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Mediators of self-destructive behaviors in women survivors of childhood sexual abuse: A structural model

Kellie Bree Fritchel

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MEDIATORS OF SELF-DESTRUCTIVE BEHAVIORS IN WOMEN SURVIVORS OF CHILDHOOD SEXUAL ABUSE:
A STRUCTURAL EQUATION MODEL

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
in
Psychology:
Clinical Counseling

by
Kellie Bree Fritchel
June 2008
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ABSTRACT

Research has shown that women who were sexually abused as children have an increased likelihood of experiencing negative psychological effects because of the abuse, as well as an increased likelihood of engaging in self-destructive behaviors. However, not all individuals who have these abusive childhood experiences become self-destructive. The purpose of this project was to examine the predictors of risky sexual behaviors and poor eating behaviors for women who experienced childhood sexual abuse, including family hardiness, and depression, in a structural equation model. A second group of those who had not been sexually abused as children was also tested using the same structural equation model. It was hypothesized that women who were sexually abused as children and also experienced low family hardiness (control, commitment, challenge) would have higher rates of depression and thus would then participate in higher rates of risky sexual behaviors (high number of partners, unprotected sex, etc.) and poor eating behaviors (such as anorexia, and bulimia) than those who had not been abused as children. A questionnaire containing several reliable and valid measures including those that measure childhood sexual abuse (The Childhood Trauma Questionnaire), family
hardiness (The Family Hardiness Index), depression (The Brief Symptom Inventory), risky sexual behaviors (The Sexual Behavior Questionnaire), and eating behaviors (Eating Disorder Inventory-RF) were administered to 200 female participants at California State University, San Bernardino. The data proposed for this study were acquired from archival data. It was predicted that the results would suggest that depression was a reliable mediator between family hardiness and women's current sexual behaviors as well as their eating behaviors. It is suggested that understanding the predictors of these unhealthy/self-destructive behaviors will be helpful in learning how to work with women therapeutically to lessen these adverse behaviors. The results showed that there was no difference between the groups of those who had been sexually abused and those who had not. However, the structural equation model was found to be a good fit and a reliable predictor of risky sexual behavior and poor eating behaviors in women in general.
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DEDICATION

This thesis is dedicated in three parts. First, this is dedicated to my grandparents, from whom I received continuous interest in my schooling and extreme amounts of praise. Although they didn't know it, they were my driving force for this thesis. Second to my family, who supported by me during my long nights and tired days. Last, but definitely not least, to my closest friends, that kept me going and offered never-ending support, for that I am eternally grateful. I love you all.
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CHAPTER ONE
INTRODUCTION

What contributes to risky sexual behavior and poor eating behaviors in women who have been sexually abused as children? To understand this relationship, this thesis attempts to explore these factors by proposing to develop a structural equation model aimed at examining the precursors of these behaviors, specifically depression and family hardiness. It is important to scrutinize this particular structure because of the ill-effects it has shown to have for some women in their adult lives. If the mediator can be identified then there can be effort put towards helping these women get the appropriate treatment so that they might be able to avoid acting-out in these particular self-destructive ways.

Childhood Sexual Abuse

It is hard to believe that only 30 years ago some researchers believed there were little to no traumatic effects of childhood sexual abuse upon the victim (Ramey, 1979). However, there has been much research since then that disproves this assumption and thus shows that the effects of sexual abuse are detrimental to the victim in short-term as well as long-term symptomatology and
behaviors (Browne, & Finkelhor, 1986; Feinauer, Mitchell, Harper, & Dane, 1996; Finkelhor, 1990; Gold, 1986; Kendall-Tackett, Williams, & Finkelhor, 1993; Merrill, Thomsen, Sinclair, Gold, & Milner, 2001). There are a high number of women who report being sexually abused as children, with various reports ranging from about 13% (Oaksford & Frude, 2001) to 15-30% of women (Lundqvist, Hansson, & Svedin, 2005). This upper range of reported prevalence rates suggest that this type of abuse occurs in up to 1/3 of the female population, suggesting epidemic proportions. This underscores the fact that childhood sexual abuse is an unfortunate but frequent occurrence in our society and that it is important to study the consequences in order to look for ways to help these women with healthy coping strategies and support systems.

It is important to first examine the effects of sexual abuse on the children who were mistreated. It has been found that the effects of childhood sexual abuse are serious and that they are evident in a variety of symptomatic and psychological behaviors (Kendall-Tackett, Williams, & Finkelhor, 1993). Such effects include fear, posttraumatic stress disorder, behavior problems, poor self-esteem, anxiety, aggression, sexually inappropriate behavior, and anger and hostility (Kendall-Tackett,
Williams, & Finkelhor, 1993). Kendall et al. (1993) reviewed 45 studies of participants that were 18 years old or younger. These studies clearly indicated that children who had been sexually abused had more symptoms than those children who had not been abused. The degree of the symptomatology was affected by the duration of the abuse, the frequency of the abuse, the severity of the abuse, the relationship of the perpetrator to the child, and also the support that the child had from their maternal figure (Feinauer, Mitchell, Harper, & Dane, 1996; Feerick & Snow, 2005; Lundqvist, Hansson, & Svedin, 2005; Kendall-Tackett, Williams, & Finkelhor, 1993). The more severe the abuse, the earlier the age of onset, the longer the duration, and the closer the child is to the perpetrator, the worse the expected outcome was for the child in later years (Feinauer, Mitchell, Harper, & Dane, 1996; Feerick & Snow, 2005; Lundqvist, Hansson, & Svedin, 2005).

Kendall-Tackett et al. (1993) also found that the two most apparent symptoms of children who were sexually abused were those having overly sexualized behaviors and also experiencing symptoms of posttraumatic stress disorder. This sexualized behavior was defined as frequent and overt self-stimulation, compulsive talk, play and fantasy with sexual content, and inappropriate sexual
suggestions towards other children and adults. This type of early behavior could possibly play a role in later maladaptive sexual behaviors as the child matures. According to the DSM IV-TR, some of the symptoms that one would experience who is suffering from PTSD are as follows; having persistent reexperiencing of the event, and avoidance of stimuli that is associated with the traumatic situation, also a numbing of general responsiveness, increased arousal, seeming always of edge, expecting something to happen (4th ed., text rev.; American Psychiatric Association, 2000).

Feerick and Snow (2005) found similar evidence. In their study, they examined the relationship between childhood sexual abuse, symptoms of posttraumatic stress disorder and social anxiety in a sample of 313 undergraduate females. It was found that women who had been sexually abused as children suffered from anxiety as adults, as well as a number of symptoms of PTSD. Women who had experienced penetration during childhood, also showed more signs of PTSD. In terms of the PTSD that is experienced, many of the symptoms can have detrimental effects on the daily functioning as defined by the criterion for posttraumatic stress disorder (4th ed., text rev.; American Psychiatric Association, 2000).
Browne and Finkelhor (1986) completed a review of the research regarding the impact of childhood sexual abuse, focusing on both the short-term and long-term effects of such abuse. In their review, they examined the short-term effects first and how this type of abuse affects the children emotionally, how it skewed their self-perception in a negative way, how it was associated with somatic/physical complaints, and lastly the effects of sexuality for children who were abused. They found that studies supported the idea that children who had been abused were higher on measurements of anger and hostility personality traits as well as antisocial behaviors. Female survivors were affected with symptoms of anxiety and distress as well as showing changes in their sleep patterns and their eating behaviors. Pregnancy was also a physical consequence of the previous abuse. Overall, it was suggested that children victims of CSA had a greater likelihood to have reactions of a more sexual nature than children who were not CSA victims (Browne & Finkelhor, 1986).

The long-term effects are looked at more closely in this paper because these long-term self-destructive behaviors are a problematic result of childhood sexual abuse. Childhood sexual abuse was found as a significant
predictor of psychological difficulties in adult women (Merrill, Thomsen, Sinclair, Gold, & Milner, 2001). These long term effects have been shown to be harmful to the woman’s functioning, with depression as the most commonly reported symptom of those who were abused (Browne, & Finkelhor, 1986). Some of the long-term effects include the aforementioned depression and also self-destructive behaviors (Feinauer, Mitchell, Harper, & Dane, 1996). Browne and Finkelhor (1986) also found that being suspicious of others, substance abuse, suffering from anxiety, feelings of isolation, and an increased likelihood of revictimization were long term effects of childhood sexual abuse.

Self-Destructive Behaviors

Posttraumatic stress disorder was also found to be a mediator between women who had been sexually abused and then partook in nonsuicidal self-injurious (NSSI) activities (Weierich & Nock, 2008). NSSI is the deliberate and direct damage of the body tissue, such as in cutting behaviors, but with the absence of a suicidal attempt. These cutting behaviors are a dysfunctional way of coping in many women, and it is also detrimental to their functioning in later life (i.e. job interviews, personal
relationships, etc.). A surprising number of women sexually abused in the study conducted by Gratz, Conrad, and Roemer (2002) admitted to nonsuicidal self-injurious activities as a way of coping, as much as 38% of the 89 undergraduate females that participated in the study. This self-destructive behavior is just one of many that women choose as a way of coping with their traumatic past experience. A link has also been found between self-destructive behaviors for those who have been sexually abused as children and a sense of shame that they feel (Milligan & Andrews, 2005). So these destructive behaviors could possibly be caused by poor coping or self-shame, but either way, the destructiveness of the behaviors can have detrimental effects on the woman’s psychological functioning (Briere & Elliot, 1994).

In the review of literature by Browne and Finkelhor (1986), they found similar results in terms of self-destructive behaviors. Their review discussed the findings that women who had been abused as children, were more likely to have attempted suicide (51%) than those who had not reported being sexually abused (34%). They also found that these women had a desire to hurt themselves. This type of behavior was correlated with having been abused as a child.
Substance Abuse

Through reviewing the literature on the impact of childhood sexual abuse, Browne and Finkelhor (1986) found that there is an association between childhood sexual abuse and substance abuse in later life which, for the purpose of this paper, is considered a self-destructive type of behavior. This issue of illicit drug use is an unfortunate habit that some women partake in. This chemical numbing is again, just one of the dysfunctional coping strategies that women sometimes use, which might be due to their childhood abuse. Childhood sexual abuse was found to be positively correlated with a severity of drug use later in life for these women. Also that early trauma might be associated with more severe and persistent drug use (Marcenko, Kemp, & Larson, 2000). Three factors related to sexual abuse were found to be associated with drug use, in particular crack use. Any type of sexual abuse, which includes sexual abuse that involved penetration, and sexual abuse by a family member, was significantly related to a lifetime use of crack cocaine. It was hypothesized that this drug use was to prevent the remembering of their past experiences, or as preventative in anticipation of situations that might arouse symptoms
related to past experiences (Freeman, Collier, & Parillo, 2002).

Alcohol as well as drug use, is hypothesized to be used by these women in the hopes of numbing the emotional effects of such abuse. Although different studies have reported different findings regarding a link between childhood sexual abuse and drinking and alcohol problems, it is hypothesized that there is a distinct link between the two, in that childhood sexual abuse is positively correlated with the abuse of alcohol (Fleming, Mullen, Sibthorpe, Attewell, & Bammer, 1998). Zlotnick, Johnson, Stout, Zywiak, Johnson, and Schneider (2006), examined 336 participants with childhood sexual and physical abuse and compared them with those who had not had such histories. They hypothesized that those with abuse histories would have a greater severity of alcohol use. They found that childhood sexual abuse was associated with an earlier onset of an alcohol disorder. It was postulated similarly to earlier studies that abuse of alcohol served as a way of numbing the pain from their childhood experience.

Gold (1986) explored the relationship between sexual victimization that took place in childhood and current adult functioning in 103 women. There were also 88 women who were not victimized who served as controls. Gold found
that the feelings of anxiety and tension continued long-term in women who had been sexually abused in childhood and adolescents. Other effects found included difficulty in trusting others, finding it difficult to create trusting relationships, difficulties in parenting of their own children, as well as the likelihood of being revictimized later on in life was higher for these women, and in addition they are more likely to be abused later by their husbands or spouses (Gold, 1986).

These women also tend to show problems later on in life with regards to their sexual adjustment. In an updated review of short and long-term effects of childhood sexual abuse, Finkelhor (1990) found that those who had been abused reported lower sexual self-esteem than those who had not been abused. This low self-esteem unfortunately can lead to such negative outcomes as prostitution. Farley and Barkan (1998) found that of the 96 female prostitutes that participated in their study, 57% had been abused as children by an average of 3 perpetrators. They reasoned that this number is lower than previously hypothesized is because of a possible misunderstanding of the questions within the study by the participants, so further research was suggested. However from the results gathered, it was illustrate that there is
a strong relationship between childhood sexual abuse and the detrimental effects that fall upon these women in their adulthood.

Resiliency

There are however some positive outcomes for these women with such horrific pasts. Those who have been able to develop a sense of personal hardiness within themselves show fewer negative effects from their abuse. Women with hardiness show higher levels of control, commitment, and challenge in their lives. Feinauer, Mitchell, Harper, and Dane, (1996) explored this relationship in a sample of 255 nonclinical female survivors. It was concluded that hardiness lead women who were victims of childhood sexual abuse to be better able to learn effective coping methods that buffer stressful life events like childhood sexual abuse.

Brock, Mintz, and Good, (1997) found that abused women from a functional family (or perceived functional family) reported significantly less symptomatology than those with a dysfunctional family. There were 80 subjects used in this study, 80 female students who were enrolled in introductory psychology classes at a large Midwestern university. Parental support is also hypothesized as a
predictor of the woman’s adjustment in terms of her childhood abuse. Parental support predicts the positive coping strategy of constructive coping, but it is not a significant predictor of avoidant or self-destructive coping strategies. This positive coping strategy is then associated with decreased levels of symptomatology or the negative effects that one experiences. Merrill, Thomsen, Sinclair, Gold, and Milner, (2001) found in a sample of 5,226 female Navy recruits that although childhood sexual abuse was a greater predictor of adjustment, family environment did play a role. It was shown that parental support had a possible indirect association with symptomatology in terms of childhood sexual abuse victims. Thus the parental relationship appears to have an impact on the outcome of the woman who had been sexually abused.

Hardiness

Parental support can also be thought of in terms of family hardiness. Family hardiness was originated from an individual personality characteristic of hardiness. This characteristic was used to explain why, when in challenging situations, some individuals stay physically healthy while others become ill (Kobasa, 1979). McCubbin et al. (1983) later created the Family Hardiness Index to
measure Family hardiness or the internal strengths and the durability of the family (Svavarsdottir, McCubbin, & Kane, 2000). Family hardiness is divided into three components; control, commitment, and challenge. Control is defined as the family members' feelings of positive control over the outcomes of their lives. Commitment is defined in terms of the family's internal strength and their ability to work together, as a single unit. Lastly, challenge is defined as the effort of the family to be active and to learn as a family, also to grow together (Svavarsdottir et al., 2000).

Very few studies have been done that use family hardiness in terms of coping strategies or have considered how the effects of the family hardiness can help a person deal with life issues. There are no studies found that compare family hardiness and childhood sexual abuse. There were studies however that discussed the importance of family hardiness in terms of coping with difficult situations, such as having a child who suffers from asthma (Svavarsdottir et al., 2000; Svavarsdottir & Rayens, 2004). Svavarsdottir and Rayens, (2004) collected data from 103 Icelandic families and 76 US families with children under the age of 6 who suffered from mild to severe asthma. The Family Hardiness Index (FHI; McCubbin
et al. 1991) was used as one of their measurements and it was concluded that family hardiness may help families adapt. Svavarsdottir, McCubbin, and Kane (2000) concluded similar results in studying the relationship between family demands, caregiving demands, family hardiness, and a sense of coherence in 76 families of young children (infant to 6 years old) with asthma. Resiliency factors of family hardiness and sense of cohesion along with family demands had a direct relationship to the well-being of the parents.

One’s perceived family environment however, was an important mediating variable when used to determine the level of psychological stress that an adult might be experiencing (Nash, Hulsey, Sexton, Harralson, & Lambert, 1993). Much of the adulthood pathology observed was related with childhood sexual abuse which may be the result of a pathogenic family background (Nash, Hulsey, Sexton, Harralson, & Lambert, 1993). Merrill, Thomsen, Sinclair, Gold, and Milner (2001) found that childhood sexual assault survivors suffered less severe long-term side effects from the abuse if they came from a positive family environment with a high degree of support. Also parental support was shown as having a weak, although significant negative association with symptoms experienced.
from childhood sexual abuse. Moreover, Merrill et al. (2001) found that parental support was a significant predictor of constructive coping, but not of avoidant or self-destructive strategies. So although those who had been abused had supportive parents and possibly more resources to support productive and healthier coping efforts, support did not defend against later pathology by lessening the use of maladaptive coping strategies.

Hardiness data was collected from 175 undergraduate students at a large public university. This data was then entered into a regression analysis as an independent variable in an attempt to predict the clinical scales of the Minnesota Multiphasic Personality Inventory (MMPI) as dependent variables. Hardiness was discovered to be a negative predictor of MMPI clinical scores of depression (Maddi & Khoshaba, 1994). The aforementioned study suggests that hardiness is a negative predictor of the clinical scores for depression. It was also suggested that hardiness was a general measure of mental health and not just a person’s predisposition to get upset and distressed (Maddi & Khoshaba, 1994).

Hardiness, when used to discuss an individual’s characteristics, is conceptualized as consisting of the 3 aforementioned components. This type of hardiness has a
significant relationship between stress and depression. It is significantly correlated with the scores found on the Beck Depression Inventory (BDI). Individuals who suffered from high stress and had low hardiness were more depressed than those who had low stress and low hardiness (Pengilly & Dowd, 2000).

Bidokhtí, Yazdandoost, Birashk, and Schottenfeld (2006) studied the family environment of recently detoxified opioid addicts in Iran. They explored the relationship between one’s perceived family environment and symptoms of depression or anxiety. Bidokhtí et al., (2006) found an inverse correlation between depression and family cohesion. Bidokhtí et al. (2006), also found a positive correlation between depression and family conflict. These findings suggest that one’s family support may act as a shield against depression and that family conflict may worsen depressive symptoms. Similar results were found in a study that looked at the home environment of those who had been abused and how it affects later onset of dysthymia and depression. People with early onset dysthymia reported more sexual abuse and having a poor relationship with their parents (Lizardi, Klein, Ouimette, Riso, Anderson, & Donaldson, 1995). Lastly, Yama, Tovey, and Fogas (1993) found an association between women with a
history of childhood sexual abuse and their symptoms of anxiety and depression. Family conflict, control, and cohesiveness actually were found to moderate the relationship between the abuse and the symptoms of depression. High conflict and low control, with high cohesiveness when combined with childhood sexual abuse placed survivors at higher risk for subsequent depressive symptoms.

Depression

The long-term effects that some researchers have found that result from childhood sexual abuse has been shown as detrimental to the survivor's current life and daily functioning. Lundqvist, Hansson, and Svedin (2005) presented surveys to 45 women who had been treated in a 2-year-long therapy group that focused on childhood sexual abuse. They found that these women, who had these past traumas in their lives, when they decided to seek psychological help, were categorized as experiencing poor mental health. Studies have shown that depression has been one of the negative outcomes that are experienced by those who were abused (Simoni & Ng, 2000; Weiss, James, Longhurst, & Mazure, 1999). Depression is suffered by many people, and can have poor effects on the person
psychologically, even without a history of sexual abuse. Such symptoms as loss of interest, increase or decrease in appetite, increase or decrease in sleep, feelings of guilt, and hopelessness (4th ed., text rev.; American Psychiatric Association, 2000) are just a few of what some women feel, which can sometimes hinder their ability to function in their daily lives.

There has been a correlation between childhood sexual assault and the later development of depression and depressive symptoms (Weiss, Longhurst, & Mazure, 1999; Abdulrehman & De Luca, 2001; Braver, Bumberry, Green, & Rawson, 1992; Gibb, Chelminski, & Zimmerman, 2007; Penza & Nemeroff, 2003). Weiss, Longhurst, and Mazure (1999) reviewed recent studies that looked at the role of childhood sexual abuse and the development of a major depressive disorder. Weiss et al., (1999) investigated the biological and psychosocial mechanisms that might play a part in the development of major depressive disorder caused by early stressors in one's life for those who had been sexually abused as children. There was particular attention paid to the long-term effects of early stress on hypothalamic-pituitary-adrenal (HPA) axis functioning. It was hypothesized that the early stressor of childhood sexual abuse may cause dysregulation of the HPA axis which
leaves a person predisposed to adult-onset depression (Weiss et al., 1999). This proposed hypothesis was supported and Weiss et al. (1999) found that the more severe the sexual abuse experienced, the more likely the survivor was to suffer from depression.

A second theory as to why those who experience childhood sexual abuse and then have later onset of depression comes from Penza, Heim, and Nemeroff (2003).

In researching the effects of adverse early life experiences, attention was paid to the central nervous system to try and provide a better understanding of the connection between childhood abuse and the susceptibility to mood and anxiety disorders, such as depression. There seems to be a time period of neuronal plasticity which when traumatic early life events take place, it permanently renders these neuroendocrine stress response systems supersensitive. Long-term risk factors for developing psychopathology, when exposed to stress, is likely due to this psychological maladaptation (Penza, Heim, & Nemeroff, 2003).

Social functioning and self-esteem have also been related to the severity of depression in those who have been abused as children (Kuyken, & Brewin, 1999; Peleikis, Mykletun, & Dahl, 2005). Peleiksis, Mykletun, and Dahl
(2005) set out to study current intimate relationships and social status of women who had been sexually abused as children. Fifty-six women in the study had been sexually abused as children and 56 had not been, but both had been treated with outpatient psychotherapy for anxiety and or depressive disorders 5 years earlier. Peleiksis et al. (2005) found that there were no differences in self-esteem or intimate bonds and the physical quality of life between those who had been abused and those who had not, but that those who had been treated for depression and had been abused had moderate problems (unemployment and sexual problems) at the long-term follow-up. Also that the women who had been sexually abused as children had considerably greater sexual and mental health problems (Peleiksis et al., 2005).

In contrast, Kuyken and Brewin (1999) hypothesized that the survivors of childhood sexual abuse would report lower self-esteem and greater characterologic self-blame, and would also have less adaptive coping skills than those who had not been abused as children. Fifty-eight women were who met criteria for a major depressive episode were recruited from London, England. The research concluded that those who were abused, and also suffered from intrusive memories about their abuse, had lower
self-esteem and higher self-blame, with the inclusion of avoidant behavior as a coping strategy. The use of poor coping strategies has been found in many cases of childhood sexual abuse where the survivor suffers from depression (Gladstone, Parker, Mitchell, Malhi, & Austin, 2004; Tarakeshwar, Fox, Ferro, Khawaja, & Kockman, 2005). These poor coping strategies are the basis for this paper, in that these strategies are usually self-destructive behaviors that can be very detrimental to the survivor’s functioning and the need for intervention is quite high.

Eating Behaviors

Women who reported depression and were sexually abused as children, also reported that they engage in deliberate self-harm behaviors (Fleming, Mullen, Subthorpe, Atewell, & Bammer, 1998; Freeman, Collier, & Parillo, 2002; Gladstone, Parker, Mitchell, Malhi, Wilhelm, & Austin, 2004; Gratz, Conrad, & Roemer, 2002; Marcenko, Kemp, & Larson, 2000; Milligan & Andrews, 2005; Tarakeshwar, Fox, Ferro, Khawaja, & Kockman, 2005; Zlotnick, Johnson, Stout, Zywiak, Johnson, & Schneider, 2006). Some of these dysfunctional coping strategies/self-harming behaviors include, alcohol use (Fleming et al., 1998; Zlotnick et al., 2006), drug use (Freeman et
al., 2002; Marcenko et al., 2000), cutting (Gratz et al., 2002), and sometimes, deadly strategies such as suicide (Milligan & Andrews, 2005; Doll, Peterson, & Stewart-Brown, 2005).

Another variable that is viewed as a self-destructive behavior is that of unhealthy eating behaviors, such as binge eating, purging, restricting calories, etc. Eating behaviors can have deteriorating effects and also can lead to death through starvation/malnourishment (Park, 2007). Possible predictors that have been studies include the individual’s problem solving techniques and coping responses, usually these two variables are negatively correlated with poor eating behaviors (Fleming et al., 1998; Freeman et al., 2002; Gratz et al., 2002; Marcenko et al., 2000; Zlotnick et al., 2006). The lower these skills, the more likely the individual is likely to suffer from poor eating behaviors. Another variable studied in relation to poor eating behaviors is depression. There is a positive association between depression and eating disorder symptoms (Doll, Peterson, & Stewart-Brown, 2005; Holtkamp, Muller, Huessen, Remschmidt, & Herpertz-Dahlmann, 2005; Moyer, DiPietro, Berkowitz, & Stunkard, 1997; Pearlstein, 2002; Solano, Fernandez-Aranda, Aitken, Lopez, & Vallejo, 2005; VanBoven
& Espelage, 2006; Woodside & Staab, 2006). Also according to the Diagnostic and Statistical Manual of Mental Disorders (4th ed., text rev.; American Psychiatric Association, 2000) depression has been seen as one of the symptoms of more than one problematic eating behavior, bulimia nervosa and anorexia nervosa.

These eating patterns can be detrimental to one’s health and daily functioning, and for those with these eating disorders, there is a 50% greater suicide risk, than for those of the general population (Park, 2007). These behaviors take up time in one’s life, when the individual goes on 2 hour binging sprees or exercises excessively for hours a day. The constant worry and control over their eating behaviors is what causes the distress and unhealthy lifestyle. Individuals who suffer from these eating disorders can range in weight from slightly over weight to severely underweight (4th ed., text rev.; American Psychiatric Association, 2000). These types of coping styles can be very dangerous to one’s health and can lead to sickness and death from malnutrition or suicide (Park, 2007).

There has been quite an expanse of research done on this topic, likely because of its negative effects on those who suffer from the disorders. Research has
demonstrated that the prevalence of eating disorders were significantly higher in women who had a childhood history of sexual abuse (Fleming et al., 1998; Freeman et al., 2002; Hastings & Kern, 1994; Gladstone et al., 2004; Gratz et al., 2002; Marcenko et al., 2000; Milligan & Andrews, 2005; Tarakeshwar et al., 2005; Wiederman, Sansone, & Sansone, 1998; Zlotnick et al., 2006). Solano et al., (2005) sampled 190 eating disordered patients (51 suffering from anorexia nervosa and 58 suffering from bulimia nervosa). All participants were admitted to the Eating Disordered Outpatient Unit of the University Hospital of Bellvitge, Barcelona, Spain. The main finding from this study was that those participants who self-injured showed greater severity of eating disorder than of those who did not self-injure. It was revealed that patients with higher scores on the severity of their eating disorder also had more depressive symptoms and higher body image dissatisfaction. Those with a dislike of their body image are likely to develop a disorder, in the need to change their body shape.

Romans, Gendall, Martin, and Mullen, (2001) sought to identify the factors that may increase the risk of eating disorder development for women who had been sexually abused as children. In a random two-stage community sample
of New Zealand women, they used women who had been sexually abused at or before the age of 16 as well as a comparison group of women who reported no sexual abuse. They found that belonging to a younger age group, beginning menstruation at an early age, and high paternal control also increased the risk of developing an eating disorder in women who had been sexually abused as children. It was also found that having low maternal care was associated with anorexia development. It was concluded that early maturation and parental overcontrol are risk factors for developing and eating disorder for woman who have been abused as children. Although these variables are also risk factors in the general population, those who suffered from early sexual abuse may be particularly vulnerable to eating disorder development because these risk factors are likely to be related to childhood sexual abuse experiences itself.

Fullerton, Wonderlich, and Gosnell (1995) examined the relationship between abused women and eating disorder symptoms. The subjects used were 712 female patients in an eating disorder clinic. The women were asked to complete a Beck Depression Inventory (BDI) and an Eating Disorder Inventory (EDI). It was reported that 29% of the women had experienced sexual abuse, and that the abused subjects
were more depressed and also showed more signs of psychological disturbance when measured with the Eating Disorder Inventory (EDI). These women also reported other self-destructive behaviors such as suffering from alcohol problems, suicide attempts and also shoplifting.

Hund and Espelage, (2005) used a structural equation model to test the association between childhood sexual assault, alexithymia, psychological distress and disordered eating in 589 female college students. Hund and Espelage, (2005) found different results than previously stated in that childhood sexual abuse was not directly related to disordered eating. Instead, childhood sexual abuse was associated with psychological symptoms and these psychological symptoms were further related to alexithymia. Subsequently, alexithymia then mediates restrictive eating behaviors and bulimic behaviors. To summarize, childhood sexual abuse is related to psychological symptoms, which then is related to alexithymia, which in turn is a mediator of poor eating behaviors.

Eating disorders, along with being associated with childhood sexual abuse, have also been connected with the family environment and parental bonding (Hastings, & Kern, 1994; Latzer, Hochdorf, Bachar, & Canetti, 2002;
Mallinckrodt, McCreary, & Robertson, 1995; Meno, Hannum, Espelage, & Low, 2008; Romans, Gendall, Martin, & Mullen, 2001; Perry, Silvera, Neilands, Rosenvinge, & Hanssen, 2008; Schmidt, Humfress, & Treasure, 1997). Nonetheless, there are contradictory findings between the possible factors that lead to the development of eating behaviors. Some studies suggest that the family environment plays a large part (Mallinckrodt et al. 1995; Latzer et al., 2002), whereas others state that there is no direct association. In example, Moyer et al. (1997) examined an association between self-reported binge eating and childhood sexual abuse. Subjects were identified through treatment centers and consisted of 63 adolescent females. A control group was obtained from two high schools in Pennsylvania, and had similar sociodemographic characteristics as the study population. It was found that depression and dissatisfaction with weight were more influential in poor eating behaviors than childhood sexual abuse. This study also states that depression is a strong mediator between a dysfunctional family, and the stress related to childhood sexual abuse and symptoms of disordered eating. While some studies found that there no direct correlation between the two (Moyer et al., 1997; Head, & Williamson, 1990), most studies concluded that
family environment does play a role in the development of eating behaviors (Hastings, & Kern, 1994; Meno et al., 2008; Perry et al., 2008).

Latzer et al. (2002), surveyed 55 female eating disordered clients during their intake at an eating disordered clinic. Latzer et al. (2002), administered their measures to 33 bulimic clients and 25 anorexic clients as well as 37 age-matched female control subjects. The study's findings suggest that the families of the eating disordered clients were rated by the clients to be less cohesive, less encouraging of personal growth, and less expressive than were the families of the females in the control group.

In researching the co-occurrence of incest and eating disorders, Mallinckrodt et al. (1995) surveyed 102 female college students and 52 female clients who reported being sexually abused as children. Mallinckrodt et al. (1995) found significant associations between the family environment, and eating disorders, as well as other contributing factors such as social competencies (relationship building skills, support provided through social interaction and social network size). The co-occurrence of eating disorders and sexual abuse permits us to speculate that abuse, especially incest, contributes
to dysfunctional parental attachment. So incest survivors had more dysfunctional families and those with poorer bonds with their mother, had a greater number of eating disordered symptoms.

In contrasting research, family environment and parental bonding were associated with eating disorders, but usually only when other variables mediated the relationship between these predictor variables and eating disorders. Head and Williamson (1990) gave fifty-eight women, who were in treatment for bulimia nervosa, a structured diagnostic interview to evaluate for symptoms of bulimia nervosa and anorexia nervosa. As well these women were given a pencil and paper assessment, after which the clinical staff was used to verify the diagnoses. Head and Williamson (1990) originally found that restrictive and conflictual family environments, that also had high parental control, were inversely related to bulimic behaviors. These results are contradictory to earlier findings which state that bulimic families are typically very low on characteristics such as conflict (Strober & Humphrey, 1987). This suggests that the secondary psychopathology noted in bulimia (such as depression), rather than the actual symptoms found in bulimia, are associated with a dysfunctional family
environment. The data in their study suggests that the family environment associated with bulimia is more strongly correlated with secondary psychopathology of the disorder.

Depression is often a symptom of eating disorders (4th ed., text rev.; American Psychiatric Association, 2000) and might give clues as to the association between childhood sexual abuse and later development of eating disorders. Meno et al. (2008), and Moyer et al. (1997) found that there was an association between childhood sexual abuse and later eating disorders in women who also suffered from depression. Meno et al. (2008) explored individual and family variables associated with binge eating and dieting concerns in 581 college females. A structural equation model was create and it was found that through the family's criticism and emphasis on weight, these daughters were influenced towards more problematic eating behaviors. These experiences of high criticism were associated with depression which then increased the likelihood of the women suffering from problematic eating behaviors.

Hastings and Kern (1994) administered three questionnaires that assessed for childhood sexual abuse, bulimia and family environment to 786 college students.
from the University of Nevada, Las Vegas. They found that bulimia had a strong association with childhood sexual abuse. Additionally, the severity of the abuse was related to the severity of the eating disturbance. Furthermore, survivors that took part in the research that were suffering from bulimia, reported chaotic families with low levels of organization and cohesion and high levels of conflict. This lends support to the proposal that family dysfunction leads to the development of bulimia. Hastings and Kern’s (1994) hypothesis gained support that a chaotic family environment moderates the relationship between bulimia and childhood sexual abuse, with 73% of those with bulimia reporting childhood sexual abuse as well as dysfunctional family environments.

Eating behaviors, such as purging behaviors found in bulimia, have been shown to be associated with impulsive behaviors (Peñas-Lledó, Dios Fernández, & Waller, 2004). The prediction of impulsive behaviors is further enhanced by taking into consideration the occurrence of a history of child abuse and depression (Favaro, Zaneti, Tenconi, Degortes, Ronzan, Veronese, & Santonastaso, 2005). Along with impulsive behaviors seen in people who have purging types of eating behaviors, compulsivity was also found to be comorbid in these types of disorders (Engel,
Corneliussen, Wonderlich, Crosby, Grange, Crow, Klein, Bardone-Cone, Peterson, Joiner, Mitchell, & Steiger, 2005). The presence of impulsive behaviors is coupled with overall higher levels of psychiatric symptoms and eating pathology, thus giving rise to important factors to consider when reviewing treatment options (Favaro et al., 2005).

This pattern of impulsive behaviors have been found in association with eating behaviors as well as another self-destructive behavior, risky sexual behaviors (Culbert & Klump, 2005). Culbert and Klump (2005) had 500 female undergraduates from a large Midwestern university complete self-report questionnaires that assessed for binge eating, the compensatory behaviors, sexual behavior and impulsivity. Culbert and Klump (2005) asserted that compensatory behaviors associated with eating disorders were significantly correlated with a person's sexual experiences. Impulsivity was found to be a significant correlate between eating disordered behaviors and sexual behavior/intercourse. The study concluded that the compensatory behaviors that are performed, such using laxatives and excessively exercising, are the only behaviors that are associated with sexual behavior, and that this relationship (type of disordered eating and
sexual behavior) is due in fact to the person’s impulsivity. Culbert and Klump (2005) hypothesized that this might be true because these compensatory behaviors that these women are choosing are more risky than binge eating, and that is why it is strongly associated with risky sexual behavior. Also that both self-destructive behaviors can cause immediate health costs (heart and kidney damage; and STDs and unplanned pregnancies) which illustrates again that these women choose more risky behaviors.

Sexual Behaviors

Strong associations were found between extreme weight controlling behaviors and other health compromising behaviors (Neumark-Sztainer, Story, Dixon, & Murray, 1998). Risky sexual behavior could be seen as one of these health compromising behaviors because it can lead to many major problems, including unplanned pregnancy, sexually transmitted disease, and possible HIV infection (Lester & Small, 1994). This type of behavior is detrimental to the individual, in worst-case scenarios, even leading to death. Some possible variables that affect the probability of developing this behavior are mental health problems (depression, conduct disorder, and substance abuse) and
social environment (family, peers, and neighborhood) (Chen, Stiffman, Cheng, & Dore, 1997).

Bensley, Van Eenwyk, and Simmons (2000) carried out telephone studies and created a sample size of 3,473 English-speaking adults. They surveys asked about levels of alcohol use and HIV-risk behaviors. Bensley, Van Eenwyk, and Simmons (2000) discovered evidence that being sexually abused as a child is greatly associated with the likelihood of developing depression. Additionally, the survivor would also partake in self-destructive behaviors, which included sexually risky behavior and substance abuse. Green, Krupnick, Stockton, Goodman, Corcoran, and Petty (2005) found that risky sexual behavior was prominent among the 209 sophomore women in their study who had been abused for ongoing periods of time (not just one incident, although this was sufficient for some risky sexual behavior) during their adolescence. Also major depressive disorder was associated with this type of risky behavior and it might serve to increase the risk.

In focusing on the link between depression and sexual activity, Lykins, Janssen, and Graham (2006) found that a minority of women, about 10% of their 663 college students, reported increased sexual interest or response when they felt anxious or depressed. Interestingly, when
compared to 399 male college-ages subjects, the males were more likely to report increased sexual interest during a negative mood state. It was hypothesized that these women seek out sexually risky behaviors when feeling depressed or anxious because it is a mood enhancer, possibly a type of coping. This risky sexual behavior might also be an attempt to gain intimacy.

Waller, Hallfors, Halpern, Iritani, Ford, and Guo (2006) concluded that depression and risky sexual behaviors are associated, but their results were contrary to previous studies. Waller et al. (1996) surveyed a total of 18,922 adolescents between 7th and 12th grade. Through these survey results they were able to compare self-reported risky behaviors (such as smoking, drinking, and sexual intercourse) with symptoms of depression and found a positive correlation. However, they concluded that depression was actually a bi-product of females who are sexually risky, instead of a possible cause. In that those who partook in risky sexual behavior, were at an increased risk for developing depressive symptoms, rather than being depressed and then engaging in these risky behaviors. Abstinence was also associated with having a lower risk for developing depressive symptoms. It is speculated that the negative consequences of high-risk behaviors (such as
Central Nervous System damage from substance abuse) and also the negative social consequences are possibly related to the aftereffects of developing symptoms of depression.

Some woman who have been sexually abused as children, become overly sexual in their later lives. This type of behaviors can be viewed a self-destructive behavior. It is especially self-destructive when there are multiple partners and safe sex practices are not put into effect (Merril, Giumond, Thomsen, & Milner, 2003; Sterk, Klein, & Elifson, 2004; Tarakeshwar, Fox, Ferro, Khawaja, Kochman, & Sikkema 2005). One might assume that the adults who were abused as children have learned that these acts, that are sexual in nature, are how you show someone that you care about them. So for many women who were sexually abused as children, when entering adolescence and early adulthood, they partake in early risky sexual activities (Merril et al., 2003; Sterk et al. 2004; Tarakeshwar et al., 2005). Walser and Kern, (1996) compared sex guilt and sexual behavior in adult females. Seventy-one of the female subjects had been sexually abused as children, and 45 of the female subjects reported no sexual abuse. This study hypothesized that sex guilt (guilt about sex in general) was negatively related to nonaccepted sexual behavior, the person’s knowledge about sex, and their feelings towards
contraception (as the guilt increased, the likelihood of using contraception increased). Many women however experienced the opposite of what was hypothesized. Women, who felt this sex guilt, were actually less aware of sexual knowledge; and they partook in more nonaccepted sexual behaviors, including restricted condom use. The degree of abuse endured as children also increased the amount of nonaccepted sexual behavior in these women (Walser & Kern, 1996).

Women, who had been abused as children, use condoms less often than those who were not abused. This lack of condom use is a potentially unhealthy practice and increases the likelihood of contracting a sexually transmitted disease or human immunodeficiency virus (HIV). This unsafe sex practice is seen as a risky sexual behavior, in that it increases the risk for the person to contract a sexually transmitted disease or human immunodeficiency virus. How women feel about condom use is a strong predictor of their likelihood to participate in HIV-related risk practices (Sterk, Klein, & Elifson, 2004). As previously stated, women who were abused are less likely to use condoms, thus might be more likely to engage in risky HIV-related sexual behaviors. Women who were abused tend to use avoidance strategies in coping
with life situations (Gipple, Lee, & Puig, 2006), and the same was found for women when they did in fact contract HIV. Through working through these poor coping strategies though, women were actually able to initiate qualities of resilience and growth regarding their acquired disease (Tarakeshwar, Fox, Ferro, Khawaja, Kochman, & Sikkema, 2005). Tarakeshwar et al. (2005) conducted a qualitative study on 28 women who were human immunodeficiency virus (HIV)-positive and had also experienced sexual abuse as children. These women reported that they originally coped with their disease by numbing their emotional distress and sexual activity with illicit substances, the same substances they reportedly used to cope with their childhood sexual abuse. It was speculated that women who had integrated their past sexual abuse with their lifestyle were able to identify aspects in their life that needed attention; such as increasing their own self-worth. Also that these women process and continue processing the impact the childhood sexual abuse has on their lives.

Myers, Wyatt, Loeb, Carmona, Warda, Longshore, Rivkin, Chin, and Liu (2006) took a multi-dimensional approach and examined the severity of abuse as a predictor of depression, sexual symptoms, post-traumatic stress, and risky sexual behavior in a multi-ethnic population of 147
HIV-positive women. Although risky sexual behavior was predictive of the risk of getting HIV, Myers et al., (2006) found that women, who had contracted HIV and were sexually abused as children, partook in less risky sexual behavior. The studies use of Child Sexual Assault dimensions were not significantly related to depressive symptoms, which also contradict earlier findings. These opposing results found by Meyers et al. (2006) might be due to the fact that the women in this study were already infected with HIV, and thus were more cautious with their sexual behavior. Future studies will be needed to test this hypothesis.

Tarakeshwar et al. (2005), found that women, who were sexually abused as children, used two strategies to cope with the pain of the abuse. These two strategies used were that of increased sexual activity and the use of illicit drugs to help numb their emotional distress. This increase in sexual activity, led to the increased likelihood of participants contracting HIV. This study shows the negative impact of dysfunctional coping strategies for those women who have been sexually abused as children.

The present study is interested in investigating negative eating behaviors and risky sexual behaviors.
These self-destructive behaviors are prevalent in our society and this present study hopes to find correlations and associations in the hopes of minimizing these behaviors in those who were sexually abused as children. In assessing family hardiness and depression in women who have been sexually abused as children, these self-destructive behaviors variables will hopefully be seen to decrease as a function of high family hardiness and decreased depression.

Purpose/Hypothesis and Overview of the Model

This study tests the hypothesis that family hardiness and depression are associated with negative/poor eating behaviors and risky sexual behaviors for woman who have been sexually abused as children. This model is based on multiple studies that have expressed results that suggest the dangers of self-destructive behaviors, as related to such variables as family hardiness and depression.
Figure 1. Conceptual Model of Mediators of Self-Destructive Behaviors, including Family Hardiness, Depression, Risky Sexual Behaviors, and Eating Behaviors

As indicated by the arrows, it is hypothesized that, women who have been sexually abused as children and who had low levels of family hardiness, will have higher levels of depression, which will in turn increase the self-destructive behaviors of poor eating habits (binge, purge, calorie counting, etc.) and risky sexual behaviors (multiple partners, low condom use, etc.).
Design and Model Specification

In this study, a structural equation model (SEM) was used to test the model of family hardiness as it relates to depression which then relates to risky sexual behavior and eating behaviors (see figure 2 next page). Circles in the model represent latent variables, rectangles represent measured variables, and arrows represent predicted paths.

Family Hardiness served as a latent variable with three indicators (commitment, challenge, and control). Depression is a latent variable with six indicators, all of which are measured in the Brief Symptom Inventory, all of which assess for depression. Sample items include, “Feeling no interest in things,” “Feeling lonely” and “Feeling blue.” Also included in the analysis was the latent variable risky sexual behavior, which has 2 age ranges, from 14-18 and 19-25. Eating behaviors is the final latent variable and it has 3 indicators (drive for thinness, bulimia, and body image).
Figure 1 illustrates the hypothesis that family hardiness will moderate depression for women who have been sexually abused as children. Depression is then the mediator for risky sexual behavior and eating behaviors.

The Database

Participants

In this study participants were selected from archival data sets. Participants were 200 female students.
who attended one of the three college settings connected with California State University, San Bernardino. These participants were recruited from various Psychology and Human Development courses offered on the three separate campuses; San Bernardino, Palm Desert Campus, and College of the Desert in Palm Desert. Some participants were also from a Rape Crisis Center in Coachella Valley. For students, extra credit was given as an incentive for their participation in the study. Recruitment was done through fliers placed on billboards on campus and also in various sites around the community.

Materials

Consent Forms. There were two consent forms given, one for CSUSB student participants and one for non-CSUSB participants. These forms included an explanation of the nature and purpose of the study and research method, the expected duration of time required from the participant, a description of how confidentiality and anonymity would be maintained, also the participants right to withdrawal from the study at any time without penalty or questioning, including the voluntary nature of their participation.

Demographics. Participants were asked to disclose their age, their ethnic background and the ethnic group they most identified with, employment status, their level
of education, and their household income. The demographics found for those with reported childhood sexual abuse are as follows; 51 of the 75 participants in this group reported being single in terms of their marital status, 16 reported being married, 5 divorced or separated, and 3 reported other. Of the same group, 7 participants associate themselves with being Asian-American, 19 being Black/African American, 30 associate themselves with Hispanic/Chicano, 2 being Pacific Islanders, 14 being White/Euroamerican and 3 participants reporting other for their ethnicity. Most participants (59%) were in the age range of 20-24 with an average of 22 years old (20%).

For the group of participants who reported no childhood sexual abuse; out of 125 participants, 86 were single, 31 married, 5 reported being divorced or separated and 2 marked other with regards to their marital status. Within the same group, 7 reported that they identifying most with Asian-Americans, 1 participant with American Indian, 11 Black/African Americans, 56 Hispanic/Chicano, 2 Pacific Islanders, 39 White/Euroamerican, and 8 participants who reported other in terms of their ethnicity. Within this group, most participants reported being between the ages of 19 and 24 (67%) with the highest percent of participants reporting an age of 21 (17%).
Measures

Childhood Sexual Abuse

The Childhood Trauma Questionnaire (CTQ; Bernstein et al., 1994) was used to measure the participant’s exposure to childhood trauma. It consists of 25 Likert-type items rated on a 5-point scale from 1 (never true) to 5 (very often true). This scale has good internal consistency (alpha = .84) (Scher, Stein, Asmundson, McCreary, Forde, 2001). As per the survey, women who responded with 6 or more “very often true”, were deemed as having experienced sexual abuse as a child. Sample items include, “Someone tried to touch me in a sexual way, or tried to make me touch them,” “Someone threatened to hurt me or tell lies about me unless I did something sexual with them,” “Someone tried to make me do sexual things or watch sexual things.”

Family Hardiness

The Family Hardiness Index (McCubbin et al., 1983). This measure assesses participants’ level of family hardiness or resiliency, the internal strengths and the durability of the family (Svavarsdottir, McCubbin, & Kane, 2000), which is divided into three sub-scales; commitment, challenge and control. Commitment is defined for this study as an internal family strength, and an ability to
work together. A sample item for commitment is, "While we don't always agree, we can count on each other to stand by us in times of need," "We have a sense of being strong even when we face big problems." Challenge is the effort of the family to be active, and to learn as a family. A sample of challenge is, "When our family plans activities we try new and exciting things," "We seem to encourage each other to try new things and experiences." Control is a family's feeling of positive control over outcomes of life. A sample item for control is, "We realize our lives are controlled by accidents and luck," "It is not wise to plan ahead and hope because things do not turn out anyway" (Svavarsdottir et al., 2000). This questionnaire is composed of 20 Likert-type items, which are rated on a 4-point scale from 0 (completely false) to 3 (completely true). This scale has good internal consistency (alpha = .82).

**Depression**

The Brief Symptom Inventory-18 (BSI; Derogatis et al., 1999) was used as a brief inventory of participants' depression, anxiety and somatic symptoms. It is composed of 18 Likert-type items which are rated on the basis of distress over the last 7 days on a 5-point scale from 0 (not at all) to 4 (extremely). Greater scores indicate
higher levels of psychiatric symptoms. This scale has good internal consistency (alpha = .86). Six of the items combine to create a depression subscale. This study will use this subscale as an index of depressive symptoms. Sample items include, "Feelings of worthlessness," "Feeling hopeless about the future" and "Thoughts of ending your life".

**Risky Sexual Behaviors**

The Sexual Behavior Questionnaire (SBQ; Chavez & Stockwell, n.d.). This instrument measures risk taking sexual behaviors, such as number of partners, not selective in partner choice, sexual assault risk, sexually transmitted diseases, as well as promiscuous behavior. The total number of items that an individual may answer is dependent on their age. Therefore, older participants will answer a greater number of age range limited items. Only participants in the age range of 17-25 were used for this study because of less data available with older ages. This measure is still in the development stage, the author’s report a Cronbach’s coefficient alpha = .68. Sample items include, "Frequency of sexual intercourse in a week," "Number of times you had unprotected sex," and "Approximate number of sexual partners."
Eating Behaviors

Eating Disorder Inventory-RF (EDI; Garner, Olmstead, & Polivy, 1983). This survey is a 39 item, self-report, multi-scale measure designed for the assessment of psychological and behavioral traits common in individuals who may be at risk for developing eating disorders, including anorexia nervosa and bulimia nervosa. This survey has 3 sub-scales; drive for thinness, bulimia, and body image. Drive for thinness is composed of anorexia-like symptoms, assessing for obsession with thinness. A sample item is, “If I gain a pound, I worry that I will keep gaining.” Bulimia is characterized as the binging and purging symptoms. A sample item is, “I eat moderately in front of others and stuff myself when they’re gone.” Body image is when women view themselves in a negative light, as overweight, an unrealistic belief about one’s body image. Sample items include, “I think my thighs are too large” and “I think my hips are too big.” The Cronbach’s coefficient alpha is above .80 for all subscales.

Debriefing Statement. In this statement, the participants were informed of the main research questions addressed in the study. Information was attached for someone to contact in the case that they experienced
distress due to the study, also a referral sheet to crisis centers in the neighboring area. Also they were given a form regarding whom they could contact if they were interested in the final results of the study. Lastly, participants were also requested to not discuss any details of the study with possible future participants.

Procedure

Participants were asked to complete various sets of self-report questionnaires to assess risk factors associated with women in a lab setting with supervision by at least two research assistants. The research assistants were present for any questions or concerns the participants might have about the surveys. The participants were first given the consent sheet and after marking an "x" and dating it, in agreement to the terms, they were then given the first of two packets. This first packet included the demographics sheet, and the psychiatric measures. After completion of this survey, they turned it into the research assistants and received the second packet including the rest of the measures. At the end of the participation, the participants were taken privately out of the room and debriefed personally. They were directed to the reference sheet if they had any
questions about the study, the outcome of the study, or if they experienced any distress from participating in the study.
CHAPTER THREE
RESULTS

The Hypothesized Model

With the use of structural equation modeling (SEM) through EQS, the hypothesized relationships were tested. A four-factor model of Family Hardiness, Depression, Risky Sexual Behaviors, and Eating Behaviors was hypothesized. Commitment, challenge, and control subscales served as indicators of the Family Hardiness factor. Six variables derived from the Brief Symptoms Inventory were used and served as indicators of the Depression factor. The participants answered how risky they were sexually during the ages of 14-18 and 19-25 to create the two groups that made up the categories within risky sexual behavior. Drive for thinness, bulimia, and body image subscales served as indicators of the Eating Behaviors factor.

In order to test the hypothesis that family hardiness is related to depression and that depression is then a mediator to both risky sexual behavior and eating behaviors, for women who were sexually abused as children, two equations had to be run. The first is the structural equation model for those who reported childhood sexual abuse and the second is the same model, but for those who
reported no sexual abuse during their childhood. There were originally 704 participants in the archival data. Unfortunately, 504 were removed because of lack of data regarding their age and risky sexual behavior. A total number of 200 participant’s archival data was used. Of those 200 participants, 75 reported childhood sexual assault and 125 reported no childhood sexual abuse.

Table 1 below presents the descriptive statistics of means for childhood sexual assault participants and non-childhood sexual assault participants and a t test. The first 6 listed are measures of depression from the Brief Symptom Inventory. For both CSA and non-CSA the items that measured Feeling Worthless, Hopelessness About the Future and Thoughts of Suicide are lower than those that measured No Interest in Things, Feeling Lonely, and Feeling Blue. Also CSA Feeling Worthless, Hopelessness About the Future, and Thoughts of Suicide are almost twice that of the same variables for non-CSA. Family hardiness scales of commitment, challenge, and control were based on parcels. In terms of risky sexual behavior, participants answered regarding their sexual behavior at each age, from 14 to 25. For CSA participants, risky sexual behavior increased as the age of the participant increased. With the age range of 14-18 having a mean of 3.39 which then
<table>
<thead>
<tr>
<th>Variables</th>
<th>CSA Means N = 75</th>
<th>Non-CSA Means N = 125</th>
<th>T-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Interest in Things (bsi2)</td>
<td>1.45</td>
<td>.97</td>
<td>-2.59*</td>
</tr>
<tr>
<td>Feeling Lonely (bsi5)</td>
<td>1.56</td>
<td>1.00</td>
<td>-2.72**</td>
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<tr>
<td>Feeling Blue (bsi8)</td>
<td>1.43</td>
<td>.98</td>
<td>-2.41*</td>
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<tr>
<td>Feeling Worthless (bsi11)</td>
<td>.88</td>
<td>.45</td>
<td>-2.63**</td>
</tr>
<tr>
<td>Hopeless About the Future (bsi14)</td>
<td>1.21</td>
<td>.72</td>
<td>-2.69**</td>
</tr>
<tr>
<td>Thoughts of Suicide (bsi17)</td>
<td>.16</td>
<td>.08</td>
<td>-1.02</td>
</tr>
<tr>
<td>Family Hardiness-Commitment (fhicomit)</td>
<td>17.04</td>
<td>17.44</td>
<td>.65</td>
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<td>Family Hardiness-Challenge (fhichal)</td>
<td>11.43</td>
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<td>.70</td>
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<tr>
<td>Family Hardiness-Control (fhicont)</td>
<td>13.51</td>
<td>14.14</td>
<td>1.78</td>
</tr>
<tr>
<td>Sexual Behavior (14-18) (sbqage18)</td>
<td>3.39</td>
<td>3.21</td>
<td>-.29</td>
</tr>
<tr>
<td>Sexual Behavior (19-25) (sbqage25)</td>
<td>6.20</td>
<td>5.50</td>
<td>-1.40</td>
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<tr>
<td>Eating Behaviors-Drive for Thinness (edidt)</td>
<td>10.48</td>
<td>10.06</td>
<td>-.32</td>
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<tr>
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<td>5.75</td>
<td>4.97</td>
<td>-.83</td>
</tr>
<tr>
<td>Eating Behaviors-Body Image (edibd)</td>
<td>19.75</td>
<td>17.10</td>
<td>-1.99*</td>
</tr>
</tbody>
</table>

p < .05 *, p < .01 **
rises to a mean of 6.20 for the age range of 19-25. For non-CSA participants, the increase in risky sexual behaviors wasn't as great as with CSA participants, but there was still an increase from sbqage18 (mean: 3.21) to sbqage25 (mean: 5.50). Means were quite similar for drive for thinness, bulimia, and body image, which are all measures for eating behaviors, for both CSA and non-CSA.

The fit of the model was simultaneously tested on two groups based on a stacked run. The proposed model provided an adequate fit for the data collected for both groups with a Chi-square of 205.73 with 157 degrees of freedom. The Chi-square is within a 2-1 ratio of the degrees of freedom, indicating a good fit (Ullman, 2007). Also the model was significantly supported as reported by the fit indices with a Comparative Fit Index (CFI) of .95 which indicates a good fit. The Root Mean-square Error of Approximation (RMSEA) for this structural equation model was .040, with anything less than .050 being considered a good fit (Ullman, 2007).

Constraints were imposed to see if the model fit the two groups of CSA and non-CSA equally well. All constraints supported this except for family hardiness ~ commitment as predicted by family hardiness. This is the only model path indicated as needing to be released by the
Lagrange Multiplier Test. The standardized pathway coefficients for family hardiness, commitment as predicted by family hardiness are .206 for CSA and .245 for non-CSA. The two coefficients listed are the only two identified as being different between the two models. These coefficients are not practically different, but statistically different as shown by the Lagrange multiplier test.

As predicted, the structural equation model that was applied to the variables showed statistically significant results for CSA as shown in figure 3. However, what was not hypothesized was that it would fit for non-CSA, which it does as shown in figure 4. There was a relationship between family hardiness, and depression with a standardized pathway coefficient of -.50 for the CSA model and -.70 for the non-CSA model which is large in size (Ullman, 2007). Depression was somewhat less related, but still significantly related to risky sexual behaviors with a standardized pathway coefficient of .29 for the CSA model and .25 for the non-CSA model which is medium in size. Also depression was a little more related to eating behaviors, with a standardized pathway coefficient of .52 for the CSA model and .34 for the non-CSA model which is medium in size as well (Ullman, 2007).
As shown in figure 3 (above), the model with those participants who have been abused as children, the latent construct family hardiness was related to all of its variables. The standardized pathway coefficients are as follows, commitment; .21, challenge; .35, and control; .75. Control was the largest in size and is more of a
determinate of what family hardiness is than the other two variables.

For depression there were six variables that come from the Brief Symptoms Inventory. For the most part, the standardized pathway coefficients where large in size for the variables that made up the latent construct of depression; No Interest in Things; .76, Feeling Lonely; .83, Feeling Blue; .78, Feeling Worthless; .83, and Hopeless About the Future; .88. This was true except for Thoughts of Suicide which had a small standardized pathway coefficient of .32 (Ullman, 2007).

Risky sexual behavior was broken into groups regarding the participant’s reported answers during the two age ranges, 14-18 and 19-25. There was a large size standardized pathway coefficient of .62 between risky sexual behavior and the participants stating their risky behavior during the ages of 14-18. This is just slightly less than the relationship for risky sexual behaviors for the ages of 19-25 which is .69.

Lastly, there were three variables for the latent construct of eating behaviors; drive for thinness, bulimia, and body image. Drive for thinness related to the main category of eating behaviors with a large standardized pathway coefficient of .87. Body image was
slightly less with a standardized pathway coefficient of .76. As for bulimia, this was the least related to eating behaviors, but nonetheless significant in predicting ones eating behaviors with a standardized pathway coefficient of .70.

As shown in figure 4 (above), the model with those participants who reported that they had not been abused as children, the latent construct family hardiness was
related to all of its variables as well. For family hardiness the standardized path coefficients are, commitment; .25, challenge; .37, and control; .73. Control, again, was the largest in size of the three variables and therefore is more of a determinate of what family hardiness is for this sample.

Primarily, the standardized pathway coefficients for the variables that made up the latent construct of depression were medium to large in size; No Interest; .63, Feeling Lonely; .67, Feeling Blue; .67, Feeling Worthless; .73, and Hopeless About the future; .76. As with the results found for those with childhood sexual abuse, the variable Suicide had a small standardized pathway coefficient of .35.

The sexual behaviors reported for the ages of 14-18 were related to risky sexual behavior with a standardized pathway coefficient of .68 which is just slightly less than those reported during the age range of the 19-25 which was .70.

For the three variables for the latent construct of eating behaviors; drive for thinness related to the main category of eating behaviors with a large standardized pathway coefficient of .87. Body image was exactly the same with a standardized pathway coefficient of .87. As
for bulimia, this was similar again to the standardized pathway coefficient for the participants who had been sexually abused as children and was the least related to eating behaviors, but still significant in predicting ones eating behaviors with a standardized pathway coefficient of .71.
CHAPTER FOUR
DISCUSSION

This study was aimed at investigating the self-destructive behaviors of women who had been sexually abused as children, and the pathways that lead to this type of behaviors. In order to do this, a model was proposed that there would be a difference in the structural equation models between women who had been sexually abused as children and those who had not been abused as children. It was hypothesized that there would be a good fit for the structural model proposed for women who had been abused, but that the model would not fit as well for those who had not been abused.

Contrary to the hypothesis, it was concluded that the model had a good fit for both of the equations, those with childhood sexual abuse and those without. Although these same models fit both groups of participants, childhood sexual abuse survivors and those who had no childhood sexual abuse growing up, there were some small differences. The latent variable depression had larger standardized pathway coefficients to it's variables for those in the CSA group, than for the non-CSA group. This suggests that those who have been sexually abused as
children have higher rates of depression which coincides with earlier findings (Browne, & Finkelhor, 1986). Family hardiness was negatively related to depression with a medium standardized pathway coefficient (-.50) for the CSA group while the non-CSA had a large standardized pathway coefficient (-.70). This is suggestive that for those who have been sexually abused as children, there was less of a connection between their families and their depression than for those with no history of sexual abuse. It is possible that there were other factors that lead to their depression than the family relationship, such as self-esteem and coping styles (Kuyken & Brewin, 1999).

Depression was positively related to eating behaviors with a medium to large standardized pathway coefficient (.52) for the CSA group while the non-CSA had a smaller standardized pathway coefficient (.34). This supports the suggestion that depression is positively related to the likelihood of developing eating disorders for those who have been sexually abused (Romans, Gendall, Martin, & Mullen 2000). Lastly, for the non-CSA group there was a larger standardized pathway coefficient (.87) between the latent construct of eating behaviors and body image than there was for the CSA group, who had a medium to large standardized pathway coefficient (.67). This suggests that
there are offer factors that influence a woman’s eating disorder other than being sexually abused. It is not surprising, given the research, that there are many other influential factors which include; the media’s influence (Hawkins, Richards, Mac Granley, & Stein, 2004), a need for approval, higher self-expectations (Katzman & Wolchick, 1984), a mother’s beliefs that are passed to her children (Pike & Rodin, 1991), and high vulnerability and low self-esteem (Fairburn, Cooper, Doll, Welch, 1999) just to name a few.

Although these standardized pathway coefficients are not statistically significant in their differences between the two models, it might be a starting point for future research as to the differences between those who have been sexually abused as children and those who have not been. There were some differences, although not significant that can be looked at in greater detail for more information regarding women who have been sexually abused as children and how it relates to their functioning later in life. The differences in the pathways mentioned above are possibly starting points to look at the differences between the two groups. Although they were not significant, research could and should be done to explore why there are in fact differences between the pathway coefficients, as in the
example between family hardiness and depression, where there is a difference of .20 between the two groups.

As for the model itself, as shown by the results, it was a good fit, meaning that the latent constructs were related to each other in the way that it was hypothesized. These variables, as shown by the statistical significance of their interaction and placement within the model, are reliable predictors of the outcome of risky sexual behavior and eating behaviors. Thus, this structural equation model is reliable in predicting the development of risky sexual behaviors and maladaptive eating behaviors for all women, regardless of reported history of childhood sexual abuse, as shown by the results from the Comparative Fit Index.

Family hardiness was negatively related to depression, meaning that the more the individual experienced family hardiness, challenge, commitment, and control, the less likely they were to suffer from depression, thus the less likely they were to turn to maladaptive behaviors such as risky sexual behavior, and poor eating behaviors. Depression relates positively with both risky sexual behavior and eating behaviors, meaning that the more someone suffers from depression, the more likely they are to partake in self-destructive activities.
Following studies should look into creating preventive steps that can be taken to lessen these self-destructive behaviors using the knowledge gained from this study. For example, control within ones family for this study means that the members of the family feel that they can deal with problems when they arise, that they are in control of their lives. So in this case, it would be important to work with the families to help them gain a sense of having more control within their lives. This gain of family control, which has been shown through the results of this study, should help lessen the depression of its members, which in turn will help with decreasing the likelihood of the women in the family using poor coping strategies, such as self-destructive behaviors like having multiple partners and not using condoms or partaking in bulimic behaviors.

For each variable, there were at least two variables. For hardiness there were three, with control being the most highly correlated with family hardiness. This means that control had the most effect on whether the family was seen as possessing hardiness or not. The lower predictability of family hardiness by the other two variables doesn't necessarily mean that the other two are not effective in predicting family hardiness, but that
control is just more predictive. A possible hypothesis as to why control was so important is that control for this study is regarding the family's feelings of internal control, knowing that they are able to effectively deal with situations as they arise vs. having external control were they believe that things just happen too them and their lives are beyond their control. As found in individuals, those who possess a locus of control (internal) are likely to cope well with unexpected situations (Kobasa, 1979) and this might transfer over from personally to ones family.

Depression was highly predictable in regards to the variables that were used in creation of the scale. However, the last measure BSI17, which assessed for suicide and asked about "Thoughts of ending your life", was the least related, with a correlation of .32. Future research could possibly lead to a hypothesis as to why the variable of Thoughts of Suicide does not fit as well with predicting depression as the other variables do within the Brief Symptoms Inventory. Suicide is a potential symptom of depression, but in some ways it is also like a specialized case of depression. Many very depressed people do not have suicidal ideations. The other measures are more common in those who are depressed, in example Feeling
Blue, No Interest in things. We cannot eliminate it just because it does not fit as well statistically because we know as clinicians that thoughts of suicide are related to depression (Prinstein, Nock, Simon, Aikins, Cheah, & Spirito, 2008).

The reason that some of the data was cut from the study was that there were few participants over the age of 25, along with some sets of missing data. Future research could look into collecting data from older women (>25 years old) and also from a different setting than college campuses and a rape crisis center.

The variables used; body image, bulimia, and drive for thinness were significantly predictive of the latent variable of eating behaviors. This means that this scale is quite predictable when used to assess for eating behaviors. It would make sense if these self-destructive behaviors of bulimia, having a drive for thinness and distorted body image were related to risky sexual behavior, another self-destructive behavior (Culbert & Klump, 2005), but this study did not compute results to indicate that. Further research might look into the possibility of connecting these two variables, seeing as they are both self-destructive in nature.
Regarding childhood sexual abuse, a future study might be regarding whether the perpetrators were family members or not. It could be hypothesized that this would be a sign of low family hardiness and thus it might lead to depression followed by risky sexual behavior and maladaptive eating behaviors.

Impulsivity was not looked at within this model because of the fact that the data was archival and impulsivity data was not available. However, based on research previously mentioned (Culbert & Klump, 2005), impulsivity might play a significant role in making this model work for only those who have been sexually abused as children, which would then support the original hypothesis.

Looking into the other self-destructive behaviors such as alcohol and drug use as well as cutting behaviors and attempts at suicide and seeing how they are related to the variables discussed in this project might shed insight into methods for reducing these behaviors (El-Bassel et al. 2001; Gratz et al., 2002; Marcenko et al., 2000; Zlotnick et al., 2006). It is a possible hypothesis that because these are also considered self-destructive behaviors, that similar results would be found when
integrating them into the structural equation model used in this project.

Lastly, the intensity and length of the abuse could also be studied (Feinauer, Mitchell, Harper, & Dane, 1996; Feerick & Snow, 2005; Lundqvist, Hansson, & Svedin, 2005; Kendall-Tackett, Williams, & Finkelhor, 1993). A final hypothesis consists of creating a model in which CSA is the first variable in the equation. A model in which family hardiness is a moderator between childhood sexual abuse and depression, and which depression is then a mediator of self-destructive behaviors (which could include risky sexual behaviors, poor eating behaviors, cutting, substance abuse, etc.).

There were several limitations in this study. First, the data was archival and other measures, such as impulsivity were not available. Secondly, half of the data was unanalyzed due to missing data. Third, the participants are all from only two colleges in Southern California or from a Rape Crisis Clinic and this information might not be as generalizable to the public as this author would hope. The fact that some women reached out for help from a rape crisis center also makes a difference within the research. Finally, the age range was also a factor in cutting data from the study, so this
information again is not as generalizable to women outside of the 14-25 year age range.

In conclusion, the model did not show the difference that was originally hypothesized between the CSA group and the non-CSA group. However, the structural equation model itself was found to be a good fit. These findings suggest that family hardiness is negatively predictive of depressive symptoms and that depressive symptoms are then positively related to self-destructive behaviors, in particular, risky sexual behaviors, and eating behaviors in all women.

A positive outcome of this study is that these types of self-destructive behaviors can be predicted and then appropriate prevention can be implemented or the proper treatment can be given. Stone and Sias (2003), found results supporting a bi-modal treatment approach in treating those with self-injurious behaviors. It is suggested that the individual and the family system are both a modality in treatment. For the individual portion of the approach, cognitive behavioral therapy would be used to lessen the cognitive distortions and incorrect ideas (ideas like believing that these injurious behaviors are an acceptable way to manage ones' feelings). Also behavior modifications would be used to replace
maladaptive behaviors while learning new adaptive alternatives. For the family systems component of the treatment, it would be important to identify the client's interpersonal, external, and internal, dynamics within their family. This approach fits nicely with the model proposed within this thesis, in that the family does play a significant role in the eventual development of self-destructive behaviors.
APPENDIX A

THE CHILDHOOD TRAUMA QUESTIONNAIRE
The Childhood Trauma Questionnaire

**Instructions:** These questions ask about some of your experiences growing up as a child and a teenager. Although these questions are of a personal nature, please try to answer as honestly as you can.

1 = Never True  
2 = Rarely True  
3 = Sometimes True  
4 = Often True  
5 = Very Often True

**When I was growing up...**

1. I didn’t have enough to eat.  
   I knew that there was someone to take care of me and protect me.  
2. If you answered 2 - 5, please specify who (check all that apply):
   - Mother
   - Father
   - Family member
   - Friend
   - Both Parents
   - Stepparent
   - School Personnel
   - Other:

3. People in your family called you things like, stupid, lazy or ugly.  
   If you answered 2 - 5, please specify who (check all that apply):
   - Mother
   - Father
   - Family member
   - Friend
   - Both Parents
   - Stepparent
   - School Personnel
   - Other:

4. My parents were too drunk or too high to take care of the family.
5. There was someone in my life that helped me feel that I was important or special.

If you answered 2 - 5, please specify who (check all that apply):

- __Mother
- __Parent's Boyfriend or Girlfriend
- __Father
- __Ones Own Relationship Partner
- __Family member
- __Foster Parent/Someone in the Home
- __Friend
- __Cousin
- __Both Parents
- __Sibling(s)
- __Stepparent
- __Babysitter
- __School Personnel
- __Stranger
- __Other: __________________________________________

6. I had to wear dirty clothes.

7. I felt loved.

8. I thought that my parents wished I had never been born.

9. I got hit so hard by someone in my family that I had to see a doctor or go to the hospital.

If you answered 2 - 5, please specify who (check all that apply):

- __Mother
- __Parent's Boyfriend or Girlfriend
- __Father
- __Ones Own Relationship Partner
- __Family member
- __Foster Parent/Someone in the Home
- __Friend
- __Cousin
- __Both Parents
- __Sibling(s)
- __Stepparent
- __Babysitter
- __School Personnel
- __Stranger
- __Other: __________________________________________

10. There was nothing I wanted to change about my family.

11. People in my family hit me so hard that it left me with bruises or marks.

If you answered 2 - 5, please specify who (check all that apply):

- __Mother
- __Parent's Boyfriend or Girlfriend
- __Father
- __Ones Own Relationship Partner
- __Family member
- __Foster Parent/Someone in the Home
- __Friend
- __Cousin
- __Both Parents
- __Sibling(s)
- __Stepparent
- __Babysitter
- __School Personnel
- __Stranger
- __Other: __________________________________________

75
12 I was punished with a belt, a board, a cord, or some other hard object.

If you answered 2 - 5, please specify who (check all that apply):

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- Mother
- Father
- Family member
- Friend
- Both Parents
- Stepparent
- School Personnel
- Parent's Boyfriend or Girlfriend
- Ones Own Relationship Partner
- Foster Parent/Someone in the Home
- Cousin
- Sibling(s)
- Babysitter
- Stranger
- Other:

13 People in my family looked out for each other.

If you answered 2 - 5, please specify who (check all that apply):

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- Mother
- Father
- Family member
- Friend
- Both Parents
- Stepparent
- School Personnel
- Parent's Boyfriend or Girlfriend
- Ones Own Relationship Partner
- Foster Parent/Someone in the Home
- Cousin
- Sibling(s)
- Babysitter
- Stranger
- Other:

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

If you answered 2 - 5, please specify who (check all that apply):

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- Mother
- Father
- Family member
- Friend
- Both Parents
- Stepparent
- School Personnel
- Parent's Boyfriend or Girlfriend
- Ones Own Relationship Partner
- Foster Parent/Someone in the Home
- Cousin
- Sibling(s)
- Babysitter
- Stranger
- Other:

15 I believe I was physically abused.

If you answered 2 - 5, please specify who (check all that apply):

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- Mother
- Father
- Family member
- Friend
- Both Parents
- Stepparent
- School Personnel
- Parent's Boyfriend or Girlfriend
- Ones Own Relationship Partner
- Foster Parent/Someone in the Home
- Cousin
- Sibling(s)
- Babysitter
- Stranger
- Other:

16 I had the perfect childhood.

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

If you answered 2 - 5, please specify who hit you (check all that apply):

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I felt that someone in my family hated me.

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<tr>
<td>School Personnel</td>
<td>Stranger</td>
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People in my family felt close to each other.

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

If you answered 2 - 5, please specify who (check all that apply):

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<td>Friend</td>
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21 Someone threatened to hurt me or tell lies about me unless I did something sexual with them.

If you answered 2 - 5, please specify who (check all that apply):

- [ ] Mother
- [ ] Father
- [ ] Family member
- [ ] Friend
- [ ] Both Parents
- [ ] Stepparent
- [ ] School Personnel
- [ ] Other:

22 I had the best family in the world.

If you answered 2 - 5, please specify who (check all that apply):

- [ ] Mother
- [ ] Parent’s Boyfriend or Girlfriend
- [ ] Father
- [ ] Ones Own Relationship Partner
- [ ] Family member
- [ ] Foster Parent/Someone in the Home
- [ ] Friend
- [ ] Cousin
- [ ] Both Parents
- [ ] Sibling(s)
- [ ] Stepparent
- [ ] Babysitter
- [ ] School Personnel
- [ ] Stranger
- [ ] Other:

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

If you answered 2 - 5, please specify who (check all that apply):

- [ ] Mother
- [ ] Parent’s Boyfriend or Girlfriend
- [ ] Father
- [ ] Ones Own Relationship Partner
- [ ] Family member
- [ ] Foster Parent/Someone in the Home
- [ ] Friend
- [ ] Cousin
- [ ] Both Parents
- [ ] Sibling(s)
- [ ] Stepparent
- [ ] Babysitter
- [ ] School Personnel
- [ ] Stranger
- [ ] Other:

24 Someone molested me.

If you answered 2 - 5, please specify who (check all that apply):

- [ ] Mother
- [ ] Parent’s Boyfriend or Girlfriend
- [ ] Father
- [ ] Ones Own Relationship Partner
- [ ] Family member
- [ ] Foster Parent/Someone in the Home
- [ ] Friend
- [ ] Cousin
- [ ] Both Parents
- [ ] Sibling(s)
- [ ] Stepparent
- [ ] Babysitter
- [ ] School Personnel
- [ ] Stranger
- [ ] Other:

25 I believed that I was emotionally abused.

If you answered 2 - 5, please specify who (check all that apply):

- [ ] Mother
- [ ] Parent’s Boyfriend or Girlfriend
- [ ] Father
- [ ] Ones Own Relationship Partner
- [ ] Family member
- [ ] Foster Parent/Someone in the Home
- [ ] Friend
- [ ] Cousin
- [ ] Both Parents
- [ ] Sibling(s)
- [ ] Stepparent
- [ ] Babysitter
- [ ] School Personnel
- [ ] Stranger
- [ ] Other:
There was someone to take me to the doctor if I needed it.

26 If you answered 2 - 5, please specify who (check all that apply):

____ Mother  ___ Parent’s Boyfriend or Girlfriend
____ Father   ___ Ones Own Relationship Partner
____ Family member  ___ Foster Parent/Someone in the Home
____ Friend     ___ Cousin
____ Both Parents ___ Sibling(s)
____ Stepparent  ___ Babysitter
____ School Personnel ___ Stranger
____ Other:

27 I believed that I was sexually abused.

If you answered 2 - 5, please specify who (check all that apply):

____ Mother  ___ Parent’s Boyfriend or Girlfriend
____ Father   ___ Ones Own Relationship Partner
____ Family member  ___ Foster Parent/Someone in the Home
____ Friend     ___ Cousin
____ Both Parents ___ Sibling(s)
____ Stepparent  ___ Babysitter
____ School Personnel ___ Stranger
___ Other:

28 My family was a source of strength and support.
APPENDIX B

THE FAMILY HARDINESS INDEX
The Family Hardiness Index

**Instructions:** Below are a series of statements about life that people often feel differently about. Please read each item carefully and decide to what degree each statement describes your family; then circle the number of the item that best indicates how much you think each one is true in general. Remember that there are no right or wrong answers; just give your own honest opinions. Please answer **every** item.

0 = Completely False  
1 = A little True  
2 = Quite True  
3 = Completely True

### In our family:

<table>
<thead>
<tr>
<th></th>
<th>Statement</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Trouble results from mistakes we make</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>It is not wise to plan ahead and hope because things do not turn out anyway</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Our work and efforts are not appreciated no matter how hard we try and work</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>In the long run, the bad things that happen to us are balanced by the good things that happen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>We have a sense of being strong even when we face big problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Many times I feel I can trust that even in difficult times things will work out</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>While we don’t always agree, we can count on each other to stand by us in times of need</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>We do not feel we can survive if another problem hits us</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>We believe that things will work out for the better if we work together as a family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Life seems dull and meaningless</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>We strive together and help each other no matter what</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>When our family plans activities we try new and exciting things</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>We listen to each others’ problems, hurts, and fears</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>We tend to do the same things over and over… it’s boring</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>We seem to encourage each other to try new things and experiences</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>It is better to stay at home than go out and do things with others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Being active and learning new things are encouraged</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>We work together to solve problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX C

THE SEXUAL BEHAVIORAL QUESTIONNAIRE
The Sexual Behavior Questionnaire

Instructions: The following questions pertain to **consensual** sexual behavior. Begin with the age range that includes the age of your first consensual experience and end with the age range that includes your current age. Please answer the questions in **all** the age ranges that apply to you and leave the rest that do not apply to you blank. There are no correct or incorrect answers.

<table>
<thead>
<tr>
<th>Current Age:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of first consensual sexual experience</td>
<td>years of age.</td>
</tr>
</tbody>
</table>

### Age 14 – 18 years.

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Frequency of sexual intercourse in a week</td>
<td>0</td>
<td>1-3</td>
<td>4-6</td>
<td>7-9</td>
<td>10-more</td>
</tr>
<tr>
<td>2. Approximate number of sexual partners</td>
<td>0</td>
<td>1-3</td>
<td>4-6</td>
<td>7-9</td>
<td>10-more</td>
</tr>
<tr>
<td>3. Number of times you had unprotected sex</td>
<td>0</td>
<td>1-3</td>
<td>4-6</td>
<td>7-9</td>
<td>10-more</td>
</tr>
<tr>
<td>4. Contacts with doctors regarding sexually transmitted diseases (chlamydia, herpes, gonorrhea, or genital warts)</td>
<td>0</td>
<td>1-3</td>
<td>4-6</td>
<td>7-9</td>
<td>10-more</td>
</tr>
<tr>
<td>5. Number of pregnancies as a result of consensual intercourse (include childbirths or terminated pregnancies)</td>
<td>0</td>
<td>1-3</td>
<td>4-6</td>
<td>7-9</td>
<td>10-more</td>
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</table>

### Age 19 – 25 years.

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<tbody>
<tr>
<td>6. Frequency of sexual intercourse in a week</td>
<td>0</td>
<td>1-3</td>
<td>4-6</td>
<td>7-9</td>
<td>10-more</td>
</tr>
<tr>
<td>7. Approximate number of sexual partners</td>
<td>0</td>
<td>1-3</td>
<td>4-6</td>
<td>7-9</td>
<td>10-more</td>
</tr>
<tr>
<td>8. Number of times you had unprotected sex</td>
<td>0</td>
<td>1-3</td>
<td>4-6</td>
<td>7-9</td>
<td>10-more</td>
</tr>
<tr>
<td>9. Contacts with doctors regarding sexually transmitted diseases (chlamydia, herpes, gonorrhea, or genital warts)</td>
<td>0</td>
<td>1-3</td>
<td>4-6</td>
<td>7-9</td>
<td>10-more</td>
</tr>
<tr>
<td>10. Number of pregnancies as a result of consensual intercourse (include childbirths or terminated pregnancies)</td>
<td>0</td>
<td>1-3</td>
<td>4-6</td>
<td>7-9</td>
<td>10-more</td>
</tr>
</tbody>
</table>
APPENDIX D

THE BRIEF SYMPTOM INVENTORY
The Brief Symptom Inventory

INSTRUCTIONS: Below is a list of problems people sometimes have. Read each one carefully and circle the number that best describes your answer. HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCLUDING TODAY. Do not skip any items. If you have any questions, please ask them now.

0 = NOT AT ALL  2 = MODERATELY  4 = EXTREMELY
1 = A LITTLE BIT  3 = QUITE A BIT

How much were you distressed by:

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
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<th>4</th>
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<tbody>
<tr>
<td>1.</td>
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<td>2.</td>
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<td>6.</td>
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<td>7.</td>
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<td>8.</td>
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<td>9.</td>
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<td>10.</td>
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<td>11.</td>
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<td>12.</td>
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<td>13.</td>
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<td>14.</td>
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<td>15.</td>
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<td>16.</td>
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<td>17.</td>
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<tr>
<td>18.</td>
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</table>
APPENDIX E

EATING DISORDER INVENTORY-RF
**Eating Disorder Inventory-RF**

**Instructions:** The statements and questions on this page ask about your attitudes, feelings, and behaviors. Some of the questions relate to food, eating, and attempts to control your weight; others ask about your feelings about your body shape and weight. Please answer all of the questions the best that you can. There are no right or wrong answers.

A = Always  
S = Sometimes  
U = Usually  
R = Rarely  
O = Often  
N = Never

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I eat sweets and carbohydrates without feeling nervous.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>2.</td>
<td>I think that my stomach is too big.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>3.</td>
<td>I eat when I am upset.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>4.</td>
<td>I stuff myself with food.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>5.</td>
<td>I think about dieting.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>6.</td>
<td>I think that my thighs are too large.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>7.</td>
<td>I feel extremely guilty after overeating.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>8.</td>
<td>I think that my stomach is just the right size.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>9.</td>
<td>I am terrified of gaining weight.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>10.</td>
<td>I feel satisfied with the shape of my body.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>11.</td>
<td>I exaggerate or magnify the importance of weight.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>12.</td>
<td>I have gone on eating binges where I felt that I could not stop.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>13.</td>
<td>I like the shape of my buttocks.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>14.</td>
<td>I am preoccupied with the desire to be thinner.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>15.</td>
<td>I think about bingeing (overeating).</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>16.</td>
<td>I think my hips are too big.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>17.</td>
<td>I feel bloated after eating a normal meal.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>18.</td>
<td>I eat moderately in front of others and stuff myself when they're gone.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>19.</td>
<td>If I gain a pound, I worry that I will keep gaining.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>20.</td>
<td>I have the thought of trying to vomit in order to lose weight.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>21.</td>
<td>I think that my thighs are just the right size.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>22.</td>
<td>I think my buttocks are too large.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>23.</td>
<td>I eat or drink in secrecy.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>24.</td>
<td>I think that my hips are just the right size.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
<tr>
<td>25.</td>
<td>When I am upset, I worry that I will start eating.</td>
<td>A</td>
<td>U</td>
<td>O</td>
</tr>
</tbody>
</table>
EDIS-RF Part B

What is your age? ___________ What is your gender? (circle one) Male Female
What is your height? ___________ What is your current weight? ___________
What is your highest weight ever? ___________ What year was that? ___________
What is your lowest weight ever? ___________ What year was that? ___________
What is your desired weight? ___________

In the past 3 months, how often have you...

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once a month or less</th>
<th>2-3 times per month</th>
<th>Once a week</th>
<th>2-6 times per week</th>
<th>Once a day or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Gone on eating binges (eating a large amount of food while feeling out of control)?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2.</td>
<td>Made yourself sick (vomited) to control your weight?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3.</td>
<td>Used laxatives to control your weight or shape?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4.</td>
<td>Exercised 60 minutes or more to lose or control your weight?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>In the past 6 months, have you lost 20 pounds or more?</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
REFERENCES


_AIDS CARE, 12_(5), 567-580.


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