Haigazian University

Relationship Between Child Maltreatment, Psychological Symptomatology and Social Support Among College Students in Lebanon

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DEDICATION

I dedicate this thesis to my father Ali A.R. Sbeity, my guardian angel.

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Abstract

Research indicates that experiences of childhood maltreatment are associated with psychopathology and interpersonal problems in adulthood. The current study examined the relationship between childhood maltreatment and adult psychological symptoms among college students in Lebanon, and the role of social support on mental health outcomes of students with self-reported history of maltreatment. A total of 198 participants were administered Childhood Trauma Questionnaire, Brief Symptom Inventory-53 and Multi-dimensional Scale of Perceived of Social Support.

The findings were consistent with the hypotheses. Compared to participants without reported history of maltreatment, the findings indicated that those with history of maltreatment reported higher levels of psychological symptomatology and lower levels of social support. The findings also indicated that the impact of social support on psychological symptomatology was found to be positive within the history of maltreatment group of participants. Results were discussed in light of recent research findings. Clinical implications and suggestions for future research are also discussed.

Relationship Between Child Maltreatment, Psychological Symptomatology and Social Support Among College Students in Lebanon

World Health Organization (2006) has identified child maltreatment (CM) as a global public health problem that is often unrecognized and overlooked by health care, social and legal agencies and services. Under the Child Abuse Prevention and Treatment Act, CM refers to "any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act which presents an imminent risk of serious harm" (Kearney et al., 2010, p.46). CM is one of the forms of childhood adversities, and it is categorized into four common forms which are: psychological maltreatment, emotional and physical neglect, physical abuse and sexual abuse (Kearney et al., 2010).

The effects of CM may be immediate and they may last across the life span of maltreated individuals (Cicchetti & Toth, 2005). The consequences may vary between physical health, mental health and social problems (Cicchetti & Toth, 2005). These physical health problems include gastrointestinal problems, chronic lung disease, liver disease, and cancer. Whereas, mental health and social problems include depression, anxiety, attachment difficulties, and difficulty forming and maintaining relationships.

The implications of CM on mental health are prevalent in a range of populations, including college students, clinical patients and community samples (Banyard et al., 2000). Despite the extensive research on the long term effects of CM, the research is often limited to the effect of one or two types of maltreatment (mostly physical and sexual abuse) on a limited number of symptomatology (mostly depression, anxiety and post-traumatic stress symptoms) (Briere & Elliot, 2003). In addition, there is limited research on intervening variables affecting the relationship between CM and adult mental health. Research indicates that the relationship between CM and adult psychological symptomatology is not necessarily a causal one as it is influenced by a number of internal and external factors such as self-esteem, intelligence, family environ-

ment and social support (Bradley, Schwartz, & Kaslow, 2005; Cohen & Willis, 1985; Hyman, Gold, & Cott, 2003; Keyes et al., 2011; Lupien et al., 2009). Several studies looking at samples of CM survivors have identified social support (SS) as a key protective factor against the effect of CM on adult mental health outcomes, predominately among females (Conte & Schuerman, 1987; Powers et al., 2009; Testa, Miller, Downs, & Panek, 1992; Vrancenu, Hobfoll, & Johnson, 2007).

In the Arab world, CM is widespread and underreported (Usta, Farver & Danachi, 2013). However, it is unclear whether knowledge from Arab countries could represent the Lebanese context as Lebanon has a unique religious and cultural diversity, is politically unstable, and has experienced repetitive humanitarian crises and civil wars, all of which have been identified as risk factors for maltreatment and psychopathology (Usta, Farver & Danachi, 2013).While interest in CM in the Arab world has increased over the past decade, its long-term consequences remain relatively unexplored as the research has focused mainly on the prevalence of types of CM and the demographic and family factors associated with maltreatment (Al-Mahroos et al., 2005; Eissa & Almuneef, 2010; Haj-Yahia & Ben-Arieh, 2000; Haj-Yahia & Tamish, 2001; Khamis, 2000; Thabet, Tischler & Vostanis, 2004).

Statement of the Problem

Studies have mostly examined the effect of physical and/or sexual abuse on psychopathology (Briere & Elliot, 2003). However, this may not reveal the complete understanding of effects of CM as types of maltreatment frequently co-occur and research indicates that the impact of multi-types of maltreatment may be additive or synergistic (Dube et al., 2001; Edwards et al., 2003; Teicher et al., 2006). Moreover, the results of previous studies were inconsistent, which paves the way for more empirical research.

Despite accumulating research associating CM to adult psychopathology, very little research examined potential factors affecting this relationship, such as social support. As research findings consistently show that the lack of SS is one of the risk factors of psychopathology and a study among college

students in Lebanon found that SS is a significant predictor of subjective well-being (Ammar, Nauffal & Sbeity, 2013), it appears that SS may act as a buffer in the relationship between CM and subsequent adult mental health outcomes among Lebanese college students. Therefore, it will be hypothesized that SS will play a positive role in protecting adults with history of maltreatment from psychopathologies.

Furthermore, the role of SS in the relationship between CM and adult psychopathology in non-Western societies has not been investigated, and the scope of existing literature that examines this relationship in Western societies has focused mainly on depression, anxiety and post-traumatic stress symptoms. In addition, very few studies have examined the relationship between different forms of CM and a range of adult symptomatology. Thus, the current study attempted to fill this gap by examining the effects of different forms of CM, range of adult symptomatology and the role of SS in their relationship.

The aims of the current study were twofold: (1) examine the extent to which the experience of CM affects the levels of social support and adult psychological symptomatology among college students in Lebanon, and (2) explore the role of social support in the relationship between CM and subsequent mental health outcomes among college students in Lebanon with reported history of childhood maltreatment.

Hypotheses

Therefore, and based on previous research findings, the following hypotheses are examined in the current study:

Hypothesis I**.** Adults who report a history of maltreatment compared with adults without such report will have lower levels of social support.

Hypothesis II. Adults who report a history of maltreatment compared with adults without such report will have higher psychological symptomatology.

Hypothesis III. For adults with reported history of maltreatment, there is a negative correlation between the level of social support and psychological symptomatology.

Significance of the Study

Further research is needed to address the current gap in literature in the Arab world with regard to CM. The current study adds to the empirical data on the scope of child maltreatment problem in Lebanon and its psychological sequelae in early adulthood. Research such as the current study is also significant in under-standing the psychological and social sequelae of different types of CM among students at a devel-opmental transition. Furthermore, given the role of SS as a predictor of subjective well-being among col-lege students, this study attempted to build on previous research by investigating the effect of SS on adult psychological symptoms.

The current study addresses some limitations of prior research by: (1) assessing five types of mal-treatment along with a range of adult psychological symptoms, (2) comparing groups of participants with history of maltreatment and without history of maltreatment, (3) including participants from both genders and explor-ing gender differences on measures used, and (4) examining the possible buffering effect of so-cial support in relationship between childhood maltreatment and adult psychological symptomatology. The sequelae of CM make it a social issue as well as a health care issue. Findings of the current study may aid in diverse areas including clinical practice, social work, advocacy and public policy.

Overview of Methodology

A total of 198 college students between the ages of 17 and 25 completed three instruments measur-ing childhood maltreatment (i.e., CTQ-SF), psychological symptomatology (i.e., BSI-53) and social sup-port (i.e., MSPSS). The sample was divided into one of two groups: those with reported history of mal-treatment (HM) and those without reported history of maltreatment (WHM). Respondents with at least low to moderate cut off scores on one or more of the subscales of the CTQ-SF were considered positive for a history of CM. The sample was also divided into groups of participants identified as a clinical case with

risk of developing psychopathology included in clinically relevant (CR) group and participants not reaching criteria for clinical relevance included in non-clinically significant (NCS) group. A series of independent samples t-tests were conducted to assess difference between groups with and without reported history of maltreatment. In addition, within the group of participants with history of maltreatment, Spearman rho' correlations were calculated to examine the associations. For further examination, a series of regression analyses were conducted to further understand the effect of different types of CM on social support levels, psychological symptomatology and risk of developing psychopathology.

Limitations of the study

There are a number of limitations for the current study that should be noted. Firstly, the nature of the sample limits generalizability of the results. While the present study provides informative findings on college students, the sample was a convenience sample of college students that was not randomly selected. Moreover, the sample was merely representative in terms of gender and the gender distribution was not equal. Findings regarding gender differences must be analyzed with caution. Furthermore, although the sample was large, it is not representative of college students in Lebanon. In addition, the findings might not be representative of other community samples. Moreover, participation was voluntary. Thus, students who completed the questionnaires might have self-selected due to their interest in the effects of childhood maltreatment as opposed to students who refused to participate. This was noted from participants' reactions during data collection.

Another limitation was the instruments used. While CTQ measures five domains of childhood maltreatment, other types of childhood adversities that might have had a larger effect on participants' psychological symptomatology were not measured. In addition, abuse-related factors such as the nature, frequency, duration and severity of the maltreatment were not taken into account and analyzed. It is important to note that maltreatment was based on self-reported responses regardless if it were substantiated or not; this

could have possibly led to higher or lower rates of reported maltreatment. Besides, BSI measures recent rating of psychological symptoms. Participants' responses might have been influenced by the stress level and mood states at data collection. Therefore, the level of psychological distress and psychological symptomatology as well as the relationship across the measures might have been inflated. In addition, as MSPSS measures perceived level of SS, the results did not necessarily reflect the offered or received SS that might not have been utilized. Finally, the validity of the scales were not tested and the internal reliabilities of some subscales were questionable. Therefore, results related to physical abuse, interpersonal sensitivity, paranoid ideation and psychoticism should be treated with caution.

Besides, due to violations in the assumptions of the parametric tests used, the results of this study must be considered with caution. Furthermore, the use of self-report questionnaires could have contributed to inaccurate data due to social desirability and recall and reporting biases. In addition, with the use of cross sectional design, causal relationships were not determined. Moreover, there was a lack of control group. Finally, other possible intervening variables were not measured so the understanding of processes and outcomes were incomplete.

Definition of Key Terms

Physical Abuse. Intentional use of force or implements against a child that results in, or has potential to result in, physical injury (Gilbert, 2009)

Sexual Abuse. Any completed or attempted sexual act, sexual contact, or non-contact sexual interaction with a child by a caregiver (Gilbert, 2009)

Emotional Abuse. Intentional Behavior that conveys to a child that he/she is worthless, flawed, unwanted endangered or valued only in meeting another's needs (Gilbert, 2009)

Neglect. Failure to meet a child's basic physical, emotional, medical/dental, or educational needs; failure to provide adequate nutrition, hygiene, or shelter; or failure to ensure child's safety (Gilbert, 2009)

Physical Neglect. Refusal of health care, delay in health care, abandonment, expulsion, and inadequate supervision (Sullivan, 2000)

Emotional Neglect. inadequate nurturing or affection, chronic or extreme spouse abuse, permitted drug or alcohol abuse, permitted other maladaptive behavior such as chronic delinquency and severe assault, refusal of psychological care, and delay in psychological care (Sullivan, 2000)

Social Support. Interpersonal connections and exchanges that provide instrumental, financial or emotional aid (Berkman et al., 1984).

Perceived Social Support. One's subjective sense of other's availability to provide emotional support and aid with tangible needs

Chapter 2

Review of Literature

The following section provides a review of the literature of the study variables. Firstly, prevalence rates and characteristics of five childhood maltreatment types will be provided. Furthermore on CM, brief findings of studies on its relationship with psychological symptomatology will be presented. Moreover, the long-term effect of CM on interpersonal relationships will be referred. This is followed by a brief presentation of theories explaining the impact of early childhood experiences on adult psychosocial functioning. The influence of SS and its role as a protective factor will then presented. Additionally, literature related to CM, psychological symptomatology and SS will be reviewed. The chapter concludes with focus on the literature on CM and its outcomes in the Arab context.

Prevalence Rates of CM

Prevalence rates of CM vary due to a number of factors including methodological variance, unreported cases, misdiagnosis, and different legal standards for substantiating cases of maltreatment (Cicchetti &Toth, 2005; Lau et al., 2005). The occurrence of abuse may be limited to a single incident. However, CM experiences often are chronic, characterized by repeated overlapping exposure to more than one form of maltreatment, and with exception of SA type, they are generally perpetrated by parents or caregivers (English et al., 2005; Higgins & McCabe, 2001; Radford et al., 2011).

Studies have found that 34% to 95% of children with a history of maltreatment report experiencing more than one type of maltreatment (Dong et al., 2004; Edwards, Holden, Felitti, & Anda, 2003). Evidence suggests that gender differences are minimal across maltreatment types, except for sexual abuse (SA) as females are more likely to experience sexual abuse (Azar & Wolfe, 2006; Wolfe, 2006). Previous studies have also indicated that prevalence rates of abuse among college students is similar to those in community samples (Wright, Crawford & Costillo, 2009).

According to the U.S. Department of Health and Human Services (2016), among the substantiated cases, 75.0% experienced child neglect (CN), 17.0% experienced physical abuse (PA) and 8.3% were sexually abused. It is worth noting that child protection authorities in the U.S. document one type of maltreatment when CM types overlap. It is also well documented that many cases of CM never come to the attention of authorities (Claussen & Crittenden, 1991; Finkelhor, Hotaling, Lewis, & Smith, 1990). In additional, EA rarely gets attention from authorities as its effects often goes unnoticed or unreported.

Types of Child Maltreatment: Characteristics and Effects in Childhood and Adolescence

Physical abuse (PA) is characterized by physical injury that results from punching, beating, kicking, biting, shaking, throwing, stabbing, choking, burning, and hitting with a hand, stick, strap or other object (Cicchetti & Toth, 2005). The physical injury may result from a single episode or from repeated episodes. Its severity can range from minor marks and bruising to death.

Study findings on the effect of PA revealed that physically abused children exhibit insecure attachment, aggressive and noncompliant behaviors, and deficits in emotion regulation such as depression, anxiety, poor impulse control, hostility, anger and irritability (Finzi, Har-Even, & Weizman, 2003; Goldson & Bonner; Maughen & Cicchetti, 2002; Trickett & McBride-Chang, 1996). Physically maltreated children demonstrate poor problem solving skills, atypical social networks, limited prosocial behavior, and low peer status. Adolescent children who experienced physical maltreatment continue to show internalizing and externalizing problems and poor social competence in adolescence (Maughen & Cicchetti, 2002; Trickett & McBride-Chang, 1996).

The second type of CM is sexual abuse (SA). It refers to sexual acts or sexually motivated behaviors that involve children or their sexual exploitation (U.S. Department of Health and Human Services, 2016). SA includes touching offenses and nontouching offenses. A wide range of behaviors results in SA for children including: indecent exposure; genital contact with no intrusion; oral, anal or genital penile pen-

etration; anal or genital digital or other penetration; fondling of a child's breasts or buttocks; inadequate or inappropriate supervision of a child's voluntary sexual activities; and the use of a child in prostitution, pornography, internet crimes or other sexually exploitive activities (Child Welfare Information Gateway, 2003).

Incest is the most commonly reported cases of SA (U.S. Department of Health and Human Services, 2000). SA has been associated with anxiety, post-traumatic stress disorder, somatic complaints, dissociation, self-injurious behavior, and inappropriate sexual behavior in sexually abused children (Trickett & McBride-Chang, 1996; Wolfe, 2006). These associations often last into adolescence (Trickett & McBride-Chang, 1996).

The most common form of CM is child neglect (CN) (World Health Organization, 2014). CN pertains to both the failure to provide minimum care and lack of supervision (Bernestein & Fink, 1998). It is frequently defined in terms of a failure to provide for the child's basic needs which include adequate food, clothing, shelter, supervision or medical care. CN results in significant harm or risk of significant harm (Sedlak & Broadhurst, 1996). There are two common types of CN: physical neglect and emotional neglect. Although it is the most common type of CM, research on CN has been scarce and it has mainly focused on its neurobiological consequences.

Effects of CN in children include insecure attachment, emotion dysregulation and psychosocial problems such as social withdrawal, poor interpersonal skills, deficits in problem solving skills and difficulty with peers (Hildyard & Wolf, 2002; Trickett & McBride-Chang, 1996; Tyler et al., 2006). Neglected children also exhibit internalizing and externalizing psychological disorders in adolescence (Trickett & McBride-Chang, 1996).

As for emotional maltreatment, it includes parental denial of emotional responsiveness to the child, indifference, hostility and verbal aggression (Child Welfare Information Gateway, 2003). EA rarely occurs

alone. The effect of EA on children include anxious avoidant attachment, aggression, anxiety, depression, eating disorders, and poor self-esteem (Loue, 2005). Emotionally abused children and adolescents experience low social competence, problem solving deficits, and difficulties with peers (Loue, 2005).

In summary, evidence demonstrates that CM is common and its impact on children and adolescents may be profound. Psychological sequelae often associated with maltreatment in childhood are deficits in affect regulation, development of insecure attachment style, development of maladaptive sense of self and others, and difficulties in peer relations (Cicchetti & Toth, 2005). Maltreated children and adolescents have been shown to exhibit behavioral, emotional and social problems (Zielenski & Bradshow, 2006). Accordingly, experiences of CM poses a substantial risk to normative development that existing psychosocial and developmental theories postulate are essential for facilitating competent adaptation (Cicchetti & Toth, 2005). Subsequently, maltreated children are at increased risk for atypical development resulting in greater likelihood of exhibiting negative developmental outcomes and psychopathology (Cicchetti & Toth, 2005). Disruptions in development, as in the context of CM, transcends multiple domains of functioning in adulthood –the focus of the current study- including psychological and psychosocial functioning and it may contribute to the development of psychopathology and interpersonal problems in adulthood (Edwards et al., 2014; McMahon, 2014).

Adult Mental Health and Social Outcomes Following Childhood Maltreatment

The psychological and psychosocial sequelae of child maltreatment are particularly significant for college students, the target population of this study. Studies have shown that young adults in college are likely to experience high levels of stress and report stress-related problems (Asberg, Bowers, Renk, & McKinney, 2008; Aselton, 2012). As a result, college students become vulnerable to psychological difficulties as they take in more roles and have increasing life demands placed on them (Dolbier& Rush, 2012).

Furthermore, drawing from Erikson's psychosocial stages, late adolescence to early adulthood -the college phase- represents a developmental transition that is characterized by questioning and shaping one's identity as well as finding intimacy in social relationships (Erikson, 1968). For accomplishing these developmental tasks successfully for these young adults, social interactions, social support (SS), and independence are essential requirements (Erikson, 1968). However, CM can significantly alter developmental trajectories and lead to maladaptive cognitive, emotional and social outcomes (Caldwell, 2013).

A review of the literature on the effects of CM indicate that the experience of childhood maltreatment has also been associated with psychopathology in adulthood, including depression (Mazzeo & Espelage, 2002; Springer et al, 2007; Turner & Butler, 2003), generalized anxiety disorder (Kendler et al, 1998; Lanktree et al, 2008), panic disorder (Springer et al., 2007), phobias (Allen, 2008), and obsessive compulsive disorder (Mathews, Kaur & Stein, 2008). In addition, a history of CM has also been linked to an increased likelihood of psychosis (Bebbington et al., 2004), paranoid ideation (Bentall et al., 2012), hostility (Young et al., 2007), somatization (Spertus et al., 2003), and suicide among college students (Bridgeland, Duane, & Stewart, 2001; Bryant & Range, 1997). Evidence suggests that childhood adversities are associated with 25.9% to 32.0% of onset of DSM-IV disorders in adulthood (Green et al., 2010).

One study examined the prevalence of psychiatric disorders and the long-term consequences of physical and sexual abuse in a representative community sample of 375 college students (Silverman, Reinherz & Giaconia, 1996). The findings of the study revealed that 80% of the participants with history of maltreatment met the criteria for at least one DSM-III-R psychiatric disorder by the age of 21 (Silverman, Reinherz & Giaconia, 1996). The study also compared groups of participants with history of maltreatment to those without history of maltreatment on psychological functioning in adulthood – an aim similar to the current study.

The results of the study showed that regardless of the type of abuse experienced, abused participants reported significantly higher rates of depression, PTSD, alcohol abuse-dependence and antisocial behavior (Silverman, Reinherz & Giaconia, 1996). The study also demonstrated that compared to their non-abused counterparts, abused participants reported significantly lower psychosocial functioning revealed in higher reported symptoms of social withdrawal, social difficulties, delinquent behavior and aggressive behavior.

Dias et al. (2014) examined the prevalence of five types of CM and explored their relationships to a range of psychological symptoms in adulthood. The study was conducted in Portugal on a community sample of 1,040 adults and utilized Childhood Trauma Questionnaire-Short Form (CTQ-SF) and Brief Symptom Inventory (BSI-53). CTQ measured five types of maltreatment: physical abuse, emotional abuse, sexual abuse, physical neglect and emotional neglect. BSI measures nine psychological symptoms: depression, anxiety, obsessive-compulsiveness, hostility, paranoid ideation, psychoticism, phobic anxiety, interpersonal sensitivity and somatization. Participants were identified with experiencing a history of maltreatment when their scores on CTQ reached the cut off score of moderate to severe maltreatment history (excluding those with low to moderate scores).

The results revealed that 14.7% of the sample reported experiencing moderate to severe CM with emotional neglect as the most reported CM type (Dias et al., 2014). As hypothesized by the authors of the study, CM was significantly associated with adult psychological symptoms and it contributed to 12.8% of psychological distress experienced by the sample (Dias et al., 2014). The findings of the study indicated that while EA predicted all psychological symptoms, EN and PA did not predict any psychological symptom. Furthermore, findings revealed that PN predicted somatization, anxiety and phobic anxiety, and SA had the largest effect size for subscales of depression and anxiety.

Prior research findings have associated PA with long-term psychosocial problems including interpersonal problems, deficits in social competence, insecure attachments and difficulty making friends. Findings have also revealed that SA is associated with long-term psychological symptomatology including depression, anxiety, somatization, psychosis and personality disorders (Maniglio, 2009). Neglect is associated with a range of psychological problems in adulthood including somatization, depression, anxiety, paranoia, phobic anxiety, obsessive-compulsiveness, psychoticism and hostility (Dias et al., 2014). Finally, EA is associated with anxiety, depression and interpersonal sensitivity (Briere & Runtz, 1990). In a systematic review of 44 international studies, Carr et al. (2013) concluded that PA, SA and CN were associated with mood and anxiety disorders; EA was associated with personality disorders and psychosis; and PN was associated with personality disorders.

One suggested mechanism is that maltreatment causes disruption in the development of the sense of self, leading an inability to regulate emotions and adapt to stressful situations, difficulty in relating to others, and interpersonal challenges that make psychiatric disorders more likely (Molnar et al., 2001). The current study seeks to examine the level of psychological symptomatology among college students with and without a history of maltreatment.

On the other hand, a review of literature indicate an association between a history of CM and difficulties in interpersonal functioning in adulthood including family and love relationships and friendships (Hill et al., 2001). Previous studies have also shown that these individuals are less sociable (Varia, Abidin & Dass, 1996), make poor use of available social supports (Muller, Gragtmans & Baker, 2008), have higher levels of interpersonal sensitivity (Malinosky-Rummell & Hansen, 1993), and have less depth in their relationships with their parents (Litty, Kowalski, & Minor, 1996). Furthermore, adults with a history of CM are at increased risk of revictimization and problematic intimate relationships resulting in difficulty maintaining supportive social networks in adulthood (Colman & Widom, 2004). Studies have also demonstrated

that adult survivors of maltreatment report significantly lower levels of SS from their families and friends compared to those without a history of maltreatment (Pepin & Banyard, 2006; Weber & Cummings, 2003).

A study by Horan and Widom (2015) examined the level of SS from childhood through middle adulthood for children with documented history of maltreatment and matched non-maltreated controls. The data of this study was from a prospective cohort design study in which the participants were followed prospectively from childhood into middle adulthood (Horan & Widom, 2015). As hypothesized by the authors and compared to non-maltreated participants, participants with history of maltreatment reported experiencing lower levels of SS in childhood, young adulthood and middle adulthood. The authors discussed these findings through convoy model where the low level of social support in childhood laid groundwork for continued suboptimal relationships and fewer social resources throughout adulthood.

One potential explanation for the effect of maltreatment on social support is that maltreatment causes social difficulties such as insecure attachments, deficits in social-interpersonal processing, avoidance in social relationships, and distortions in cognitions regarding self and others (Briere, 2002; Stevenson, 1999). These difficulties lead to unhealthy adult relationships and compromise one's ability to negotiate relevant psychosocial tasks. Consequently, as development progresses, college students with history of maltreatment during childhood are more likely to have lower levels of SS, compared to non-maltreated students, leaving them at a disadvantage to deal with the developmental tasks of this sensitive period in their lives. In the current study, the difference in the level of SS for college students with and without history of maltreatment was examined.

Three theories have been used to explain the impact of early childhood experiences on adult psychosocial functioning, these are: attachment theory, biosocial theory and cognitive reactivity diathesis-stress model. Bowlby's attachment theory posits that social interactions and interpersonal relations in adulthood is organized and influenced by internal working models of attachment developed in childhood

(Bowlby, 1988). Such that, secure attachments to caregivers in childhood is related to positive outcomes in interpersonal functioning in adulthood. Conversely, insecure or anxious avoidant or disorganized attachments- as is the case with maltreated children- is related to negative interpersonal functioning in adulthood. In addition, the theory suggests that an individual's internal working model of others reflects how much one can rely on others for support in times of need. In this regard, insecure attachment styles developed in childhood reflects in poor perceived level of perceived and received social support in adulthood.

On the other hand, Linehan's biosocial theory postulates that a dysfunctional and invalidating environment in childhood contributes to the high biological emotional vulnerability of children (Linehan, 1993). This combination yields to chronic emotional distress levels and reduces emotional dysregulation and distress tolerance coping skills. In turn, it catalyzes maladaptive behavioral responses and leads to the development of chaotic adult interpersonal relationships and psychological disorders. Alternatively, cognitive reactivity diathesis-stress model suggests that adults' psychosocial resources are influenced by schemas developed throughout early childhood experiences. According to this theory, interactions that occur during childhood shape schemas and guide appraisals to influence information processing selective in cognitions, attention and memory search. In turn, maltreatment experiences shape maladaptive negative schemas of the self, others and the world which yields to interpersonal and mental health difficulties (Scher, Ingram & Segal, 2005).

Nonetheless, not all maltreated youth develop maladaptively and exhibit negative mental health and social outcomes (Cicchetti & Toth, 2005). A significant portion of individuals, who were maltreated as children, do not experience psychopathology later in adulthood (Collishaw et al., 2007). One factor that was found to moderate and mediate the relationship between CM and psychopathology is social support (SS) (Conte & Schuerman, 1987; Fedman, Conger, & Burzette, 2004; McLewin & Muller, 2006; Muller et

al., 2000; Sperry & Widom, 2013; Pepin & Banyard, 2006; Testa, Miller, Downs, & Panek, 1992; Vrancenu, Hobfoll, & Johnson, 2007).

Social Support and Developmental Psychopathology

Social support consists of interpersonal connections and exchanges that provide instrumental, financial or emotional aid (Berkman et al., 1984). Seven key functions of social relationships have been identified, these are: intimacy, social integration or sense of belonging, opportunity for nurturing behavior, reassurance of worth, assistance, guidance and advice, and access to new contacts and diverse information (Walker, MacBride, & Vachon, 1977; Weiss, 1969). As for the sources of SS, they include family, friends, colleagues, confidantes, partners and spouses. Positive SS behaviors include: reassurance, consolidation, encouragement, validation, and providing problem solving skills and affection (Thoits, 1986). Perceived social support (PSS) refers to the social resources and coping assistance that are provided to individuals prior to, during, or subsequent to a stressful life event (Thoits, 1986).

The conceptual framework of SS suggests that SS acts as a buffering agent in two ways (Cohen & Wills, 1985). The buffering effect model postulates that SS may act as a moderator between the adverse event and the individual's reaction to the event through two mechanisms (Cohen &Wills, 1985). First, individuals with high levels of SS would not perceive an adverse event as stressful as those with low levels of perceived SS. The second mechanism hypothesize that SS may intervene with individuals' reactions to stress following an adverse event in fewer negative reactions such that the stressful event will not be particularly stressful.

Therefore, SS offers resources to deal with the stressful experience and buffers the negative impact of stress making the development of later psychiatric problems less likely. In this case, the higher the level of perceived social support, the less the likely of high rates of psychological symptoms. The buffering hypothesis also indicates that the effect of SS is stronger for individuals with high levels of stress compared to

those with low levels of stress (Cohen & Wills, 1985). In this case, the third hypothesis would postulate that the role of SS would be stronger for individuals with a reported history of maltreatment compared to those without a history of maltreatment as it is postulated that among college students with reported history of CM, levels of SS would have a negative association with level of psychological symptomatology.

Among a sample of 696 adults, Sperry and Widom (2013) examined the long-term effect of CM and the role of SS in mediating or moderating the effect of CM on anxiety, depression and illicit drug use. The authors used a prospective cohort design and followed 388 children (aged 0-11 years) with a history of CM to 318 children (aged 0-11 years) without a history of CM into middle adulthood. Findings indicated that participants with a positive history of maltreatment had significantly lower levels of SS as adults compared with those without a history of maltreatment. The result of the study also showed that SS mediated the relationship between CM and anxiety and depression in adult after adjusting for age, sex, gender, and prior psychiatric diagnosis. The authors concluded that SS has a siginificant role in mediating and moderating the long-term consequences of CM.

Another study conducted by McLewin and Muller (2006) examined SS and attachment as predictive of psychopathology among young adults with and without history of physical abuse. The study also aimed to examine the relationships between the maltreatment subtypes, and the measures of attachment, SS and psychopathology. The authors hypothesized that adults who report more SS would report lower levels of psychopathology, and those who report higher attachment security would also report lower levels of psychopathology, and attachment and SS would have a synergistic effect in prediction of better functioning among maltreated adults. The sample consisted of 956 college students who completed demographics sheet, Relationship Scales Questionnaire, Relationship Questionnaire, Multi-Dimensional Support Scale, Record of Maltreatment Experiences Self-Report, Young Adult Self-Report, and Trauma Symptom Check-

list- 40. These questionnaires measure current attachment (view of the self and others), SS and psychopathology symptoms. Authors used a regression design.

The results of the study showed that 294 young adults (30.75%) reported being physically abused as children. The results were statistically significant and indicated that maltreatment subtypes positively correlated with one another, attachment and SS were positively associated with one another, maltreatment constructs had a positive correlation with levels of psychopathology, and attachment and SS were also associated with lower levels of psychopathology. Finally, psychological maltreatment emerged as the largest predictor of psychopathology.

These findings are consistent with the stress-buffering model of SS. However, few studies failed to demonstrate such findings probably due to methodological considerations (Crouch, Miler & Caliso, 1995; Hobfoll et al, 2002; Schumm et al., 2006). In addition, the role of SS may differ among maltreated men and women. Vaux (1985) suggested that, compared to men, women have greater social resources for support and SS plays a greater role in their well-being. The findings of studies have been mixed. One study by Powers et al. (2009) found that SS acted as a buffer between CM and depression among females but not among men. Whereas, another study found that the role of SS in psychological adjustment did not differ among genders (Runtz & Schallow, 1997).

CM and its Effects in the Arab Context

Aboul-Hagag and Hamed (2012) found that among 450 undergraduate college students in Egypt, 29.8% reported being sexually abused as children with the majority of perpetrators being males from outside the home (95.5%) and a minority being a male family member (4.5%). Another study conducted by Khamis (2000) explored predictors of child psychological maltreatment and examined demographic and familial factors to psychological maltreatment among 1000 Palestinian school children aged between 12 and 16 years. The results of the study showed that only nine female participants of the subjects reported

having a history of sexual abuse and 14.1% were physically abused by family members. Gender inequities, harsh discipline, family ambiance, and lack of parental support were found to be predictors of child psychological maltreatment.

In addition, Haj-Yehia and Tamish (2001) found that among 652 undergraduate students in Palestine aged 16 years and older, 5.7%, 11.6% and 13.2% reported being sexually abused once by a family member, relative, and a stranger, respectively before the age of 12. The results also showed that 4.1%, 7.3%, and 8.6% of the sample were sexually abused by a family member, a relative, and a stranger, respectively between the ages of 12 and 16. Moreover, the study revealed that 1.7%, 3.9%, and 7% of the participants reported experiencing sexual abuse after the age of 16. Compared to the non-abused participants, participants who experienced sexual abuse exhibited significantly higher levels of psychoticism, hostility, anxiety, somatization, phobic anxiety, paranoid ideation, depression, obsessive-compulsiveness, and psychological distress.

Presently, only three studies have been conducted in Lebanon examining Lebanese children's experience with abuse. A survey conducted by WHO (2005) showed that, of the sampled 5115 Lebanese school students, 37% reported being physically attacked by an adult family member in the previous month and 17% reported lifetime exposure to sexual harassment. In addition, this study revealed that among countries in the Middle Eastern region, Lebanese students reported the highest number of physical abuse cases.

The results of the second study, which examined the familial and demographic factors associated with sexual exploitation of 193 Lebanese children, revealed that sexual abuse was associated with family disruption, substance abuse and psychopathology, population density and poverty, dysfunctional peer relationships, and school dropout rates (Chemaly et al., 1996). In the third study, Usta and Farver (2010) surveyed 1035 Lebanese children (aged 8- 17 years), and found that over a one-year period, 65% reported at least one incident of psychological abuse and 54% reported at least one incident of physical abuse.

In summary, the review of the literature indicate that CM may influence adjustment in young adulthood, and it is associated with long-term adverse mental health and interpersonal outcomes. Although the previous findings have been inconsistent, in most studies, social support has been found to play a protective role against the effects of CM. The implications of CM are particularly significant for college students as young adulthood is characterized as a time of developmental stress, changing roles and new challenges.

Based on all that, the following hypotheses were examined:

Hypothesis I**.** Adults who report a history of maltreatment compared with adults without such a report will have lower levels of social support.

Hypothesis II. Adults who report a history of maltreatment compared with adults without such a report will have higher psychological symptomatology.

Hypothesis III. For adults with reported history of maltreatment, there is a negative correlation between the level of social support and psychological symptomatology.

Chapter 3

Method

General Perspective

The following chapter introduces the design, participants, instruments, procedure and data analyses used in the current study. The study used retrospective cross-sectional design to investigate the relationships between childhood maltreatment, psychological symptomatology and social support.

Participants

Inclusion criteria that was required for participation was being enrolled in university, age between 17 to 25 and consent for participation. Exclusion criteria included those who were not enrolled in university.

Data regarding the sample demographic characteristics are presented in Table 1. Participants were undergraduate and graduate students from different private and public universities in Lebanon, specifically, Lebanese American University (LAU), Haigazian University (HU), Notre Dame University (NDU) and the Lebanese University (LU). The convenient sample included male and female students. Of the 211 completed questionnaires, the validity of data obtained from 13 participants were questionable due to evidence of outliers. Subsequently, for the validity of the rest of the data, 13 cases were omitted from the data analyses and the final sample used in data analyses consisted of 198 participants.

The age of the sample ranged from 17 to 25 years, with mean age of 20.63 (SD= 2.04). 70.2% of the sample were female participants (N= 139) and 29.8% were male participants (N= 59). As gender was not a studied variable, gender distribution was not equal. The sample were predominantly Lebanese (N= 186, 93.9%). Other participants (N=12) were of Syrian (4%), American (0.5%), Canadian (0.5%), Palestinian (0.5%) and Spanish (0.5%) nationalities. Approximately half of the participants described their relationship status as single and never married (54.5%) and 37.4% described themselves as in a relationship,

whereas 3.5% reported being engaged and 2% married, and 2.5% were separated. Out of the ten participants (5.1% of the sample) who reported attempting suicide, six reported attempting suicide once and three attempting suicide twice.

Table 1. *Sample Demographic Characteristics* (N= 198)

Variable	Frequency	Percentage
Gender		
Male	59	29.8
Female	139	70.2
Nationality		
Lebanese	186	93.9
Other	12	6.1
Relationship Status		
Single	108	54.5
Engaged	7	3.5
In a Relationship	74	37.4
Married	4	2.0
Separated	5	2.5
Attended University		
Haigazian University	43	21.7
Lebanese American University	62	31.3
Lebanese University	69	34.8
Notre Dame University	24	12.1
Attempted Suicide		
Yes	10	5.1
No	188	94.9

Materials

Along with the demographic data, three main variables were included in the current study, those assessing childhood maltreatment experiences, psychological symptomatology, and social support levels. Measurement methods consisted of self-report instruments. Participants responded to three instruments, which are Childhood Trauma Questionnaire- Short Form (CTQ-SF), Brief Symptom Inventory-53 (BSI-53) and Multidimensional Scale of Perceived Social Support (MSPSS).

Demographic Information Sheet

Demographic data were collected from questions developed by the author in the questionnaire administered (see appendix A). Participants provided information regarding age, gender, nationality, the university they are enrolled in, relationship status, and history of suicide attempt(s).

Childhood Trauma Questionnaire (CTQ)

The Childhood Trauma Questionnaire (CTQ; Bernstein et al., 1994) is a 28-item self-report measure designed to assess a range of traumatic experiences in childhood (see appendix B). It contains five subscales: physical abuse (PA), sexual abuse (SA), emotional abuse (EA), physical neglect (PN) and emotional neglect (EN). Respondents used a five-point Likert scale from one (never true) to five (very often true). The scores of each subscale range from five to 25. Higher scores indicated higher severity. Cutoff scores for each subscale are provided by the authors, and they are categorized into: none to low, low to moderate, moderate to severe, and severe to extreme maltreatment. For the purpose of this study, as recommended by the CTQ author, respondents with at least low to moderate cut off scores for one or more of the subscales were considered positive for a history of CM. CTQ has demonstrated internal consistency reliability coefficients ranging from .66 to .92 across a range of samples (Bernstein & Fink, 1998).

Multidimensional Scale of Perceived Social Support (MSPSS)

MSPSS (Zimet et al. 1988) consists of 12-items that measures social support from three domains: family, friends, and significant others (see appendix C). Respondents used a seven-point Likert scale that ranged from one (very strongly disagree) to seven (very strongly agree). Higher scores indicated higher perceived social support. The total score of the scale ranged from 12 to 84 with a possible deviation as large as 12 (Zimet et al., 1988). Total score of each subscale ranged from 4 to 28. There are no specific cutoff scores for this instrument. For descriptive purposes, acuity scores recommended by the authors will be used to indicate high or low levels of perceived SS (Zimet et al., 1990). The MSPSS has been shown to be psycho-

metrically sound with coefficient alphas for the subscales ranging from .85 to .91 and test-retest reliabilities ranging from .75 to .85 (Dahlem, Zimet, & Walker, 1991). This scale has been translated into several languages including Turkish (Eker &Arkar, 1995), Urdu (Rizwan & Aftab, 2009), Chinese (Chou, 2000) and Arabic (Merhi & Kazarian, 2007).

Brief Symptom Inventory (BSI-53)

Brief Symptom Inventory (BSI; Derogatis, 1993) is a 53-item self-report measure developed to assess nine primary symptoms dimensions: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobia, paranoid ideation and psychoticism (see appendix D). BSI also consists of three global indices of distress: Global Severity Index (GSI), Positive Symptom Distress Index (PSDI), and Positive Symptom Total (PST) which measure current level of symptomatology/distress, intensity of symptoms, and number of reported symptoms, respectively. Respondents were asked to utilize a five-point Likert scale that ranged from 0 (not at all) to 4 (extremely) to indicate the frequency of symptoms within the past week.

For the purposes of the current study, GSI score will be used as a measure of psychological symptomatology as GSI combines the severity of psychological distress and psychological symptoms on the BSI (Derogatis, 1993). GSI is calculated by summing the values of scores of each dimension and then dividing by the number of endorsed items in that dimension. PST is calculated by counting the number of items endorsed with a nonzero response. PSDI is derived by dividing the sum of item values by PST. Subscales scores will be interpreted by comparison to age-appropriate norms (non-patient adults) provided by the test authors. BSI-53 has been shown to have good internal consistency for its nine dimensions with cronbach's alpha ranging from .71 on the psychoticism dimension to .85 on depression dimension (Derogatis & Melisaratos, 1983; Derogatis & Spencer, 1982).

Research Design

The research design of this study is an empirical correlational one that examines the relationship between childhood maltreatment, adult psychological symptomatology and social support of college students in Lebanon.

Procedure

Childhood trauma was measured with the Childhood Trauma Questionnaire (CTQ). Psychological symptom patterns was measured with Brief Symptom Inventory (BSI-53). The degree of perceived social support was measured with Multidimensional Scale of Perceived Social Support (MSPSS).

The data were gathered in the fall semester of the 2014-2015 school year. On the campus of four universities (LAU, LU, NDO and HU), students were approached and asked to volunteer their participation. Participants were told the purpose of the study, urged to respond as honestly and accurately as possible, and they were told that their identity will remain anonymous to protect their privacy. Students completed the questionnaires without assistance in 20 to 30 minutes. A number of participants expressed interest in the effects of CM while filling out the questionnaire.

Statistical Analysis

The data of the study were analyzed using the SPSS 17.0 statistical package. Initially, data were evaluated for descriptive statistics. This information was used to check for errors in the data entry process, any outliers that might skew or otherwise misrepresent the data, and missing data. In addition, descriptive frequencies were conducted for each variable. Prior to hypothesis testing, a series of independent samples t-tests were conducted to examine gender differences on three variables measured (CTQ, MSPSS and BSI). Another series of independent samples t-tests were conducted comparing groups of participants who endorsed clinical caseness (CR group) and those who did not (NCS group) to evaluate CM (as measured by CTQ) and level of SS (as measured by MSPSS) between groups. Additionally, a series of one sample t-

tests were performed to compare BSI subscales scores between the current sample and adult non-patient norm sample.

Also prior to hypothesis testing, spearman rho's correlations were calculated for all measured variables. In order to test the first two hypothesis, a series of independent sample *t*-tests were performed examining differences between groups of participants with history of maltreatment and those without a history of maltreatment on level of SS and psychological symptomatology. For testing the third hypothesis, Spearman rho's correlations was conducted to examine the relationships between psychological symptomatology and social support within HM group. Regression analyses were performed as well to examine potential effect of CM and CM types on psychological symptomatology and level of SS. Results obtained from data analysis will be presented in the next chapter.

Chapter 4

Results

The following chapter presents the data analysis procedures used. It is divided into four sections. Preliminary analyses of missing values and univariate normality are presented in the first section. This is followed by descriptive analyses of the three measures used. Exploratory analyses are presented in the third section. The chapter concludes with hypothesis testing.

Preliminary Analyses

Preliminary analyses of univariate statistics were conducted to evaluate missing data, test normality and generate internal reliabilities of the measures

Evaluation of Missing Data

All variables were evaluated in terms of missing cases, with acceptable percentage of missing cases on each variable to be ≤ 5.0%. Missing value analyses demonstrated that the percentage of missing data was less than 5% on all variables. As a result, all measures were included in further analyses.

Univariate Normality

Prior to exploratory analyses, preliminary analyses of univariate normality were conducted. Testing normality with Kolmogorov-Smirnov test yielded p values <0.05 for all three scales and the majority of subscales used. Therefore, based on normal distribution for $p < 0.05$ and compared to cutoffs of ± 1.96 of z-values of skewness, the validity of data obtained from 13 participants, from the original 211 participants, were questionable due to evidence of outliers. Subsequently, for the validity of the rest of the data, 13 cases were omitted from the data analyses and the final sample used in further analyses consisted of 198 participants.

The z-scores of skewness for the scales were 1.00 for CTQ, 2.28 for BSI, and -3.30 for MSPSS. The z-scores of kurtosis were -2.91, -2.55 and -1.79 for CTQ, BSI and MSPSS scales, respectively. Anal-

yses of univariate normality indicated that the total CTQ and BSI scales scores fell within normal range of skewness, while MSPSS scale scores departed from symmetry as they were negatively skewed. Analyses also indicated that the CTQ scores were highly kurotic, while BSI and MSPSS scales scores did not departure from normality.

Furthermore, the univariate skewness and kurtosis estimates on a total of 18 variables revealed that twelve indicators were not normally distributed which violates the underlying assumption of normal distribution. These indicators include three CTQ subscales (Sexual Abuse, Physical Abuse, and Emotional Abuse subscales), seven BSI subscales (Somatization, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, and Psychoticism subscales), and two MSPSS subscales (Family and Significant Other). Analyses indicated that the data did not violate assumption of normality on the following subscales: the Physical Neglect and Emotional Neglect subscales of CTQ; Obsessive-Compulsive, Paranoid Ideation, and Global Severity Index subscales of BSI; and Friends subscale of MSPSS.

Given the non-normality of more than half of the variables used in the study, further exploratory analyses using independent samples t-tests were conducted with the assumption of violation of normality when Levene's test alpha value was less than .05. Given the variables used in the current study (i.e. childhood trauma and perceived social support), transformations were not made as it is expected for the variables to be skewed.

Reliability of Measures

To ensure reliabilities of measures used, internal consistency analyses of measured variables were computed using Cronbach's α coefficients. Table 2 presents the results of the analysis. Cronbach's alpha values were good for three scales with internal consistencies of 0.85 for CTQ, 0.95 for BSI (measured by GSI), and 0.90 for MSPSS.

As measured by Cronbach's Alpha value, the internal consistencies of CTQ subscales of SA, PA, EA and EN were 0.88, 0.77, 0.71 and 0.90, respectively. The PN subscale of CTQ had questionable internal consistency (Cronbach's Alpha value= 0.56). In Dias et al., 2014 study with a community sample of Portuguese adults, Cronbach alpha values were 0.84 for the total CTQ score, 0.47 for the Physical Neglect subscale, 0.71 for the Emotional Abuse subscale, 0.79 for the Emotional Neglect subscale, 0.78 for the Physical Abuse subscale and 0.72 for the Sexual Abuse subscale.

The BSI subscale had good internal consistencies above 0.70 for all subscales except for the Interpersonal Sensitivity, Paranoid Ideation, Psychoticism subscales whose Cronbach's alpha values were 0.69, 0.66 and 0.64, respectively. Among a study of 1,033 Spanish college students, the Cronbach's alpha values for the subscales were the following: 0.74 for Somatization, 0.79 for Obsessive-Compulsiveness, 0.80 for Interpersonal Sensitivity, 0.84 for Depression, 0.77 for Anxiety, 0.78 for Hostility, 0.72 for Phobic Anxiety, 0.73 for Paranoid Ideation, 0.72 for Psychoticism and 0.95 for the Global Severity Index (Pereda, Forns & Pero, 2007).

As for the internal consistencies of MSPSS subscales, they were all good with Cronbach's alphas above 0.80 for all its subscales. The Cronbach alpha values in Doumit (2012) study with first year Lebanese college students were 0.88, 0.87, 0.85 and 0.91 for the overall scale, family subscale, friends subscale and significant other subscale respectively.

Table 2

Cronbach's alpha of Measures (N= 198)

	Cronbach's alpha from Previous Studies	Cronbach's alpha from Current Study
CTQ	.84	0.85
SA	.72	0.88
PA	.78	0.77
PN	.47	0.56
EA	.71	0.71
EN	.79	0.90
BSI-GSI	.95	0.95
SOM	0.74	0.82
OC	0.78	0.73
IS	0.80	0.69
DEP	0.84	0.77
ANX	0.77	0.73
HOS	0.78	0.70
PHOB	0.72	0.76
PAR	0.73	0.66
PSY	0.72	0.64
MSPSS	0.88	0.90
FAM	0.87	0.84
FRE	0.85	0.83
SO	0.91	0.88

Descriptive Analysis of the Measures

In order to analyze descriptive features of the measures, internal reliabilities of measures were generated, in addition, means, standard deviations, minimum and maximum scores were calculated for the Childhood Trauma Questionnaire (CTQ) and its sub-scales (i.e., physical abuse, physical neglect, emotional abuse, emotional neglect, and sexual abuse), for the subscales of Brief Symptom Inventory (BSI) (i.e., Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobia, Paranoid, Psychoticism, GSI, PSDI and PST), and for the Multidimensional Scale of Social Support (MSPSS) and its subscales (i.e., perceived social support from family, from friends, and from significant other). The means, standard deviations and range for each measure used are presented in Table 3.

Table 3.

	Mean	SD	Min	Max
CTQ				
SA	6.81	3.71	5.00	20.00
PA	6.92	3.23	5.00	17.00
PN	10.14	4.10	5.00	21.00
EA	7.95	3.31	5.00	18.00
EN	14.44	6.96	5.00	25.00
BSI-GSI	0.23	0.15	0.00	0.55
PSDI	1.74	0.43	1.00	3.08
PST	27.63	14.13	0.00	52.00
SOM	0.73	0.68	0.00	2.71
OC	1.22	0.76	0.00	3.67
IS	1.09	0.85	0.00	3.50
DEP	0.87	0.75	0.00	2.83
ANX	0.94	0.71	0.00	3.17
HOS	1.03	0.75	0.00	3.00
PHOB	0.70	0.74	0.00	2.60
PAR	1.21	0.77	0.00	2.80
PSY	0.84	0.70	0.00	2.80
MSPSS	66.75	12.75	33.00	84.00
FAM	18.06	4.26	7.50	22.75
FRE	17.67	3.91	7.25	22.75
SO	18.65	4.11	7.00	22.75

Descriptive Statistics Measures (N= 198)

Childhood Trauma Questionnaire

Table 4 presents frequency and percentage of participants' endorsing each level of maltreatment for each type of maltreatment. The most prevalent forms of maltreatment experienced by the sample were emotional neglect (*N* = 129; 65.2%) and physical neglect (*N* = 129; 65.2 %). The least prevalent type of maltreatment was physical abuse (*N* = 52; 26.3%) and sexual abuse (*N* = 53; 26.8%). The sample reported rate of 34.3% (*N* =68) emotional abuse.

Table 4 . *Frequency and Percentage of participants' endorsing each level of maltreatment for each type of maltreatment* (*N* =198)

Classification	Type of Maltreatment N (%)				
	PA	PN	EA	SA	EN
None	146(73.7%)	69(34.8%)	130(65.7%)	145(73.2%)	69(34.8%)
Low	17(8.6%)	17(8.6%)	44(22.2%)	14(7.1%)	26(13.1%)
Moderate	15(7.6%)	36(18.2%)	15(7.6%)	13(6.6%)	27(13.6%)
Severe	20(10.1%)	76(38.4%)	9(4.5%)	26(13.1%)	76(38.4%)

As measured by the CTQ subscales, 76.3% (*N* =151) of subjects met the criteria for at least one type of maltreatment, and 23.7% (*N* = 47) reported none (or minimal) level of CM. Subjects endorsing at least one type of maltreatment meeting of at least low (to moderate) severity were included in the history of maltreatment (HM) group, and those with none (or minimal) form of maltreatment severity on all maltreatment types were included in the without history of maltreatment (WHM) group. Therefore, 151 participants were categorized into having experienced a history of the maltreatment type and included in the HM group, and 47 participants were categorized into not experiencing a history of maltreatment and included in the WHM group. Results also showed that 9.6% (*N* = 19) met threshold level for one type of maltreatment, 27.8% (*N* =55) met threshold levels for two types of maltreatment, 16.7% (*N* =33) for three types, 8.6% (*N* =17) met threshold levels for four types of maltreatment, and 13.6% (*N* =27) for all five types.

By gender, 91.52% (*N* =54) of males and 69.78% (*N* = 97) of females reported history of maltreatment. By maltreatment types, 19 (32.20%) of males and 34 (24.46%) of females met the criteria for sexual

abuse, 23 (38.99%) of males and 29 (49.15%) of females met the criteria for physical abuse, 50 (84.75%) of males and 79 (56.83%) of female participants met the criteria for physical neglect, 24 (40.68%) of males and 44 (31.65%) of females met the criteria for emotional abuse, and 50 (84.75%) of male participants and 79 (56.83%) of female participants met the criteria for emotional neglect.

Multidimensional Scale of Perceived Social Support

106 participants (53.5% of the sample) reported experiencing high levels of social support, and 12.1% (*N* =24) of participants reported experiencing low levels of perceived social support. The mean social support level for the current sample was 66.75 (*SD* = 12.75), which is similar to the score reported by other Lebanese college students (Doumit, 2012). Current sample mean scores were lower than mean scores from college students (Ben Ari & Gil, 2004; Clara et al., 2003; Koydemir-Özden, 2010). By gender, 26 (44.07%) of male participants and 80 (57.55%) of females participants reported experiencing high levels of perceived social support, while 15 (25.42%) of male participants and 9 (6.47%) of females participants reported experiencing low levels of perceived social support.

Brief Symptom Inventory

Descriptive statistics for participants' raw scores on the BSI-53 were presented in Table 3. Participants' tended to report more obsessive-compulsive, interpersonal sensitivity, hostility and paranoid symptoms. The participants' mean score on the GSI subscale was 0.23 (*SD* = 0.15). For descriptive purposes, the criteria provided by the author of BSI for clinical significance was applied to the sample after transforming the raw scores to T-scores. Based on adult nonpatient norm, a total of 149 participants (75.3%) reached the cutoff score for clinical relevance (CR) indicating "clinical caseness" (a positive risk for diagnosable psychopathology), with the remaining 49 participants (24.7%) not meeting the criteria for clinical significance thus identified as non-clinically significant (NCS).

Exploratory Analyses

Prior to hypothesis testing, three sets of exploratory analyses were employed. The first analyses compared the current sample scores on BSI scale with norm provided by the author. The second set compared the groups of CR and NCS on types of maltreatments experienced and levels of social support. The third set of analyses explored gender differences on the three main variables of the study.

The current sample mean scores on all symptom dimensions of BSI were higher than the adult nonpatient normative sample. Table 5 provides means and standard deviations of the current sample and adult nonpatient normative sample. In order to compare BSI subscales scores between the current sample and norm sample, a series of one sample t-tests were performed. Significant differences (p <.001) were revealed between the current sample and the normative one on all subscales: somatization (t (197)= -6.37), obsessive-compulsiveness (t (197)= 14.57), interpersonal sensitivity (t (197)=12.82), depression (t (196)= 11.07), anxiety (t (197)= 11.77), hostility (t (197)= 12.79), phobic anxiety (t (197) = 10.21), paranoid ideation (t (197) = 10.21), and psychoticism (t (197) = 13.74). On all comparisons of symptoms subscales, the current sample of participants reported more psychological symptoms compared to the norm.

Table 5. *Mean and SDs of Current Sample (N = 193) and Adult Non-Patient Norm (N = 719)*

Subscale	Range	Current sample (N= 193)		Adult non-patient norm (N=719)	
		Mean	SD	Mean	SD
SOM	0-3.57	0.73	0.68	0.29	.40
O-C	0-4	1.22	0.76	.43	.48
IS	0-4	1.09	0.85	.32	.48
DEP	0-4	0.87	0.75	.28	.46
ANX	0-4	0.94	0.71	.35	.45
HOS	0-3.6	1.03	0.75	.35	.42
PHOB	0-3.8	0.70	0.73	.17	.36
PAR	0-3.4	1.21	0.77	.34	.45
PSY	0-3	0.84	0.70	.15	.30

In addition, a series of independent samples t-tests were conducted to evaluate whether participants who endorsed clinical caseness reported experiencing more maltreatment as measured by the CTQ subscales. Results indicated significant group differences on three subscales. Compared to the participants in the NCS group, those in the CR group obtained higher mean scores on the physical abuse, physical neglect and emotional abuse subscales. Significant results of independent t-tests and effect sizes are presented in Table 6 . An additional analysis was performed to compare the means of two groups of Clinical Relevance (CR) and Not Clinically Significant (NCS) on levels of social support. A series of independent t-tests were conducted. Significant results of independent t-tests and effect sizes are also presented in Table 5. Results revealed that the groups differed only on the family subscale of MSPSS. NCS group of participants reported significantly higher level of perceived social support from their families compared to their CR counterparts, (M = 19.06, SD = 3.44 versus M = 17.73, SD = 4.45), t (105.02) = 2.16, $p < 0.05$. The magnitude of difference in means between the groups was small (Cohen's d = 0.33).

Table 6. *Results of t-test and Descriptive Statistics for CTQ-SF subscales and MSPSS subscales by Risk for Psychopathology (*N=198)

Outcome	Group									
	NCS									
	N	M	SD	n	M	SD	ll	High	T	df	Cohen's d
PA	49	6.02	2.61	149	7.21	3.36	-2.11	-2.76	-2.58	104.52*	0.40
PN	49	9.02	3.73	149	10.51	4.16	-2.81	-0.17	-2.23	196*	0.37
EA	49	6.84	2.01	149	8.32	3.56	-2.29	-0.67	-3.61	147.17***	0.52
FAM	49	19.06	3.44	149	17.73	4.45	1.08	2.54	2.16	105.02*	0.33

*p<0.05 ***p<0.001.

The third set of analyses explored gender differences. Gender differences on maltreatment types were examined through conducting a series of independent t-tests on five subscales of CTQ. Male participants obtained higher scores on all CTQ subscales; however, significant differences appeared on all subscales except for emotional and sexual abuse subscales. The magnitude of difference was small on PA subscale, and medium for PN and EN subscales. Table 7 provides means, standard deviations, significant t-test results and effect sizes.

Table 7. *Results of t-test and Descriptive Statistics for CTQ-SF subscale by Gender (*N=198)

	Gender						95% CI for Mean Difference				
	Male			Female							
	N	M	SD	N	M	SD	ll	high	t	df	d
PA	59	7.83	3.54	139	6.53	3.02	0.25	2.34	2.46*	95.46	0.40
PN	59	11.85	3.69	139	9.41	4.06	1.26	3.60	4.12***	119.72	0.63
EN	59	17.32	6.07	139	13.22	6.70	2.15	6.05	4.15***	124.62	0.68

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

In addition, gender differences in psychological symptomatology were examined. Even though males obtained higher scores on all BSI-53 subscales, results revealed significant differences only on depression and hostility subscales. The magnitude of difference in means for both t-tests were small. Table 8 provides means, standard deviations, significant t-test results and effect sizes.

Table 8. *Results of t-test and Descriptive Statistics for BSI-53 subscales by Gender (*N=198)

Outcome	Group						95% CI				
	Male			Female							
	N	M	SD	N	M	SD	ll	High	t	df	Cohen's d
DEP	59	1.05	0.80	139	0.80	0.71	0.28	0.48	2.22	195*	0.33
HOS	59	1.20	0.76	139	0.91	0.74	0.01	4.63	2.01	105.96*	0.39

*$p < .05$.

In order to examine gender differences on overall levels of perceived social support, an independent t-test was performed. Results revealed significant gender differences with female participants reporting significantly higher level of social support on the total MSPSS scale than male participants (M = 68.01, SD = 12.44 versus M = 63.78, SD = 13.08), t (196) = -2.16, $p < 0.05$ p = 0.03. The magnitude of the difference in means was small (Cohen's d = 0.33). Compared to male participants, the results suggest that on average female participants reported perceiving higher levels of overall perceived social support.

Furthermore, a series of independent t-tests were conducted to evaluate whether there were significant gender differences on perceived level of social support from family, friends and significant other sources using the subscales of MSPSS. Significant group differences were found only on the friends subscale. Compared to their male counterparts, females reported significantly higher level of perceived social support from friends, (M = 18.03, SD = 3.83 versus M = 16.81, SD = 3.99), t (196), = -2.03, $p < 0.05$. The magnitude of difference in means was also small (Cohen's d = 0.32).

Correlation Coefficients between the Measures of the Study

Prior to hypothesis testing, bivariate Spearman's rho coefficients were calculated for Childhood Trauma Questionnaire and its subscales (i.e., Sexual Abuse, Physical Abuse, Physical Neglect, Emotional

Abuse, Emotional Neglect), Brief Symptom Inventory subscales (GSI, PSDI, PST, Somatization, Obsessive Compulsiveness, Interpersonal Sensitivity, Depression, Anxiety, Phobic Anxiety, Hostility, Paranoid Ideation, and Psychoticism), and Multidimensional Scale of Perceived Social Support and its subscales (Family, Friends, and Significant Other). See Table 9 for all correlation coefficients.

In summary, bivariate analyses revealed significant negative correlations between all MSPSS and BSI subscales. With the exception of the emotional neglect (EN) subscale, all CTQ subscales were negatively correlated with all the MSPSS subscales and positively correlated with BSI subscales. Lastly, bivariate analyses revealed that the EN subscale was significantly correlated only with the physical neglect (PN) subscale of CTQ, and it was significantly correlated with the GSI, PSDI, Interpersonal Sensitivity, Phobic Anxiety, Paranoid Ideation and Psychoticism subscales of BSI. The strength of correlations ranged from small to large.

Table 9. *Correlation Matrix between Child Maltreatment, Psychological Symptoms and Social Support*

	CTQ	SA	PA	PN	EA	EN	GSI	PSDI	PST	SOM	OC	IS	DEP	ANX	HOS	PHOB	PAR	PSY	MSPSS
CTQ	-																		
SA	.51**	-																	
PA	.63**	.61**	-																
PN	.89**	.27**	.36**	-															
EA	.63**	.56**	.62**	.36**	-														
EN	.71**	.01	.09	.77**	.10	-													
GSI	.49**	.48**	.47**	.35**	.59**	.17*	-												
PSDI	.42**	.34**	.32**	.30**	.39**	.16*	.68**	-											
PST	.44**	.42**	.38**	.30**	.51**	.14	.93**	.43**	_										
SOM	.33**	.45**	.46**	.21**	.50**	.03	.79**	.41**	.83**	-									
OC	.34**	.27**	.22**	.22**	.44**	.16	.78**	.59**	.76**	.58**	-								
IS	.40**	.37**	.30**	.29**	.46**	.20**	.73**	.50**	.74**	.55**	.57**	-							
DEP	.44**	.46**	.47**	.28**	.60**	.11	.83**	.58**	.82**	.66**	.65**	.59**	-						
ANX	.38**	.37**	.31**	.19**	.45**	.09	.84**	.60**	.84**	.75**	.69**	.62**	.69**	-					
HOS	.46**	.47**	.42**	.31**	.55**	.14	.79**	.60**	.76**	.63**	.59**	.53**	.68**	.65**	-				
PHOB	.51**	.44**	.49**	.36**	.50**	.23**	.79**	.46**	.81**	.69**	.60**	.58**	.67**	.67**	.62**	-			
PAR	.40**	.21**	.22**	.36**	.39**	.24**	.69**	.59**	.67**	.44**	.60**	.61**	.57**	.56**	.54**	.49**	-		
PSY	.52**	.43**	.44**	.40**	.48**	.23**	.78**	.55**	.73**	.58**	.59**	.56**	.63**	.64**	.59**	.66**	.60**	-	
MSPSS	-.42**	-.37**	-.38**	-.29**	-.54**	-.10	-.51**	-.45**	-.46**	-.33**	-.45**	-.43**	-.55**	-.39**	-.48**	-.39**	-.42**	-.48**	-
FAM	-.39**	-.39**	-.42**	-.25**	-.51**	-.09	-.48**	-.41**	-.38**	-.39**	-.36**	-.31**	-.53**	-.33**	-.47**	-.34**	-.37**	-.37**	.81**
FRE	-.37**	-.28**	-.35**	-.25**	-.50**	-.12	-.45**	-.36**	-.39**	-.33**	-.34**	-.42**	-.44**	-.37**	-.35**	-.36**	-.37**	-.45**	.84**
SO	-.30**	-.35**	-.40**	-.21**	-.45**	-.02	-.48**	-.35**	-.43**	-.39**	-.43**	-.34**	-.52**	-.37**	-.42**	-.42**	-.36**	-.44**	.84**

**Correlation significant at 0.01 level (2-tailed)

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

Note. CTQ: Childhood Trauma Questionnaire total score; SA: Sexual Abuse; PA: Physical Abuse; PN: Physical Neglect; EA: Emotional Abuse; EN: Emotional Neglect; SOM: Somatization; O-C: Obsessive-Compulsive; I-S: Interpersonal Sensitivity; DEP: Depression; ANX: Anxiety; HOS: Hostility; PHOB: Phobic Anxiety; PAR: Paranoia; PSY: Psychoticism; GSI: Global Severity Index; PSDI: Positive Symptom Distress Index; PST: Positive Symptom Total; MSPSS: Multidimensional Scale of Perceived Social Support total score; FAM: Family; FRE: Friends; SO: Significant Other;

Hypothesis Testing

Hypothesis I. Adults who report a history of maltreatment compared with adults without a history of maltreatment will have lower levels of social support.

Independent sample t-test was conducted to test for difference in the mean level of social support between groups of participants' with reported history of maltreatment and those without reported history of maltreatment. Results of the t-test revealed a significant mean difference in overall level of perceived social support between groups of participants with history of maltreatment (HM) and participants without history of maltreatment (WHM). The results revealed that, on average, participants who had a history of maltreatment reported significantly lower level of overall perceived level of social support compared to their counterparts without a history of maltreatment.

The mean score of MSPSS scale for WHM group was 73.28 (SD = 9.26), and that for HM group was 64.72 (SD = 13.03). Homogeneity of variance was tested using a Levene's test with alpha of .05. Homogeneity of variance for this t-test was not assumed. A significant difference in level of social support was found between the two groups, t (107.64) = 4.99, $p < 0.001$. The magnitude of the difference in means between the two groups was moderate (Cohen's d = 0.75).

Further additional analyses of a series of independent samples t-tests were conducted to evaluate whether participants in HM and WHM groups differed on level of perceived social support from three sources (family, friends and significant other). Significant group differences with moderated effect sizes were found on the three variables. Compared to participants in the WHM, results showed that participants in the HM group tended to have lower level of perceived social support from family, friends and significant other. See Table 10 for t-test results and effect sizes.

Table 10. *Results of t-tests and Descriptive Statistics MSPSS Subscales by History of Maltreatment*

Outcome	Group						95% CI				
	WHM			HM							
	n	M	SD	N	M	SD			t	Df	Cohen's d
FAM	47	20.28	2.70	151	17.37	4.42	1.86	3.97	5.46	127.33***	0.79
FRE	47	19.10	3.48	151	17.22	3.94	0.61	3.14	2.93	196**	0.51
SO	47	20.13	3.32	151	18.19	4.24	0.76	3.12	3.26	97.43**	0.51

** p <0.01, ***p < 0.001

Furthermore, regression analysis was conducted to investigate how much variance in the overall level of perceived social support can be explained by the types of child maltreatment. In the analysis, the four types of CM (sexual abuse, physical abuse, physical neglect and emotional abuse) that were associated with MSPSS served as independent variables, and social support served as dependent variable. The result of the analysis revealed that CM types explained 39.6% of the variance in social support, $F(4,193) = 31.69$, $p < 0.001$.The sign and direction of the relationship indicated that CM is a significant predictor of lower levels of social support. In particular, emotional abuse was the only significant predictor of this outcome. Table 11 display the unstandardized and standardized regression coefficients, standard errors, t values and significance.

Table 11. *Summary of Standard Regression Analyses for CTQ Variables Predicting Overall Social Support Level* (N = 198)

	MSPSS			
Variable	*B*	*SE B*	*B*	*T*
SA	-0.21	0.25	-.0.06	-0.84
PA	-0.52	0.31	-0.13	-1.65
PN	-0.19	0.19	-0.06	-0.97
EA	-1.83	0.29	-0.47***	-6.25
R^2		.40		
F		31.69***		

***$p \leq .001$

Hypothesis II. Adults who report a history of maltreatment compared with adults without a history of maltreatment will have higher psychological symptomatology (psychological distress and more psychological symptoms).

The second hypothesis compared the HM and WHM groups on psychological distress and psychological symptoms. To evaluate psychological symptomatology (measured by the GSI subscale) difference between participants with history of maltreatment and those without a history of maltreatment, an independent sample t-test was conducted.

The mean score of GSI subscale for WHM group was 0.15 (*SD* = 0.10), and that for HM group was 0.26 (*SD* = 0.15). Homogeneity of variance was tested using a Levene's test with alpha of .05. Homogeneity of variance for this *t*-test was not assumed. Significant difference in the level of psychological distress was found between the two groups, t (110.84) = -5.75; $p < 0.001$. The magnitude of difference between the two groups was large (Cohen's d = 0.86). The result demonstrated that compared to participants without a

history of maltreatment, participants with a history of maltreatment reported experiencing a higher level of psychological symptomatology.

On the other hand, two separate sets of regression analysis were conducted to determine how the types of CM can explain the variance of psychological distress/symptomatology and psychological symptoms. Table 12 displays the unstandardized and standardized regression coefficients, standard errors, t values and significance.

For the first regression analysis, all types of CM (sexual abuse, physical abuse, physical neglect, emotional abuse and emotional neglect) were associated with GSI, so they all served as independent variables. GSI served as dependent variable. Childhood maltreatment explained 40.3% of the variance in psychological distress $F(5,192) = 25.94$, $p < 0.001$ (see Table 12). The sign and direction of the relationship indicated that CM is a significant predictor of greater psychological distress. Specifically, emotional abuse and sexual abuse contributed significantly to psychological distress.

For the second regression analysis, all types of CM (sexual abuse, physical abuse, physical neglect, emotional abuse and emotional neglect) were associated with PSDI, so they all served as independent variables. PSDI served as dependent variable. Childhood maltreatment explained 20.4% of the variance in psychological symptoms, $F(5,189) = 9.69$, $p < 0.001$ (see Table 12). The sign and direction of the relationship indicated that CM is a significant predictor of greater psychological symptoms. Specifically, emotional abuse contributed significantly to psychological symptoms.

Table 12. *Summary of Standard Regression Analyses for CTQ Variables Predicting Psychological Symptomatology and Psychological Symptoms* (N = 198)

	GSI				PSDI			
Variable	*B*	*SE B*	*β*	*t*	*B*	*SE B*	*β*	*T*
SA	0.01	0.00	0.20**	2.70	0.01	0.00	.20	1.49
PA	0.00	0.00	.05	0.63	0.00	0.00	.05	0.21
PN	0.00	0.00	.08	0.79	0.00	0.00	0.08	0.33
EA	0.02	0.00	.41***	5.43	0.02	0.00	.41***	3.46
EN	0.00	0.00	.06	0.66	0.00	0.00	.06	0.99
R^2			.40				.20	
F			25.94***				9.69*	

**$p < .01$ ***$p < .001$.

Hypothesis III. For adults with reported history of maltreatment, there will be a negative correlation between the level of social support and psychological symptomatology.

The third hypothesis examined the relationship between perceived level of social support and psychological symptomatology within the group of participants with history of maltreatment. Bivariate correlations using Spearman Rho were performed among MSPSS and BSI variables. Table 13 presents the extent of associations between the variables. Bivariate analyses revealed strong negative associations between GSI and MSPSS scales, r (149) = -0.53, p <0.01.

In addition, analyses revealed that the MSPSS scale has moderate to strong negative correlations with BSI subscales. Furthermore, all MSPSS and BSI subscales were negatively correlated. The family subscale of MSPSS had a strong correlation with depression subscale of MSPSS and a moderate correlation with all other subscale. On the other hand, the Friends subscale of MSPSS had a strong correlation with interpersonal sensitivity and psychoticism subscales, and a moderate correlation with all other BSI sub-

scales. Finally, the SO subscale had a strong correlation with the obsessiveness compulsiveness and depression subscales, and a moderate correlation with all other BSI subscales.

Table 13. *Correlations between MSPSS and BSI subscales within HM group* (N=157)

Variable	MSPSS	FAM	FRE	SO	GSI	PSDI	PST	SOM	OC	IS	DEP	ANX	HOS	PHOB	PAI
MSPSS	-														
FAM	.82**	-													
FRE	.80**	.45**	-												
SO	.85**	.57**	.62**	-											
GSI	-.51**	-.42**	-.42**	-.46**	-										
PSDI	-0.47**	-0.48**	-0.37**	-0.37**	0.70	-									
PST	-0.46**	-0.33**	-0.38**	-0.47**	0.93	0.47**	-								
SOM	-.36**	-.31**	-.24**	-.35**	.78**	0.44**	0.83**	-							
OC	-.44**	-.36**	-.32**	-.44**	.79**	0.61**	0.76**	.61**	-						
IS	-.43**	-.27**	-.43**	-.36**	.72**	0.47**	0.73**	.55**	.55**	-					
DEP	-.53**	-.48**	-.40**	-.51**	.84**	0.62**	0.82**	.68**	.70**	.59**	-				
ANX	-.38**	-.28**	-.32**	-.33**	.85**	0.63**	0.83**	.76**	.70**	.63**	.73**	-			
HOS	-.44**	-.39**	-.34**	-.38**	.81**	0.62**	0.76**	.63**	.62**	.52**	.70**	.68**	-		
PHOB	-.37**	-.23**	-.31**	-.42**	.79**	0.49**	0.81**	.69**	.62**	.60**	.66**	.69**	.60**	-	
PAR	-.41**	-.35**	-.35**	-.34**	.68**	0.57**	0.63**	.43**	.56**	.59**	.57**	.56**	.57**	.48**	-
PSY	-.44**	-.28**	-.41**	-.44**	.77**	0.58**	0.73**	.57**	.57**	.55**	.62**	.63**	.59**	.66**	.59*

**0.01 level (2-tailed)

Note. FAM: Family; FRE: Friends; SO: Significant Other; SOM: Somatization; O-C: Obsessive-Compulsive; I-S: Interpersonal Sensitivity; DEP: Depression; ANX: Anxiety; HOS: Hostility; PHOB: Phobic Anxiety; PAR: Paranoia; PSY: Psychoticism; GSI: Global Severity Index; PSDI: Positive Symptom Distress Index; PST: Positive Symptom Total.

Chapter 5

Discussion

The current study examined the effect of CM experiences on adult psychological symptomatology and level of social support among college students in Lebanon. The study also aimed at examining the role of social support (SS) in mental health outcomes of students with history of childhood maltreatment (CM). It was hypothesized that participants with a history of CM will report lower levels of SS and greater psychological symptomatology compared to their counterparts without a history of maltreatment. It was also hypothesized that within the group of participants with reported history of CM, the level of social support and psychological symptomatology will be negatively correlated. Data were obtained from self-report scores of a convenient sample of 198 college students. The findings supported the three hypotheses.

In this chapter, findings of the study are discussed in light of results of previous research findings. This will be followed by presenting the strengths and limitations of the current study. Implications of the study is also be discussed. The chapter concludes with suggestions for future research.

Findings Related to Hypothesis Testing

Regarding results of hypothesis testing, the first hypothesis compared the difference in SS levels between HM and WHM groups. It was hypothesized that participants who have experienced CM would report lower levels of perceived SS. The hypothesis was examined through independent samples t-tests. Consistent with hypothesis, participants with history of maltreatment reported significantly lower levels of SS. This result is consistent with the current research on the effect of CM on level of SS in adulthood (Conte & Schuerman, 1987; Cohen et al., 2000; Horan & Widom, 2015; Sperry & Widom, 2013; Testa, Miller, Downs, & Panek, 1992; Vrancenu, Hobfoll, & Johnson, 2007). This findings supports the notion that experiences of maltreatment in childhood affects later social functioning possibly due to the development and

internalization of distortions in cognitions related to the self and others, low self-esteem, maladaptive attachment pattern and maladaptive schemas for healthy adult relationships.

Findings of the present study extend the line of research to include the effect of CM on three domains of SS. The results of analysis revealed that compared to participants without history of maltreatment, participants with history of maltreatment reported significantly lower levels of perceived social support from three sources (family, friends and significant others). These results are parallel with the current research (Pepin & Banyard, 2006; Weber & Cummings, 2003). In addition, studies concerning CM and interpersonal functioning found that CM is negatively associated with interpersonal functioning revealed in familial, romantic and friendship relationships (Hill et al. 2001). The current findings are in accordance with these findings.

In an effort to control the overlap among different types of maltreatment, the present study examined effects of different types of maltreatment simultaneously. The results of regression analysis suggested that CM served as a significant predictor of lower levels of SS in young adulthood. More specifically, CM accounted for 39.6% of the variance in level of SS among the sample and emotional abuse was the only significant predictor of this outcome. This findings further supports the notion that experiences of maltreatment in childhood affects later social functioning, and it is the effect of emotional abuse that may contribute to the level of perceived social support in young adulthood.

Unlike physical and sexual maltreatment which entails an event or a series of events, EA describes a relationship. By definition, EA entails a pattern of dysfunctional interactions between a caregiver and a child. The acts of commission in this relationship might convey to the child that he/she is unloved, unwanted, flawed or worthless (Wright et al., 2009). This provides what Cicchetti and Toth (2005) refer to as "pathogenic relational environment" that leads to later difficulties in social and psychological well-being of emotionally abused children. This could be an explanation for the significant contribution of EA. In addi-

tion, as referred to in the literature review, EA rarely occurs alone. That being said, while other types of maltreatment did not serve as strong predictors, it is possible that they contributed to the overall effect of childhood adversities on level of SS in adulthood.

The current study also compared the level of psychological distress and psychological symptomatology between groups of HM and WHM. The second hypothesis was examined through independent samples t-tests. The results of the current study revealed that participants in the HM group reported higher levels of psychological distress and psychological symptomatology compared to those in the WHM group. This findings supported the second hypothesis that maltreatment is associated with negative mental health outcomes in adulthood. It confirms and extends findings from previous research that experience of CM is associated with a wide range of adult psychological symptomatology. This finding is consistent with the findings of a longitudinal study by Dion et al. (2015), which indicated that CM predicted higher psychological distress among maltreated participants at the age of 14 and 24 years.

Furthermore, the results of the regression analysis revealed that CM experiences predicted psychological distress and psychological symptomatology. In this study, CM explained 40.3% of the variance in psychological symptomatology and 20.4% of the variance in psychological symptoms. In particular, emotional and sexual abuse served as significant individual predictors of psychological symptomatology (including psychological distress) and emotional abuse served as individual predictor to psychological symptoms. Based on these findings, experiences of emotional abuse in childhood appears to be a particular salient predictor of adult psychological outcomes experienced by the current sample. This finding underscores the effect of EA that was not emphasized by early research on CM. For instance, examining the long-term effect of different forms of CM, Mullen et al. (1996) found that the effect of EA was similar to effects of PA and SA.

However, the findings of the current study are in accordance with some of the literature; as previous findings suggested that childhood EA predicted adult symptomatology above and beyond other types of CM (Dias et al., 2014; Lowell et al., 2014; McLewin & Muller, 2006; Reichert, 2013; Wright, Crawford, & Del Castillo, 2009). Previous research examining mechanisms relating different CM experiences and adult mental health outcomes have indicated that emotional and sexual abuse contributed to variance in cognitions related to maltreatment experiences (Reichert, 2013; Wenninger & Ehlers, 1998). That is, young adults with history of different types of maltreatment tended to report more negative cognitions associated with their childhood traumatic maltreatment experiences of EA and SA which yielded to larger contribution in their adult psychological symptomatology.

As the third hypothesis states and consistent with the buffering effect model of SS, the impact of SS on psychological symptomatology was found to be positive among the participants within HM group. The results revealed a negative correlation between the scales and their subscales. The findings indicated that higher levels of SS was associated with lower levels of psychological symptomatology among participants with reported history of maltreatment. Thereby, as the level of perceived SS increased, the level of psychological distress and psychological symptomatology decreased.

The findings suggest that the perceived lack of supportive relationships may represent one of the mechanisms leading to the maladaptive and negative mental health outcomes in adulthood. On the other hand, perceived SS may increase resilience (Dumont, Widom & Czaja, 2007), improve self-esteem (Hyman, Gold & Cott, 2003), protect against feelings of loss (Murthi & Espealage, 2005) and provide a corrective relationship experience (Rutter, 2006) among maltreated individuals lessening the effects of maltreatment.

This finding is further emphasized with the result of exploratory analyses examining differences between CR (Clinically relevant) and NCS (Non-Clinically Significant) groups. The analyses revealed that

participants included in the non-clinical significant group reported lower levels of maltreatment on the physical abuse, physical neglect and emotional abuse domains of maltreatment. The analysis also revealed that participants in NCS group reported significantly higher levels of overall perceived SS and perceived SS from the family.

The finding indicated that physical maltreatment and emotional abuse have significant effect on the risk of developing psychopathology. In addition, the findings demonstrate that not only lower overall level of perceived SS have significant effect on the risk of developing psychopathology, the level of perceived SS from family may shield individuals from developing psychopathology. As maltreatment has been found to be generally perpetrated by parents or caregivers and college students in Lebanon tend not move out of their family home during college time, the findings of this analyses highlight the importance of early intervention to enhance supportive familial relationships in order to reduce the risk of psychopathology in adulthood (English et al., 2005; Higgins & McCabe, 2001; Radford et al., 2011). Furthermore, while physical neglect and physical abuse did not account for significance contribution to level of SS among the studied sample, the effect of physical maltreatment seems to have an effect on development of psychopathology rather than development of social difficulties. Thus, the effect of physical maltreatment on the development of psychopathology may be represented by a different mechanism and other intervening variables that were not examined in the present study.

Briefly, the findings indicate that the current sample reported high levels of experiences of childhood maltreatment and high rates of psychological symptomatology. Significant gender differences were found on some domains of maltreatment, psychological symptoms and levels of social support. The findings of the current study were consistent with the hypothesis. Comparing groups of participants with history of maltreatment to those without history of maltreatment, the results of the analyses revealed that participants in HM group reported greater psychological symptomatology and lower levels of SS. In addition, the

results indicated that higher levels of SS was associated with lessened psychological symptomatology within the HM group suggesting a buffering effect for SS.

Findings Regarding Descriptive Analyses of the Measures of the Study

At the descriptive level, the results of the current study revealed that 76.3% of participants reported experiencing a history of maltreatment. This finding suggests that the majority of the sample reported experiencing at least one of form of childhood maltreatment. While this is considered a high prevalence of maltreatment, this could be first explained by variance in categorization method used. The history of maltreatment was determined by responding with at least low to moderate cut off scores for one or more of the CTQ subscales. Different studies used different threshold levels for categorization (Dias et al., 2014). The use of higher threshold levels would have yielded lower prevalence of maltreatment among the studied sample. More importantly are the societal and cultural factors that were not considered. Acts of abuse and neglect included in the CTQ scale might not be reflective of Lebanese or Arab societal norms, cultural practices and legal standards (Khamis, 2000). In other words, what is considered an act of maltreatment in Western societies, is not necessarily considered maltreatment in the Lebanese context specifically. Due to the lack of availability of a scale that defines and measures maltreatment domains unique to the Arab societies, CTQ was used in the present study.

Regarding prevalence rates of maltreatment types, rates of maltreatment types were similar to finding from previous studies that utilized CTQ among undergraduate students (Bernstein & Fink, 1998; Paivia & Cramer, 2004; Turner & Paivio, 2002; Wright et al., 2001). Consistent with previous research (Dias et al., 2014; U.S. Department of Health), emotional and physical neglect were the most prevalent forms of maltreatment reported by the sample. It was also found that 90.4% of the participants with reported history of maltreatment (66.7% of the current sample) experienced more than one form of maltreatment. This finding is consistent with previous research indicating high rates of multiple forms of CM, such that individuals

experiencing one type of CM are more likely to experience other types of maltreatment in childhood (Higgins & McCabe, 2001).

Furthermore, descriptive results regarding level of SS among the current sample revealed that the mean score on the MSPSS scale was lower than the mean scores from previous studies using same instrument on college students. In addition, 53.5% of the sample experienced high levels of SS. Considering collectivistic cultural factors, it was expected that sample would report higher levels of SS. One potential explanation is the prevalence and severity of maltreatment experienced by the sample. Previous research have indicated that as the number and severity of maltreatment increases, the level of perceived, not received or available SS, decreases. Interestingly, almost half of the current sample (54%) described their relationship status as single. This could point to the potential isolating effects of psychological problems experienced and highlight how people with poor mental health may withdraw from social contact or have difficulty forming relationships.

On the other hand, the majority of the current sample (75.3%) were identified as a "clinical case" (positive risk for diagnosable psychopathology). The finding suggests that the majority of the sample are at a risk for psychopathology even though a college students sample is considered a non-clinical sample. This finding may have reflected the cumulative effect of high rates of multiple CM types reported by the sample. Previous research has emphasized a graded relationship between the number of childhood adversities and adult psychological distress (Edwards et al., 2003; Chapman et al, 2004; Vranceau, Hobfall & Johnson, 2007). This finding is also supported by previous research such as the study conducted by Silverman et al. (1996) which found that 80% of the participants who reported a history of abuse met the criteria for at least one psychiatric disorder in young adulthood.

Findings Related to Gender Differences

Furthermore, exploratory analyses examined gender differences on the measures of the study. Examining gender differences among the current sample suggested that the effects of some domains of CM (specifically emotional and sexual abuse) and the reported levels some psychological symptoms (specifically anxiety, somatization, phobic anxiety, interpersonal sensitivity, obsessive-compulsiveness, psychoticism and paranoid ideation) and social support (from family and significant other sources) were similar for both gender. However, the results of analyses revealed significant gender differences on other subscales discussed below.

The results indicated significant gender differences on three domains of CM. Specifically, results revealed that on average male participants reported higher levels of physical abuse, and emotional and physical neglect compared to their female counterparts. Similar findings regarding males experiencing higher levels of physical abuse has been reported in previous research (Thompson, Kingree & Desai, 2004). In terms of physical and emotional neglect, this finding is not supported by previous research (Mennen, Kim, Sang & Trickett, 2003; Stoltenborgh, Bakermans-Kranenburg & van IJzendoom, 2013). While females in the Arab world has been viewed as the "weak gender" that needs protection and supervision, males are considered to be strong (Marocco, 1983). As a result, males' physical and emotional needs might be neglected in childhood.

According to the results concerning gender differences of psychological symptomatology, significant differences were found on two BSI subscales. It was found that males reported higher levels of depression and hostility. Lower levels of SS among male participants may have contributed to the higher level of reported depressive symptoms.

Study Strengths

The current study added to the empirical data on the scope of child maltreatment problem in Lebanon and its psychological sequelae in early adulthood. Although the relationship between childhood maltreatment and adverse mental health outcomes in adulthood is well established, there is scare in research in Lebanon and the findings of current study revealed high rates of childhood maltreatment as well as a high risk for diagnosable psychopathology among participating college students. While the college population is considered to be a relatively adaptive and high functioning population, the findings of the current study suggested that students might be susceptible to psychological distress and psychological symptomatology from CM that affects their psychological or social well-being despite their academic achievements.

In an effort to fully capture the effect of history of maltreatment, and as recommended by the author of the CTQ-SF authors, the lowest cut-off scores were used to indicate a history of maltreatment. Thereby, another strength of the present study was that the analysis of results and findings related to maltreatment included those of low severity. Moreover, as previous research highlighted the impact of SS as an intervening variable, this study further investigated the role of SS in buffering the effect of CM. The findings of the present study highlighted the protective role that SS plays and the impact of perceived SS from family, friends and significant others on the psychological well-being of college students.

Furthermore, the present study is one of the few studies that examined the effect of five types of maltreatment on a range of adult psychological symptoms as well as their effect on level of social support among college students. The findings highlighted the particular salient role of emotional abuse as a predictor of both adult psychological symptoms, psychological distress and level of SS in adulthood. In addition, emotional abuse as well as physical abuse and physical neglect had significant effect on risk of developing psychopathology, and sexual abuse was another significant predictor of psychological distress in this study. Findings related to the effects of different forms of maltreatment on levels of social support and psycholog-

ical symptomatology in young adulthood points to the importance of examining different types of maltreatment simultaneously. This leads to a better understanding how different types of maltreatment and their interactions contribute to different outcomes in adulthood. In addition, this may aid in enhanced quality of interventions and prevention programs.

Clinical Implications

The understanding of the role of SS in the relationship between CM and subsequent adult psychological symptomatology has implications for enhancing the quality of clinical interventions as well as prevention programs. Findings may highlight the need for clinicians and university counselors to include routine assessment for history of maltreatment and perceived social support, give greater attention to the role of experiences of CM in the presentation and treatment of symptoms, explore ways in which past interpersonal and social challenges affect current perceived level of social support and presenting symptoms, and to focus on interpersonal problems, utilizing social resources and developing supportive networks (particularly, supportive networks with friends for males and supportive networks at the family level for those at risk of psychopathology) to moderate the effects of maltreatment and alleviate presenting symptoms.

In this regard, therapeutic intervention strategies that may be incorporated to the treatment would include cognitive behavioral as well as interpersonal interventions such as: targeting cognitive distortions towards the self and others to maintain and/or increase developing emotional regulation strategies and new ways of relating to the self and others; interpersonal, social skills and affective skills training to help enhance poor SS that may be a consequence of CM; educating on how experiences of maltreatment may affect psychological, social and interpersonal functioning; training on how to find SS from safe sources, how to manage relationship(s) with abuser(s), and how to determine if current relationships are safe and identify warning signs that they are not safe.

The current study may be further utilized by school counselors and child protection officers. It may highlight the need for increased early identification of maltreatment, suggest child centered, family-focused and community-based interventions to prevent the occurrence of CM, and to promote psychological treatment that would entail developing and fostering social support resources inside and outside the immediate family for maltreated children to reduce long-term effects of maltreatment. Health care professionals and social workers may also draw on results of this study to enhance training, policies and practice for effective preventive work, delivering services targeted at fostering social support for children in need that would take place in homes, schools, communities and/or health care settings, and delivering parenting workshops.

Furthermore, implications of the current study for advocates may include prevention and educational campaigns addressed for the public, interventions to change community attitudes and practices towards CM, and increased availability of and referral to mental and social health services for maltreated children. Moreover, at policy levels, policy makers may utilize the findings of this study to develop legal and national policies and programs to reduce the prevalence of CM and protect maltreated children.

Conclusions and Suggestions for Future Research

The findings of the current study show a clear need for large-scale national studies with more focused research across a wider range of childhood adversities, outcomes, intervening variables and mechanisms involved. To enhance our understanding of the scope of maltreatment, it is recommended to develop a scale which defines and measures maltreatment domains unique to the Arab societies. In light of the finding of the current study, more emphasis in research should be placed on the immediate and lasting effects of all types of CM on the psychological well-being and interpersonal functioning of maltreated children. Further studies should replicate this study on a large scale of representative sample.

Future research may also examine the role of other individual, familial and environmental factors and how they affect perceptions of social support. The current study does not examine whether low levels

of SS perceived by maltreated individuals developed as a consequence of maltreatment or prior to maltreatment. Research should examine received and perceived levels of SS prior to and post maltreatment to provide a more thorough understanding of the relationship between maltreatment and SS to aid in developing more beneficial interventions. Furthermore, future studies should examine the role of SS in accordance with other intervening variable and in relation to other outcomes.

In summary, the present study supports the association between history of childhood maltreatment and adult psychological symptomatology as well as the association between childhood maltreatment and level of perceived social support in adulthood. Furthermore, it appears that CM accounted for a relatively large variance in level of SS and level of psychological distress and psychological symptomatology in the current sample. The findings also support the buffering effect of SS in the relationship between childhood maltreatment and adult mental health outcomes.

As college years mark a transition in the developmental processes from childhood to adulthood, the impact of CM on psychological and social functioning among college students is particularly significant. College students with history of maltreatment have likely developed maladaptive cognitions and behavior in relation to their childhood experiences. With the findings related to effect of CM on level of social support and risk for diagnosable psychopathology and psychological symptomatology in mind, and the stress level that comes along with transitions, this study supports the notion that CM effects are long-lasting and significantly alter developmental trajectories leading to maladaptive emotional and social outcomes. The disruptive long-term effects of CM among college students, particularly emotional abuse, seems to appear most markedly in later psychological functioning and interpersonal relationships regardless of academic functioning.

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Appendix A
DEMOGRAPHIC DATA SHEET

1. *What is your age?____*

Please check the appropriate box

2. *What is your sex?*

☐ Male ☐ Female

3. *What is your nationality?*

☐ Lebanese ☐ Syrian ☐Other (please specify):

4. *What university do you attend?*

☐ American University of Beirut ☐Beirut Arab University
☐ Haigazian University ☐Lebanese American University
☐ Lebanese University ☐ Notre Dame University

5. *What is your current relationship status?*

☐ Single, never married ☐ Engaged ☐ In a relationship
☐ Married ☐ Divorced ☐ Separated ☐ Widowed

6. *Have you ever attempted suicide?*

☐ Yes ☐ No

Appendix B

CHILDHOOD TRAUMA QUESTIONNAIRE

Directions: These questions ask about some of your experiences growing up as a child and a teenager. For each question, circle the number that best describes how you feel. Although some of these questions are of a personal nature, please try to answer as honestly as you can. Your answers will be kept confidentnial.

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

When I was growing up…	Never True	Rarely True	Sometimes True	Often True	Very Often true
14. People in my family said hurtful or insulting things to me.	1	2	3	4	5
15. I believe that I was physically abused.	1	2	3	4	5
16. I had the perfect childhood.	1	2	3	4	5
17. I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor, or doctor.	1	2	3	4	5
18. Someone in my family hated me.	1	2	3	4	5
19. People in my family felt close to each other.	1	2	3	4	5
20. Someone tried to touch me in a sexual way or tried to make me touch them.	1	2	3	4	5
21. Someone threatened to hurt me or tell lies about me unless I did something sexual with them.	1	2	3	4	5
22. I had the best family in the world.	1	2	3	4	5
23. Someone tried to make me do sexual things or watch sexual things.	1	2	3	4	5
24. Someone molested me (took advantage of me sexually).	1	2	3	4	5
25. I believe that I was emotionally abused.	1	2	3	4	5
26. There was someone to take me to the doctor if I needed it.	1	2	3	4	5
27. I believe that I was sexually abused.	1	2	3	4	5
28. My family was a source of strength and support.	1	2	3	4	5

APPENDIX C
MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT (MSPSS)

I am interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

	Very Strongly Disagree	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree	Very Strongly Agree
1. There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2. There is a special person with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
3. My family really tries to help me.	1	2	3	4	5	6	7
4. I get the emotional help and support I need from my family.	1	2	3	4	5	6	7
5. I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6. My friends really try to help me.	1	2	3	4	5	6	7
7. I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8. I can talk about my problems with my family.	1	2	3	4	5	6	7
9. I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10. There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11. My family is willing to help me make decisions.	1	2	3	4	5	6	7
12. I can talk about my problems with my friends.	1	2	3	4	5	6	7

APPENDIX D
BRIEF SYMPTOM INVENTORY (BSI-53)

Here are a list of problems and complaints that people sometimes have. For each one, please indicate how much the problem has bothered or distressed you during the past week, including today. Please indicate whether each problem has bothered you not at all, a little bit, moderately, quite a bit, or extremely.

	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Nervousness or shakiness inside.	1	2	3	4	5
2. Faintness or dizziness.	1	2	3	4	5
3. The idea that someone else can control your thoughts.	1	2	3	4	5
4. Feeling others are to blame for most of your troubles.	1	2	3	4	5
5. Trouble remembering things.	1	2	3	4	5
6. Feeling easily annoyed or irritated.	1	2	3	4	5
7. Pains in heart or chest.	1	2	3	4	5
8. Feeling afraid in open spaces.	1	2	3	4	5
9. Thoughts of ending your life.	1	2	3	4	5
10. Feeling that most people cannot be trusted.	1	2	3	4	5
11. Poor appetite.	1	2	3	4	5
12. Suddenly scared for no reason.	1	2	3	4	5
13. Temper outbursts that you could not control.	1	2	3	4	5
14. Feeling lonely even when you are with people.	1	2	3	4	5
15. Feeling blocked in getting things done.	1	2	3	4	5
16. Feeling lonely.	1	2	3	4	5
17. Feeling blue.	1	2	3	4	5
18. Feeling no interest in things.	1	2	3	4	5
19. Feeling fearful.	1	2	3	4	5
20. Your feelings being easily hurt.	1	2	3	4	5
21. Feeling that people are unfriendly or dislike you.	1	2	3	4	5
22. Feeling inferior to others.	1	2	3	4	5
23. Nausea or upset stomach.	1	2	3	4	5
24. Feeling that you are watched or talked about by others.	1	2	3	4	5
25. Trouble falling asleep.	1	2	3	4	5
26. Having to check and double check what you do.	1	2	3	4	5
27. Difficulty in making decisions.	1	2	3	4	5
28. Feeling afraid to travel on buses, subways, or trains.	1	2	3	4	5

	Not at all	A little bit	Moderately	Quite a bit	Extremely
29. Trouble getting your breath.	1	2	3	4	5
30. Hot or cold spells.	1	2	3	4	5
31. Having to avoid certain things, places, or activities because they frighten you.	1	2	3	4	5
32. Your mind going blank.	1	2	3	4	5
33. Numbness or tingling in parts of your body.	1	2	3	4	5
34. The idea that you should be punished for your sins.	1	2	3	4	5
35. Feeling hopeless about the future.	1	2	3	4	5
36. Trouble concentrating.	1	2	3	4	5
37. Feeling weak in parts of your body.	1	2	3	4	5
38. Feeling tense or keyed up.	1	2	3	4	5
39. Thoughts of death or dying.	1	2	3	4	5
40. Having urges to beat, injure, or harm someone.	1	2	3	4	5
41. Having urges to break or smash things.	1	2	3	4	5
42. Feeling very self-conscious with others.	1	2	3	4	5
43. Feeling uneasy in crowds.	1	2	3	4	5
44. Never feeling close to another person.	1	2	3	4	5
45. Spells of terror or panic.	1	2	3	4	5
46. Getting into frequent arguments.	1	2	3	4	5
47. Feeling nervous when you are left alone.	1	2	3	4	5
48. Others not giving you proper credit for your achievements.	1	2	3	4	5
49. Feeling so restless you could not sit still.	1	2	3	4	5
50. Feelings of worthlessness.	1	2	3	4	5
51. Feeling that people will take advantage of you if you let them.	1	2	3	4	5
52. Feelings of guilt.	1	2	3	4	5
53. The idea that something is wrong with your mind.	1	2	3	4	5