ROMANTIC INTERACTIONS: HOW DOES ATTACHMENT STYLE MEDIATE AND FAMILY ENVIRONMENT MODERATE THE ASSOCIATION WITH CHILDHOOD SEXUAL ABUSE AND DOES GENDER MATTER?

by

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(Under the Direction of Ronald L. Simons)

ABSTRACT

Childhood sexual abuse (CSA) can have long-term consequences for both men and women. Not only can they have psychological problems, but relationship problems emerge as well. Sexual abuse does not just touch the life of one person but can affect that person’s interactions with many other people, particularly romantic partners. This study seeks to dissect how childhood sexual abuse affects the future romantic relationship of CSA survivors. Data came from the RELATE study, and the sample included 5,464 men and women. Holman’s Model of Premarital Factors for Relationship quality was used as an organizing theory while Attachment Theory linked the effect of childhood sexual abuse on romantic relationships through mediation. Interactions between childhood sexual abuse and other childhood family experiences were included as well. Gender differences in the model were tested too. Structural Equation
Modeling was used to assess a model that hypothesizes how attachment theory mediates the association between CSA and several relationship interactions. Differences in model based on type of sample were also assessed. Results showed that childhood sexual abuse more strongly directly impacted romantic interactions for women than men. Family environment moderated the effects childhood sexual abuse had on romantic interactions for women only. Indirect influences through attachment style were found for both men and women.

INDEX WORDS: Childhood Sexual Abuse, Relationship Quality, Attachment Style, Intimacy, Conflict, SEM, Romantic Interactions
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A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2012
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August 2012
DEDICATION

This paper is dedicated to my loving family without whose support I would never have finished. To my parents and siblings, thank you for your encouragement, love, and support. To my dad specifically, you were my inspiration for going back to school and then working hard to achieve this goal for the both of us. Thank you for dreaming big. To my amazing husband, the love of my life, you were my rock when I could not stand, my enforcer when I resisted, and my constant champion. Your love and encouragement through this process helps me to know we can make it through anything together. Thank you for everything. I love you.
ACKNOWLEDGEMENTS

Thank you to my advisor, Ron Simons, for all of your guidance and support throughout this process. Also, thank you to all my committee members, Jody Clay-Warner, Leslie Simons, and Tom McNulty, for all your valuable insights and support. Thank you to Karlo Lei for all of the invaluable help on the statistical aspects of this study. And finally, thank you to my family, Lauren O’Brien, and Mary Edmond for being my cheerleaders throughout the whole process.
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CHAPTER 1

Introduction

Traumatic events can change people’s lives at any age, but when an event occurs in childhood it may have a particularly dramatic impact. For approximately 12-35% of women and 4-9% of men, childhood sexual abuse (CSA) has the potential to shatter their understanding of the world and of relationships (Finkelhor, 1994; Putnam, 2003). Research has shown that CSA creates long-term negative consequences for victims (J. L. Davis & Petretic-Jackson, 2000; Polusny & Follette, 1995; Rumstein-McKean & Hunsley, 2001). Work on CSA has been dominated by studies of psychological functioning and has found links to depression, anxiety, suicide, self-destructive behavior, substance abuse, eating disorders, self-esteem impairment, and social isolation (Briere, 1992; Browne & Finkelhor, 1986; Maniglio, 2009; Polusny & Follette, 1995; Smolak & Murnen, 2002). Other research has found some factors that either connect or alter the link between CSA and psychological issues such as feelings of shame, powerlessness, and attribution style (Candice Feiring, Taska, & Lewis, 2002; Kallstrom-Fuqua, Weston, & Marshall, 2004).

CSA can have another large impact on people’s lives though. CSA occurs at developmentally critical points in children’s lives when they are learning appropriate ways to interact with others. This can alter understandings of relationships as well as future interactions. Research shows that people with a history of CSA struggle with creating and maintaining relationships and that it creates more conflict, intimacy issues, and less satisfaction in
relationship for those who have been abused (DiLilio & Long, 1999; Mullen, Martin, Anderson, Romans, & Herbison, 1994; Walker, Holman, & Busby, 2009). These struggles and how they occur are important to understand so that we can help those who want to create healthy, satisfying relationships gain that ability.

Research on the long-term consequences of childhood sexual abuse is large and comes from a multitude of places including clinical work and a variety of disciplines, but it is inconclusive in many ways. Different definitions of sexual abuse, different sample types, different measurements, and the inclusion/exclusion of other factors can create a variety of different results in terms of the long-term effects (J. L. Davis & Petretic-Jackson, 2000). In addition, many researchers point out that variation in outcomes occur not only in comparison to non-abused individuals but also within CSA as a population (Colman & Widom, 2004; Dallam, et al., 2001; Haaken & Lamb, 2000; Horwitz, Widom, McLaughlin, & White, 2001; S. V. Hunter, 2006; Oellerich, 2000; Putnam, 2003; Stanley, Bartholomew, & Oram, 2004).

Finkelhor (1990) suggested that 20-40% of CSA victims did not show signs of later disturbance related to CSA. Lynskey and Ferguson (1997) found that about 25% of their sample of males and females did not seem to have psychological diagnoses or adjustment issues. Factors related to the abuse, family background and nature of peer affiliations in adolescence seemed to help distinguish between those who were abused and had no symptoms versus those CSA victims who had difficulty adjusting. Putnam (2003) proposed that people who have been sexually abused are a diverse, heterogeneous group because of so much variation in type of abuse, type of perpetrator, frequency of abuse, and duration of abuse.
Gender has been another factor suggested to influence variation in outcomes. It is common knowledge in CSA literature that the rate of abuse is higher for women than men and so, research most often utilized female samples (Rumstein-McKean & Hunsley, 2001). Sometimes mixed samples are used, but the studies usually do not consider that men and women may experience CSA differently. A portion of the literature debates gender differences, but the findings have been mixed. This research has mainly focused on gender differences in risk factors for abuse and psychological outcomes. Only a smaller amount of work has been done on relationship outcomes.

Older work on CSA has rarely recognized that CSA does not exist in a contextual vacuum, but is one of a number of negative experiences a child can have. Newer research includes other adverse childhood experiences and has found that negative experiences are often interconnected with each other and including them can create better understandings of outcomes (Dong, Anda, Dube, Giles, & Felitti, 2003; Dong, et al., 2004; Dube, et al., 2005; Whisman, 2006). For example, if a child suffers from sexual abuse he or she has a higher likelihood of also suffering from physical abuse or living in a harsh family environment. Silverman, Reinherz, and Giaconia (1996) found both types of abuse to affect poor mental health outcomes. Researchers have proposed that teasing out the effects of one childhood adversity should not be done without including other forms of adversity as controls to determine whether independent effects on outcomes exist or there is more of a cumulative effect (Dong, et al., 2004).

Theories that try to explain the relationship between CSA and both psychological and social outcomes exist but are often underutilized. They come from a number of fields including psychology, neurobiology, and family research and are a mix between general theories and
theories specific to CSA. Theorists are turning to the integration of theoretical concepts and the use of mediators and moderators as the best explanations for the relationship between CSA and adjustment outcomes. This paper will look at the usefulness of attachment theory and Holman’s model of marital quality for dissecting the association between CSA and romantic outcomes.

Even though theory has been underused and mixed results often occur in CSA literature, there is a strong body of literature that indicates interpersonal functioning of CSA members is often affected. The largest amount of work in the interpersonal literature is on sexual behaviors, followed by the effect of CSA on relationship quality (J. L. Davis & Petretic-Jackson, 2000; Polusny & Follette, 1995; Rumstein-McKean & Hunsley, 2001). Common types of relationship quality considered are satisfaction, intimacy issues, conflict, and disruption. CSA literature, though, focuses more on showing what the long-term consequences of CSA are rather than how those consequences occur and how and why such variation exists. Understanding not only how CSA creates consequences, but also how it creates differences in consequences, contributes to a better understanding of CSA. Utilizing mediators and moderators has helped to clarify some of this variation in results (Walker, et al., 2009). Researchers now believe that some of the strongest impact CSA may have is through an indirect effect on the outcomes.

The newest wave of research focuses on the mechanisms through which CSA and other forms of abuse may work. Mediator pathways are being utilized to assess mechanisms (Schraufnagel, Davis, George, & Norris, 2010; Testa, VanZile-Tamsen, & Livingston, 2005; Walker, et al., 2009). Researchers are using a variety of factors to explain indirect effects. Many are concentrating on psychological factors and attachment theory in particular, but a few are using personal, behavioral, or relationship attributes.
Purpose of Study

Long term consequences of CSA are of particular interest to both researchers and therapists. Mental health factors continue to be popular but topics related to adult interpersonal relationships, particularly relationship quality, are increasingly widespread research topics (J. L. Davis & Petretic-Jackson, 2000). While looking at the relationship between CSA and relationship quality is interesting, research on the mechanisms that connect these two gives us a more in-depth knowledge of the connection. DiLillo (2001) wrote “knowledge of general dissatisfaction on the part of survivors does little to elucidate the specific relational factors, such as intimacy, trust, communication, power, control, and decision making, that may be impacted by [childhood sexual abuse]” (p.569).

The purpose of this study is to include a possible pathway through which CSA affects six relationship outcomes. Both Holman’s Model of Marital Quality (2001) and Attachment Theory (Shaver & Hazan, 1993) are used as supporting principles for the work. A person’s attachment style, which is an internal working model of relationships, has been shown to affect behavioral interactions with their significant others (N.L. Collins & Read, 1990; J. A. Feeney & Noller, 1990, 1992; Hendrick & Hendrick, 1989; Levy & Davis, 1988). Therefore, a path model will be utilized that suggests that CSA affects two types of insecure attachment style, anxious and avoidant, which then affects interactional processes in a relationship. Structural Equation Modeling will be used in order to assess direct and indirect pathways.

Data are from a cross-sectional questionnaire called RELATionship Evaluation (RELATE). These data evaluate premarital and marital factors that affect relationship quality and stability. Over ten thousand participants have taken this online questionnaire and participants
come from several places including college classes, referrals from therapists, and people who found the questionnaire via online search engines.

This study will address several of the concerns in the literature previously mentioned. First, CSA will be measured by the frequency of sexual abuse and will be disaggregated by type of sexual abuse in order to assess characteristics of sexual abuse that might be important. Second, the study will include other negative childhood experiences as controls, but will take it a step further to see how other family environment factors, such as family abuse and parent nurturing, work in conjunction with CSA. Third, the RELATE dataset is a convenient sample with people being referred from a variety of places. Research suggests differences occur based on sample type and so difference testing will be done on the final models to see whether differences based on referral type, which simulate instructor, therapist, and community types of sample, occur within this sample. Specific research questions include (1) Does CSA affect different types of romantic interactions when other negative childhood experiences are included? (2) How does attachment style mediate the relationship between CSA and six different romantic interactions? (3) Do the relationships differ by gender?

This paper is broken into chapters. Chapter 2 reviews the important CSA literature. Chapter 3 is a discussion of theoretical perspectives used to highlight the importance of mediators in explanations of the relationship between CSA and romantic outcomes. Chapter 4 offers an outline of the hypothesized model. Chapter 5 discusses the dataset and measures used to address the research questions. Chapter 6 provides the analytical strategy and results section. Chapter 7 discusses the results in light of previous literature, gives limitations to the study, and presents options for future research.
CHAPTER 2

Literature Review of Childhood Sexual Abuse and Interpersonal Functioning

Research has consistently shown that CSA does affect later romantic relationships in many ways (J. L. Davis & Petretic-Jackson, 2000; DiLillo, 2001; Fleming, Mullen, Sibthorpe, & Bammer, 1999; Rumstein-McKean & Hunsley, 2001). Some research suggests that those who have been sexually abused have lower rates of marital involvement altogether. Cherlin, Burton, Hurt, and Purvin (2004) found that women who were sexually abused as children were less likely to be in stable marriages or long-term committed relationships, including cohabitation, and instead were more likely to participate in multiple shorter term unions. Like most areas of CSA literature there are other studies that disagree. Colman and Widom (2004) found that childhood victimization did not reduce the likelihood of a person ever marrying and found no type of abuse -- neglect, childhood sexual abuse, or childhood physical abuse—to be related to marital involvement for men or women. As for other forms of unions, Colman and Widom (2004) wrote that both male and female adults who were neglected when young had a higher likelihood of cohabitating. Men who were neglected also had a higher likelihood of cohabitating compared to the control group.
Whether or not a couple marries, CSA survivors do have a lower quality of relationship than others. Survivors of CSA were less likely to report overall relationship satisfaction as compared to their non-abused counterparts (DiLillo & Long, 1999; Finkelhor, Hotaling, Lewis, & Smith, 1989; Fleming, et al., 1999; D. Jehu, 1988; Mullen, et al., 1994). Tsai, Feldman-Summers, and Edgar (1979) used a mixed clinical and nonclinical samples and found that in comparison to the other groups, the nonclinical sexually abused group felt they had poorer relationship quality. Hunter (1991) used the Dyadic Adjustment Scale and found similar results of lower satisfaction. While relationship satisfaction is the most commonly utilized aspect of relationship quality, focusing on other romantic interactions like sexual relationships, marital disruption, re-victimization, and issues with intimacy and conflict lead to a better understanding of CSA’s impact on romantic relationships.

Sexual Relationships

CSA has been known to lead to sexually risky behaviors in both adolescents and adults. Individuals who have been sexually abused as children are more likely to participate in sexual activity earlier, have more partners, and have more sexual encounters (Arriola, Louden, Doldren, & Fortenberry, 2005; Browne & Finkelhor, 1986; Donalson, Whalen, & Anastas, 1989; Loeb, et al., 2002; Mackey, et al., 1991; Riggs, Alario, & McHorney, 1990). One suggestion for why CSA may lead to riskier sexual behaviors is that a person’s sexual schema, or how individuals view themselves as sexual beings, is affected by CSA and that this affects future sexual interactions (Meston, Rellini, & Heiman, 2006; Niehaus, Jackson, & Davies, 2010).
CSA is also associated with a higher risk of getting HIV, a greater likelihood of getting an STD, inability to make decisions about contraception, and use of alcohol and drugs related to intercourse (Bensley, Van Eenwyk, & Simmons, 2000; Heise, Moore, & Toubia, 1995; Johnsen & Harlow, 1996; Littleton, Breitkopf, & Berenson, 2007; Miller, Monson, & Norton, 1995; Upchurch & Kusunoki, 2004). Schraufnagel, Davis, George, and Norris (2010) utilized a male sample to understand the link between CSA and risky sexual behavior and how alcohol use mediated the relationship. Findings included both a direct and an indirect effect of CSA on number of sexual partners, but not the frequency of condom use. Multiple aspects of alcohol use were important for mediation. Schraufnagel et al. (2010) found that “greater CSA severity predicted significantly lower age of first intoxication, which in turn predicted greater current alcohol consumption, followed by greater use of alcohol before sexual intercourse, leading to an increased number of reported sexual partners” (369).

Men and women with an abuse history report both less satisfaction and more sexual issues in relationships than their non-abused counterparts (Hunter 1991). Studies on overall sexual satisfaction had mixed results though. Some studies suggested that CSA did not directly affect sexual satisfaction while others suggested a negative effect of CSA on sexual satisfaction (Bartoi & Kinder, 1998; Najam, Dunne, Purdue, Boyle, & Coxeter, 2005; Tsai, et al., 1979). A recent study of CSA’s effects on sexual satisfaction, which was defined as feelings of pleasure and enjoyment derived from sex, found that women who had a history of CSA reported less sexual satisfaction than other women (Katz & Tirone, 2008). Testa, VanZile-Tamsen, and Livingston (2005) looked at relationship satisfaction and work done on risky sexual behaviors to see if the characteristics of men the survivors dated mediated the relationship between CSA and relationship satisfaction. The authors found that female CSA survivors tend to affiliate with men
who are more aggressive and participate in risky sexual behaviors and that these risky characteristics mediated the relationship between CSA and relationship satisfaction. Further, association with riskier partners was linked to lower relationship satisfaction.

In addition to just a more general feeling of lower sexual satisfaction, men and women can have certain feelings, such as shame or guilt, which affects their sexual activity, causes problems with sexual desire, and may even lead to a phobia of sex (D. Jehu, 1988; Mackey, et al., 1991; Wincze & Carey, 1991). Several studies using a variety of sample types have shown that CSA is a consistent risk factor for sexual revictimization as well (Cloitre, Tardiff, Marzuk, Leon, & Portera, 1996; Desai, Arias, Thompson, & Basile, 2002; Gidycz, Coble, Latham, & Layman, 1993; Hines, 2007; Merrill, et al., 1999; Roodman & Clum, 2001). Most studies of sexual revictimization have been done with women. Women who have been sexually abused are more at risk of both sexual assault outside of a relationship and participating in unwanted sex either as consensual sex or through coercion in a relationship (Campbell, Greeson, Bybee, & Raja, 2008; Chan, 2011; Hattery, 2009; Johnsen & Harlow, 1996; Katz & Tirone, 2008; Messman-Moore & Long, 2003; Gail E. Wyatt, Guthrie, & Notgrass, 1992). One study found that sexual revictimization occurs for men in heterosexual relationships too (Hines, 2007).

**Relationship Communication and Intimacy**

Herman (1981) described female sexual abuse survivors’ relationships as “stormy and troubled” (p.101). Research, and social psychology theory in particular, suggested that a relationship with a survivor often lacks intimacy and trust and often produces poor communication and high conflict (DiLillo & Long, 1999; Feinauer, Mitchell, Harper, & Dane, 1996; Rumstein-McKean & Hunsley, 2001). Browne and Finkelhor (1986) found that CSA
survivors distrusted others more and also felt fear and hostility when dealing with interpersonal relationships. When Mackey et al. (1991) compared a group of women with a history of CSA to women who had been sexually abused in adulthood they found that in addition to the sexual problems, those with a history of CSA had more difficulty communicating with partners and were emotionally detached. Davis (1991) suggested that secrecy was rooted in survivors’ patterns of communication because they were forced to hide the abuse when younger. This has led to less open and direct communication when in romantic relationships. Mullen et al. (1994) was one of the few studies to examine general communication issues. The authors found that there was a higher proportion of survivors, in comparison to those not dealing with CSA who said they had “no meaningful communication” in their relationship. In addition to finding lower overall satisfaction, DiLillo and Long (1999) said that poor communication and lack of trust characterized couple relationships with a survivor of CSA.

Issues with intimacy seem to plague most interpersonal relationships for CSA survivors. In studying and theorizing about intimacy, the social psychology literature conceptualized it in three general ways: “a sense of closeness and interdependence, a degree of self-disclosure, and the experience of affection or warmth within the partnership” (J. L. Davis & Petretic-Jackson, 2000, p. 209; Perlman & Fehr, 1987). Intimacy troubles were often expressed through ambivalence or avoidance of closeness to partners, fear, and distrust of others, particularly men (Briere, 1992; Browne & Finkelhor, 1986; Courtois & Leehan, 1982; J. L. Davis & Petretic-Jackson, 2000; D. Jehu, 1988; Rumstein-McKean & Hunsley, 2001). Davis, Petretic-Jackson, and Ting (2001) found that multi-abuse, which included sexual abuse and physical abuse, was one of many factors that predicted fear of intimacy. Female survivors also tended to have difficulty expressing emotions compared to their non-abuse counterparts (Waltz, 1993). In
Pistorello and Follette’s (1998) the women had a hard time discussing aspects of the past abuse and allowing emotional closeness. These issues seemed to be linked to abuse characteristics, including abuse at an earlier age and extended abuse. As an extension of Browne’s traumagenic model, Kallstrom-Fuqua, Weston, and Marshall (2004) found that feelings of powerlessness also mediated the effects of abuse severity on maladaptive social relationships.

Looking at partner perceptions of the relationship can give us insight into intimacy and communication within the relationship as well. Research generally finds that partners struggle with similar issues as the survivors and that they often attribute at least some of the struggles to the CSA. Nelson and Wampler (2000) found that couples who had either one partner or both partners as victims of either sexual or physical child abuse had lower marital satisfaction, less family cohesion, and higher stress symptoms for the individuals. Studies on partner’s perceptions consistently find that emotional intimacy, trust, and communication are major complications for relationships and that partners feel general dissatisfaction with the relationship. Difficulty with trust is one of the most pervasive effects on couple relationships. Johnson (1989) wrote that the loss of trust as a child due to sexual abuse had detrimental effects on later intimacy with significant others because of self-defeating patterns and feelings of worthlessness.

**Relationship Conflict, Violence, and Disruption**

While most relationships will have their ups and downs, studies specifically focusing on CSA have found more conflict in personal relationships (Finkelhor, 1986; D. Jehu, 1988; D. Jehu, Gazan, & Klassen, 1985). Shapiro and Levendosky (1999) focused on adolescent friendships, but still found that CSA affected levels of interpersonal conflict, mostly indirectly through a girl’s attachment style and avoidant coping strategies. Serafin and Follette (1996)
found conflict to be higher in CSA couples than nonabuse couples, but no difference in satisfaction levels, while Jack et al. (1995) found that anticipation of interpersonal conflict created heightened levels of stress for survivors. Walker, Sheffield, Larson, and Holman (2010) found that when CSA occurred for one or both partners there was an increased perception of contempt and defensiveness within the relationship for both partners. A male history of abuse, in particular, had a strong impact because it made the female partner feel negatively about herself and perceive more defensiveness in her partner. Larson and LaMont (2005) looked at female CSA survivors’ attitudes about marriage and readiness for marriage. They found that women who had been sexually abused as children saw marriage as difficult to adjust to, conflict-ridden, and felt their marriages would be unhappy. They had more negative feelings about marriage, thought they would be unlikely to find a suitable partner, and did not feel emotionally, sexually, or financially ready to get married.

Conflict can often escalate in personal relationships. Research shows that CSA survivors are likely to be involved in domestic violence situations (Fleming, Mullen, Sibthorpe, and Bammer (1999) (Messman-Moore & Long, 2003) (Noll, Horwitz, Bonanno, trickett, putnam 2003 in Chan 2011). Styron and Janoff-Bulman (1997) found that college students who had been physically, sexually, or verbally abused as children not only verbally insulted their partners more than people who had not been abused, but also participated in physical violence like hitting, slapping, biting, etc. as well. Other studies that include a variety of abuses found similar results with abused children being more aggressive as adults and more likely to be in adult abusive relationships (Beitchman, et al., 1992; Briere, Runtz, & Wall, 1988; Malinosky-Rummell & Hansen, 1993). Also, women who experienced CSA were more likely to return to an abusive relationship than women who were not sexually abused (Griffing, et al., 2005).
With relationships that may be high in conflict and possibly even violent, it is not surprising that CSA research suggests marital disruption is higher for CSA survivors than non-CSA couples. Bagley and Ramsey (1986) reported that CSA survivors rated their marriages more negatively and reported having prior romantic problems or even divorce. Both Finkelhor, Hotaling, Lewis, & Smith (1989) and Whisman (2006) found that those with a history of CSA had increased marital disruption and less satisfaction than non-CSA counterparts. Whisman’s (2006) study also found prior physical abuse affected marital disruption. Mullen, Romans-Clarkson, Walton, and Herbison (1988) stated there was a higher rate of divorce or separation for abused individuals compared to their counterparts as well as abused women marrying younger. Bifulco, Brown, and Adler (1991) found in their sample a higher rate of sexual abuse for people who were divorced, separated, or had never married or cohabitated as opposed to a lower rate for those who were not sexually abused. One clinical study disagreed with the aforementioned studies on differences in divorce potential for non-abuse couples and abuse couples. In their clinical sample, Paden Gelster and Feinhaur (1988) reported no differences in groups on divorce or marital satisfaction.

**Issues within CSA Literature**

No study of sexual abuse will be without methodological problems, this one included. This is because the study of sexual abuse has so much variation in methods. CSA is not only a research topic, but it is also a public health issue and a common clinical diagnosis. Research on CSA can, and often does have, as its purpose, practical application. But this topic often has difficulties with obtaining nationally representative data due to obvious and important legal and ethical restrictions (Pereda, Guilera, Forns, & Gomez-Benito, 2009). Samples have to come from a variety of places including child protective services reports, universities, clinical trials,
nonrandom community samples, and occasionally nationally representative samples. Often studies are quite small, nonrandom and a large number come from therapists or clinical populations (J. L. Davis & Petretic-Jackson, 2000; Rumstein-McKean & Hunsley, 2001). Different types of samples have reported different prevalence rates of CSA (Badgley, et al., 1984; Finkelhor, 1979; Fritz, Stoll, & Wagner, 1981; Goldman & Padayachi, 2000; Mullen, et al., 1988; Siegel, Sorenson, Golding, Burnam, & Stein, 1987; G.E. Wyatt, 1985). A meta-analysis study done by Rind et al. (1998) suggested that there are no clear trends for which sample type provides highest rates or an accurate estimate. Rumstein-McKean and Hunsley (2001) caution researchers about making sweeping conclusions about the effects of CSA on psychological and social outcomes, “Recognizing risks of both the ‘clinical fallacy’ and the ‘representative sample fallacy’ (cf. Straus, 1993) is essential in order to develop a clear picture of the nature of interpersonal distress and disruption associated with CSA” (473).

Another problem that researchers have struggled with since the 1970s with no resolve is the definition of CSA (Briere, 1992). Definitions of CSA are numerous and can include nonsexual contact like exposure or sexual contact like touching, persuasion, force, penetration, etc. Another issue related to defining CSA is the age limit considered for a child. Some studies go up to 18 years of age, others 15 or 16. Still other studies consider the difference in age between the perpetrator and the victim as one part of a definition of child abuse. Since no consensus has been reached over the right definition, researchers have just been very explicit about what definitions they have used (Briere, 1992). Other characteristics of the abuse and environment surrounding the child can have a role in the long-term effects of abuse as well.
Suggested characteristics include frequency of abuse, duration of abuse, sex of the perpetrator, severity of abuse, and regional differences (Pereda, et al., 2009; Putnam, 2003; G.E. Wyatt & Peters, 1986). In addition, two areas have received particular attention as important contributions to how sexual abuse affects psychological and social adult outcomes: gender and other negative childhood experiences.

**Gender Differences**

Researchers are split on whether or not there are gender differences for victims of sexual abuse. Large amounts of research have documented gender differences and similarities in risk factors for sexual abuse, but there are mixed results for the effect of CSA on long-term outcomes. Many researchers have posited that boys and girls have similar reactions and outcomes to abuse (C. A. Black & DeBlassie, 1993; Briere & Runtz, 1993; Mendel, 1995; Urquiza & Capra, 1990; Watkins & Bentovim, 1992). Others have said that boys and girls react differently, mostly with girls reacting more negatively and boys having a more neutral or even a positive reaction and outcome than girls (Bauserman & Rind, 1997; Constantine, 1981). Research on gender differences in outcomes of CSA predominantly uses psychological outcomes, but a few studies include interpersonal outcomes.

Research consistently showed that the prevalence of CSA was higher for girls than boys (Beitchman, et al., 1992; Dube, et al., 2005; J. A. Hunter, 1991; Putnam, 2003). This is often cited as a reason why there are so many more studies that utilize female samples. But other risk factors differ by gender as well. For example, boys tended to have a shorter duration of abuse than girls, by a little under 2 years (Kendall-Tackett & Simon, 1992; Putnam, 2003; Thomlison, Stephens, Cunes, Grinnel, & Krysik, 1991). Gender differences in the age of onset of abuse have
mixed results. Some results have indicated that boys were younger than girls at onset of abuse; while others suggested that girls are at risk for the onset of abuse at younger ages than boys (Putnam, 2003). Still other studies have found no significant age difference between boys and girls in terms of age at start of abuse (Finkelhor, Hotaling, Lewis, & Smith, 1990; J. A. Hunter, 1991; Kendall-Tackett & Simon, 1992).

A number of family household characteristics are believed to effect the likelihood of sexual abuse occurring and they differ in terms of gender. Girls are generally more vulnerable to abuse than boys. Female victims have a much higher likelihood of living in two parent households, and also come from homes with more family dysfunction and with caretakers who had their own physical and/or mental health issues. Male victims, on the other hand, lived in either single parent households or institutions/homes. These households reported less stress in general, but when there was stress it was often related to new or too many other dependents (W. C. Holmes & Slap, 1998; Tzeng & Schwarzin, 1990). Boys, though, were more at risk for the occurrence of physical abuse happening concurrently with sexual abuse than girls (Finkelhor, 1984; Romano & De Luca, 2001; Vander Mey, 1988; Watkins & Bentovim, 1992).

Differences in the relationship boys and girls have with their perpetrator are common results for risk factors. Tzeng & Schwarzin (1990) found that girls were more likely to be abused by immediate family members than boys and the abuse more often included rape and incest. Gold et al (1998) used a clinical sample and found girls were twice as likely to experience sexual abuse within the home as boys. Male youth are more likely to experience extrafamilial abuse. Using a clinical sample of sexually abused children, Faller (1989) found that sexual victimization of boys occurred more often outside of the home than girls, but a high number of boys were still
victimized by a family member (63% for boys; 89% for girls). Another difference is the age of perpetrators. Boys are more likely to be abused by someone within five years of age, often older adolescents or siblings. For girls there is usually at least a ten year age difference between victim and perpetrator (Finkelhor, et al., 1990; Gordon, 1990).

Perpetrators of abuse of both girls and boys are mainly men, but newer research has suggested that there is a notable portion of female perpetration of boys. Researchers of male sexual abuse have proposed that the sex of the perpetrator could be an important factor in determining long-lasting consequences for abuse. Ideas surrounding sexuality and sexual exploration at younger ages for boys might lessen the effects of female perpetrated sexual abuse (J. A. Hunter, 1991; Romano & De Luca, 2001). Research on reaction to abuse highlight why men might have less severe outcomes than women. When women have discussed the abuse they emphasize the invasion of privacy and how morally wrong the act is. Men were more likely to interpret the sexual experience as an adventure or satisfying a curiosity (Schultz & Jones, 1983). West and Woodhouse (1993) compared the reaction of their sample of men to Nash and West’s (1985) sample of women and found that women responded to the abuse with fear, confusion, and embarrassment while men reported indifference, slight anxiety, or sometimes- when the perpetrator was a member of the opposite sex- a positive, pleasurable experience.

Findings on gender differences in adult psychological outcomes related to CSA are mixed. A few studies using scales or checklists of psychological adjustment have found no gender differences (Briere, et al., 1988; Silverman, et al., 1996; Urquiza & Crowley, 1986). Some meta-analyses and reviews of literature have also shown no gender differences. Jumper (1995) did a meta-analysis of 26 published studies and the relationship between CSA and
psychological outcomes. Jumper found that psychological effects of abuse tended to be similar for clinical and community samples but lower for student samples and that men and women did not differ greatly in their later psychological adjustment. A review by Holmes, Offen, and Waller (1997) found a high degree of similarity in outcomes, particularly psychological outcomes for males and females.

More specific outcomes seem to have more significant findings than those that use a broad scale. There is a large body of evidence that suggests women suffer more than men from anxiety, PTSD, depression, and general adjustment problems (Candice Feiring, et al., 2002; Horwitz, et al., 2001; S. V. Hunter, 2006; MacMillan, Fleming, Streiner, Lin, & al., 2001; Sigmon, Greene, Rohan, & Nichols, 1997). One caveat is that in most of the studies women experienced more serious forms of abuse than men. A few other studies found the opposite effect. Boys who had been sexually abused had worse depression that continues into adulthood than girls (Garnefski & Diekstra, 1997; Gold, Sinclair, & Balge, 1999).

Often studies that find gender differences in outcomes find that coping strategies vary greatly for men and women. Males utilize externalizing strategies like drinking or delinquency while girls use internalizing behaviors like disordered eating, suicidal thoughts, and depression (Berliner & Elliott, 2002; Femina, Yeager, & Lewis, 1990). In comparing sexually abused respondents to nonabused adults, Stein et al. (1988) found that sexually abused men experienced more lifetime externalizing psychiatric disorders like drug abuse and dependence, while sexually abused women had higher rates of all psychiatric disorders, especially higher rates of depression and both affective and anxiety disorders.
Finkelhor’s (1990) and Rew, Esparza, and Sands’ (1991) later studies supported the findings of Stein and colleagues. Sigmon et al. (1997), though, found that men and women were equally as likely to use avoidant coping strategies and problem-focused strategies for dealing with abuse, but that men were more likely to use acceptance and women utilized emotion-focused strategies.

Fewer studies of gender differences have been done on relationship outcomes than psychological ones. In a study of female survivors who became therapists, these women saw female survivors reporting more issues with relationships—particularly with trust and sex—as well as problems with self-esteem and work than men did (Little & Hamby, 1999). In Colman & Widom’s (2004) study, child abuse was significantly related to disruption of a relationship for both males and females. Men and women differed in the effect that abuse had on relationship quality. Even when family environment factors were controlled abused women, particularly those that were sexually abused or neglected, suffered intimacy issues and relationship difficulties but their male counterparts did not. Case histories on male sexual abuse victims, though, have shown that some men avoid intimacy too and will sometimes even end up with abusive partners (Bruckner & Johnson, 1987; Dimock, 1988; Krug, 1989). Men are also more likely to repeat the cycle of abuse and become offenders than women (Briggs, 1995; S. V. Hunter, 2006; Salter, et al., 2003).

**Other Negative Childhood Experiences**

There is considerable variability in range and severity of reported symptomatology and outcomes of abuse survivors. CSA often ends up with conflicting or mixed effects on psychological, sexual, and social adjustment of survivors. Researchers suggest that other factors may be affecting the relationship between CSA and later outcomes. Some of these factors may
include experiences before or after the abuse, family environment, other forms of abuse, the
nature of the abuse itself, individual characteristics, and perceptions of the victim about abuse (J.
L. Davis & Petretic-Jackson, 2000). A lot of research is starting to use many of these factors as
controls to see whether CSA has unique effects on outcomes or if other factors are confounding
the relationship. As shown below, findings are mixed between an elimination of CSA as a factor
completely and a remaining unique, but often reduced negative effect, of exposure to CSA on
outcomes.

An abundance of research has evaluated what other adverse childhood experiences
(ACE) have been linked to CSA and have increased the likelihood of CSA occurring. A negative
family environment is a dominant concurrent factor in literature. Family households of CSA
victims were more patriarchal, less adaptable, less stable, and less cohesive than other people’s
homes (Alexander & Lupfer, 1987; Bagley & Thurston, 1996; Polusny & Follette, 1995). Children were more likely to be in poverty, and parents were more likely to be unemployed
(Horwitz, et al., 2001). Homes, also, were less likely to have one or both parents in the home,
and more likely to have the presence of a stepfather (Finkelhor, 1993; Mullen, Martin, Anderson,
Romans, & Herbison, 1993). Parents more often had their own issues to deal with as well
including maternal mental illness, parental substance abuse and alcoholism, and social isolation
(Dong, et al., 2003; Dong, et al., 2004; Dube, Anda, Felitti, Croft, et al., 2001; Dube,
Williamson, Thompson, Felitti, & Anda, 2004; Fergusson, Horwood, & Lynskey, 1996; Horwitz,
et al., 2001; Mullen, et al., 1993; E. C. Nelson, et al., 2002). Conflict and violence between
parents commonly appeared in the home (Bagley & Thurston, 1996; Bifulco, et al., 1991; Dong,
In addition, parents of CSA victims had harsher or inadequate parenting strategies (Fergusson, et
Several studies have found other types of abuse to play as much a role if not more in predicting adjustment than CSA does. Silverman et al. (1996) looked at both physical abuse and sexual abuse and found that both types of abuse related to poor mental health outcomes for males and females. Hobfoll et al. (2002) showed that emotional and physical abuse were more highly correlated with anger and depression than CSA. In Ney, Fung, and Wickett’s (1994) clinical sample of children and adolescents, nonsexual negative childhood experiences of physical neglect, physical abuse, emotional neglect, and verbal abuse better explained later adjustment issues than CSA, possibly because other forms of abuse have a higher frequency of occurring. In other studies any significant relationship that CSA had with later adjustment disappeared with the addition of other forms of abuse (Eckenrode, Laird, & Doris, 1993; Ney, et al., 1994).

Family factors may not only increase the risk of CSA but could potentially affect or mediate the relationship with later functioning as well (Conte & Schuerman, 1987; Friedrich, Beilke, & Urquiza, 1987; Fromuth, 1986). Rind, Tromovitch, and Bauserman (1998) discovered in their meta-analysis of student populations that the family environment factors like abuse and neglect, family structure, and conflict, accounted for more variance in psychological and adjustment outcomes than CSA did. For Edwards & Alexander (1992) parental conflict and paternal dominance were significant predictors of poorer long-term adjustment over and beyond
effects of abuse by itself. Based on path analyses, Wisniewski (1990) reported other family environment variables, particularly family violence, provided a better explanation of later emotional distress than CSA. Other studies found similar results to Wisniewski in terms of family violence, not CSA, as the better explanation for adjustment problems (Higgins & McCabe, 1994; Mullen, et al., 1988; Pallotta, 1992). Although findings are disputed by other researchers because of techniques used in the study, Nash et al. (1993) found no difference in sexually abused and non-abused participants in current psychological functioning when controlling for family of origin variables. Liem and Boudewyn (1999) found that CSA was more likely to occur in the context of other childhood stressors and the more childhood maltreatment or losses a child deals with, the greater the risk for later adult victimization. Other studies have had similar findings in that inclusion of multiple negative childhood experiences was strongly related to problems with smoking, suicide attempts, teen pregnancy, sexually transmitted diseases, and alcohol and drug problems (R.F. Anda, et al., 1999; Robert F. Anda, et al., 2001; Robert F. Anda, et al., 2002; Dong, et al., 2003; Dube, Anda, Felitti, Croft, et al., 2001; Dube, Anda, Felitti, Edwards, & Croft, 2001; Felitti, et al., 1998; Hillis, Anda, Felitti, Nordenberg, & Marchbanks, 2000).

Even after accounting for family factors, demographic characteristics, or other forms of abuse, several studies found CSA as a continuing risk factor for adverse later outcomes (Fergusson, et al., 1996; Fleming, et al., 1999; Lynskey & Fergusson, 1997; Mullen, et al., 1993; Mullen, et al., 1994; Paradise & Rose, 1994; Romans, Martin, Andersom, O'Shea, & Mullen, 1995; Stern, Lynch, Oates, O'Toole, & Cooney, 1995; Walker, et al., 2009). Briere & Elliott (2003) reported that even after controlling for sex, age, race, and family income as well as later adult victimization and physical abuse as a child, sexual abuse was still significantly related to
higher scores on the TSI, which means that respondents who had been sexually abused had higher likelihoods of post stress and negative psychological outcomes. Physical abuse was also related to TSI scores for all types of psychological adjustment except sexual symptoms and tension reduction behavior. In Fleming et al. (1999), associations between CSA, particularly when such abuse involved penetration, and a variety of adult adjustment problems for women remained even after controlling for family background factors such as physical abuse, alcoholism, isolation, and lack of caring adult. Interpersonal problems that remained significantly associated with CSA include sexual revictimization, likelihood of later physical abuse, poorer quality adult relationships, more marital disruption, dissatisfaction with relationship, and reports of uncaring/high controlling partners. Mental health problems on the other hand, when background factors were controlled did not remain significant in relation to CSA, except when CSA involved penetration.

Mullen et al. (1994) also found that marital disruption and dissatisfaction, specifically sexual dissatisfaction, remained significantly related to CSA even after controlling for a range of family and social disadvantage factor. Colman and Widom (2004) found significant links to troubles in intimate relationships with all three forms of child maltreatment-physical abuse, sexual abuse, and neglect even after controlling for parental marital status and receiving welfare. Interestingly, women across all three types of abuse had an increased risk of infidelity with multiple partners.

Whisman (2006) addressed the importance of including multiple childhood traumas by having seven different childhood traumatic events in his study. Traumatic events included both violent acts, such as physical assault and sexual abuse, and nonviolent events, such as a life
threatening accident or a natural disaster. He assessed which traumatic events affected marital disruption and satisfaction. People who had dealt with at least one of these three childhood traumas—physical abuse, rape, and serious physical assault as children—were more likely to have marital disruption compared to those who had not experienced a trauma. Each trauma was uniquely related to marital disruption when controlling for others. Compared to those who had not suffered any trauma, men and women who had been raped or molested as a child had lower marital satisfaction. Rape and molestation also had their own significant effects associated with marital satisfaction when controlling for other factors. All significant traumatic events in the study were violent acts that directly harmed another person.

**Conclusion**

Literature on CSA sometimes is confusing and difficult to interpret because of the many findings that are mixed or contradictory. Research does show a link between CSA and a multitude of intrapersonal and interpersonal outcomes, but CSA research is often riddled with research issues including small sample sizes, measurement issues, use of clinical samples with no control groups, and absence of controls. The literature illustrates the need to consider how gender differences and other negative childhood experiences might play a role in different results as well. Work that includes other childhood experiences tends to show a disappearance or at least a diminishment of the effects of CSA on later outcomes. However, those studies that do show a continued relationship were likely to be using relationship outcomes, had larger sample sizes (1000 people or more), used community or general population samples, and had control groups.
This paper will be focusing on relationship outcomes, will use a diverse sample with several thousand participants, and include both people who have been sexually abused and those that have not. By using similar research techniques as those studies who successfully found remaining effects I believe I will find a weak, but continual association between CSA and the relationship interactions.

Some theories suggest that a reason why the link between CSA and relationship quality is weak is because the impact of CSA is more easily seen through indirect effects than direct ones (Browne & Finkelhor, 1986; Holman, 2001; Polusny & Follette, 1995). CSA works through other factors that then affect relationship satisfaction. Mediation and moderation is a newer area of work in CSA that can clarify the mechanisms through which relationships unfold. In the next chapter we will turn to one theory called Holman’s model of martial quality which focuses on the importance of mediators. Attachment theory will then be discussed as a potential mediator option.
CHAPTER 3

Theory

Holman’s Model of Premarital Factors for Relationship Quality

Holman’s model of marital quality is an explanatory theory that seeks to link family of origin factors (which can include CSA) with relationship quality and is a great organizing principle for this study. Holman’s (2001) model was built with decades of family research and theorizing on premarital factors that affect marital quality in mind. There are four main premarital factors that predict marital quality: family-of-origin factors, adult individual characteristics, dyadic couple processes, and the social context. Family-of-origin factors encompass family background and childhood experiences. Childhood sexual abuse and other negative childhood experience can also be included in this conceptualization. Adult individual characteristics, which are the way that a person perceives themselves, include personality features, values, beliefs, and attitudes related to relationships (Cate & Lloyd, 1992; J. H. Larson & Holman, 1994). Anderson (1993) suggested one way to look at personality traits was to think of them as relationship schemas. Attachment style can be interpreted as one type of relationship schema. Dyadic or interactional couple processes emphasize the couples’ interactions with each other, particularly communication (Holman, 2001). Lastly, it is important to recognize the way that society or our social context can affect marital quality. Social context can be conceptualized through social connections that individuals and dyads have, but
also as demographic factors that serve as proxies for larger cultural beliefs within a society. Holman (2001) gave the example of gender and race “as sociocultural designations that have meaning given them within a cultural setting, rather than having an innate meaning simply by virtue of race or sex” (18).

According to Holman’s model all of these factors work in conjunction with each other and have both direct and indirect effects on marital quality and each other. These factors create a meditational pathway where each prior factor affects the next. Family-of-origin factors affect individual characteristics which affect dyadic processes which ultimately influence marital quality. All of these factors can have both direct and indirect effects on marital quality. Based on the principles of Holman’s model, it is an excellent organizing tool for looking at the effects of CSA and other negative childhood experiences on relationship quality and is particularly useful for this study for several reasons. First, it suggests using a multi-path meditational model as a way to explain how family-of-origin factors affect romantic processes and quality. Second, the theory’s proposition that family of origin factors will have no or negligible direct effect on relationship processes and quality mirrors the evidence found in CSA literature of the effects of CSA on relationship quality when controlling for negative childhood experiences. Lastly, although work on Holman’s model focuses on the meditational effects, the inclusion of social context implies the plausibility of moderation effects of larger societal beliefs or demographic factors.
Attachment Theory

Formation of Attachment Theory

Attachment theory is a theoretical perspective used to study close relationships. Both John Bowlby and Mary Ainsworth are best known for their key contributions to the theory. While Bowlby (1969, 1982) first formulated some of the major ideas that form the foundation of attachment theory, Ainsworth expanded these ideas and produced empirical evidence in support of the theory (Bretherton, 1991). According to Bowlby (1969, 1982), based on survival instinct all individuals will form a biologically based bond of attachment to someone who can serve as a caregiver and protector. Most often this individual is the mother. Bowlby spent many years studying the mother-infant bond. He thought that like other animals humans have bonding behaviors and that “separations from the mother are disastrous developmentally because they thwart an instinctual need (Karen, 1994). Bowlby said that proximity to the mother (or caregiver) was important for survival and that children had an instinctual repertoire of relationship seeking actions like clinging, sucking, babbling, smiling, etc. to achieve closeness (Karen, 1994).

Children need a secure base from which they are able to explore (Bretherton, 1991). Based on experiences with a caregiver, children internalize these interactions and create a working model of relationships. As an infant, attachment is connected to a specific caregiver, but as a child develops, the experiences they have create these models of how to interact within relationships. According to Alexander (1992), “the development of this internal working model is so relationship-bound that the child internalizes both sides of the experienced attachment relationship and learns caregiving while receiving care” (186). Interactions with caregivers teaches them not only about the role of the other person, but also about themselves.
Mary Ainsworth expanded Bowlby’s theories into practical application. Based on her work in Uganda and Baltimore on mother-child interaction, Ainsworth created the Strange Situation experiment (Karen, 1994). This experiment showed the effects of attachment on behavior, particularly under different levels of stress, by separating and reunifying children with their mothers. Ainsworth thought that taking the child out of a familiar environment and putting them in a strange, unfamiliar one could show a clearer explanation of the secure base. In the Strange Situation Experiment, mother and child were brought into the lab and put in a room. A series of events then occur. A stranger enters the room and talks with the parent; the parent then leaves the child alone with the stranger. The parent then comes back and comforts the child while the stranger leaves. Then the parent leaves the child completely alone. Next the stranger enters the room and tries to interact with child. Lastly, the parent re-enters the room and while the mother interacts with the child, the stranger leaves. In observing these interactions, the researchers examine four categories of behavior. First, they look at the child’s level of anxiety related the caregiver leaving. They also are attuned to the child’s willingness to explore the environment. With the inclusion of a stranger in the procedure, they are observing the child’s response to a stranger. Lastly, how a child reacts when the caregiver returns is recorded (Ainsworth & Bell, 1970). The Strange Situation supported Ainsworth’s idea that proximity to a mother was not just about physical closeness, but manifested itself in a child’s expectations of availability and responsiveness from the mother (Cassidy, 2008).

This experiment demonstrated three distinct attachment styles based on the child’s behavior when the mother returned. The majority of children fall into a secure attachment style. A securely attached child will use his primary caregiver, which is generally the mother, as a secure base from which to explore, believes that the mother will meet his needs and be there in
times of distress. A secure child is easily soothed by the mother upon return. Children classified as insecure resistant (also known as anxious or ambivalent) find it hard to explore the environment because they do not want to leave the primary caregiver, but they do not necessarily see them as a source of security. The children tend to be clingy and dependent on the mother, but at the same time rejecting of interaction. When distressed they are hard to soothe and rebuff mother-child interactions. Lastly, insecure avoidant children do not see their primary caregiver as a source of security at all. They are generally very independent, show no signs of distress when the mother leaves during the experiment, and does not seek comfort when she returns (Byng-Hall, 1995).

Ainsworth noted that attachment style is determined from the primary caregiver’s interactions with the child. A child develops the responses he or she has based on previous experiences with that person, which is usually the mother. Secure children have a mother that is aware and responsive to the child. Children who are categorized as insecure resistant tend to have inconsistent care. Sometimes a mother is very responsive and sensitive, but at other times the child’s needs are ignored. For insecure avoidant children, the mother is actually unresponsive to the child’s needs and a child learns not to depend on her (Byng-Hall, 1995).

An additional attachment pattern was added later by Main and Solomon (1986) known as a disorganized attachment style. This insecure attachment style is characterized by an absence of any clear strategy in the Strange Situation Paradigm. Children with a disorganized attachment will appear confused and fearful when the caregiver returns. They may display behaviors like freezing for a time, displays of apprehension like hair pulling or dazed expressions, or misdirected behavior like proximity seeking to a stranger. It is suggested that for these children a
parent is often the source of stress and fear as well as the only potential source of security and safety (Van Ijzendoorn, Schuengel, & Bakermans-Kraneburg, 1999). Like the other attachment style, caregiver interactions are the source of attachment. Disorganized attachment is likely to develop in a child who has an abusive parent or a parent who has suffered loss or been involved in traumatic experiences (Van Ijzendoorn, 1995)

**Extensions of Attachment Theory**

**Multiple Caregivers**

Both Bowlby and Ainsworth focused their research on the interactions between mother and child, but they also recognized that other family members or extra-familial individuals could be caregivers that affect attachment as well. Children could and often do have multiple attachment figures at once (Bowlby, 1969, 1982; Grossman & Grosman, 1991). Although there are multiple attachment figures, they are not all treated the same or are interchangeable. Bowlby (1969, 1982) suggested that an “attachment hierarchy” occurs and children tend to choose a primary attachment figure. Often the mother-child bond is the first attachment bond to occur because she is the primary caregiver. Mothers then become the primary attachment figure and a child prefers her when in distress. Although as a child each attachment bond is specific to a caregiver, if there is one predominate caregiver that relationship can influence and shape the attachment relationships with other caregivers like fathers, grandparents, siblings, and other relatives (Cassidy, 2008). Interestingly, if a mother and a father share caregiving responsibilities and there is not an initial predominate caregiver then few differences between the mother-child and father-child attachment relationships emerge (P. W. Howes & Spieker, 2008; Parke & Asher, 1983).
When young, most attachments occur within the family and this is why attachment theory generally focuses on the family. More individuals, though, have been using other non-familial caregivers like day care providers to care for their children. Research suggests that children are able to form attachment relationships with non-familial care providers that may be similar to infant-mother attachment (P. W. Howes & Spieker, 2008). Other non-familial caregivers like foster or adoptive parents can also develop attachment relationships. Children adopted within the first year of life have very little problems attaching to the adoptive parent as primary caregiver (Dontas, Maratos, Fafoutis, & Karangelis, 1985; Marcovitch, et al., 1997; Singer, Brodzinsky, Ramsay, Steir, & Waters, 1985). Children who have had difficult relationships previously appear to have a different repertoire of attachment behaviors, but are still able to form attachments to both familial and non-familial caregivers (Dozier & Rutter, 2008).

As children grow older their access to other individuals outside of the family increases even more and so does the likelihood of them forming attachment or attachment-like relationships with those individuals. Children develop close, helpful relationships with other people like teachers, coaches, family friends, activity leaders, etc. Howes (1999) suggested three characteristics that identify attachment or attachment-like bonds outside family attachment. Like with parent attachment, these people would provide emotional and physical care, emotional investment in the child, and a steady presence in the child’s life. Research shows several of these extra-familial relationships including teachers, day care providers, and psychotherapists to have similar quality relationships to the parent attachment figure (Kennedy & Kenneday, 2004). As youth move into adolescence and adulthood, peers and romantic partners act as attachment figures as well (Allen, 2008).
Other Negative Experiences

Research has found that beyond specific caregiving interactions, negative family environment factors can affect a child’s attachment style (Sameroff & Chandler, 1975; E. Waters, Kondo-Ikemura, K., & Richters, 1991; Everett Waters, Weinfeld, & Hamilton, 2000). Waters et al. (2000) said there were a couple of common ways that family environment can change a child’s attachment. First, a negative family environment can affect the caretaking ability of the caregiver which affects a child’s representation of support and responsiveness. Another way is through changing a child’s expectation of the caretaker’s responsiveness and availability. These changes in expectations can occur with or without any caregiving failures, but either way, changes of expectations can change representations of important caregiving interactions. Several negative family experiences and stressors have been shown to effect children’s attachment including loss of family, family injury or illness, disengaged families, marital discord, mental illness, and financial issues (Bowlby, 1980; Cummings & Davies, 1996; Davies, Cummings, & Winter, 2004; B. C. Feeney & Monin, 2008; Mickelson, Kessler, & Shaver, 1997; Everett Waters, Merrick, Treboux, Crowell, & Albersheim, 2000; Weinfeld, Sroufe, & Byron, 2000).

Attachment Continuity and Stability

Throughout the life span attachment plays an important role for relationships and many researchers wonder how continuous and stable an attachment style is for an individual. Researchers suggest that attachment style is relatively stable, but also dynamic (Bolen, 2002; Sroufe & Fleeson, 1986). Attachment style is more likely to change during childhood or adolescence than it is in adulthood because of the physical and emotional development that occurs during those times (Kerns, 2008). Research on the continuity of attachment style from
early childhood to middle childhood is mixed. The thought is that if the quality of caregiving remains constant than it is expected that there be at least moderate continuity over time (Kerns, 2008; Thompson, 2008; Weinfield, Sroufe, & Carlson, 2008). Some studies found that attachment in infancy or early childhood predicted middle childhood attachment; others found no association to exist (Aviezer, Resnick, Sagi, & Gini, 2002; Bohlin, Hagekull, & Rydell, 2000; Fury, Carlson, & Sroufe, 1997; Grossman, et al., 2002; Madigan, Ladd, & Goldberg, 2003). Studies that focused on test-retest of stability in attachment style had more consistent results of modest to high stability within the middle childhood years (Ammaniti, van Ijzendoorn, Speranza, & Tambelli, 2000; Granot & Mayseless, 2001; Kerns & Richardson, 2005; Target, Fonagy, & Shmueli-Goetz, 2003).

Like in middle childhood, there are only modest findings of continuity of attachment style, but stronger results for stability reports during adolescence. According to Allen (2008), “by adolescence, a milestone is reached: The attachment system can be assessed in terms of a single overarching attachment organization that has developed, displays stability, and predicts future behavior and functioning both within and beyond the family” (420). By adolescence the internal working models have formed into broader generalizations of attachment and roles in relationships.

Bowlby (Bowlby, 1980) argued that as we age there is a decreased chance of change in attachment style, but we are products of both our current and past environments; therefore change in working models can happen with significant changes in relationships or environments. While this is true, there are several reasons why change in attachment is unlikely to occur unless really traumatic experiences are involved. First, people put themselves in environments that fit
the beliefs they already have about themselves and others. Second, working models may be self-
perpetuating. If an individual thinks another person is untrustworthy or uncaring then they will
react to that perception probably negatively and create a cycle of negative interactions
reinforcing previous beliefs (Bowlby, 1980). Third, Fraley and Shaver (2000) suggest that
attachment style is generally “highly resistant to change because they [people] are more likely to
assimilate new relational information, even at the cost of distorting it, than accommodate to
information that is at odds with existing expectations” (136).

**Adult Attachment**

According to Bowlby (1979), attachment representations are important not only in
childhood, but throughout a person’s whole life cycle. As a child ages and develops cognitive
skills, the multiple experiences with specific attachment figures generalize into a broader
understanding of relationships that are used in adolescence and adulthood. Although work on
attachment began with a focus on the bond between child and caregiver, researchers later argued
that the function of attachment bonds for children could also apply to adult committed romantic
relationships. Romantic relationships are attachment relationships for adulthood. Hazan and
Shaver (1987), two of the first researchers to focus on romantic relationships and attachment,
suggested that romantic relationships share similar features as the child-caregiver relationship.
Like with an attachment figure in youth, individuals seek security, closeness, responsiveness, and
availability in a romantic partner. Whether an adult is secure or insecure in his/her adult
relationship partially depends on experiences with his or her primary caregivers as a child. Adult
attachment styles are working models of relationships built from attachment histories or
experiences that occurred throughout infancy and childhood. These experiences are generalized
into a greater understanding of how others and the self interact in relationships (Cassidy, 2008).
Since a romantic relationship can be understood as another form of an attachment relationship like the child-caregiver relationship is, early researchers used Ainsworth’s categorizations of attachment style to create adult attachment patterns. Adults who have secure attachment are confident in their relationships. They trust their partners and feel that their partner will be there for them. They are also open to depending on others and having others depend on them. Anxious-ambivalent adults have trouble getting their attachment needs met. Anxious-ambivalent attachment is characterized by a desire for intimacy coupled with a fear of being rejected (Shaver & Hazan, 1993). These individuals are clingy and dependent. They want to be close to their significant other, but are afraid that the partner does not reciprocate the feelings. Lastly, people with an avoidant attachment style are very uncomfortable with intimacy and dependence on others. They try not to depend on others and instead are overly self-sufficient. They will often maintain distance and appear not to want close relationships because they have been taught through experience not to trust others to be there (J. A. Feeney, 2008).

While work on romantic attachment continues to use Hazan and Shaver’s original three category measure, other models have developed based on Bowlby’s statement that attachment styles represent models of self and others within a relationship. According to Bartholomew (1990) these two components can be positive or negative. The self is seen as either worthy of love and affection or not worth and others are viewed as reliable and caring or rejecting and unavailable. Attachment styles are a reflection of opinions about self and others and based on these dichotomous options four styles emerge. When individuals have a positive view of themselves and a positive view of others they are securely attached. Those who have a negative view of themselves, but a positive view of others are known as preoccupied. They have similar characteristics to the anxious ambivalent category from Hazan and Shaver. People who have a
positive view of themselves as worthy but a negative view of others are known as dismissing-avoidant. These individual believe in themselves and their achievements but at the expense of intimacy with others. Lastly, individuals that have a negative view of their own worth and a negative view of others are known as fearful-avoidant. These people desire intimacy, but do not trust others so they avoid relationships in order to avoid rejection (J. A. Feeney, 2008). Both the three category and four category models have empirical support and research shows a connection between the two (Brennan, Shaver, & Tobey, 1991). Both models are currently used in research.

**Attachment Style and Future Relationships**

Attachment styles created in childhood will affect all kinds of subsequent relationships, particularly future intimate relationships since these are generally the second most important attachment relationship in a person’s life (Bretherton & Munholland, 1999; Crowell, Fraley, & Shaver, 1999; Sroufe, Egeland, Carlson, & Collins, 2005). Research on dating relationships that use attachment theory have consistently found that a person’s attachment style affects romantic relationships with others. Those who have insecure attachment behave differently than those who are secure. People who have secure attachment are more likely to have positive relationships and higher satisfaction and more intimacy. They are also more likely to use conflict strategies that focus on both partners (J. A. Feeney, 2008; Mikulincer & Shaver, 2007).

In insecurely attached people will have less intimacy, more conflict, less satisfaction, poor communication, cannot be as supportive as securely attached individuals, and have a higher likelihood of domestic violence and sexual victimization in adulthood (Alexander, 1992, 1993; Butzer & Campbell, 2008; J. Davila, B.R. Karney, & T.N. Bradbury, 1999; Dutton, Saunders, Starzomski, & Bartholomew, 1994; J. A. Feeney, 2008; J. A. Feeney, Noller, & Callahan, 1994;
Kobak & Hazan, 1991; Mikulincer & Shaver, 2007). People who are avoidant will be less committed, less satisfied, and less intimate in relationships, while ambivalent attachment is linked to more preoccupation and higher levels of passion, but lower levels of satisfaction (N.L. Collins & Read, 1990; J. A. Feeney & Noller, 1990, 1992; Hendrick & Hendrick, 1989; Levy & Davis, 1988). In Feeney’s (1994) study, a woman’s anxiety was related to both her own and her husband’s satisfaction, but this relationship was mediated by using constructive forms of communication. People who are insecurely attached also perceive their significant other as less sensitive and trustworthy, domineering, and as having hurtful intentions toward them (N. Collins, L. , Ford, Guichard, & Allard, 2006; Nancy L. Collins, 1996; J. A. Feeney, et al., 1994; Gallo & Smith, 2001; Pearce & Halford, 2008; Leslie Gordon Simons, Burt, & Simons, 2008).

Intimacy and open communication are particularly influenced by attachment style. Generally, people with insecure attachment have impaired communication and problem solving skills (Creasey, 2002; Creasey & Hesson-McInnis, 2001; D. Davis & Follette, 2000; J. A. Feeney, 2008; Pistole & Arricale, 2003; Roberts & Noller, 1998; Shi, 2003; Simpson, Rholes, & Phillips, 1996). Anxiously attached people have higher levels of relationship conflict, emotional flooding during conflict, volatile styles of conflict management, and a likelihood of using coercion (Creasey, 2002; D. Davis, 2006; D. Davis & Follette, 2000; J. A. Feeney, et al., 1994; Mikulincer & Nachshon, 1991; Pistole, 1989). In Simpson, Rholes, and Phillips (1996) ambivalent individuals showed greater anxiety and more hostility during discussion of major problems and had a more negative view of their partners and the quality of their relationship after the discussion. In terms of strategies used to deal with conflict, Pistole (1989) concluded that people with avoidant and anxious-ambivalent attachments tended to utilize integrating strategies
less than securely attached people. Individuals who were anxious-ambivalent in attachment style also used compromising strategies less than securely attached people.

Avoidantly attached individuals have extreme difficulty with intimate self-disclosure and resist communicating with partners. When problems arise in a relationship avoidant individuals evade the problem and let it persist instead of addressing it (K. A. Black, Jaeger, McCartney, & Crittenden, 2000; Creasey, 2002; Creasey & Hesson-McInnis, 2001; D. Davis & Follette, 2000; J. A. Feeney, et al., 1994). Guerrero (1996) found that fearful avoidants and dismissive avoidants, both of which can be placed in the general avoidant category, were less interested in talking with their partner, less trustful and receptive, showed less facial and vocal pleasantry when talking, and were less attentive than the other attachment categories. In discussion of problems, avoidant men acted less warmly and were less supportive of their partners (Simpson, et al., 1996).

Beyond just conflict issues, insecure attachment has been connected to partner aggression and violence (Allison, Bartholomew, Mayseless, & Dutton, 2008; Doumas, Pearson, Elgin, & McKinley, 2008; Dutton, 1999; Fonagy, 1999; Roberts & Noller, 1998). Bowlby (1984) has proposed that abuse acts as an attempt to maintain proximity to an attachment figure. Research confirms that both types of insecure attachment, anxious and avoidant, are associated with the perpetration and victimization of interpersonal violence. Henderson, Bartholomew, Trinke, and Kwong (2005) found preoccupied attachment was related to both perpetration and victimization of aggression in a relationship for both men and women. Several other studies found a similar link between high levels of preoccupied attachment and relationship violence (Babcock, Jacobson, Gottman, & Yerinton, 2000; Bookwala & Zdaniuk, 1998; Doumas, et al., 2008;
Dutton, et al., 1994; Holtzworth-Munroe, Smutzler, & Stuart, 1998). In terms of avoidant attachment, two studies connected fearful avoidant attachment to perpetration of violence (Bookwala & Zdaniuk, 1998; Dutton, et al., 1994), but a different study found the dismissing avoidant attachment to be linked to violent males (Babcock, et al., 2000).

Limited research has focused on how differences in attachment styles of partners leads to violence, but attachment theory would suggest that violence might be used as a strategy when needs for closeness or distance differ in a relationship (Doumas, et al., 2008; Pistole, 1994). Roberts and Noller (1998) found anxious attachment was related to perpetration of violence for both male and female partners and that attachment anxiety also associated with male victimization by the female partner. In addition, chances of violence increased when one partner had an anxious attachment and the other an avoidant one. Both Bond and Bond (2004) and Doumas et al. (2008) had results that support Roberts and Noller’s (1998) assertion that mismatched pairs increases likelihood of violence.

Insecure attachment style has also been linked to the perpetration of sexual coercion and sexual revictimization (Burk & Burkhart, 2003; D. Davis, 2004, 2006; D. Davis, Follette, & Vernon, 2001; C. Feiring, Deblinger, Hoch-Espada, & Haworth, 2002; Tracy, Shaver, Albino, & Cooper, 2003). Davis (2006) suggested that both avoidant and anxious attachment are related to sexual coercion, but proneness to sexual coercion in romantic relationships is more likely to occur with anxious people. This is due to the fact that anxiously attached people are more likely to view sex as a way to achieve relationship closeness and will use coercion particularly when relationship issues like jealousy or the possibility of the relationship ending to relieve insecurity (D. Davis, 2006). In two different studies Smallbone and Dadds (1998, 2001) found avoidant
attachment associated with sexual coercion in both, but anxious attachment correlated with sexual coercion only in the second one. Davis (2004) identified a link between both types of attachment (anxious and avoidant) and sexual coercion.

**CSA, Attachment, and Mediation**

Although attachment theory was commonly used as an explanation for physical abuse, it was not until Pamela Alexander’s (1992) seminal work on the application of attachment theory to sexual abuse that the theory became an acceptable tool for understanding sexual abuse. Alexander (1992) suggested that the contextual nature of the theory and the influence of family dynamics were important contributions to understanding both the antecedents and long-term consequences of sexual abuse. Through her work, Alexander (1992) demonstrated how family environment enabled an insecure attachment that could precede sexual abuse and also how attachment could serve as a mediator between sexual abuse and long-term effects of the abuse.

Both the family context and a parent’s attachment style can manifest into insecure attachment of children. Issues with attachment in family members who take care of children may lead to an inability to meet the needs of children, reduced monitoring of children, and failure to acknowledge or end abuse. This leads to increased vulnerability of children to both intra-familial and extra-familial sexual abuse (Alexander, 1992).

While Alexander (1992) suggested insecure attachment to be an antecedent of abuse, she also argued it could be a result of sexual abuse and that individuals who show signs of long-term consequences have insecure adult attachment. Work on the link between CSA and attachment style has consistently agreed with Alexander found that survivors of CSA have very insecure attachment in their adult relationships (Alexander, 1993; Alexander, et al., 1998; Styron &
Janoff-Bulman, 1997). Research on the specific type of insecure attachment, though, is mixed. Egeland and Sroufe (1981) found a link between child abuse and avoidant attachment behavior in their disadvantaged inner city sample. Whiffen, Judd, and Aube (1999) found anxious attachment style to be most common among CSA survivors. Crittenden (1988) found that of those in her study who were maltreated, most could be classified as having an avoidant-ambivalent attachment style. Still another study found that abused youth had disorganized attachment (Carlson, Cicchetti, Barnett, & Braunwald, 1989). One of the reasons these differences may occur is the type of sexual abuse observed.

A more recent paper on the effects of sexual abuse on attachment style distinguished between intra-familial sexual abuse and extra-familial sexual abuse. In Roche et al.’s (1999) research several differences occurred in relation to attachment style and later adjustment of survivors. First, intra-familial sexual abuse was significantly more detrimental for adult attachment style and later adjustment. Based on their findings, the researchers suggest that being sexually abused by a family member negatively impacts both the individual’s model of self and model of other and creates insecure attachment. Those who were abused outside of the family may have been spared some damage to their model of self compared to intra-familial sexual abuse, but their view of others has been detrimentally changed. According to Roche (1999), “the tendency to be dismissing in attachment relationships indicates that although women abused outside the family experience difficulty in trusting others and tend to avoid intimacy in relationships, they do not experience the additional feelings of dependence in relationships that are characteristic of intrafamiliarily abused women” (200).
**Importance of Attachment style as a mediator**

Alexander’s (1992) thesis that attachment style acts as a mediator between sexual abuse and long-term consequences has received greater attention in the literature. Several studies used the underlying concepts of attachment theory mediation to inform their work. Liem and Boudewyn (1999) reported that CSA and other childhood maltreatments increased the chances of sexual, physical, and emotional abuse in adulthood. Self-blame in response to maltreatment connected CSA to poor adult functioning and revictimization. Liem and Boudewyn (1999) said that their study “provide[s] preliminary support for the notion that experience of frequent interpersonal stressors in early childhood shapes the development of internal working models of self-in-relationship that are manifested in adult self- and social functioning.” (p.1155).

Walker, Holman, and Busby (2009) utilized path model analyses to try to understand how child sexual abuse and other negative experiences in childhood affected later relationship quality. They chose three mediating variables—adult depression, perception of the current impact of negative childhood experiences, and emotional flooding during conflict, and tested how they directly and indirectly related to relationship quality while controlling for other family of origin variables. The perception of negative childhood experiences and emotional flooding represented aspects of organizing views of self and others. All of their mediating variables had either a direct or indirect effect suggesting that considering the role of mediators is important in work on CSA and interpersonal relationships. In terms of what affected relationship quality they found that depression, perceptions of a negative impact of childhood experiences, and flooding of emotions during conflict all directly influenced relationship quality while all three of the childhood experiences indirectly affected relationship quality. For example, childhood experiences worked
through adult perceptions and feelings to affect relationship outcomes. Since adult perceptions and emotions represented attachment style, it is implied that CSA affects attachment when then affects relationship outcomes.

Direct testing of the attachment as a mediator is also popular, particularly related to psychological adjustment. Alexander’s (1992) paper presented several meditational hypotheses related to psychological adjustment. Lemieux (1997) tested which adult attachment style mediated the relationship between CSA and depression, anxiety, and sexual revictimization. Alexander thought that the preoccupied attachment would be most likely to act as a mediator for all of these outcomes, but Lemieux found the fearful attachment style to mediate not the preoccupied one. From this she theorized that the combination of negative model of self and negative model of others was the most damaging for the long-term. In her assessment of adult attachment as a mediator between CSA and psychological adjustment, Roche et al. (1999) also found fearful attachment style to be the most likely attachment style to work as the mechanism through which CSA affects adjustment.

Other studies have expanded outcomes beyond just psychological adjustment and includes both psychological and relationship consequences. Using a college sample, Styron and Janoff-Bulman (1997) tested whether it was an abuse history or the childhood attachment to parents that was a stronger predictor of three factors: adult attachment, depression, and conflict resolution. Their research suggested that the link between child abuse and both adult attachment and depression were mediated by childhood attachment to parents because it was the stronger predictor. The link between child abuse and conflict resolution seems to be more direct because childhood attachment did not create additional significant variation in the relationship.
Shapiro and Levendosky (1999) used an adolescent sample to assess how attachment style and coping strategies affected the link between CSA and psychological functioning as well as interpersonal functioning with peers. Having an avoidant coping strategy mediated the link between CSA and interpersonal functioning. Attachment was a strong mediator of the link between both CSA and other forms of child abuse and neglect and psychological functioning. It also accounted for indirect effects of CSA on coping.

Lastly, using a women-only sample, McCarthy and Taylor (1999) looked at the effects of a general child abuse variable (which included sex abuse in it) on relationship functioning and the mediating roles of attachment style, relationship attributions, and self-esteem. Self-esteem and relationship attributions were not significant mediators, but attachment style mediated the effects of abuse on relationship difficulties. Childhood abuse increases the chances of forming an ambivalent or avoidant attachment style which then affects future relationships. It did not completely mediate it though, which suggests other factors still matter. All of these studies show that using attachment style as a mediator has great potential for explaining the mechanisms that link abuse and future adult outcomes.

**Conclusion**

This chapter focused on two theoretical models that can help us to understand the relationship between CSA and relationship outcomes. Holman’s model (2001) suggests that CSA is just one of many childhood experiences that could be associated with relationship quality and that mediation is a viable explanation for the link between CSA and relationship quality. The fact that Holman’s model (2001) dictates using multiple family background indicators addresses the
concerns of researchers of CSA who believe it necessary to include other childhood experiences. All of this leads to Holman’s model acting as an excellent organizer of the links between CSA, attachment style, and relationship interactions.

Attachment theory is known as a theory of relatedness. The ability of Attachment theory to connect childhood experiences with adult experiences through our understanding of relationships means it has great potential for understanding the dynamics between childhood sexual abuse and adult romantic interactions. Attachment styles have been connected to both CSA and relationship outcomes in research literature, and therefore, it makes sense that it could be a link between the two. Attachment serving as a mediator has some support in the literature and promises to be an influential mediator for many different outcomes. Based on both the theoretical contributions of this chapter and previous literature addressed in Chapter 2, the next chapter will offer a hypothesized model of interactions.
CHAPTER 4

Hypothesized Model

Research highlighted in the previous chapters shows the diversity of evidence for the effects of CSA on both attachment style and adult relationships. Inconsistencies in results stem from the complexity of abuse and a range of characteristics of abuse that influence long-term consequences. In order to learn how to prevent sexual abuse from harming future relationships, there needs to be a focus on mechanisms that effect the way sexual abuse become representations of relations and the way future relationships are then affected by those representations. The purpose of the present study is to assess the association between CSA and romantic interactions including affection, communication during conflict, adult physical abuse, and sexual coercion, while controlling for other negative childhood experiences and also see how attachment style mediates the relationship. In addition, how other childhood experiences interact with the childhood sexual abuse to affect attachment style will be assessed. Holman’s model and Attachment Theory are the theoretical underpinnings for a model that looks at both direct and indirect links between CSA and the six romantic interactions. Holman’s model is an excellent organizing tool for justifying a meditational approach while according to Bolen (2002), “The relational context of attachment makes it ideal for understanding the influence of familial and nonfamilial significant other’s in the victim’s life, thus allowing it to be applied to both intrafamilial and extrafamilial sexual abuse” (104). Below is a brief description of how previously discussed research informs the creation of hypotheses.
Research on the effects of sexual abuse on future psychological and social adjustment is mixed (J. L. Davis, et al., 2001; Rumstein-McKean & Hunsley, 2001). Some studies find that even when controlling for other environmental factors a connection between CSA and adjustment remains while others find the association to disappear. It seems that research using social adjustment is more likely to have a continued link than psychological adjustment. The majority of this research uses a generic sexual abuse variable that does not split by characteristics of abuse because sample sizes are too small. Because literature does not contain empirical evidence of differences for the way intra-familial and extra-familial abuse affect future romantic outcomes this study will simply hypothesize that both types of sexual abuse associate with romantic outcomes.

**Hypothesis 1**: Both types of sexual abuse will negatively affect the future romantic outcomes of intimacy, communication during conflict, sexual coercion, and adult abuse even when controlling for other childhood environmental factors. Having higher frequencies of abuse will reduce intimacy, increase communication issues during conflict, increase likelihood of perpetration and victimization of sexual coercion, and increase chances of both perpetration and victimization of adult abuse. It is expected that any effects will be small and weak.
While there is little evidence to differentiate the effects of intra-familial versus extra-familial abuse on romantic interactions, many researchers theorize that betrayal by a family member who is supposed to love and support you can lead to more detrimental consequences from intra-familial sexual abuse (Cassidy, 2008; Lemieux, 1997; Roche, et al., 1999). If this is true than I would expect:

**Hypothesis 2**: Intra-familial sexual abuse will have a stronger impact on each of the romantic outcomes than extra-familial sexual abuse.

In addition to affecting adult adjustment, research clearly states that CSA leads to insecure attachment. Research on which specific type of attachment is related to CSA is mixed though. This could be because type of sexual abuse might matter. Roche et al. (1999) split sexual abuse into intra-familial and extra-familial and found that women abused by family suffered considerable damage to their model of self and some to their model of others. Abuse outside of the home was more likely to impair a woman’s model of others and somewhat spare her view of herself. Therefore, women abused outside of the family were more likely to be dismissive avoidant. Women who dealt with ICSA would be either preoccupied or fearful avoidant depending on how badly their model of others was affected. Testing Roche et al.’s (1999) findings then, hypotheses would be:

**Hypothesis 3**: ICSA will lead to both anxious attachment and avoidant attachment.

**Hypothesis 4**: ECSA will lead to avoidant attachment.
Research shows though that CSA is highly interconnected with other childhood experiences and these other experiences also affect attachment style (J. L. Davis, et al., 2001; Rumstein-McKean & Hunsley, 2001; Sameroff & Chandler, 1975; E. Waters, et al., 1991; Everett Waters, Weinfield, et al., 2000). It is possible that these other experiences could interact with the different types of CSA to better predict which type of insecure attachment occurs.

Attachment theory focuses on parental caregiving and warmth as a major antecedent of attachment style. Higher levels of parental warmth and nurturance should lead to more secure attachment (Bretherton, 1991; Cassidy, 2008). But it is possible that when there is a high level of parental warmth and high frequency of abuse leads to confusion about who is a secure base and who to trust. Individuals experiencing parental warmth but also a high frequency of abuse may have a high desire to be close to someone like they were with their parents, but because of the betrayal of sexual abuse be afraid to trust another person and feel secure with them. ICSA abuse victims may feel that even though their parents love them there is no protection. Expectations created based on previous protection are not being met and this other family member who is abusing them also does not conform to previous expectations of relationships. Having a desire to be loved, but also this inconsistent pattern of how others might react when this dependency is shown could lead to a more anxious attachment style. This becomes confusing and therefore:

**Hypothesis 5:** An interaction between high levels of parental warmth and high levels of intra-familial sexual abuse leads to a higher likelihood of an anxious attachment style.
If the parental figure is uncaring and not nurturing and ICSA occurs it could lead to feeling rejected, unloved, and unworthy. This would lead to an avoidant attachment style.

**Hypothesis 6:** An interaction between low levels of parental warmth and high levels of intra-familial sexual abuse will lead to an increase in avoidant attachment style levels.

Although Attachment Theory often focuses on events occurring within the home, researchers have recognized its’ potential to explain the effects of interactions outside the home on attachment representations (Alexander, 1992; Bolen, 2002). As a child gets older, especially into early childhood, middle childhood and adolescence, other individuals outside of the family may become important attachment figures in a child’s life (Kerns, 2008). With people outside of the home acting like attachment figures it is possible that the same principles that apply with intra-familial abuse and parental warmth apply to extra-familial abuse and parental warmth. Therefore:

**Hypothesis 7:** An interaction between high levels of parental warmth and high levels of extra-familial sexual abuse leads to a higher likelihood of an anxious attachment style.

An interaction between an unresponsive and not nurturing parent and ECSA could lead to similar issues as ICSA as well and an increase in the likelihood of an avoidant attachment style.

**Hypothesis 8:** An interaction between low levels of parental warmth and high levels of extra-familial sexual abuse leads to high levels of avoidant attachment.

Bowlby (Bowlby, 1969, 1982) does suggest that an attachment hierarchy exists where we prioritize attachment figures. Family, specifically parents, has the most influence on attachment
style because they tend to be the primary attachment figures. Utilizing Bowlby’s principle of attachment hierarchy, if the relationship with the primary attachment figure, usually a parent, is warm and secure it might be able to have a protective effect against negative attachments that may occur with someone outside of the family.

**Hypothesis 9:** An interaction between parental warmth and extra-familial sexual abuse will occur where high levels of parental warmth will mitigate the effects of CSA on both types of attachment.


**Hypothesis 10:** Both types of attachment style will be associated with all 6 different romantic outcomes: intimacy, communication during conflict, perpetration and victimization of sexual coercion, and perpetration and victimization of adult abuse. These insecure attachments will decrease intimacy, increase conflict, increase likelihood of perpetration and victimization of both sexual coercion and adult abuse.
With insecure attachment style as both a product of CSA and an antecedent of adult romantic relationship issues, it stands to hypothesize that these internal working models of relationships serve as a mechanism for connecting CSA and adult interactions. Therefore:

**Hypothesis 11:** Both anxious and avoidant attachment will serve as mediators between both types of CSA and the 6 romantic outcomes.

To address questions in the CSA literature about gender differences, a test of differences will be ran to see how the model differs by gender. Research suggests that CSA tends to have a stronger impact on women than men, especially in terms of intimacy (Colman & Widom, 2004). Therefore, it is hypothesized that

**Hypothesis 12:** Women will have stronger relationships between CSA and the romantic interactions then men.

If gender differences are found, separate models will be created for each sex. Lastly, this data has the ability to address the question in the literature about sample type differences. Literature suggests that the model(s) could be different based on who referred the people to the study. Clinical studies have had different results then studies using community or university samples (Rumstein-McKean & Hunsley, 2001). Once gender differences have been determined for both the direct and indirect effects, another difference test will be done to assess whether the model(s) differ by sample type.
CHAPTER 5

Data and Method

Sample

RELATionship Evaluation (RELATE) is a cross-sectional dataset that evaluates the relationships of dating, engaged, and married individuals. The development of this model is based on over 50 years of research on premarital and marital predictors of relationship quality and stability (Busby, Holman, & Taniguchi, 2001). RELATE has been in use since 1997 but had two predecessors, which assessed similar factors that were known as Marital Inventories and PREParation for Marriage (PREP-M) (RELATEInstitute, 2011). RELATE was created based on the idea that relationships are created and maintained within several different contexts. The most important contexts are individual, cultural, familial, and couple. All questions within the survey delve into one of these contexts. There has been particular attention given to partner characteristics as well as behavioral interactions between partners (Busby, et al., 2001).

Standard guidelines for educational and psychological testing were followed when creating RELATE(Association, 1985). Extensive piloting, testing of reliability and internal consistency, and preliminary factor analyses were done to come up with a questionnaire that included roughly 300 items (see Busby et al. 2001 for more information about the developmental model and validity and reliability of measures).
Participants fill out this questionnaire online, but generally have been directed to it through college family studies or sociology classes, professional therapists or clergy, or through online search engines. This study will use a little over 5000 participants. Participants read and signed an informed consent and participated freely without any compensation.

Measures

**Intra-familial Childhood Sexual Abuse (ICSA).** Respondents were read a statement that defined sexual abuse as fondling, penetration, or other inappropriate sexual activity and were then asked questions about both intra and extra familial sexual abuse. The sexual abuse had to have occurred before a respondent was 18 years old (Cherlin, et al., 2004; Finkelhor, et al., 1990; J. Larson, H. & LaMont, 2005). For intra-familial sex abuse two questions were asked. The first question was, “From the following list of family members, select the person who was most sexually abusive toward you” and then a number of different familial options were given along with the option that no family member had abused them. The second question asked “How often was the person you selected in the previous question sexually abusive toward you?” Responses, which were based on the frequency of the event occurring, were "rarely," "sometimes," "often," "very often," and "does not apply." This study uses the answers to the second question as a measure of intra-familial sex abuse. Answers of "no family member abused them" on the first question though were much higher than answers of "does not apply" on the second question. When the number of people who chose not to answer the second question and those who answered "does not apply" were combined they equaled the number of people who answered ‘no family member abuse’ in previous question. Because of this, in addition to the categories already present (rarely, sometimes, often, and very often) on the second question a "never"
category was created by combining "does not apply" and "missing" categories. Higher scores indicate more frequent sexual abuse.

Extra-familial Childhood Sexual Abuse (ECSA). Participants were also asked about extra-familial sexual abuse. Based on the same definition of sexual abuse, respondents were asked “How often was someone outside your family (not your partner) sexually abusive toward you?” Answers were based on frequency of event occurring and included "rarely," "sometimes," "often," "very often," and "does not apply." Higher scores indicate more frequent sexual abuse.

Family Abuse. A scale was created to address the amount of violence in the home. Questions included “How often was your father violent towards your mother?”; “How often was your mother violent toward your father?”; “How often were you violent in your family?”; and a more general question “Considering all of your experiences while growing up in your family, how would you rate the general level of violence in your home?” These questions were prefaced with a statement that violence meant physical violence like hitting, slapping, kicking, pushing, or hitting with other objects. Higher scores on the scale mean a greater frequency of violence in the home. Cronbach’s alpha is .76. The scale was then standardized.

Parental Warmth. Respondents were asked about both their mother and their father’s parenting skills. They were asked to rate how often each parent showed physical affections, participated in enjoyable activities with the respondent, and about sharing feelings with their parent without feeling embarrassed by the topic. Response options ranged from "never" to "very often." All questions were summed together to create a scale where higher scores will suggest greater parenting skills and warmth. Cronbach’s alpha is .82. The scale was then standardized.
Attachment style. The Adult Attachment Questionnaire is a 17 item measure that was used to address individuals’ attachment style. It asks participants about how they relate to romantic partners in general. The two common subtypes of insecure attachment are anxious attachment and avoidant attachment. Eight questions tapped into avoidant attachment and 9 questions were used to create a scale for anxious attachment. The avoidant scale includes questions like “I find it difficult to completely trust others”; “I find it relatively easy to get close to others”; and I am comfortable having others depend on me”. Some items are reverse coded and higher scores indicate more avoidant attachment. Cronbach’s alpha is .81. The anxious attachment scale asked questions like “I rarely worry about being abandoned by others”; “I often worry that my partner(s) don’t really love me”; and “I often want to merge completely with others, and this desire sometimes scares them away”. Some questions are reverse coded such that higher scores on the scale reflect more anxious attachment. Cronbach’s alpha is .83. Literature on the relationship between CSA and attachment style is diverse; therefore, the two types of attachment were kept as separate constructs so as to see how CSA affects each individually.

Intimacy. This scale was comprised of 12 items that addressed intimacy within a relationship. According to the literature intimacy can involve three main elements, a sense of closeness and interdependence, a degree of self-disclosure, and the experience of affection within the partnership (J. L. Davis & Petretic-Jackson, 2000). Respondents were asked about their ability to express empathy and understanding, affection and love within their relationship, and their ability to send clear messages to their partner. A confirmatory factor analysis showed that combining these items created an appropriate scale and the alpha is .81. Higher scores indicate more intimacy.
Conflict in Communication. This scale addresses the respondent’s ability to communicate during an argumentative situation. There are 14 questions included that address the respondent’s tendency of being critical, how prone they were to using defensive communication, their capability of still being respectful of their partner while in conflict, and their ability to not withdraw from the situation or become too overwhelmed. Higher scores mean more conflict. Cronbach’s alpha is .87

Victim of Sexual Coercion. Respondents were asked “How often have you been pressured against your will to participate in intimate sexual activities (such as fondling, oral sex, or intercourse) by your current partner?” Answers ranged from "never," "sometimes," "often," and "very often." Higher scores suggested higher frequency of victimization of sexual coercion.

Perpetration of Sexual Coercion. Participants were asked “How often has your current partner been pressured against her/his will to participate in sexual behaviors (such as fondling, oral sex, or intercourse) by you?” Answers ranged from "never," "sometimes," "often," and "very often." Higher scores indicate higher frequency of perpetration of sexual coercion.

Victimization and Perpetration of Adult Physical Abuse. Respondents were read the statement, “No matter how well a couple gets along, there are times when they disagree, get annoyed with the other person, or just have spats or fights because they are in a bad mood, tired, or some other reasons. Couples have many different ways to try and settle their differences. The following are a few ways couples try to settle their differences. Please circle how many times you did each of these things in the past year” (“The RELATionship Evaluation Codebook,” 2011). They were then asked three questions related to their own and their partner’s participation in violence within the relationship. Questions were about throwing something, pushing or
shoving, and hitting or punching. Since the three questions were asked about each partner, two scales were created: one for perpetration and one for victimization of abuse. The answers to these questions were summed into a scale where a higher score indicates more violence or abuse. Cronbach’s alpha for perpetration of violence is .73 and the alpha for the victimization scale is .81.

**Gender.** Respondents were asked to identify their gender. Females were coded as 1 and males were coded as 2.

**Marital Status.** Participants were asked, “Which best describes your current marital status?” Answers included "single," "never married," "Cohabiting," "living with your partner in an intimate relation," "married, first marriage," "married but separated," "divorced," "remarried," or "widowed." These answers were then re-categorized into 1. Single, never married, 2. Cohabiting/Married, which includes cohabiting, married, and remarried individuals, and 3. Separated/divorced/widowed. Only individuals in the married or cohabiting category were used for this study.

**Referral type.** Respondents were asked how they heard about the RELATE study. Responses included instructor, therapist, clergy, friend, family member, web search, magazine or newspaper ad, link, and other. These were then re-categorized into instructor, therapist, and other.

**Analytic Strategy**

A path analysis was run using MPLUS version 6.1 (Muthen & Muthen, 2010). Parameter estimates were examined by using Maximum Likelihood (ML) and missing data was dealt with by using listwise deletion. Data were found to be nonnormal (skewness and kurtosis > 2), which
given the nature of the study was not surprising, and in order to correct the standard errors, bootstrapping and the delta method were used (Nevitt & Hancock, 2001). Two independent variables, Parental Warmth and Family Abuse, were standardized (M = 0 and SD = 1) before interaction terms were created. These variables were standardized because it makes interpreting interactions and simple slope tests easier (Dawson & Richter, 2006). Three tests were used in order to determine goodness of fit of the model. First, a chi-square test was used and if it was nonsignificant it indicated a good fit. Second, Steiger’s Root Mean Square Error of Approximation (RMSEA) was used as index of fit that corrected for model complexity (Brown & Cudeck, 1992). A RMSEA of .05 or less implies a good fit, while a RMSEA between .05 and .08 indicates that the fit is adequate. The comparative fit index (CFI), which compares the hypothesized model to the null model was also used (Bentler, 1990) and it ranged from 0 to 1 with numbers closer to 1 meaning a good fit.

Analyses began with a full model that included all variables and interactions. This model was saturated so the parameter estimates were used to determine which variables to keep. Parameter estimates for the interactions were analyzed and any interactions that had t < 1.6 were removed from the model. The model was re-ran and according to fit indices it was a good fitting model (X2 = 8.244, df = 13, p = .83; RMSEA = .000; CFI = 1.000). The model, which included both direct and indirect effects, was then run separately for men and women. A Wald test, which allows all the paths to vary while constraining one path at a time to be equal across groups, was used to assess gender differences, and then also later for testing of differences based on referral type (Liao, 2004; Muthen & Muthen, 2010). All paths were included in difference testing, but Tables 5 and 9 only include significant results. Since the sample size was so large, confidence
intervals were included in the tables to divulge whether the coefficient had the possibility of being zero.

Indirect effects that were included in both male and female models were tested for gender differences as well using the Wald test. Confidence intervals were also included with Betas for similar reasons as stated above. In addition, a new evaluation of indirect effect size created by Preacher and Kelley (2011) was included to try to assess the magnitude of the effect. They write, “$K^2$ is interpreted as the proportion of the maximum possible indirect effect that could have occurred, had the constituent effects been as large as the design and data permitted” (Preacher & Kelley, 2011, p. 14). The Cohen’s values for $r^2_{xy}$ were suggested as a benchmark because of similar properties between the two. So $K^2$ can be assessed as .01 is small, .09 is medium, and .25 is a large effect size. The $K^2$ was determined using a tool from stats.myresearchsurvey.com that calculates it with the calculations discussed in the article. The tool was suggested on Kelley’s website (Kelley, 2012). Both confidence intervals and $K^2$ have been included to try to better understand the magnitude of the mediation.

For any interaction that was found to be significant, simple slope tests with a pick-a-point approach were conducted (Aiken & West, 1991). All interactions were tested with points at the mean, one standard deviation above the mean, and one standard deviation below the mean on the moderator. The independent variable in each interaction was either ECSA or ICSA and so tests were done to see at which frequencies of sexual abuse the interaction significantly affected the romantic outcome. Testing of simple slopes was done using SPSS 20.0 and a macro add-on called MODPROBE created by Andrews Hayes that can be obtained from his website (A. F. Hayes, 2012b; A.F. Hayes & Matthes, 2009). Also, Hayes created another macro known as
PROCESS that allowed for an explanation of how the interaction terms work in the mediation process (A. F. Hayes, 2012a, 2012b).
CHAPTER 6

Results

Descriptive Statistics and Correlations

The original RELATE study has over 10,000 participants in a convenient sample that includes a variety of relationship statuses, but because this study focuses on romantic interactions only those people who were in a relationship were included in the study. A relationship was defined as cohabiting or married. The final sample included 5464 people, which was about half of the original study participants. 97% of these men and women were heterosexual. There were more female participants than male participants (62% women, 38% men). The majority of the people were Caucasian. The average age of participants was 30 years old. Around 60% of the sample had some length of college experience and the average income was between forty and sixty thousand dollars a year. About 28% of the sample was referred to the study by an instructor, 16% by a therapist, and 56% by some other way including through family and friends or through the internet.

Approximately 17% of the sample had been sexually abused by someone outside of their family as a child and about 10% had been sexually abused by a family member. Rates of sexual abuse varied across studies, but this sample falls within the typical range of 12-35% for women and 4-9% for men (Finkelhor, 1994; Putnam, 2003).
In addition to childhood sexual abuse, the study also included the level of physical abuse occurring in the family. Approximately half of the participants for both men and women admitted to some level of family violence in the home. In terms of romantic interactions, in this study approximately half of the individuals had been a perpetrator of adult abuse and equal numbers of victimization for adult abuse. Approximately a quarter of the sample had some level of victimization of sexual coercion within a relationship and for perpetration it was about 20% of the sample. The level of intimacy within a relationship for this group were pretty high; it hovered around a mean of 4 out of a max level of 5. The average level of contact was a score of 2.3 out of 5.

An ANOVA was done to detect differences in this subsample from the rest of the sample. On average, cohabiting and married people were older than the single people by about 5 or 6 years, but were younger than people who were separated or divorced by the same margin. Cohabiting and married people also had higher income than single people, but lower income than divorced or separated individuals. They had slightly more education than single people and around the same amount as divorced or separated individuals. On average, people who were married or cohabiting had slightly higher frequencies of both intra-familial and extra-familial sexual abuse as well as family abuse in their childhood than single people, but lower frequencies than divorced or separated individuals. Single people had the highest levels of parental warmth growing up, followed by married/cohabiting, and then divorced/ separated individuals.

Table 1 shows the means, standard deviations, and correlation matrix for the whole sample. The top half of the correlation matrix refers to women and in the bottom half are the correlations for men. The correlation matrix shows that gender differences are very likely to
occur in a model. For women, both types of childhood sexual abuse (CSA) were associated with all of the attachment styles and romantic interactions. Most of the associations between CSA and romantic interactions were small, but significant, which falls in line with the suggestion of Holman’s model that family environment factors could have a small direct effect on romantic interactions. Men, however, only had significant, albeit small correlations with CSA for about half of the romantic interactions.

For both men and women, the strongest correlations between CSA and outcomes were related to an anxious attachment style (for males, $r = .108, p < .01$ and $r = .073, p < .01$; for females, $r = .159, p < .01$ and $r = .154, p < .01$). Avoidant attachment style was significantly linked to both types of CSA for women ($r = .088, p < .01$ for both) but only intra-familial sex abuse for men ($r = .051, p < .05$ and $r = .025, p > .05$). Both avoidant attachment style and anxious attachment style was significantly associated to all of the romantic interactions for both men and women. With CSA affecting attachment style and attachment style linked to the romantic interactions, this suggests that mediation could occur. In terms of other family factors, both parental warmth and family abuse had more and stronger associations with both attachment style and romantic interactions than CSA.

In terms of referral type differences, tables 2, 3, and 4 presents the means, standard deviations, and the correlation matrix for all three referral types split by gender. For women, the most noticeable difference is between CSA and the romantic interactions. For both the Instructor group and the Other group, most of the correlations to romantic interactions are significant, but in the Therapist group none of the romantic interactions are linked to either type of sexual abuse. Also, in both the Other group and Instructor group the association between ICSA and attachment
styles may be small, but it is significant (Other Anxious .08, Other Avoidant .102, Instructor Anxious .14, Instructor Avoidant .082). In the Therapist group no significant association exists (Anxious .029, Avoidant .060). Across the referral type groups, men do not have as many differences as women do when looking at CSA. In the Instructor group and the Therapist category, the majority of associations between CSA and either attachment style or romantic interactions were non-significant. The correlations that were significant were different in each group though. For instructors ICSA was associated with both anxious and avoidant attachment style (Anxious .132, Avoidant .095). In the Therapist group ECSA was linked with an anxious attachment style (.122) and ICSA was correlated with being a victim of sexual coercion (.102). The Other category had the most significant interactions. Like the instructors group, ICSA was associated with anxious attachment (.066) and like the therapist group, ECSA was linked to anxious attachment style (.121). In the Other group, though, there were additional associations between CSA and romantic interactions that did not exist in the other groups. Both ICSA and ECSA were had small correlations with conflict (ICSA .068, ECSA .087). ICSA was associated with intimacy (-.064) and ECSA was correlated with victimization (.123) and perpetration of sexual coercion (.072). All associations are small and weak, but could suggest that differences based on referral type could exist.

**Non-significant Paths for both Men and Women**

Tables 6 and 7 show the models created for men and women. First, though, there were several paths that were not significant for either sex. A major finding is that ICSA was not significantly related to either type of attachment style for either men or women. In addition, the interaction between ICSA and parental warmth did not significantly affect avoidant attachment
style for men or women, but the interaction did matter for anxious attachment, but only for women. In terms of how family factors affected romantic interactions, neither ICSA nor parental warmth directly related to being a victim of adult abuse. The interaction between ECSA and family abuse did not either. Levels of parental warmth did not affect perpetration of adult abuse or being a victim of sexual coercion. Neither types of CSA were significantly related to conflict within a relationship. Lastly, ECSA, family abuse, and avoidant attachment style did not directly affect perpetration of sexual coercion.

Path Analysis and Difference Testing Results for Women

Table 6 shows the model for women. Many of the family environment factors were associated with attachment style. ECSA (.096) and family abuse (.119) both had a positive significant path with attachment style, which means an increase in frequency of abuse led to a more anxious attachment style. Parental warmth had a negative impact (-.246). The higher the levels of parental warmth within a person’s childhood led to a less anxious attachment style. In addition to ECSA being significantly related to an avoidant attachment style, family abuse and parental warmth were as well. Similar to the connection to anxiety, higher levels of family abuse led to a more avoidant attachment style (.111), but higher levels of parental warmth led to less chance of an avoidant attachment style (-.206).

Gender difference testing, seen in Table 5, showed that two paths between sexual abuse and attachment style were significant for women but not men. This is important because it affects expected mediations. First, extra-familial sexual abuse as a child was positively associated with avoidant attachment for women, but not men (Women .093, Men -.006). So higher frequency of abuse led to higher levels of avoidant attachment only in women. Second, the interaction
between parental warmth and intra-familial sexual abuse was also significant for women (.149) in relation to anxious attachment style, but not for men (-0.045). Anxious attachment style was significantly affected by the interaction effect between ICSA and parental warmth. Probing of the interaction between ICSA and parental warmth can be seen in Figure 4 and shows the regression line is significantly steeper for women whose parents showed them high levels of parental warmth (b=.18, p <.01) than for those who received low levels of parental warmth (b= -.05, p >.05). For individuals in the high parental warmth group, increased frequency in ICSA leads to higher levels of anxious attachment. According to the simple slope test with a pick-a-point approach (Aiken & West, 1991), the difference in levels of anxiety for those with high versus low parental warmth is significant for people who have never been abused (b= -.19, p <.001) or were rarely abused (b= -.08, p<.01). While overall there is an increase in anxious attachment style, for women who lived in high parental warmth families and were never abused or rarely abused the coefficient is negative suggesting a decrease in levels of anxious attachment style.

Having an anxious attachment style significantly predicted all six romantic interactions for women. As an individual’s score on anxious attachment style increased, so did the likelihood of being a victim of adult abuse (.183), the chance of being a perpetrator of adult abuse (.207), the levels of conflict within the relationship (.399), the frequency of perpetration of sexual coercion (.132), and the frequency of victimization of sexual coercion (.112). Intimacy had a negative effect so having a more anxious attachment style reduced the amount of intimacy within the romantic relationship (-.317). Avoidant attachment was also significantly related to three of the romantic interactions. Having a more avoidant attachment style led to higher levels of
conflict (.202) and a higher likelihood of being a victim of sexual coercion, and lower levels of intimacy in a relationship (-.243).

Direct effects of CSA and other childhood experiences on romantic interactions were numerous, but most of them had very small effects. ICSA was significantly related to being a victim of sexual coercion (.048), being a perpetrator of sexual coercion (.086), and perpetration of adult abuse (.027). Higher frequency of intra-familial sex abuse increased frequency of victimization of sexual coercion and perpetration of sexual coercion and adult abuse. Having high levels of parental warmth as a child affected intimacy and conflict within a relationship as well as victimization of adult abuse. High levels of parental warmth meant higher levels of intimacy (.108) and lower levels of conflict (-.067). Counter-intuitively, higher levels of parental warmth were significantly associated with higher levels of victimization of physical abuse in adult relationships (.073). Childhood family abuse predicted all the romantic interactions, except perpetration of sexual coercion. Higher levels of family abuse as a child meant higher levels of conflict (.082), lower levels of intimacy (-.077), higher frequency of victimization of sexual coercion (.083) and higher likelihood of being a perpetrator (.132) and a victim (.148) of adult abuse.

Gender difference testing, seen in Table 5, showed two paths that focused on how childhood experiences directly related to romantic interactions were significant for women, but not men. ECSA significantly affected victimization of adult physical abuse (Women .040, Men -.038). Interestingly, for women frequency of ECSA would predict a higher likelihood of being a victim of abuse, but had the paths been significant for men it would have reduced the likelihood. The effect of family abuse on victimization of sexual coercion was the same. For women, higher
levels of family abuse in the home led to higher likelihood of being a victim of sexual coercion within the relationship (Women .077, Men -.021).

Table 6 shows that for women, three interaction effects significantly affected romantic relationships. The interaction between ICSA and parental warmth was related to levels of conflict (.063) and perpetration of sexual coercion (.142) and the interaction between ECSA and family abuse affected levels of intimacy (.097). First, Figure 5 depicts how parental warmth affects the association between ICSA and conflict. The regression line for the high parental warmth group (b= .11, p <.01) is steeper than the line for the low parental warmth group (b= -.03, p >.05). The difference in the level of conflict in a relationship between women with high parental warmth compared to those with low parental warmth is significant for women who have never been abused (b= -.11, p <.001) and rarely abused (b= -.04, p <.05). Women in the higher parental warmth group who have never been abuse or rarely abused had lower levels of conflict in their relationship.

Figure 6 presents the effects of the interaction between ICSA and parental warmth on perpetration of sexual coercion. Investigation of the interaction showed that only the slope for the high parental warmth group was significant and women who were raised with high parental warmth show significantly higher likelihood of perpetration of sexual coercion than those women who had little parental warmth when intra-familial abused occurred rarely (b=.05, p <.001), sometimes (b=.09, p <.001), or often (b=.14, p <.001). For those with high parental warmth as children, higher frequency of sexual abuse increases chances of perpetrating sexual coercion for women. Lastly, in terms of effects of the interaction between ECSA and family abuse on intimacy, the regression line is steeper for women who dealt with low levels of family
abuse as children (b= -0.05, p<.05) than women who lived in households with high levels of family abuse (b=.0117, p > .05). This can be seen in Figure 7. The interaction is only significant though for women who have never been abused (b= -.05, p<.001). This just supports the fact that family abuse as a child affects levels of intimacy in an adult relationship.

Path Analysis and Difference Testing Results for Men

Table 7 illustrates the direct paths for men, which are far fewer than women. Childhood sexual abuse was significant in fewer paths for men than for women. ICSA was only found to significantly affect intimacy when it interacted with parental warmth as mentioned earlier. ECSA led to higher scores of anxious attachment (.070), but not avoidant attachment. Higher frequencies of ECSA were also associated with higher frequency of being pressured into sex in a relationship (.066) and oddly, higher levels of intimacy (.046). Family abuse and parental warmth were far more prevalent as predictors for men. In terms of family abuse, higher levels increased scores on anxious attachment (.156) and avoidant attachment (.073). It also increased levels of conflict within the relationship (.061) and participation in adult abuse as a perpetrator (.063). Parental warmth decreased the likelihood of anxious attachment (-.229) and avoidant attachment (-.235). It also led to decreased levels of conflict (-.045) and increased levels of intimacy (.352). In addition, anxious attachment style significantly affected all six romantic interactions and avoidant attachment style significantly affected five of them. Like for women, anxious attachment style increased the likelihood of victimization in sexual coercion (.090) and adult abuse (.165) and perpetration of both sexual coercion (.214) and adult abuse (.133).
It also increased the levels of conflict (.388) and decreased levels of intimacy (-.330). Similar results occurred with avoidant attachment (.122, .050, .058, .204, -.254) with the exception of perpetration of sexual coercion because it was not significant.

Gender difference testing (Table 5) suggested that there were cases where both men and women had a significant path, but coefficient for one of them was significantly greater than the other. In many of these cases, the effect was stronger for men than for women. For example, parental warmth was positively related to intimacy for both sexes, but the effect was much bigger for men (.390) than women (.112). Having family abuse in the home significantly predicted conflict within the current adult romantic relationships for men and women, but again the effect was larger for men (.202) than women (.074). Men had a higher coefficient for the relationship between anxious attachment style and perpetration of sexual coercion, but the path was significant for both (Women .128, Men .211). There was only one case where the effect was stronger for women. Higher levels of avoidant attachment style were related to higher levels of victimization of sexual coercion for both sexes, but there was a statistically significant difference between the coefficients, with women having a slightly larger effect (Women .143, Men .121).

In addition, Table 5 shows that two paths between sexual abuse and romantic interactions were significant for men, but not women. First, extra-familial sex abuse as a child was statistically related to victimization of sexual coercion for men (Women .015, Men .069). The second significant path for men but not women was related to the association between the interaction of parental warmth and ICSA and intimacy. This path was statistically negative for men (-.267), but basically nonexistent for women (0.00). The interaction between ICSA and parental warmth has a conditional effect on intimacy. Figure 3 shows the line depicting the
association between ICSA and intimacy is significantly steeper for men who received high parental warmth from their parents (b= -.18, p <.01) than those who had low parental warmth (b=.03, p > .05). The difference in levels of intimacy between those with high parental warmth compared to low parental warmth is significant for men who have not been sexually abused (b=.17, p <.001). Men who lived in houses with high parental warmth and were never been abused had higher levels of intimacy in a relationship. This just supports the existing path of parental warmth positively affecting intimacy.

**Mediation Effects**

In addition to gender differences in direct paths, there was some gender difference in indirect paths as well. Any indirect paths that were included in both models were tested using a Wald test for differences. As can be seen in Table 5, all indirect paths were significant, but there were a few paths where the impact was stronger for one sex. Those that were significantly different for men and women were related to the outcome of sexual coercion. Men had a slightly higher coefficient estimate (Women .015, Men .032) for how family abuse affected anxious attachment and then how that affected perpetration of sexual coercion. Women had slightly higher coefficients for effects of both levels of parental warmth (Women -.036, Men -.020) and family abuse (Women .016, Men .009) on avoidant attachment style which then affected being a victim of sexual coercion.

Table 8 includes all the indirect effects that were tested for both men and women. The first half of the table shows all paths to be significant except for the paths that included the initial link between ICSA and anxiety for women. ICSA alone was not linked to any of the romantic interactions through mediation. Anxiety mediated the association between ECSA and both types
of sexual coercion, but the effects were small. Higher levels of ECSA led to higher levels of anxious attachment, which then led to more frequent victimization (0.011) and perpetration of sexual coercion (0.013). Avoidant attachment also mediated the relationship between ECSA and being a victim of sexual coercion in a similar way to anxious attachment (0.013). There was also a meditational effect for the link between family abuse and sexual coercion. Higher levels of family abuse led to higher levels of both anxious and avoidant attachment, which then increased the likelihood of being a victim of sexual coercion (0.012, 0.015). Like ECSA, family abuse had a similar effect in terms of how it went through anxious attachment to affect perpetration of sexual coercion (0.015). $K^2$ would suggest that the mediation of attachment style between all of the childhood experiences and either victimization or perpetration of sexual coercion were smaller than they could have been. The majority of them had a $K^2$ around .01, which is a small effect. Parental warmth had the biggest effect on sexual coercion through attachment style. Lower levels of parental warmth led to higher scores anxious attachment which then led to an increase in both victimization and perpetration of sexual coercion (-0.027, -0.032). A similar trend occurred with parental warmth, avoidant attachment, and victimization of sexual coercion (-0.029).

Mediation linked to conflict and intimacy had some of the larger effects. For example, both avoidant attachment and anxious attachment style mediated the relationship between parental warmth and conflict (-.042 and -.098). $K^2$ for the mediation of anxious attachment was at .104, which suggests a medium size effect. For avoidant attachment, $K^2$ had a smaller effect size of .042. It seems that lower levels of parental warmth increase the chance of either type of attachment style, which then increases levels of conflict in a relationship. The meditational effect of anxious attachment on family abuse and conflict had a similar effect size at .047. Higher
levels of family abuse led to higher scores on anxious attachment and then higher levels of conflict. Avoidant attachment had a similar pattern, but the effect size was smaller at .023. Attachment style also mediated the relationship between ECSA and conflict. ECSA did not have a direct association to conflict. So it was only connected through indirect effects. Higher frequency of ECSA led to higher levels of both anxious (.038) and avoidant (.018) attachment style, which in turn, led to higher levels of conflict. The value of $K^2$ suggested that the meditational effects of both types of attachment style were small compared to what the effect size could have been.

At a $K^2$ of .108 the mediation of anxious attachment style between parental warmth and intimacy was the largest effect size at a moderate magnitude. It seems that higher parental warmth would decrease chances of anxious attachment style, but higher levels of anxious attachment style also decreased levels of intimacy. The meditational effect of attachment style had the same trend for ECSA and family abuse. Higher levels of ECSA and family abuse led to higher levels of both anxious attachment (-0.030, -0.035) and avoidant attachment (-0.022, -0.027), which in turn led to lower levels of intimacy in a relationship.

All three family factors affected adult abuse through anxious attachment style. ECSA and family abuse both increased anxious attachment levels, which then increased the number of times a woman was perpetrator of adult abuse (.020, .023, ). Another path where no initial connection between a family factor and romantic interaction, but there was a mediation effect was related to parental warmth and perpetration of adult abuse. Higher levels of parental warmth lead to lower scores on anxious attachment, but anxious attachment increases the likelihood of being a perpetrator of adult abuse for women. ECSA, parental warmth, and family abuse also
affected becoming a victim of adult abuse through having an anxious attachment style (0.018, -.045, 0.20). The $K^2$ for these paths were generally small compared to what they could have been (0.045, 0.020).

Four relationships between an interaction term and a romantic interaction were mediated by attachment style as well for women. The interaction between ICSA and parental warmth worked its way through anxious attachment style to affect levels of intimacy and conflict as well as both victimization and perpetration of adult abuse. Simple slope tests were performed for each of the paths. It seems that for all of the romantic interactions the trend was the same. The effect size of the mediation got bigger as the levels of parental warmth increased. In other words, the mediation relationship where anxious attachment style mediated the connection between ICSA and any of the four romantic interactions was more pronounced for those people who lived in warm, nurturing households.

Table 8 also gives results for men. The majority of the meditational paths included either parental warmth or family abuse. Like women, connections to intimacy and conflict were stronger. The link between parental warmth and intimacy was mediated by both types of attachment style (.076, .060), but the direct link still remained as well. $K^2$ for the mediation was .077, which still falls into the range of a small effect. The mediation of anxious attachment style between parental warmth and conflict had the largest effect size at .091. Compared to what it could have been it had a moderate effect size. Family abuse led to higher scores on both types of attachment, which then led to lower levels of intimacy (.051, -.019). ECSA also led to higher levels of anxious attachment and then lower levels of intimacy (-.023).
Like women, lower levels of parental warmth led to higher levels of anxious attachment, and then higher levels of conflict in a romantic relationship for men. ECSA, which is not significantly directly connected to conflict for men had a significant, small conditional effect (.027). High frequencies of ECSA led to increased levels of anxious attachment, which then led to higher levels of conflict in a relationship. Family abuse had a similar trend with conflict (.061).

All three family factors had small effect sizes for the indirect effects of attachment style on adult abuse. Higher levels of family abuse meant higher scores on anxious attachment and then higher levels of both victimization and perpetration of adult abuse (0.026, 0.021). ECSA also indirectly affected victimization of adult abuse through anxious attachment style in the same way (0.012, 0.009). Parental warmth negatively affected both types of attachment style, but anxious and avoidant attachment then increased levels of victimization and perpetration of adult abuse (-0.038, -0.012, -0.030, -0.014).

While parental warmth was not directly predictive of victimization of sexual coercion, an indirect effect did occur through both types of attachment style. In both cases, lower levels of parental warmth increased levels of anxious attachment and that increased likelihood of being a victim of sexual coercion (-.021, -.029). ECSA and family abuse had similar trends where they negatively affected anxious attachment style and that increased the likelihood of victimization of sexual coercion (0.006, 0.014). Lastly, parental warmth, ECSA, and family abuse had no direct link to perpetration of sexual coercion, but did have a conditional effect through anxiety. Higher levels of family abuse or ECSA led to higher levels of anxiety which led to higher levels of perpetration of sexual coercion and lower levels of parental warmth led to higher levels of
perpetration through higher levels of anxious attachment. According to the K² these all fell within a small effect size (0.033 for family abuse and parental warmth, 0.015 for ECSA).

**Differences by Referral Type**

The last analysis conducted was to see if there were differences in the model based on how a person was referred to the study and results can be found in Table 9. Analysis was conducted separately on men and women, but generally found some differences to exist. For women, ICSA was found to be significantly associated with perpetration of adult abuse for those referred by an instructor (0.075) but not those referred by other means (0.007). The effect of family abuse on intimacy had similar results (instructor -1.147, other -0.035). Also, the effect of the interaction between ECSA and parental warmth on perpetration of adult abuse was only marginally significant in the female model, but difference testing by reference type showed a significant effect for women who were in the “Other” referral group. Based on the simple slope pick-a-point approach, women who had high parental warmth growing up show significantly more perpetration of adult abuse than women who lived in households with low parental warmth when they were sexually abused by someone outside of the family (rarely b=.07, p<.05; sometimes b=.15, p <.01; often b=.23, p <.01; very often b=.31, p <.01). A graphical representation can be found in Figure 8.

A large number of differences in direct effects occurred in relation to perpetration of sexual coercion for women. For all of the family factors, there was a difference between individuals in different referral categories. People who were referred by instructors had significant associations between ICSA, ECSA, parental warmth and eventual perpetration of sexual coercion (.190, -0.088, -0.190). Generally, it seems that this association did not exist in
the other two referral groups. Higher scores on ICSA led to higher likelihood of perpetration of sexual coercion while higher scores on ECSA and parental warmth led to decreased chances of perpetration. There were two interaction effects that affected perpetration of sexual coercion differently based on referral type as well. For the first one, the interaction between ICSA and parental warmth, results were similar to those in Figure 6 that was discussed earlier for women. For the other one, the effect of the interaction between ECSA and family abuse on perpetration of sexual coercion was only marginally significant in the overall female model, but when looking at the differences between reference groups in Table 9 the interaction was significantly related to perpetration of sexual coercion for women in the instructor referral group. When probing the interaction is SPSS though, it was not significant.

In some instances with women, there were significant paths for both categories, but one had a stronger association than the other. For women, examples include the association between parental warmth and anxiety (-0.158, -0.279), anxiety and perpetration of adult abuse (0.143; 0.216), and parental warmth and intimacy (0.071, 0.127). The effect for all of these was stronger for those people in the other group when compared to the group referred by an instructor. This pattern of stronger association for one than another occurred with indirect paths as well. For example, both the instructor group and the “other” group had a significant conditional effect of anxious attachment on the relationship between parental warmth and perpetration of adult abuse, but the “other” group had a bigger effect (-0.028, -0.064). Similar results occurred with perpetration of sexual coercion (-0.019, -0.043) and victimization of adult abuse (-0.026, -0.056).
Generally, when there were significant differences between people referred by a therapist and a different group, the group referred by therapists did not have a significant path. This can be seen with a couple paths mentioned previously as related to perpetration of sexual coercion, but is also apparent in the indirect effects. For example, anxious attachment mediated the relationship between family abuse and victimization of sexual coercion for people referred by an instructor (0.019) but not a therapist (0.003). Indirect effects on conflict of family abuse through anxious attachment style were also significant for referral by instructors (0.056) but not therapists (0.017). For the indirect effects of family abuse through anxious attachment style on victimization of adult abuse (0.022) the effect was significant for people who were brought to the study by the “other” group, but not by a therapist.

For men, the link between childhood experiences and intimacy seemed to have differences where one group was significant and the other was not. For example, ECSA was significantly related to an increase in intimacy for people referred by an instructor (.115), but was not significantly for those who found other ways of participating (.013). Parental warmth had the opposite occur. For those in the “other” group parental warmth significantly led to higher levels intimacy (0.490), but in the instructor group (0.158) the effect was not significant. Also, the interaction between ICSA and parental warmth was significant for individuals in the “other” group (-.346), but not for those referred by an instructor (-.044). Testing of the interaction for the “other group” had similar results to those discussed earlier and found in Figure 3.

Victimization of sexual coercion had several differences related to it based on referral type. ECSA was association to victimization of sexual coercion for the “other group”, but not the instructor group. The association between anxiety and victimization of sexual coercion was
significant for those in the “other” group, but not the group referred by a therapist. This association continued to be an issue in two meditational paths. Family abuse and parental warmth had a conditional effect on their relationships with being a victim of sexual coercion through anxious attachment style for the “other” people (0.022, -0.029), but not for those referred by a therapist (-0.002, 0.002).
CHAPTER 7

Discussion

Childhood sexual abuse is seen in our society as a heinous act and literature on it continues to grow so that we may gain a better understanding of how to help those who suffer from lasting consequences of the sexual abuse. Much of the research thus far has focused primarily on prevalence rates and figuring out key characteristics of abuse and child environment that might matter for a child’s future, particularly their future psychological well-being. Newer studies have embraced the importance of mediators and moderators as a better way to get past simple concerns of whether or not CSA affects a child’s future and instead figure out how and why consequences occur (J. L. Davis, et al., 2001; DiLillo, 2001; Esposito & Clum, 2002; Hyman, Gold, & Cott, 2003; Rumstein-McKean & Hunsley, 2001; Testa, Miller, Downs, & Panek, 1992; Testa, et al., 2005; Walker, et al., 2009). While CSA researchers use more mediators and moderators, there seems to be little work that includes both within the same study. In addition, research that uses mediators or moderators and focuses on adult romantic outcomes mostly used a broad definition of relationship quality or relationship difficulties. This paper contributes to the literature by expanding beyond just one or the other and includes a mediator, adult attachment style, and moderators (family environment factors).
The purpose of this study was to look at the context in which childhood sexual abuse affects adult romantic interactions and how attachment style mediates the associations for both men and women. Findings show mixed results for the hypothesis about CSA affecting different types of romantic interactions and the hypothesis on how attachment style mediates the relationship, but these mixed results are partly due to the fact that gender does make a difference in how these relationships unfold. In addition, results show that interactions between CSA and family environment factors is clearly a gendered issue. This study supports the literature that says that CSA may not affect male romantic interactions in the same way as women.

**Direct Effects**

In terms of the first hypothesis, does CSA affect romantic interactions while controlling for other family factors, the answer for women is yes but with a cautionary note. The majority of romantic outcomes do have a link to at least one of the types of CSA but like hypothesized the effects are small. This does fall in line with the literature which suggests that if an effect exists at all it is small (Colman & Widom, 2004; Fleming, et al., 1999; Mullen, et al., 1994; Whisman, 2006). Because the sample used in this study is so large, false positives could have occurred, therefore confidence intervals for the effects were included. In the majority of cases, it cannot be said for sure that the effects of ICSA or ECSA on the romantic outcomes occurs in the true population (because zero existed in confidence intervals). Unfortunately, this means that I cannot comment on whether or not CSA directly affects most of the romantic outcomes with certainty.

There were two romantic outcomes for women, victimization and perpetration of sexual coercion, where the effects of CSA were small, but they definitely exist within a true population. CSA affected both victimization and perpetration of sexual coercion. As the frequency of ICSA
increases so does participation either as a victim or as a perpetrator in sexual coercion within a romantic relationship. The effect of ICSA on perpetration of sexual coercion is moderated by parental warmth; this will be discussed later with the other interactions. Gender difference testing did suggest that there were many more direct paths from CSA and family factors to romantic outcomes for women than for men. Furthermore, women tended to have ECSA directly affect more romantic outcomes than men did. This lends support to hypothesis 12 and the research that suggests CSA affects more adjustment outcomes for women than men.

As in Colman and Widom’s (2004) research, sexually abused men in this study did not suffer as many romantic difficulties as women did. Only three direct paths to romantic outcomes occurred with CSA. Similar to women, men had a direct connection to sexual coercion, but it was only with victimization and when the type of CSA was extra-familial. The group did show the same trend as women although higher frequencies of ECSA led to higher victimization of sexual coercion. ECSA was also directly linked to intimacy for men, but with an odd twist. Higher frequencies of sexual abuse led to higher levels of intimacy in a man’s current romantic relationship. This seems extremely counter-intuitive and more work needs to be done to understand this finding. One suggestion might be that the perpetrator's gender could matter. With female perpetrators, men may change their perception of the event and reframe the experience into a positive one, like their first sexual experience (Dhaliwal, Gauzas, Antonowicz, & Ross, 1996; Romano & De Luca, 2001). Thus, ECSA could positively affect intimacy. An interaction between ICSA and parental warmth was found to affect intimacy for men as well; gender difference testing showed it to only exist for them. It will be discussed with other interactions below.
In addition, many of the direct links to romantic outcomes were actually with family factors. This occurred for both men and women. Results from this study support findings from other studies that other types of abuse and family environment factors are just as important, if not more, for understanding psychological and social outcomes (Eckenrode, et al., 1993; Hobfoll, et al., 2002; Ney, et al., 1994; Silverman, et al., 1996). Family abuse and parental warmth simply had a larger impact on most romantic interactions for both men and women than CSA. Future work needs to include family factors as controls at the very least when considering romantic interactions because they have an influence on future outcomes.

Lastly, hypothesis 2 that suggested intra-familial would have a stronger impact on romantic outcomes than extra-familial abuse was partially supported. ICSA did have an impact on perpetration of adult abuse, intimacy, and both perpetration and victimization of sexual coercion for women and ECSA did not associate with them at all suggesting a stronger impact. ECSA did, however, associate with victimization of adult abuse and intimacy for women while ICSA did not. In addition, ICSA, when interacted with parental warmth, only related to intimacy for men whereas ECSA associated with both intimacy and victimization of sexual coercion. From the results, ICSA and ECSA may have direct impact on different aspects of adult relationships. Future research should test this further and consider why this might be the case.

**CSA, Attachment Style, and Mediation**

While CSA literature promotes that CSA affects attachment style, there is no clear consensus on which type of CSA matters or how the experience of CSA helps shape the type of attachment style a person has. This study shows that intra-familial versus extra-familial sexual abuse and the gender of the victim are both important determinants of how CSA associates with
attachment style. Counter to what hypothesis 3 suggested, ICSA was not significantly linked to avoidant attachment style for either men or women. Furthermore, ICSA was associated with anxious attachment style for women, and not men, but only when in the context of parental warmth. Hypothesis 4 was supported for females, but not males; ECSA related to avoidant attachment style for women. Counter to Roche et al’s (1999) findings though, ECSA was also significantly positively associated with anxious attachment style for both men and women. Gender difference testing supported these findings. In this study, it seems that ECSA is similar to ICSA in the potential to alter models of self. Unfortunately, researchers have rarely questioned how or why CSA actually influences attachment style. It makes sense that having been sexually abused would alter how an individual interprets and experiences relationships, so people have not moved much beyond sexual abuse being connected to insecure attachment. We need to gain more information about how the experiences surrounding the sexual abuse aids in the classification of attachment style. Future work on CSA needs to not only look at attachment style as a mediator, but should also consider what elements of abuse or the psyche are mediating the link between CSA and attachment style. Also, it should consider gender as an important aspect of the association.

As for attachment styles’ association with romantic outcomes, the results confirm the findings from other research that working models of relationships do shape interactions within a romantic relationship and mostly supported hypothesis 10 (Alexander, 1993; J. A. Feeney & Noller, 1992; Liem & Boudewyn, 1999; McCarthy & Taylor, 1999; Mikulincer & Shaver, 2007; Shapiro & Levendosky, 1999; Sroufe, et al., 2005; Styron & Janoff-Bulman, 1997). For both men and women, anxious attachment style directly influenced all six romantic outcomes -- intimacy, conflict, perpetration and victimization of adult abuse, and victimization and
perpetration of sexual coercion. Avoidant attachment style did not associate with all romantic interactions. For women, it linked with victimization of sexual coercion, intimacy, and conflict. Men had all these connections plus a relationship with victimization and perpetration of adult abuse.

According to the results, male and female understandings of relationships have a sizeable impact on interactions within their own relationship and CSA has a role in formulating those views of relationships. Several studies have suggested the importance of attachment style as a mediator between child abuse and psychological functioning, but far fewer studies focus on relationships (J. L. Davis & Petretic-Jackson, 2000; McCarthy & Taylor, 1999; Roche, et al., 1999; Rumstein-McKean & Hunsley, 2001; Styron & Janoff-Bulman, 1997). One such study, McCarthy and Taylor’s (1999), found that attachment style mediates the effects of child abuse on relationship difficulties. My results corroborate their findings and delineate specific effects for several different romantic outcomes. In general, hypothesis 11 was supported and this study suggests that the use of attachment style as a mediator establishes a better way to understand the connection between CSA, and other childhood abuse, and social outcomes.

While men and women have many gender differences for direct links and also interactions, which will be discussed later, mediation is the one area that is influential for both sexes. Although men had only one connection between CSA and attachment style, it was an important one because all of the conditional effects tested were significant. For women, all the conditional paths related to CSA were also found to be significant, with the exception of any path with ICSA and anxiety,
since this association was not originally significant but included because of the interaction effects. Gender difference testing of indirect effects only suggested that one sex may have a stronger meditational effect than the other, but both had significant paths.

In previous work, researchers have had trouble proving much about a mediation beyond that it exists and it alleviates or suppresses direct effects. Many ways of determining the magnitude of an effect size have been and continue to be debated. I used K2 because I think it is logical to view the effect size in relation to how big it could actually be, given the parameters of the sample or population. Utilizing this technique, the majority of the effects for both men and women are considered small in magnitude. As this study shows, although CSA is just one of many family factors and childhood experiences that affect future outcomes, many of the other ones are more influential than CSA. So the fact that it has any impact through attachment style is useful to acknowledge both for research and for practical application. In several cases, mediation was the only influence CSA had on romantic outcomes.

For women where there was a significant direct effect of CSA on a romantic interaction, there was also a significant indirect effect through attachment style, suggesting that while CSA affects romantic interactions by first influencing the women’s views of romantic relationship, it also has a direct impact on the quality of relationship interactions. Paths related to family abuse and parental warmth had a similar trend. There were a few paths, particularly for ECSA that had no direct effect on a romantic outcome, but did have an indirect effect. ECSA affected intimacy through both avoidant and attachment style while it impacted perpetration of adult abuse and perpetration of sexual coercion only by helping to create an anxious attachment style. Parental warmth also affected perpetration of adult abuse and perpetration of sexual coercion in the same
way as ECSA. Family abuse only had an indirect effect through anxious attachment for perpetration of sexual coercion. These paths suggest, however, that the strongest impact of ECSA on romantic outcomes for women is through shaping the way they view relationships.

For men, ECSA was the only type of sexual abuse included in mediation tests. Interestingly, there were several paths where a mediation effect occurred but no direct effect existed suggesting that ECSA influences romantic interactions only through a man’s view of relationships. These included victimization of adult abuse, perpetration of adult abuse, perpetration of sexual coercion, and conflict during communication. Victimization of sexual coercion was the only romantic outcome associated both directly and indirectly with ECSA for men. Though the mediation was significant, it was so tiny as to be nonexistent, which suggests that being sexually abused as a child may directly lead to victimization of sexual coercion as an adult and not work through attachment style. Not many direct relationships between family abuse or parental warmth and the romantic interactions existed for men either. Parental warmth was only directly related to intimacy and conflict within a romantic relationship and family abuse only directly influenced future perpetration of adult abuse and conflict within a relationship. In these instances, however, neither effect suppressed the other and these relationships had some of the highest K2s. This implies that parental warmth and family abuse are key elements for how men handle intimacy and fighting in a relationship.

**Interactions with CSA**

This study had several interactions in it that were significant, particularly those related to the interaction between ICSA and parental warmth. The majority of the interactions were significant for women and not men suggesting that the family environment has much more
influence on the way a female child deals with CSA and how it affects adult interactions than it
does for a male child. Only one interaction effect on a romantic outcome was significant for men.
The effect of the interaction between ICSA and parental warmth on intimacy was significant, but
further analysis showed it to only be significant for those who had never been abused, which
basically just reiterates the importance of parental warmth on intimacy for men. Women had a
similar situation with an interaction’s effect on intimacy. For women, the interaction between
ECSA and family abuse influenced intimacy levels in a future relationship, but again only for
women who had never been abused; once again reinforcing for women the importance of, in this
case, family abuse on future levels of intimacy study. Also, the interaction between ECSA and
parental warmth did not significantly affect either type of attachment; therefore, hypotheses 7, 8,
and 9 were not supported. More work needs to be done on how family factors interact with
ECSA to influence both attachment and romantic adjustment.

Unlike ECSA, ICSA did interact with parental warmth to affect attachment style. This
interaction only affected anxious attachment style, and again only for women. Since avoidant
attachment did not associate with the interaction, hypothesis 6 was not supported. Results did
show that the interaction between ICSA and parental warmth did increase levels of anxious
attachment. Further analysis of the interaction showed that at extremely low levels of sexual
abuse high levels of parental warmth could play a protective role against the experience
embedding into working models of relationships. This could give validity to the idea that an
attachment hierarchy and that the positive relationship with a primary attachment figure could
alter the way other interactions affect attachment. Intra-familial sexual abuse could be
perpetrated by a number of different relatives.
Fathers, stepfathers, and uncles are common perpetrators (Bolen, 2001). Further research that distinguishes between maternal and paternal parental warmth as well as who the perpetrator is could expand work on attachment hierarchy and the way multiple attachments and experiences affect future outcomes.

Like with anxious attachment, the overall trend of the effects of the interaction between ICSA and parental warmth on conflict suggests amplification, but looking at specific points along CSA shows that parental warmth might have some protective effects for individuals who were rarely abused. The interactions with parental warmth were significant for women who were never abused or rarely abused. The coefficient estimate at the rarely abused levels were negative though, which implies that when women who were rarely abused also came from homes with high parental warmth they had lower levels of conflict. However, at the often abused level, which was marginally significant, the opposite occurred. Although not significant, women who were often abused and from high parental warmth families had a positive coefficient estimate which means they had increased levels of conflict. This trend of amplification is seen much more clearly with the effects of ICSA and parental warmth on perpetration of sexual coercion.

For those women who grew up in high parental warmth families, as the frequency of ICSA increases so does the likelihood of perpetrating sexual coercion within their relationship. Although it seems odd that high levels of parental warmth would amplify the effects of CSA on perpetration of sexual coercion, it is plausible. Another study that focused on parental warmth moderating the effects of parental hostility on dating violence found an amplification process as well (L.G. Simons, Simons, Lei, Fincham, & Hancock, Forthcoming). Although this study is different from that one, the underlying concept could be the same. In Simons et al.
it is suggested that the demonstration of both love and hostility by the parents communicates to the child that both are a normal aspect of a romantic relationship and legitimizes it. In terms of sexual coercion, the experience of sexual abuse could create a model of relationships that legitimizes both affection and manipulation in a sexual context.

Research on sexual abuse does say that sexual predators do look for children in dysfunctional families with low parental warmth and problems, but it also says that children from high parental warmth families could be targets too. Children are socialized to be weary of strangers, but to be obedient and affectionate to people who care for them or who they know (Leonard, 1996; Olson, Daggs, Ellevold, & Rogers, 2007). Obviously with intra-familial sexual abuse the perpetrator is close to them and in extra-familial sexual abuse the victim knows the perpetrator in the majority of cases. Children are at a vulnerable stage; they are still learning appropriate behaviors and “as many children are not explicitly aware of potential abuse, they may engage in behaviors with trusted adults without understanding the situation or how to disengage from the abuse” (Olson, et al., 2007, pp. 238-239).

There is a cycle of entrapment that perpetrators use to lure children into sexual acts. These adults gain trust by creating an environment of fun, affection, and support, then desensitizes the child to sexual acts, reframes the child’s view about sexuality and finally often uses coercion to instigate sexual activity and then keep it a secret. Examples of reframing include suggesting it will make them a better lover in the future or that it is a product of adult curiosity that is normal (Elliott, Browne, & Kilcoyne, 1995; Lang & Frenzel, 1988). Not only is this cycle teaching the child ideas about sexuality, but it is also modeling a way to gain sexual access to an individual. In the end CSA could embed into a person’s relationship schema sexual
coercion as an option to be used in later relationships. The mediation of attachment style between the interaction and perpetration of sexual coercion found to be significant in this study reinforces the plausibility of this idea. ECSA is related to perpetration of sexual coercion through attachment style as well. Victimization of sexual coercion was also related to the interaction of ICSA and parental warmth through mediation which possibly suggests that susceptibility to sexual coercion continues into adulthood as well through embedding into a view of what happens in relationships. The effects for mediation are small though, and some may or may not exist in a true population. More work should be done to validate the findings in this study and the interpretations suggested.

While coercion is a common way to initiate sex and then hide the activity, it is important to note that sometimes force or threat of violence is utilized instead or in conjunction with coercion (Olson, et al., 2007). This could be a possible reason why the interaction between ECSA and parental warmth led to higher likelihood of perpetration of abuse for women. The interaction between ICSA and parental warmth also affected perpetration of adult abuse, victimization of adult abuse, levels of conflict in a romantic relationship, and levels of intimacy through mediation of anxious attachment style. This implies that the interaction of ICSA and parental warmth affects anxious attachment style, which then affects adult abuse, conflict, and intimacy. Unfortunately, in this study the interactions between ECSA and parental warmth and ECSA and family abuse were not significantly related to either types of attachment style.
There is a chance that any effects of these interactions were masked by the inclusion of all interactions at the same time in the model. More work that includes actions of the perpetrator such as ways of obtaining sex and keeping the secret as well as other aspects of the abuse beyond frequency or severity should be done to understand potential contributions to the link between CSA and attachment style and romantic outcomes.

**Theory**

Holman’s model was a good organizing tool for understanding the connection between environmental, psychological, and relational contexts. Results from this study suggest that Holman’s model is a credible model to use for explaining the connection between CSA and romantic interactions. For any study that includes mediation of family environment factors on romantic outcomes, Holman’s model works. The model is general enough to incorporate many different family environment factors, individual characteristics, and romantic interactions.

Attachment theory is an excellent theory to use to address the effects of sexual abuse on future adjustment. While ICSA was not significantly related to attachment style, the associations that ECSA, family abuse, and parental warmth had with anxious attachment in particular, and also avoidant attachment (except for ECSA for men) were some of the strongest ones in the model. In addition, attachment style was significantly related to many of the romantic outcomes. Results from the mediation test show that attachment style is a successful mediator between all the family environment factors, including ECSA, and romantic interactions.
This study is just one of several that have successfully incorporated attachment style as a mediator (McCarthy & Taylor, 1999; Roche, et al., 1999; Shapiro & Levendosky, 1999; Styron & Janoff-Bulman, 1997). It is important to recognize that being sexually abused alters views we have of ourselves and other people and this perception does affect how we interact with others.

Besides supporting mediation this study expands our understanding of attachment theory and sexual abuse in to additional ways. First, in terms of the relationship between sexual abuse and attachment this study emphasizes that differences in attachment style may reflect different characteristics of abuse. Further work can really tease out in which instances CSA leads to anxious attachment versus avoidant attachment. Second, Attachment theory is not just a theory to be used to understand issues with intra-familial sexual abuse. Many attachment theorists have highlighted that while attachment theory began with looking inside the family, other individual and events that occur outside of the family clearly can alter an attachment style as well (P. W. Howes & Spieker, 2008; Kerns, 2008). It is important to recognize that other people whether they be attachment figures or people who play similar roles to attachment figures do affect attachment.

Referral Type, Limitations, and Future Research

One of the limitations of this study is that it is a non-representative, convenient sample. Generalizations to a larger population may be hard to do, but this study takes the limitation and turns it into an opportunity. Researchers in the field of CSA must often utilize the only options available to them to study sexual abuse. A representative, random national study is not often one of those options.
Instead, clinical trials, therapy groups, university students, and nonrandom community samples are the most common sample types. Because of the variety of samples, results sometimes differ and researchers often question the ability to generalize from one sample to another (J. L. Davis & Petretic-Jackson, 2000; DiLillo, 2001; Rumstein-McKean & Hunsley, 2001).

This study confirms that researchers should question generalizability for good reason. Difference testing meant to simulate three common sample types - university students, clinical samples, and in broad sense, community samples - shows that differences in associations between CSA and romantic outcomes exist based on referral type. In a majority of the cases for both men and women, the group referred by a therapist did not have significant results, but one of the other groups did. Obviously, it is possible that being in therapy has helped to resolve some social difficulties. For women, people referred by an instructor often had significant paths when other did not. For men, those in the other groups, which included referrals from family, friends, clergy, and access via the internet, had more significant links. For women most of the differences were related to how CSA or other family factors associated with perpetration of adult abuse or sexual coercion. For men, the differences were connected to victimization of sexual coercion and levels of intimacy in a current relationship. This study shows that at least for adult abuse, sexual coercion, and intimacy, sample types can affect results. Ideally, future work will include studies using a random, representative sample, but in cases where this is not possible, work should be tested across a variety of sample types to ensure the validity of results.

In addition to being a convenient sample, there are some specific measurement issues related to the sexual abuse variables that could not be changed. First, RELATE data was able to assess frequency of abuse but not different levels of severity of abuse. Research does show that
severity of abuse could be a contributing factor in variation of outcomes (Briere, 1992; J. L. Davis & Petretic-Jackson, 2000; Putnam, 2003). There is a possibility that the long term consequences for a child who was frequently sexually abused, but less severely through perhaps exposure or no genital contact are less than someone who might have been sexually abused only once, but penetration was involved. In addition, the age of child has been a contentious factor in sexual abuse literature (Briere, 1992; Goldman & Padayachi, 2000; Rumstein-McKean & Hunsley, 2001). Many studies, like this one, use the age of 18 as the cutoff point for childhood sexual abuse since it is the age demarcation for legal consent. Others in the field though suggest 16 years old should be the maximum age for childhood sexual abuse. Differences in prevalence rates have been shown based on age demarcation and it is reasonable to assume this could affect the results of studies focusing on long-term consequences too (Briere, 1992; Goldman & Padayachi, 2000). Lastly, an issue caused by the use of a convenient sample in this study is related to the frequency of sexual abuse for men. Few men in this sample had often been sexually abused by a family member or very often sexually abused by someone outside of the family. This may or may not have affected results. Unfortunately, since this is a convenient sample, men whose frequency of sexual abuse is higher might not have participated in this study. Hopefully future work with more representative samples can substantiate the findings from this study.

This research only includes men and women who are either cohabiting or married; therefore, it can only comment on committed relationships. Research shows that many people who have been sexually abused do not get married or do but then divorce (Bagley & Ramsay, 1986; Bifulco, et al., 1991; Finkelhor, et al., 1989; Whisman, 2006). ANOVA testing of differences shows that for this sample, levels of sexual abuse differ based on marital status and so I would suggest that future research involve testing these differences. Research shows that
CSA affects people’s ability to communicate and be intimate and their tendency to use violence in general. So it could be that these problems are keeping them from forming a committed relationship. Therefore, considering the effects of CSA on these issues for people who are not in a relationship is just as important as for people who are in a committed relationship.

Lastly, because the data is not longitudinal, causality cannot be proven. Based on the majority of CSA literature and other studies finding similar results, it is reasonable to assume that sexual abuse as a child affects adult attachment which then affects romantic outcomes. However, there is a possibility that causal direction could go differently. While attachment style remains the same across a person’s lifespan for a majority of people (Baldwin, 1992; J. A. Feeney & Noller, 1992; Kirkpatrick & Hazen, 1994; Scharfe & Bartholomew, 1994; Everett Waters, Merrick, et al., 2000; Everett Waters, Weinfield, et al., 2000), traumatic events occurring in adulthood could change a person’s views of relationships. Trying to determine what is a traumatic enough event to change a person’s attachment style is riddled with its own issues, but many negative life experiences like physical abuse and sexual revictimization could be possibilities (Joanne Davila, Benjamin R. Karney, & Thomas N. Bradbury, 1999; Gold, et al., 1999; Hamilton, 2000; Everett Waters, Weinfield, et al., 2000; Weinfield, et al., 2000). Therefore, an alternative sequence for this study could be that CSA increases the likelihood of victimization or perpetration of sexual coercion or adult abuse, which then alters a person’s adult attachment style. Future work that has the capabilities of determining causal direction should be done.
Conclusion

Utilization of attachment style as a mediator is an effective explanation of some of the effects CSA has on future romantic outcomes. This study reinforces that inclusion of mediators and moderators as the way to find out more about how and why this difference exists. While the mediation effects existed for both men and women, there were clear gender differences in how CSA affected attachment style. The only type of sexual abuse that affected male views of relationships was extra-familial and it only made men more anxious not more avoidant. Women, on the other hand, had ECSA affecting both types of attachment style and while it was only within the context of parental warmth, ICSA did associate with anxious attachment style. What is it that is creating this difference in how sexual abuse affects views of relationship? Is there something about the experience itself that matters? Or is it the way that men cope with the situation? Could it be Western cultural views of sexuality that reduces the lasting imprint sexual abuse has on their views of relationships and on the actual future romantic relationships? Studies of schemas—sexual schemas, personal relationship schemas, parenting schemas—are more common now in CSA research, especially as mediators (Alexander, 1993; Niehaus, et al., 2010). More work that includes schemas as mediators but also as outcomes needs to be done in the future.

In addition, family environment factors, type of sexual abuse, and gender matter for understanding the effects of sexual abuse on romantic outcomes. This study shows that separating sexual abuse into extra-familial and intra-familial abuse is important for determining the effects on future social, and probably psychological, outcomes. Research suggests that the experiences may be different, with ICSA being much more traumatic, so this should be
recognized in future work (Olson, et al., 2007). Family environment factors should not just be included as controls but should also be considered as moderators of how CSA could affect future social outcomes, particularly for women. Lastly, gender needs to be included as a moderator. The way moderators effect CSA and CSA impacts romantic schemas and outcomes is clearly different for men and women. By utilizing mediators and moderators we can better understand differences in outcomes for CSA survivors. While acknowledging that CSA affects adult romantic relationships is important, more information about how and why it happens is needed to help survivors moved forward in health relationships. Often in therapy addressing behavior is the fundamental goal, but underlying mechanisms for why behaviors occur do not get tackled. While a behavior may get modified, the underlying beliefs, attitudes, and understanding of others have not changed. Understanding the context in which the sexual abuse occurred as well as understanding how it affects an individual’s perception of others and what relationships should be like is essential for creating change. Recognizing the way child sexual abuse changes perceptions of people and creates psychological barriers helps the therapeutic community to create interventions and therapeutic tools and enables CSA survivors to create healthier, more rewarding personal relationships.
CHAPTER 8

References


## APPENDIX

### Tables

Table 1: Correlation Matrix for Men and Women (N=5564).

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Male Mean: 1.10 1.06 -0.012 -0.081 3.07 2.76 2.39 3.99 0.602 0.696 1.23 1.47
Male SD: 0.395 0.323 0.948 0.954 0.974 1.02 0.667 0.538 0.801 0.874 0.570 0.786

Female Mean: 1.31 1.22 0.119 -0.090 3.12 3.00 2.56 4.02 0.701 0.659 1.42 1.15
Female SD: 0.668 0.619 1.09 1.04 1.03 1.17 0.743 0.590 0.829 0.860 0.807 0.511

Note: Females on top half, males on bottom.
Female n = 3389, Male n = 2075.
**p<.01  * p<.05.
Table 2: Correlation Matrix for Females and Males in Instructor Category of Referral Type.

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Male Mean: 1.11 1.069 -0.045 0.048 2.92 2.53 2.28 4.13 0.529 0.644 1.17 1.42
Male SD: .398 .3410 .969 0.901 .934 0.924 0.628 0.468 0.749 0.862 0.439 0.720
Female Mean: 1.28 1.23 0.081 0.031 2.95 2.72 2.35 4.20 0.601 0.560 1.38 1.15
Female SD: .645 0.631 1.09 1.05 0.993 1.06 0.696 0.516 0.771 0.791 0.772 0.509

Note: Females on top half, males on bottom half. Female n = 1112, Males n=430  ** p<.01, * p<.05
Table 3: Correlation Matrix for Females and Males in Therapist Category of Referral Type

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Male Mean  | 1.10 | 1.07 | -.015 | -.0209 | 3.14 | 2.93 | 2.47 | 3.88 | 0.764 | 0.783 | 1.24 | 1.46 |
Male SD     | 0.346 | 0.323 | 0.961 | 0.972 | 0.924 | 1.01 | 0.682 | 0.615 | 0.825 | 0.859 | 0.607 | 0.823 |
Female Mean | 1.29 | 1.19 | 0.140 | -.0206 | 3.19 | 3.06 | 2.66 | 3.88 | 0.680 | 0.647 | 1.39 | 1.13 |
Female SD   | 0.640 | 0.584 | 1.13 | 1.10 | 1.06 | 1.20 | 0.742 | 0.615 | 0.825 | 0.808 | 0.784 | 0.474 |

Note: Females on top half, males on bottom half. Female n = 479 Male n=388
** p<.01, * p<.05
Table 4: Correlation Matrix of Males and Females for Other Category of Referral Type.

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Male Mean: 1.10 1.06 0.000 -0.086 3.09 2.79 2.41 3.98 0.577 0.687 1.25 1.48
Male SD: 0.408 0.317 0.938 0.962 0.998 1.04 0.671 0.543 0.769 0.882 0.596 0.795

Female Mean: 1.33 1.23 0.138 -0.134 3.21 3.16 2.67 3.94 0.769 0.724 1.45 1.17
Female SD: 0.688 0.621 1.09 1.01 1.03 1.20 0.744 0.600 0.857 0.907 0.834 0.520

Note: Females on top half, males on bottom half. Female n = 1798 Male n=1257
** p<.01, * p<.05
Table 5: Significant Gender Differences for Both Direct and Indirect Paths in Model

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Mediator</th>
<th>Outcome</th>
<th>Males</th>
<th>S.E.</th>
<th>Females</th>
<th>S.E.</th>
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<th>p-value</th>
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<td>0.074*</td>
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Note: For direct path testing X²=32.172 df=28 p=0.27, RMSEA=0.007, CFI=1.000
For indirect path testing X²=33.845 df=48 p=0.94, RMSEA= 0.000, CFI=1.000.
*** <.001, ** <.01, * <.05, +<.10
Table 6: Parameter Estimates of Direct Effects for Women (n=3389).

<table>
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<tr>
<th>Predictor</th>
<th>Mediator</th>
<th>Outcome</th>
<th>Beta</th>
<th>B</th>
<th>S.E.</th>
<th>95% Confident Intervals for B</th>
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<td>0.144</td>
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Note: $X^2 = 29.839$, df = 27, p = .321; RMSEA = .006; CFI = 1.000

*** <.001, ** <.01, * <.05, +<.10
Table 7: Direct Path Parameter Estimates for Males (n =2075).

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<tr>
<th>Predictor</th>
<th>Mediator</th>
<th>Outcome</th>
<th>β</th>
<th>B</th>
<th>S.E.</th>
<th>95% Confidence Intervals for B</th>
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<td>Avoidant</td>
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<td>0.075</td>
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X² = 22.633, df =28, p=.75; RMSEA = .000; CFI = 1.000

*** <.001, ** <.01, * <.05, +<.10
Table 8: Indirect Effect Estimates for Men and Women

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<th>Women</th>
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<td>Coercion</td>
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**Men**

| ECSA Anxiety | Victim Sex Coercion | 0.006* | 0.003 | 0.001 | 0.011 | 0.006 |
| Family Anxiety | Victim Sex Coercion | 0.014** | 0.004 | 0.006 | 0.023 | 0.014 |
| Family Avoidant Anxiety | Victim Sex Coercion | 0.009** | 0.003 | 0.002 | 0.015 | 0.009 |
| Parental Warmth Anxiety | Victim Sex Coercion | -0.021*** | 0.006 | -0.032 | -0.010 | 0.020 |
| Parental Avoidant Anxiety | Victim Sex Coercion | -0.029*** | 0.006 | -0.041 | -0.016 | 0.028 |
| ECSA Anxiety | Victim Sex Coercion | 0.012** | 0.004 | 0.004 | 0.020 | 0.012 |
|                         | Anxiety | Adult Abuse Victim | Adult Abuse | Anxiety | Adult Abuse Victim | Adult Abuse | Anxiety | Adult Abuse Victim | Adult Abuse | Anxiety | Adult Abuse Victim | Adult Abuse | Anxiety | Adult Abuse Victim | Adult Abuse | Anxiety | Adult Abuse Victim | Adult Abuse | Anxiety | Adult Abuse Victim | Adult Abuse | Anxiety | Adult Abuse Victim | Adult Abuse | Anxiety | Adult Abuse Victim | Adult Abuse | Anxiety | Adult Abuse Victim | Adult Abuse | Anxiety | Adult Abuse Victim | Adult Abuse | Anxiety | Adult Abuse Victim |
|-------------------------|---------|--------------------|-------------|---------|--------------------|-------------|---------|--------------------|-------------|---------|--------------------|-------------|---------|--------------------|-------------|---------|--------------------|-------------|---------|--------------------|-------------|---------|--------------------|-------------|---------|--------------------|-------------|---------|--------------------|-------------|---------|--------------------|-------------|---------|--------------------|-------------|---------|--------------------|-------------|---------|--------------------|-------------|---------|
| Family Abuse            |         |                    | 0.026***    | 0.006   | 0.014              | 0.037       | 0.025   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Family Avoidant         |         |                    | 0.004†      | 0.002   | 0.000              | 0.008       | 0.004   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Parental Warmth Anxiety |         |                    | -0.038***   | 0.007   | -0.051             | -0.024      | 0.037   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Parental Warmth Avoidant|         |                    | -0.012*     | 0.005   | -0.022             | -0.001      | 0.011   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| ECSA Anxiety            |         |                    | 0.009**     | 0.003   | 0.002              | 0.016       | 0.009   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Family Abuse            |         |                    | 0.021***    | 0.005   | 0.011              | 0.031       | 0.020   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Family Avoidant         |         |                    | 0.004†      | 0.002   | 0.000              | 0.009       | 0.004   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Parental Warmth Anxiety |         |                    | -0.030***   | 0.006   | -0.043             | -0.018      | 0.029   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Parental Warmth Avoidant|         |                    | -0.014*     | 0.005   | -0.024             | -0.003      | 0.013   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| ECSA Anxiety            |         |                    | -0.023**    | 0.007   | -0.038             | -0.008      | 0.025   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Family Abuse            |         |                    | -0.051***   | 0.009   | -0.069             | -0.034      | 0.053   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Family Avoidant         |         |                    | -0.019**    | 0.006   | -0.030             | -0.007      | 0.019   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Parental Warmth Anxiety |         |                    | 0.076***    | 0.008   | 0.059              | 0.092       | 0.077   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Parental Warmth Avoidant|         |                    | 0.060***    | 0.007   | 0.045              | 0.074       | 0.061   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| ECSA Anxiety            |         |                    | 0.027**     | 0.009   | 0.010              | 0.044       | 0.030   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Family Abuse            |         |                    | 0.061***    | 0.010   | 0.040              | 0.081       | 0.063   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Family Avoidant         |         |                    | 0.015**     | 0.005   | 0.005              | 0.025       | 0.015   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Parental Warmth Anxiety |         |                    | -0.089***   | 0.009   | -0.107             | -0.071      | 0.091   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Parental Warmth Avoidant|         |                    | -0.048***   | 0.007   | -0.061             | -0.035      | 0.048   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| ECSA Anxiety            |         |                    | 0.015**     | 0.005   | 0.005              | 0.025       | 0.015   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Family Abuse            |         |                    | 0.033***    | 0.007   | 0.021              | 0.046       | 0.033   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |
| Parental Warmth Anxiety |         |                    | -0.049***   | 0.007   | -0.063             | -0.035      | 0.033   |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |                    |             |         |

Note: Females: X² = 29.839, df =27, p=.321; RMSEA =.006; CFI = 1.000
Males: X² = 22.633, df =28, p=.75; RMSEA = .000; CFI = 1.000
*** <.001, ** <.01, * <.05, +<.10
Table 9: Significant Differences Based on Referral Type for Men and Women.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Outcome</th>
<th>Instructor</th>
<th>S.E.</th>
<th>Therapist</th>
<th>S.E.</th>
<th>Other</th>
<th>S.E.</th>
<th>Wald Test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Women</strong></td>
<td></td>
<td>B</td>
<td>β</td>
<td>S.E.</td>
<td>β</td>
<td>S.E.</td>
<td>X²</td>
<td>p-value</td>
<td></td>
</tr>
<tr>
<td>Parental Warmth Anxiety</td>
<td>Anxiety</td>
<td>-0.16***</td>
<td>0.06</td>
<td>-0.28***</td>
<td>0.05</td>
<td>4.36</td>
<td>&lt;.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perpetrator or Adult Abuse</td>
<td></td>
<td>0.14***</td>
<td>0.03</td>
<td>0.22***</td>
<td>0.02</td>
<td>3.71</td>
<td>&lt;.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICSA</td>
<td>Perpetrator or Adult Abuse</td>
<td>0.08**</td>
<td>0.02</td>
<td>0.01</td>
<td>0.02</td>
<td>4.98</td>
<td>&lt;.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental Warmth Perpetrator or Adult Abuse</td>
<td>0.06</td>
<td>0.04</td>
<td>-0.06</td>
<td>0.04</td>
<td>5.09</td>
<td>&lt;.001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECSA * Parental Warmth Perpetrator or Adult Abuse</td>
<td>0.01</td>
<td>0.04</td>
<td>0.62**</td>
<td>0.04</td>
<td>10.38</td>
<td>&lt;.001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental Warmth Perpetrator or Adult Abuse Intimacy</td>
<td>0.07*</td>
<td>0.03</td>
<td>0.13***</td>
<td>0.02</td>
<td>4.56</td>
<td>&lt;.001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental Warmth ICSA Perpetrator or Sex Coercion</td>
<td>0.19 ***</td>
<td>0.03</td>
<td>-0.13+</td>
<td>0.07</td>
<td>16.73</td>
<td>&lt;.001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECSA</td>
<td>Perpetrator or Sex Coercion</td>
<td>-0.09**</td>
<td>0.03</td>
<td>-0.13+</td>
<td>0.07</td>
<td>12.39</td>
<td>&lt;.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental Warmth Perpetrator or Sex Coercion</td>
<td>-0.19**</td>
<td>0.06</td>
<td>0.12</td>
<td>0.11</td>
<td>7.21</td>
<td>&lt;.001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Abuse Perpetrator or Sex Coercion</td>
<td>-0.19**</td>
<td>0.06</td>
<td>0.01</td>
<td>0.05</td>
<td>6.74</td>
<td>&lt;.001</td>
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<tr>
<td>ICSA * Parental Warmth Perpetrator or Sex Coercion</td>
<td>0.36***</td>
<td>0.06</td>
<td>-0.13</td>
<td>0.13</td>
<td>11.70</td>
<td>&lt;.001</td>
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<td></td>
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<tr>
<td>ECSA * Family Abuse Perpetrator or Sex Coercion</td>
<td>0.32***</td>
<td>0.06</td>
<td>0.01</td>
<td>0.05</td>
<td>15.25</td>
<td>&lt;.001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Abuse Victim Sex Coercion</td>
<td>0.02**</td>
<td>0.01</td>
<td>0.22*</td>
<td>0.10</td>
<td>4.34</td>
<td>&lt;.001</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: B = Beta coefficient, S.E. = Standard Error, Wald Test = Chi-square test statistic, p-value = Significance level.
### Males

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Outcome</th>
<th>b</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>RMSEA</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental Warmth</td>
<td>Perpetrator or Sex Coercion</td>
<td>-0.02*</td>
<td>0.01</td>
<td></td>
<td>-0.04***</td>
<td>0.01</td>
<td>3.77</td>
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<tr>
<td>Parental Warmth</td>
<td>Victim Adult Abuse</td>
<td>-0.03*</td>
<td>0.01</td>
<td></td>
<td>-0.06***</td>
<td>0.01</td>
<td>5.38</td>
</tr>
<tr>
<td>Parental Warmth</td>
<td>Perpetrator or Adult Abuse</td>
<td>-0.03**</td>
<td>0.01</td>
<td></td>
<td>-0.06***</td>
<td>0.01</td>
<td>6.86</td>
</tr>
</tbody>
</table>

### Females

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Outcome</th>
<th>b</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>RMSEA</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental Warmth</td>
<td>Perpetrator or Sex Coercion</td>
<td>-0.00</td>
<td>0.04</td>
<td></td>
<td>0.09**</td>
<td>0.03</td>
<td>4.60</td>
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<tr>
<td>Parental Warmth</td>
<td>Victim Adult Abuse</td>
<td>0.03</td>
<td>0.04</td>
<td></td>
<td>-0.10*</td>
<td>0.05</td>
<td>4.16</td>
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<tr>
<td>Parental Warmth</td>
<td>Intimacy</td>
<td>0.12**</td>
<td>0.04</td>
<td></td>
<td>0.01</td>
<td>0.02</td>
<td>5.40</td>
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<tr>
<td>Parental Warmth</td>
<td>Intimacy</td>
<td>0.16</td>
<td>0.11</td>
<td></td>
<td>0.49***</td>
<td>0.08</td>
<td>7.41</td>
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<td>Parental Warmth</td>
<td>Intimacy</td>
<td>-0.04</td>
<td>0.11</td>
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<td>-0.35***</td>
<td>0.08</td>
<td>6.63</td>
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<tr>
<td>Parental Warmth</td>
<td>Victim Adult Abuse</td>
<td>-0.00</td>
<td>0.00</td>
<td></td>
<td>0.02***</td>
<td>0.00</td>
<td>7.20</td>
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<tr>
<td>Parental Warmth</td>
<td>Victim Adult Abuse</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td>-0.03***</td>
<td>0.01</td>
<td>7.58</td>
</tr>
</tbody>
</table>

Note: Males- $X^2=82.277$ df=84 p=.53, RMSEA =0.000, CFI=1.000
n instructor =430, n therapist =388, n other=1257
Females- $X^2=101.432$ df=72 p=.01, RMSEA -0.019, CFI=0.996
n instructor =1112, n therapist = 479, n other=1798  *** <.001, ** <.01, * <.05, +<.10
df for Wald Test = 1
The subscript $a$ attached to the predictor denotes a mediator effect with anxiety mediating the link between the predictor and outcome.
Figures

Figure 1: Hypothesized Mediation
Part of Model

ICSA
ECSA
Family Abuse
Parental Warmth
ICSA * ECSA
ICSA * Parental Warmth
ICSA * Family Abuse
ECSA * Parental Warmth
ECSA * Family Abuse

Anxious Attachment
Avoidant Attachment

Victim Sex Coercion
Perpetrator Sex Coercion
Victim Adult Abuse
Perpetrator Adult Abuse
Intimacy
Conflict
Figure 2: Hypothesized Direct Effects of Model

ICSA
ECSA
Family Abuse
Parental Warmth
ICSA * ECSA
ICSA * Parental Warmth
ICSA * Family Abuse
ECSA * Parental Warmth
ECSA * Family Abuse

Victim Sex
Coercion
Perpetrator Sex
Coercion
Victim Adult
Abuse
Perpetrator Adult
Abuse
Intimacy
Conflict
Figure 3: Interaction Effects between ICSA and Parental Warmth on Intimacy for Men

Levels of Intimacy

Intra-familial Sexual Abuse

- Low parental warmth
- High parental warmth
Figure 4: The Association between Intra-familial Sexual Abuse and Anxious Attachment Style Moderated by Parental Warmth for Women

- Low parental warmth (-1SD)
- High parental warmth (+1SD)
Figure 5: Association Between ICSA and Conflict Moderated by Parental Warmth for Women

Level of Conflict during Communication vs. Intra-familial Sexual Abuse

- high parental warmth
- low parental warmth
Figure 6: The Association Between ICSA and Perpetration of Sexual Coercion Moderated by Parental Warmth for Women

Degree of Perpetration of Sexual Coercion

Intra-familial Sexual Abuse

- low parental warmth (-1 SD)
- high parental warmth (+1 SD)
Figure 7: Association Between ECSA and Intimacy Moderated by Family Abuse for Women

Level of Intimacy

Low Family Abuse (-1 SD)

High Family Abuse (+1 SD)
Figure 8: Association Between ECSA and Perpetration of Adult Abuse Moderated by Parental Warmth for Women in the "Other" Referral Group

Perpetration of Adult Abuse

Mini
Never Rarely Sometimes Often Very Often Max

Extra-familial Sexual Abuse

-- low parental warmth (-1 SD)

- high parental warmth (+1 SD)