0	1	2	3	4
9. how often did you feel that everything was an effort?	0	1	2	3	4
10. how often did you feel worthless?	0	1	2	3	4