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Brent Warren Smith

August 2015

THE ASSOCIATION BETWEEN FOSTER PARENT KNOWLEDGE OF CHILD
SEXUAL TRAUMA, PARENTAL SELF-EFFICACY, AND RETAINMENT OF
SEXUALLY ABUSED FOSTER CHILDREN

A Dissertation Presented to the
Faculty of the College of Education
University of Houston

In Partial Fulfillment
of the Requirements for the Degree

Doctor of Philosophy

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Abstract

Children who have been victims of sexual abuse often exhibit a wide range of negative behavioral, emotional, and psychological outcomes. Children involved in the foster care system are particularly likely to have experienced sexual abuse, and are also at a greater risk for subsequent pathology. While sexual trauma is relatively common in foster child populations, little is known about foster parents' knowledge of sexual trauma and its effects on children. Furthermore, little research has been done regarding foster parents' perceptions of sexually abused children, nor on foster parents' willingness to foster such children. These variables are particularly salient given the important role that parents and families play in moderating the effects of child sexual abuse (CSA). Two final variables likely relevant to the parenting of sexually abused foster children are parental sense of competence and parental self-efficacy. While parental sense of competence and self-efficacy have been linked to positive parenting and child outcomes in the general population, little research has examined these constructs as they relate to foster children, particularly sexually abused foster children.

This study attempted to examine foster parents' (a) knowledge of childhood sexual abuse effects and treatment options, and (b) sense of competence and self-efficacy as they relate to (c) the willingness and likelihood of retainment of a foster child by the foster parent. Three hypotheses were tested: (1) Increased foster parent knowledge of the effects of CSA will predict both increased willingness and predicted likelihood of fostering and retaining a sexually abused child, and this relationship will be

moderated by parental competence/self-efficacy; (2) Increased foster parent knowledge of treatment options for CSA will predict both increased willingness and predicted likelihood of fostering and retaining a sexually abused child, and this relationship will be moderated by foster parents' likelihood of seeking treatment; and (3) Increased foster parent likelihood of seeking treatment will predict both increased willingness and predicted likelihood of fostering and retaining a sexually abused child, and this relationship will be moderated by foster parents' sense of competence and self-efficacy.

The participants in this study were 201 current or former foster parents who had fostered at least one child in the United States. Participants were recruited online and through local agencies and fostering support groups. All participants completed the following measures: the Parenting Sense of Competence (PSOC), the Multidimensional Scale of Perceived Parental Efficacy (MSPPE), the Attitudes and Knowledge of Sexual Trauma Outcomes (AKOSTO), the Knowledge of Treatment (KoT), the Likelihood of Seeking Treatment (LST), the Willingness and Likelihood to Retain (WiLi-R), and a demographic form. Confirmatory factor analyses were used to assess construct validity of the AKOSTO, KoT, LST, and WiLi-R, as these measures were developed specifically for this study. Measures were then revised and re-analyzed in order to ensure good model fit. Moderate to good fit was obtained for each measure except the LST.

The data were then analyzed using a series of moderated multiple regressions to test the three research hypotheses. Direct effects were found for parental sense of competence and for knowledge of effective treatment options for negative outcomes of child sexual abuse. No moderation effects were detected. Results suggest that parental sense of competence and knowledge of treatment play a significant role in a foster

parent's reported willingness to foster a child with a history of sexual abuse. Future research should focus on replicating results and on developing interventions to increase foster parents' competence, particularly in working with children who have experienced sexual abuse.

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Chapter I

Introduction

The tragedy of unwanted, abandoned, and orphaned children has been present throughout human history. Different societies and cultures have addressed this problem in a variety of ways, but none have been successful in eliminating it. In the United States, rising social awareness and concern in the mid-to-late 1800's resulted in a growing number of services and institutions for homeless, abused, and neglected children (Solomon, 1973; Watkins, 1990). While these services and institutions did much to alleviate the suffering of many children, they failed to effectively address the problem of abuse, neglect, and abandonment. These problems persist today, and there are currently almost 3 million children living without either of their biological parents in the United States (U. S. Census Bureau, 2012). Many of these children are placed in the foster care system. A particularly challenging subset of the foster child population is children who have been sexually abused. Many of these children show a range of challenging behaviors directly related to their abuse that foster parents may be unprepared to deal with. Foster parents may have little knowledge of the effects of sexual abuse, and may be unaware of the evidence-based treatments effective in alleviating trauma symptomology. The purpose of this study is to examine foster parents' (a) knowledge of childhood sexual abuse effects and treatment options, and (b) sense of competence and self-efficacy as they relate to (c) the willingness and likelihood of retention of a foster child by the foster parent. It is hypothesized that greater knowledge of child sexual trauma and treatment will be associated with a higher likelihood of retaining sexually abused children, with parental sense of competence and self-efficacy moderating this relationship.

Chapter II

Literature Review

Defining Child Sexual Abuse

Child sexual abuse is any activity with a child that is performed for the sexual gratification of an adult or a substantially older child (Johnson, 2004). Child sexual abuse may include activities between an adult and child involving the genitals, anus, mouth, hands, or breasts. It may also be non-contactual, such as the exposure of sexual anatomy to a child, showing pornography to a child, using a child in the creation of pornographic images or video, or forcing a child to view sexual anatomy (Johnson, 2004). Once regarded as a rare occurrence, the past 40 years have seen a dramatic increase in awareness of the problem of child sexual abuse (Putnam, 2003). Child sexual abuse is a global issue, and has been found to be present in every country in which it has been assessed (Pereda, Guilera, Forns, & Gómez-Benito, 2009; Pérez-Fuentes et al., 2013).

A distinction is made between child sexual abuse, which involves an adult or substantially older child; and voluntary sexual play, which may involve kissing, the viewing of genitalia, or touching of the genitalia, chest, or buttocks between preadolescent children separated by less than 5 years of age (Behrman, Kliegman, & Jenson, 2004; Lamb & Coakley, 1993). Such voluntary sexual play between children of the same age does not constitute sexual abuse and is not addressed in this study.

The Cost of Child Sexual Abuse

There is clear evidence that child sexual abuse has enormous personal and societal costs. The findings of a recent, stringent literature review on the consequences of child

sexual abuse indicate that survivors of child sexual abuse are at risk for a wide range of mental and physical health problems (Maniglio, 2009). The authors of this review summarize these problems as follows:

...psychotic symptomatology (especially paranoid ideation), depression, anxiety (including posttraumatic stress and obsessive-compulsive symptomatology), dissociation, eating disorders, somatization, personality disorders (especially borderline personality disorder), self-esteem and self-concept impairment, suicidal and self-injurious ideation or behavior, substance abuse, sexual dysfunction, engagement in high-risk sexual behaviors (such as unprotected sexual intercourse, sex with multiple partners, early involvement in sexual activity, and prostitution), social impairment, interpersonal problems (including feelings of inadequacy, inferiority, or discomfort when interacting with others), hostility, anger, perpetration of sexual abuse, intelligence or learning impairment, revictimization, chronic non-cyclical pelvic pain, and non-epileptic seizures...(Maniglio, 2009, pp. 654)

Research has also confirmed that child sexual abuse is a general risk factor for numerous types of psychopathology. These include problems that are psychological, sexual, or behavioral in nature, as well as later re-victimization (Maniglio, 2009). A more detailed discussion of various detrimental outcomes related to child sexual abuse is presented later in this paper.

Prevalence

Estimates of the incidence and prevalence of child sexual abuses vary widely depending on the definition used, the method of assessing prevalence rates, and the population studied (Putnam, 2003). Child sexual abuse may be defined differently by different researchers depending on culture, worldview, and purpose of research. For example, some studies may use age of consent as a determinant of child sexual abuse, whereas others may use physical development and pubescence rather than a legal cut-off. Researchers have used age cut-offs as low as 12 years old (Sorrenti-Little, Bagley, & Robertson, 1984) and as high as 18 years old (Finkelhor, Hotaling, Lewis, & Smith, 1990). The definition and measurement of the outcomes of sexual abuse can be problematic due to developmental and cultural factors. For example, the experience of sexual abuse may be very different for a 4-year-old child in comparison to a 17-year-old adolescent, and the age at which sexual activity may be deemed appropriate varies by culture.

Prevalence rates can be assessed in a variety of ways. These include retrospective recall by adults, measures of incidence (e.g., the number of cases reported by authorities), and direct report from children. Regardless of the assessment method, many prevalence rate estimates likely underestimate the true rate of child sexual abuse for a variety of reasons. A substantial number of victims underreport abuse, even when the abuse has been court-documented and officially substantiated (Widom & Morris, 1997). The sex of the respondent may further influence willingness to disclose past abuse, with men and boys less likely to disclose abuse (Widom & Morris, 1997). Many studies have been based on convenience samples drawn from the general population, excluding

marginalized populations such as prisoners, homeless individuals, and those in treatment programs, where rates of child sexual abuse have been found to be higher (Molnar, Buka, & Kessler, 2001).

Perhaps partially because of inadequate sampling methods, prevalence rates vary. Summarizing various research findings, Johnson (2004) found that between 2-62% of women and 3-16% of men are victims of child sexual abuse. A more recent meta-analysis of worldwide data found 7.9% of men and 19.7% of women had suffered sexual abuse before the age of 18 (Pereda et al., 2009). In the United States, data from the National Comorbidity Survey found a self-reported child sexual abuse prevalence rate of 13.5% for females and 2.5% for males (Molnar et al., 2001). Over half of the sexual abuse incidents occurred only once (59% for females and 56% for males). Repeated sexual abuse was still common, however (45% for females and 48% for males), and a small minority of children experienced both an isolated incident of sexual abuse as well as a separate, repeated event of sexual abuse. Child sexual abuse appears to compose a significant portion of the child abuse reported in the United States. National data from the Department of Health and Human Services indicate that sexual abuse constitutes 25% of all child abuse officially reported, with physical abuse and emotional abuse constituting 58% and 27%, respectively (Sedlak et al., 2010).

Risk Factors for Sexual Abuse

A number of factors have been found to be associated with an increased risk of child sexual abuse. While an in-depth analysis of each of these factors is beyond the scope of this paper, three of the most salient and common risk factors involve sex, age, and family.

Sex

Sex is perhaps the most significant risk factor for becoming a victim of child sexual abuse (CSA). CSA is disproportionately directed towards females (Pereda et al., 2009). While previous research has found girls to be 2.5 to 3 times more likely to experience sexual abuse (Putnam, 2003), more recent data from the U.S. Department of Health and Human Services' Fourth National Incidence Study of Child Abuse and Neglect show that girls' risk of sexual abuse is 5 times that of boys' risk (Sedlak et al., 2010). Similarly, in a diverse sample of 733 college students, 84% of CSA victims were female (Ullman, 2007). Females are not only at greater risk of experiencing CSA in general, but are also more likely than males to experience penetrative abuse (Maikovich-Fong & Jaffee, 2010).

While research suggests males are less likely to be victims of CSA, it is likely that CSA of males is underreported (Cermak & Molitor, 1996). In addition, there is some evidence to suggest that male victims have worse outcomes than female victims. For example, sexually abused boys are more likely to experience behavioral and emotional problems than sexually abused girls, and are also at a greater risk of suicidality (Garnefski & Diekstra, 1997). However, more recent research has not found any sex differences in the severity of internalizing, externalizing, or trauma symptoms (Maikovich-Fong & Jaffee, 2010). It is possible that methodological and sample differences are responsible for discrepant findings regarding sex differences. Confounding variables, such as physical abuse or greater threats of harm, may also be at play. Further research is needed to clarify the risk factors and differences in experience of abuse that exist between males and females.

Age

Along with gender, age is one of the most significant risk factors for being victimized. In general, older children are at a greater risk of being victimized than are younger children. However, younger children are more likely to be victims of intrafamilial abuse (Mian, Wehrspann, Klajner-Diamond, Lebaron, & Winder, 1986). According to national data from 2011, 16.7% of sexually abused children were between 0 to 5 years old at the time of the abuse. A further 34.7% of sexually abused children were between the ages of 6 and 11 years old, while almost half (48.1%) of sexually abused children were between the ages of 12 and 17 years old (U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau, 2012). Older children are also more likely than younger children to show both externalizing and internalizing symptoms after experiencing sexual abuse (Maikovich-Fong & Jaffee, 2010).

Family

The majority of sexually abused children are abused by a family member (Shapiro, Kaplow, Amaya-Jackson, & Dodge, 2012) or other known perpetrators (Ullman, 2007). Abuse by relatives may be more severe than abuse by non-relatives, and may begin at a significantly younger age (Ullman, 2007). In addition, the duration of the abuse is significantly greater when a relative is the perpetrator as compared to a stranger or acquaintance (Ullman, 2007). Higher rates of CSA have been found in both men and women who grew up in unhappy families with high rates of conflict (Finkelhor et al., 1990; Finkelhor, 1993). Other family factors have also been found to be associated with and increased risk of child sexual abuse. These include living for some period without at

least one biological parent (Finkelhor et al., 1990), as well as having an impaired (i.e., disabled or ill) mother or having a stepfather (Finkelhor, 1993).

Outcomes, Associations, and Effects of Child Sexual Trauma

Children who have suffered sexual abuse or trauma may suffer both psychological and physical consequences (Johnson, 2004). Physical consequences include damage to the hymen in females, erythema or skin abrasions, bleeding in the anus or vagina, lacerations to the anal sphincter, and sexually transmitted diseases (Johnson, 2004). Some physical consequences of sexual abuse, such as damaged tissue, may heal relatively quickly and without scarring (McCann, Voris, & Simon, 1992), while other consequences, such as certain sexually transmitted diseases, may be permanent.

The psychological effects of CSA are more difficult to accurately measure and ascertain than the physical effects of CSA. First, psychological causality is harder to establish than is physical causality. While a ruptured hymen may be easily traceable to one specific event, psychological phenomena such as depression or disruptive behavior are much more difficult to link to one particular cause. Methodological weaknesses have led to the criticism that much of the existing sexual abuse literature is “vague in separating effects directly attributable to sexual abuse from effects that may be due to preexisting psychopathology in the child, family dysfunction, or to the stress associated with disclosure” (Beitchman, Zucker, Hood, daCosta, & Akman, 1991). This is particularly true for some long-term and developmental psychological effects of CSA, which may not become apparent until long after the abuse. Second, individual variables play a large role in how the victim experiences the abuse, reacts to the abuse, and makes sense of what happened. These variables include the victim’s age (Beitchman et al.,

1991), gender, and cognitive appraisals of the abuse. CSA affects different victims in different ways, and child sexual abuse is rarely an isolated event that leads clearly and directly to a single symptom or disorder (Chaffin, Wherry, & Dykman, 1997). Finally, the effects of CSA are moderated not only by individual variables, but by external variables as well. External variables include level of familial support, relationship between the child and perpetrator, the frequency of the abuse, the duration of the abuse, and the response of the victim's social and cultural group. When examining the effects of sexual abuse on children, it is important to remember that "sexually abused children constitute a very heterogeneous group with many degrees of abuse about whom few simple generalizations hold" (Putnam, 2003).

Despite the difficulties inherent in measuring the non-physical effects of trauma, a large amount of research has demonstrated clear links between CSA and emotional, behavioral, and psychological maladjustment (e.g., Johnson, 2004; Maniglio, 2009; McLeer et al., 1998; Molnar et al., 2001; Paolucci, Genuis, & Violato, 2001; Putnam, 2003; Ullman, 2007). Significant psychopathology has been observed in many children who have been sexually abused. For example, McLeer et al. (1998) found that approximately 63% of a non-clinically referred sample of sexually abused children met criteria for at least one psychiatric disorder. These psychological effects of child sexual abuse may be immediate, short-term, and/or long-term (Paolucci et al., 2001). In a review of the relevant literature, Johnson (2004) found numerous psychological and behavioral consequences, including poor academic performance, anxiety, depression, dissociation, emotional problems, paranoid ideation, psychotic disorders, post-traumatic stress disorder, somatic problems, suicidal ideation, suicide attempts, hopelessness,

substance abuse, and sexualized behavior. Data from the National Comorbidity Survey revealed similar associations, with individuals who had experienced sexual abuse as children having significantly higher lifetime prevalence rates of various psychiatric disorders such as depression, substance abuse problems, and posttraumatic stress disorder, even when parental psychopathology, verbal and physical abuse, parental substance use, and other factors were controlled for (Molnar et al., 2001).

Unfortunately, the negative outcomes associated with child sexual abuse often continue after childhood has ended. Numerous studies have found a strong association between experiencing sexual abuse as a child and later psychopathology for both men and women (e.g., Molnar et al., 2001). For example, 82% of men and 78% of women reporting child sexual abuse meet criteria for at least one lifetime mood, anxiety, or substance use disorder, compared with 51.2% of men and 48.5% of women who have not experienced child sexual abuse (Molnar et al., 2001).

Common Effects and Outcomes of Child Sexual Abuse

While an in-depth discussion of every possible effect or outcome of CSA is beyond the scope of this paper, there are a number of outcomes of CSA which are relatively common and also may be difficult for caregivers to deal with. These include externalizing behaviors, depression and suicidal ideation, inappropriate sexual behaviors, PTSD, and other emotional problems.

Externalizing behaviors. A review of the literature by Beitchman et al. (1991) found that sexually abused children were more likely to exhibit behavioral problems, including sexual aggression. In addition, sexually abused adolescents were more likely to exhibit “acting out” behaviors including skipping school, abusing alcohol or drugs, and

running away. Similarly, McLeer et al. (1998) found that sexually abused children scored significantly higher on the Externalizing scale of the Child Behavior Checklist compared to non-abused peers on (McLeer et al., 1998). Children who have been sexually abused are more likely to exhibit aggressive behaviors. These behaviors are often clinically severe: disorders such as oppositional defiant disorder (ODD) have been found to be significantly associated with a history of sexual abuse (Ford et al., 2000), and sexually abused males are at a 20.8 relative risk of being diagnosed with a conduct disorder (Spataro, Mullen, Burgess, Wells, & Moss, 2004).

ADHD is one of the most commonly diagnosed disorders among victims of CSA (McLeer, Deblinger, Henry, & Orvaschel, 1992). Sexually abused children may show symptoms of inattention, hypervigilance, restlessness, and distractibility (Weinstein, Staffebach, & Biaggio, 2000). Research has found that children may exhibit attention problems in general and fidgetiness and distractibility in particular for months or years following sexual abuse (Shapiro et al., 2012). These symptoms are consistent with the experiences of trauma and with PTSD, but may result in a mistaken diagnosis of ADHD (Weinstein et al., 2000). Misdiagnosis can have serious implications, as the treatment of ADHD (stimulant medication, behavior management, and/or social skills training) is very different from the treatment of PTSD (primarily cognitive-behavioral), and is unlikely to be effective in addressing the underlying perceptions and cognitive appraisals maintaining stress and anxiety surrounding the trauma (Weinstein et al., 2000).

However, some sexually abused children may have both PTSD and comorbid ADHD. It is also possible that children with ADHD are more likely to be sexually abused. Further research is needed regarding accurate differential diagnosis in this population.

Depression and suicidal ideation. One of the most common associations with childhood sexual abuse is subsequent depression, often including suicidal ideation. Individuals who have experienced CSA have a 150% increase in risk of becoming depressed or suicidal (Paolucci et al., 2001). Exposure to sexual victimization is also directly related to increased feelings of depression in adolescents, a link that is partially mediated by a CSA-induced reductions in self-esteem (Turner, Finkelhor, & Ormrod, 2010). McLeer et al. (1998) found that almost half (47.4%) of sexually abused children scored in the clinical range on the Children's Depression Inventory, while only 19.2% of non-abused children scored in this range. Furthermore, almost one-third (31.6%) of sexually abused children reported suicidal ideation (McLeer et al., 1998).

More intrusive forms of CSA may be particularly damaging. Children who have experienced intercourse CSA are at an increased odds ratio of 8.1 for major depression and of 11.8 for a suicide attempt (Fergusson, Hornwood, & Lynskey, 1996). Risks may be increased for adolescents as compared to younger children, and numerous studies have found that sexually abused adolescents are more likely to experience suicidal ideation, depression, and low self-esteem (Beitchman et al., 1991). Adolescents and young adults who have experienced CSA are three times more likely to engage in suicidal ideation or become depressed (Brown, Cohen, Johnson, & Smailes, 1999). Furthermore, the risk of repeated suicide attempts in sexually abused adolescents is eight times greater than in non-abused youth (Brown et al., 1999). Unfortunately, the association between depressive symptomology and CSA does not end in childhood. A review of the research in 2001 found that both men and women with a history of CSA were almost twice as

likely as non-victims to experience a diagnosis of depression in their lifetime (Molnar et al., 2001).

Inappropriate sexual behaviors. Inappropriate sexual behaviors are among the best-documented outcomes of CSA (Putnam, 2003), and victims of CSA are at a 100% increase in risk of becoming sexually promiscuous (Paolucci et al., 2001). Sexual behavior may be manifested differently depending on the age and developmental level of the victim. In younger children, some researchers have found evidence of inappropriate sexual behaviors including inserting objects into the vagina or anus, masturbation, requesting sexual stimulation, and sexual knowledge (Mian et al., 1986). Pre-school female victims are more likely to exhibit inappropriate sexual behavior than any other externalizing behavior (Mian, Marton, & LeBaron, 1996). In a review of the literature, Beitchman (1991) found that school-age victims of sexual abuse are more likely to engage in inappropriate sexual behaviors such as sexual aggression and excessive masturbation. These behaviors are difficult not only for parents and other caregivers, but may also be challenging for teachers and other school personnel to deal with.

The association between CSA and inappropriate sexual behaviors is also seen in adulthood. A meta-analysis by Paolucci et al. (2001) found that victims of CSA had a 57% increase in risk of later perpetration of CSA. In another meta-analysis of 46 studies involving women, victims of child sexual abuse were significantly more likely to engage in unprotected sexual intercourse, trade sex for money or drugs, and engage in sexual acts with multiple partners (Arriola, Loudon, Doldren, & Fortenberry, 2005). The authors noted that the effect sizes for sex trading were significantly larger for those victimized in adolescence.

Post-traumatic stress disorder. Post-traumatic stress disorder, or PTSD, involves recurrent and intrusive recollections or thoughts, distressing dreams, avoidance or numbing of general responsiveness, and feelings of detachment, among other symptoms. Many victims of child sexual abuse suffer from PTSD (Beitchman et al., 1991). In fact, PTSD is the most frequently diagnosed disorder in sexually abused children (Weinstein et al., 2000), and approximately 37% of sexually abused children develop PTSD following disclosure and termination of the abuse (McLeer et al., 1998). For victims of child sexual abuse the odds of experiencing post-traumatic stress disorder are more than eight times higher than the general population (Molnar et al., 2001). A meta-analysis by Paolucci et al. (2001) found a 143% increase in the risk of developing PTSD symptoms following CSA. While some sexually abused children do not develop PTSD, a majority of CSA victims exhibit sub-threshold symptoms. McLeer et al. (1998) found that 65% of sexually abused children reported re-experiencing symptoms, while approximately 44% exhibited at least three avoidant behaviors. Furthermore, approximately 58% had two or more symptoms of hyperarousal (McLeer et al., 1998).

The experience of sexual abuse as a child does not lead in a simple and direct way to PTSD. Rather, a number of variables are related to later frequency and severity of PTSD symptoms. A study involving a large number of college students by Ullman (2007) found that CSA victims abused by relatives had more PTSD symptoms compared to those abused by non-relatives. Delaying disclosure of abuse was related to more PTSD symptoms. Victims who experienced penetration forms of CSA showed a greater number of PTSD symptoms than did victims of non-penetration abuse, as did victims who blamed themselves at the time of the abuse. Finally, victims of CSA who

experienced negative social reactions when disclosing their abuse showed more signs of PTSD than those who did not.

As previously mentioned, many of the symptoms of PTSD - such as difficulty concentrating, hypervigilance, sleeplessness, and irritability - overlap with symptoms of ADHD. This makes differential diagnosis difficult, and sexually abused children are at risk for being misdiagnosed with ADHD (Weinstein et al., 2000).

Academic and social outcomes. Victims of child sexual abuse evidence a variety of other problematic academic and social outcomes. Being a victim of child sexual abuse is associated with poorer educational outcomes. Children who have experienced CSA have a 71% increase in risk of reduced academic performance (Paolucci et al., 2001). Teachers rate sexually abused children as having poorer academic performance and increased behavioral problems (Tong, Oates, & McDowell, 1987). Negative academic effects begin early on, with young (age 3-5) female victims of CSA performing significantly worse on measures of vocabulary than non-abused children (Mian et al., 1996). Victims of CSA are also more likely to experience problems in social relationships. Young female victims of sexual abuse in particular have significantly more problems with anxiety and social withdrawal compared to their non-abused peers (Mian et al., 1996). Academic and social outcomes cause significant distress for children, and can impair functioning across a variety of settings, including the home and school.

Moderating and Mediating Variables

Psychological consequences of child sexual abuse may be moderated by the child's age and development, the sex of the child, the types of sexual acts performed,

threats and/or bribes made by the perpetrator, fear of retribution, and/or relationship to the perpetrator; and they may be mediated by coping styles, resilience of the child, availability of effective treatment, and cultural variables (Beitchman et al., 1991; Chaffin et al., 1997; Johnson, 2004). Some of the more common moderating and mediating variable are briefly detailed below.

Coping style. The way in which children make sense of abuse and choose to cope with it has been found to mediate outcomes. Chaffin, Wherry, and Dykman (1997) found that children who have been sexually abused tend to endorse one of four coping styles: avoidant, internalized, angry, and active/social. Each of the coping styles was in turn related to different types of symptoms. Children who used an avoidant coping strategy showed an increase in sexual anxiety and negative attitudes towards sexuality. However, children using an avoidant coping strategy also showed fewer behavioral symptoms, and avoidant coping was negatively associated with parent-reported externalizing behaviors, delinquency, and aggressive behavior. While avoidant coping had some benefits, the authors speculated that these benefits were short-term, as continued avoidance likely precludes the cognitive processing needed to resolve trauma (Chaffin et al., 1997). An internalized coping style was significantly associated with PTSD hyperarousal symptoms and subjective guilt, while an angry coping style was positively associated with teacher-reported externalizing behaviors, anxiety, depression, social problems, thought problems, and aggression (Chaffin et al., 1997). Active/social coping, which involved talking with someone or thinking of ways to solve the problem, was the only coping strategy not associated with any negative abuse-related or behavioral

symptoms. Unfortunately, active/social coping was not associated with any measureable benefits, either.

More recent research has found different results. Shapiro, Kaplow, Amaya-Jackson, and Dodge (2012) evaluated 56 sexually abused children aged 8-13. Each child's coping style was coded from behavior displayed during a forensic interview. A principal component analysis resulted in a 3-factor solution, which in turn resulted in Avoidant, Positive Affective, and Expressive coping styles. The children were evaluated again from 8 to 36 months later. During the second evaluation information regarding depression, anxiety, aggression, attention problems, and PTSD symptoms were gathered. In contrast to Chaffin et al. (1997), the authors found that an avoidant coping style was not significantly predictive of anxiety symptoms. Avoidant coping was, however, significantly associated with future depression symptoms, PTSD symptoms, and dissociative symptoms, and was marginally predictive of attention problems and aggression, which supports some of Chaffin et al.'s hypotheses regarding the longer term outcomes of avoidant coping.

Differences in the coping research literature may be due to differing methodology. What Shapiro et al. (2012) termed as avoidant coping could also include elements of an internalized coping style. Because Shapiro et al. used behavioral observation only when ascertaining coping style, it is likely that they failed to evaluate underlying cognitive strategies or self-talk the child was using. While the findings of these two studies differ, both found that avoidant coping was significantly associated with negative outcomes, a phenomena established in the research literature (Kaplow, Dodge, Amaya-Jackson, & Saxe, 2005; Simon, Feiring, & McElroy, 2010). Avoidance and/or ignoring of

problematic symptomology or intrusive thoughts is not a helpful coping style for children in the long term; however, adults who are uncomfortable with discussing abuse may indirectly encourage and prolong these harmful behaviors in children.

Age and sex. Research regarding the moderating effect of age in child sexual abuse is mixed. Some studies have found evidence of greater emotional and behavioral disturbance in children abused during their teen and pre-teen years, while other research has found greater symptoms of trauma in individuals abused as young children (Beitchman et al., 1991). Mcleer et al. (1998) found that older children (at least 12 years old) met criteria for more psychiatric disorders than younger children. Due to the disproportionate number of female victims of child sexual abuse, differences in psychopathology based on sex are hard to determine (Beitchman et al., 1991), although some researchers have found that females have poorer outcomes (Weiss, Longhurst, & Mazure, 1999). More research is needed to adequately determine the effects of age and sex on outcomes of child sexual abuse.

Abuse factors. Various abuse factors, such as type of abuse, relationship to the abuser, and length of abuse are associated with a number of outcomes. Sexual abuse that is more physically intrusive, such as digital penetration, predicts later behavior problems in young victims (Mian et al., 1996), and victims of child rape show worse outcomes than victims of child sexual molestation only (Molnar et al., 2001). The child's relationship to the abuser has also been found to impact outcomes. The psychological damage resulting from child sexual abuse is often worse when the child has a close relationship with the perpetrator (Ullman, 2007). For females, child rape resulted in higher odds of PTSD if the perpetrator was a step-relative or acquaintance rather than a stranger (Molnar et al.,

2001). A review of the literature found that CSA perpetrated by father figures resulted in the most psychological damage to female victims (Browne & Finkelhor, 1986). It appears that CSA perpetrated by someone well known to the victim, particularly when it involves force, becomes an isolating and shameful experience (Young, Riggs, & Robinson, 2011).

Researchers have often looked at abuse severity as a predictor of outcomes among sexually abused children. “Severity” has been defined in a number of ways, but usually includes one or more of the following characteristics: physical intrusiveness, frequency of abuse, duration of abuse, and relationship to the perpetrator (Rind, Tromovitch, & Bauserman, 1998; Young et al., 2011). Unfortunately, little research has been done on the validity of using each of these characteristics as a marker of severity. In an attempt to develop a more empirically grounded measure of CSA severity, Young, Riggs, and Robinson (2011) surveyed 275 community college students with a history of sexual abuse. The authors noted that while sexual abuse severity is predictive of later outcomes, such as adult well-being or specific psychological disorders, the concept of “severity” is not well-defined. Their data resulted in a 7-factor solution including Less Intrusive CSA, Humiliation/Fear, Photographic CSA, More Intrusive CSA, Familiarity with Perpetrator, Physical Force/Rape, and Active Digital Penetration. The authors found that familiarity with the perpetrator and use of force were the two factors most strongly related to negative emotions of humiliation, fear, and self-consciousness. In addition, these two factors were also related to the inability to tell anyone about the abuse. While there is still much research to be done in this area, it appears that children who have been sexually abused by family members or by others with whom they have a close

relationship, as well as children who have been subjected to forced abuse or rape, may be at greater risk for negative emotional and behavioral outcomes.

Home and family environment. The quality of the home environment is a significant predictor of symptom severity for sexually abused children. Victims of intrafamilial abuse are more likely to have parents who are separated or divorced (Mian et al., 1986). The majority of sexually abused children reported in the research literature come from families that are single or divorced (Beitchman et al., 1991). Children with mothers who have limited level of education show poorer behavioral outcomes, as do children with mothers who have a past history of sexual abuse (Mian et al., 1996). Alcohol abuse by the father is the most significant predictor of the severity of emotional and behavioral outcomes for young female victims of sexual abuse (Mian et al., 1996).

Family variables such as conflict, neglect, attachment, and emotional abuse, among others, play a significant role in negative outcomes of child abuse victims. Startlingly, one review of the literature found the association between abuse and later maladjustment to be nonsignificant when family variables were controlled for (Rind et al., 1998), although this review has been the subject of much controversy (see Dallam, 2001). Other reviews of the literature have found that poor family environment and family dysfunction account for significant portions of the association between child sexual abuse and later psychopathology (Klonsky & Moyer, 2008; Weiss et al., 1999). Children who receive more negative reactions from family and others are more likely to use internalized coping strategies and to experience more guilt and hyperarousal (Chaffin et al., 1997). The importance of home and family environment may be especially relevant to sexually abused children placed in foster care. These children must cope with

past abuse, as well as with an entirely new set of stressors (e.g., a new home, new family, new school, etc.). Based on the important roles families play in sexual abuse outcomes, it is likely that foster home and family environment are extremely important in determining a child's subsequent coping strategies and recovery after an incidence of abuse.

While much of the research literature has found support for these moderating variables, a meta-analysis by Paolucci et al. (2001) found that there were no differences in risk of negative outcomes based on gender, socioeconomic status, type of abuse, age at which abuse occurred, relationship to perpetrator, or number of incidents of abuse. The authors noted that their findings differed from the findings of many other studies which have found important moderating variables. It is possible that some studies lack the methodological rigor needed to adequately detect important moderating variables.

Treatment of Child Sexual Trauma

While the experience of sexual abuse can be extremely difficult for and damaging to children, there is strong evidence that treatment for many of the outcomes of CSA is effective (Trask, Walsh, & DiLillo, 2011). Trask et al. (2011), in a recent meta-analysis of treatment effects for common outcomes of CSA, reviewed 35 published studies and unpublished dissertations. The authors found medium average effect sizes for the reduction of PTSD symptoms, internalizing problems, and externalizing problems. Moderators of treatment effectiveness were also reviewed. The authors found that individual and group treatments were equally effective, suggesting that group therapy for sexually abused children may be a cost-efficient and practical way of increasing access to treatment. Larger treatment effects were found in studies with older children, possibly because older children possess the mental capacity to more easily understand the

cognitive components of treatment (Trask et al., 2011). The authors also found that treatments based on a cognitive-behavioral theoretical framework were more effective than treatments based on other models (Trask et al., 2011).

Consistent with the findings of Trask et al. (2011), the most effective treatment for children who have been victims of sexual abuse is cognitive-behavioral therapy (CBT), particularly CBT with the abused child and a non-offending parent (Putnam, 2003; Saywitz, Mannarino, Berliner, & Cohen, 2000). In particular, a form of therapy called trauma-focused cognitive-behavioral therapy (TF-CBT) has been shown to be highly effective in reducing behavior problems, depression, and PTSD symptomatology in sexually abused children (Cohen, Deblinger, Mannarino, & Steer, 2004). TF-CBT involves psychoeducation about trauma and reactions to trauma, the management of physiologic and affective responses to trauma, cognitive coping skills, correction of cognitive distortions, and safety planning for the future (Cohen, Berliner, & Mannarino, 2010). In recognition of the importance of context and environment, TF-CBT also includes a parenting component consisting of behavioral management and skills training (Cohen et al., 2010). Other forms of therapy include individual therapy and family therapy, although the structure of these therapies may differ by treatment setting and practitioner.

The Foster System in the United States

Foster care is “a temporary living arrangement for abused, neglected, and dependent children who need a safe place to live when their parents or another relative cannot take care of them” (North Carolina Division of Social Services, 2012). The history of the foster system in the United States began in 1736, when 7-year-old

Benjamin Eaton became the nation's first foster child (National Foster Parent Association, 2012). However, it would take 200 years for the modern foster home movement to develop. In 1853, Charles Loring Brace, concerned about large numbers of immigrant children sleeping in the streets of New York, arranged for families in the South and West to provide free homes for such children. While the system was far from perfect and many children were placed in circumstances similar to indenture, Brace's idea provided the foundation for the modern foster care movement (National Foster Parent Association, 2012). State governments and social agencies became involved in foster home placements, with the governments of Massachusetts, Pennsylvania, and South Dakota taking the lead (National Foster Parent Association, 2012). Supervision of foster parents by social agencies began in the early 1900's. Children's individual needs began to be considered when making placements, and state inspection of foster homes became increasingly common (National Foster Parent Association, 2012).

There are many reasons why biological parents or legal guardians are not able to meet the needs of their children, including poverty, mental illness, homelessness, and substance abuse (National Commission on Family Foster Care, 1991). In other cases biological parents or legal guardians neglect or abuse their children, resulting in state custody of their children. Children may be involved in the foster system until their family of origin becomes stable enough for them to return, or children may remain in foster care until a new family is found. Older children may simply "age out" of foster care if no suitable family is ever found for them.

There were more than 400,000 children in foster care in 2012 (Child Welfare Information Gateway, 2012). Of these children, 52% were male and 48% were female.

The mean age of children entering foster care was 7.7 years old in 2011, while the median age was slightly lower at 6.6 years old (Adoption and Foster Care Analysis and Reporting System, 2012). Foster children are placed in a variety of settings, or “placements.” About 27% of foster children are in relative homes, while almost half (47%) are in nonrelative foster family homes (Adoption and Foster Care Analysis and Reporting System, 2012). Of the remaining children, 9% are in institutional placements, 6% are in group homes, 5% are on trial home visits, 4% are in pre-adoptive homes, 1% have run away, and 1% are in supervised independent living (Adoption and Foster Care Analysis and Reporting System, 2012).

Over half (52%) of all foster children have a case goal of reunification with their parent or primary caretakers (Adoption and Foster Care Analysis and Reporting System, 2012). This goal is often accomplished: about half (52%) of all children who left the foster care system during 2011 were reunited with their parents or primary caretakers (Adoption and Foster Care Analysis and Reporting System, 2012). Children who are not reunified with their primary caregivers face a variety of fates including adoption, emancipation (whereby the child is legally freed from the control of his or her parents or guardians), or transfer to other relatives or agencies. Of the remainder of children who were not reunified with their parent(s) in 2011, 20% were adopted, 11% were emancipated, 8% were living with other relatives, 6% were placed under guardianship, 2% were transferred to other agencies, and 1% ran away (Adoption and Foster Care Analysis and Reporting System, 2012).

The number of children in foster care has dropped significantly over the past decade. There were 520,000 children in foster care in 2003, compared with 408,425

children in foster care in 2010 (Adoption and Foster Care Analysis and Reporting System, 2003, 2011). While the overall number of children in the foster care system has decreased, the number of foster children adopted has increased from 18% in 2003 to 23% in 2010 (Adoption and Foster Care Analysis and Reporting System, 2003, 2011). Similarly, the percentage of children reunified with their parents or primary caretaker has decreased from 55% in 2003 to 51% in 2010 (Adoption and Foster Care Analysis and Reporting System, 2003, 2011). The percentage of children placed with guardians increased from 4% in 2000 to 6% in 2010 (Adoption and Foster Care Analysis and Reporting System, 2003, 2011).

The amount of time spent in foster care can range from a few weeks to many years. In 2010, the median amount of time spent in foster care was 13.5 months, an increase of 1.6 months from 2003 (Adoption and Foster Care Analysis and Reporting System, 2003, 2011). In 2010 13% of children were in care for less than one month, while 24% of children were in care for one to two years (Adoption and Foster Care Analysis and Reporting System, 2003, 2011). Almost a third of all children were in foster care for an extended period of time: 12% for 2-3 years, 10% for 3-4 years, and 7% for 5 or more years (Adoption and Foster Care Analysis and Reporting System, 2003, 2011).

Characteristics of Children in the Foster Care System

Children in the foster system are extremely likely to have a current or past psychiatric diagnosis. Using a sample of 373 17-year-old youths in the foster care system in Missouri, McMillen et al. (2005) found that 61% of the sample had had at least one psychiatric disorder during their lifetime. Furthermore, 37% of the sample met criteria

for a psychiatric disorder in the past 12 months (McMillen et al., 2005). High rates of abuse and neglect were found in the sample. For example, 48% had been victims of physical abuse, 48% had been victims of physical neglect, and 35% were victims of sexual abuse. Only 27% of the youths had not experienced any of the three types of maltreatment, while 32% had experienced only one type of maltreatment, 23% had experienced two types of maltreatment, and 17% had experienced all three types of maltreatment (McMillen et al., 2005). Children in the foster care system also face a multitude of environmental, emotional, and psychological challenges, further compounding the harm done by sexual abuse.

Child Victims of Sexual Abuse in the Foster System

Prevalence rates. The exact prevalence rates of sexual and physical trauma in foster children are unclear, but research indicates that these rates are higher in the foster child population than in the general population. While up to 20% of females and 9% of males in the general population have suffered sexual abuse as children (Molnar et al., 2001; Pereda et al., 2009), 35% of children in foster care have experienced sexual abuse (McMillen et al., 2005). The rate of sexual abuse among foster children is likely an underestimate of the true rate of abuse, as many studies indicate that two-thirds of sexually abused children wait until adulthood to disclose their abuse (Ullman, 2007). In addition to sexual abuse, foster children often suffer from other forms of abuse or maltreatment. McMillen et al. (2005) found that 77% of sexually abused children in foster care had also been physically abused or neglected.

Outcomes and associations. Children in the foster care system who have experienced trauma show deficits across a wide range of cognitive, behavioral, and

emotional outcomes. A study of 267 foster children in three separate counties in the state of California found that foster children were more likely than the general population of children to exhibit behavior problems, have difficulties in social competence, and have a lower self-concept (Clausen, Landsverk, Ganger, Chadwick, & Litrownik, 1998). Using the Child Behavior Checklist - Parent Report Form, the authors found elevated mean scores on each of the narrow and broad band scales measuring social competence and behavior problems. Many of these mean scores were at or near one standard deviation above the mean, including scores on the Attention Problems, Aggressive Behavior, and Social Problems scales (Clausen et al., 1998). Furthermore, deficits in social competence and behavior problems were seen at similar rates across counties, with only one scale (Sex Problems) showing a statistically significant difference. This indicates that foster children from different backgrounds are likely to suffer similar types and rates of mental health problems. Similarly, McMillen et al. (2005) found that 46% of sexually abused children in foster care met criteria for a psychiatric disorder in the past year. These disorders included high rates of depression (26%), conduct disorder or oppositional defiant disorder (20%), and other externalizing and internalizing disorders (20%). Foster children with a history of sexual abuse show poorer social and cognitive development outcomes compared to children with other types of abuse histories (National Survey of Child and Adolescent Well-being Research Group, 2003).

As previously discussed, poor family environment appears to be a significant factor in the development of later psychopathology among child sexual abuse victims (Maniglio, 2009), and plays a large role in predicting the negative effects of CSA (Rind et al., 1998). One of the main reasons children are placed in the foster system is due to

poor family functioning (high rates of conflict, family violence, abuse, neglect, etc.), and it logically follows that foster children are at a significantly increased risk for poorer outcomes. Clausen et al. (1998) postulate that children in the foster care system share similar traumatic experiences and environments, which in turn generate the development of mental health and behavioral problems. Family functioning may play a large role in the higher rates of psychopathology seen in sexually abused children in foster care. However, more research is needed.

Foster Parenting of Children Who Have Been Sexually Abused

Foster parents face numerous social, emotional, and financial difficulties, although these have yet to be thoroughly documented, particularly for foster parents working with sexually abused children. For example, children who have been victimized often require additional medical and psychological services, which place economic and emotional strain on foster parents. The estimated lifetime cost of nonfatal child maltreatment is \$210,012, and represents an enormous financial burden for parents and governments (Fang, Brown, Florence, & Mercy, 2012). Foster parents face other difficulties as well, including lack of initial training, increased demands on time, emotional burnout, and lack of continuing training. These challenges can affect a foster parent's ability to effectively retain a child, particularly a child presenting many emotional and behavioral challenges.

Retainment of foster children. Relatively little research has been done exploring the retainment of foster children by foster parents. "Retainment" refers to the likelihood that foster parents will continue fostering a child. For example, some foster parents are unable to appropriately manage children who exhibit severe behavioral or

emotional problems. These foster parents can be said to have a low likelihood of retainment for children with challenging behaviors. Retainment can be separated into two domains: predicted retainment, which involves foster parents' explicit statements about their willingness to foster a certain child or group of children; and actual retainment, which is a measure of real-life retainment. Predicted retainment can be further broken down into willingness to retain (foster parents' stated readiness of inclination to keep a child), and likelihood to retain (empirical predication of retainment based on factors other than willingness, such as prior experience parenting sexually abused children, past retainment, etc.). One goal of foster care is to appropriately match children to parents who have a high level of predicted retainment; in other words, parents who are both willing and likely to retain the child for as long as needed.

Placement disruption. A significant component of retainment involves placement disruption. Placement disruption occurs when a child is moved from one placement to another. Exits from a placement can be either positive or negative (Price et al., 2008). A positive exit from a placement is defined as an exit from the foster home made for a positive reason, such as adoption or reunification with a biological parent. A negative exit from placement is defined as an exit made for a negative reason, such as moving to another foster home, an institutional placement, a juvenile detention center, running away, etc. (Price et al., 2008). Unfortunately, placement disruption is not uncommon. Price et al. summarizes research indicating that from 22-56% of children in foster care experience placement instability. Similarly, a study by Newton et al. (2000) examined placement changes of 415 children over 550 days. The number of placement changes ranged from 1 to 15. The average number of placement changes was 4.23 (SD =

2.00) and the median number was 4. The number of prior placements significantly predicts negative placement exits, with each additional prior placement increasing the likelihood of disruption by 6% (Price et al., 2008).

Placement disruption is particularly tragic given that 90% of foster children like who they live with, and that 92% of foster children say they feel like part of a family (National Survey of Child and Adolescent Well-being Research Group, 2003). In addition, half of children want their current placement to be a permanent home, and 36% of children want their current caregivers to adopt them (National Survey of Child and Adolescent Well-being Research Group, 2003).

Placement disruption is associated with significant negative effects for children. Volatile placement histories have been found to increase both internalizing and externalizing behaviors in children, particularly children who experience repeated disruptions in placement (Newton et al., 2000). In addition, children entering foster care without evidencing behavioral problems show an increased risk in future disruptive behaviors due to placement disruption. In the Newton et al. (2000) study, children initially scoring within the normal range on the Child Behavior Checklist showed an increase in internalizing, externalizing, and total behavior problems 18 months later, with number of placements a consistent predictor of these problems.

Reasons for placement disruption. The research literature regarding identification of predictors of placement disruption is still developing (James, 2004). However, a major factor in negative placement disruptions involves externalizing behavior problems exhibited by foster children (Chamberlain et al., 2006; Newton et al., 2000). In fact, externalizing behavior problems were found to be the strongest predictor

of placement disruption for youth in California (Newton et al., 2000). This cycle of externalizing behaviors leading to new placements seems to be reciprocal, with children with a history of multiple placements evidencing increases in both internalizing and externalizing behaviors (Newton et al., 2000). These behaviors are disruptive and may be aggressive, destructive, and oppositional (Chamberlain et al., 2006). Unfortunately, over half (54%) of all children in out-of-home foster placement exhibit some form of externalizing behavior problems based on the Child Behavior Checklist caregiver report (National Survey of Child and Adolescent Well-being Research Group, 2003).

Chamberlain et al. (2006) collected data on child problem behaviors from foster parents of 246 children ages 5-12 years old. The researchers found that foster parents tolerated up to six problem behaviors per day without an increased risk of placement disruption. However, when more than six child problem behaviors occurred per day there was an increased risk in placement disruption. This relationship was linear, with steady increases in placement disruptions from 6 to 14 problem behaviors. Similarly, the authors found an increased hazard of disruption of 17% for every child problem behavior reported by parents. In addition, children in non-kinship placements were more likely to exhibit disruptive behaviors than were children in kinship placements. The authors concluded that, “there is a threshold for the rate of children’s problem behaviors that most parents appeared to tolerate well...” (Chamberlain et al., 2006). Additionally, the authors recommended more attention be given to interventions for behavioral problems and for increasing foster parenting skills, that the number of children in each foster home be limited (particularly when foster children exhibit severe problem behavior rates), and

that more effort be put into the identification, recruitment, training, and support of appropriate foster placements (Chamberlain et al., 2006).

Unfortunately, much of the literature on placement disruption tends to focus on the child's disruptive behavior as the main cause of disruption. While disruptive behaviors are certainly a contributor to placement change, they are not the only cause. An ecological-behavioral approach to the problem of placement disruption must take into account the child's history, the functional purpose of internalizing and externalizing behaviors, the reactions of foster parents and siblings, and the role of the foster care system in maintaining such behavior. Clearly the problem is not all within-child, as evidenced by children who enter care with no behavioral symptomology yet show elevations in internalizing and externalizing behavior which are directly correlated with number of placement changes (Newton et al., 2000).

Placement disruption for child victims of sexual abuse. Few research studies were found which examined the risks of placement disruption in foster care specifically for child victims of sexual abuse. A history of trauma of any type appears to make it more likely that a child will experience placement disruption. Weiner et al. (2011), in a study of 1,447 youth in Illinois, found that placement disruption increased by 3% for each one-unit increase on the CANS (Child and Adolescent Needs and Strengths) Traumatic Experiences scale. Research on the impact of pre-adoptive child sexual abuse indicates that children with a history of sexual abuse are at a greater risk for moves in care, adoption disruptions, and inconsistent parental commitment (Nalavany, Ryan, Howard, & Smith, 2008; Smith & Howard, 1991, 1994). Children with a history of pre-adoptive CSA may also evidence difficulties in attachment and behavioral regulation which

contribute to disruptions in placement and/or retainment failure (Smith & Howard, 1994). The role of externalizing behaviors, which are associated with sexual abuse, has already been discussed, but sexual acting out in particular is associated with an increased risk of adoptive placement disruption (Smith & Howard, 1991). It is likely that foster parents find aggressive or inappropriate sexual behaviors more challenging to deal with than other externalizing behaviors. Among a sample of foster parents from Oregon, 74% of the parents believed that sexually abused children had special problems including sexual acting out, behavioral issues, and relationship problems (Treacy & Fisher, 1993). Only 15% of these foster parents believed that sexually abused foster children did not create special concerns for foster parents (Treacy & Fisher, 1993). Furthermore, the simple knowledge that a child has been sexually abused may be difficult for parents. Revelations of child sexual abuse often result in the secondary traumatization of parents, particularly mothers, and have the potential to negatively impact satisfaction with the parenting role (Manion et al., 1996).

Combating placement disruption and increasing retainment through parenting interventions. Few interventions have been developed specifically to combat placement disruption by targeting parents. However, parent interventions have been shown to be an effective way to change child behavior and increase satisfaction in the parenting role (Chamberlain et al., 2006; Linares, Montalto, Li, & Oza, 2006; Webster-Stratton, 2001). For example, Linares et al. (2006) used an adapted version of the Incredible Years parent training program with pairs of foster and biological parents. Results indicated that both foster and biological parents showed improved positive parenting and reported less externalizing behaviors. While this program was not

developed to reduce placement disruption, it had a direct effect on child externalizing behaviors, one of the main contributors to placement disruption.

One intervention designed specifically to reduce placement disruption was created by Price et al. (2008). The intervention, entitled KEEP (Keeping foster and kinship parents trained and supported), was delivered to 700 foster families and consisted of positive reinforcement, non-harsh discipline methods, and training parents in monitoring their child's whereabouts and peer associations (Price et al., 2008). The intervention was successful in many ways. Children in the intervention group were twice as likely to achieve a positive placement exit by the end of the intervention. In addition, the intervention moderated the negative risk of history of prior placements such that history of prior placements no longer significantly predicted the likelihood of a negative placement exit. The authors speculated that participation in the KEEP intervention "increased foster parent competencies in managing child behavior problems leading to reductions in child behavior problems, which in turn contributed to the likelihood that children would transition back to their biological parents, move to the home of a relative, or be adopted" (Price et al., 2008). However, the intervention was not designed to address specific underlying causes of challenging behaviors. While the intervention was broadly effective, it is unlikely that it would be effective in addressing or reducing trauma symptomatology, including internalizing and externalizing behaviors, in sexually abused children.

The role of parental sense of competence and self-efficacy. Competence is defined as "the ability to do something successfully and efficiently" (Oxford Dictionaries, 2013). Definitions of competence in the research literature tend to focus on two

components: knowledge and skills (Fernandez et al., 2012). Parental competence, therefore, may be defined as having the knowledge, skills, and ability to parent in a way that promotes positive child development. An important, related component of parenting is self-efficacy. Self-efficacy involves “judgments about how well one can organize and execute courses of action required to deal with prospective situations containing many ambiguous, unpredictable, and often stressful elements” (Albert Bandura & Schunk, 1981). Broadly defined, parental self-efficacy (PSE) is the expectation caregivers hold about their ability to parent successfully (Jones & Prinz, 2005). While parental competence involves *actual* knowledge and ability, parental self-efficacy is a measure of parents’ *judgments* regarding their knowledge and ability, including the ability to learn new information and skills.

Competence and self-efficacy are particularly important in the context of foster parenting. As foster children evidence significantly more behavioral and emotional problems than non-foster children, it is likely that they require a higher degree of parental competence and self-efficacy than is needed for the average child. Foster parents must have specialized skill sets in order to deal with disruptive behaviors, depression, and the difficulty of placement changes. However, it is unlikely that foster parents enter into fostering with all of these skills already developed and intact. These skills must be learned. Prior research has indicated a strong association between parental competence and PSE such that PSE actually predicts parental competence (Jones & Prinz, 2005). Specifically, research has indicated that PSE is an antecedent for parenting effectiveness (Jones & Prinz, 2005). PSE has also shown some utility as a predictor of the effectiveness of a variety of interventions designed to decrease child behavior problems

(Sanders, Montgomery, & Brechman-Toussaint, 2000; Sofronoff & Farbotko, 2002). It is likely that foster parents with a high degree of PSE are more likely to have the attitudes and motivation needed to learn the parenting skills and techniques needed to foster sexually abused children effectively. However, this association does not appear to have been examined in the research literature.

Foster Parent Knowledge of Sexual Trauma and Treatment

Given that childhood sexual abuse can result in negative externalizing, internalizing, and other problem behaviors for child victims, it is likely that knowledge of the effects of such abuse and of the treatment options would be beneficial to the foster parents of such children. The level of knowledge foster parents have about the effects and treatment of childhood sexual abuse is likely to vary as a function of foster parent level of education, experience, and background, as well by the amount of education various state and local child welfare agencies provide. Unfortunately, there is little research directly examining foster parent knowledge of CSA and/or associated variables. The U.S. Department of Health and Human Services' Child Welfare Information Gateway (2008) provides a 10-page "Fact Sheet for Families" which gives a brief overview of child sexual abuse, normal sexual development in children, ways to establish a safe and respectful home environment, and broad suggestions for treatment (i.e., individual and group counseling). While helpful, the document is short and does not provided the level of education needed for foster parents working with sexually abused children. State and local agencies usually provide some sort of training for foster parents, but training may or may not include specific information regarding sexual abuse and treatment strategies. For example, one study from Oregon found that only 11.1% of

foster parents had received training related to sexually abused children (Treacy & Fisher, 1993), while another from California found that only 16% of foster parents had received such training (Barth, Yeaton, & Winterfelt, 1994).

Increasing foster parent training in general results in greater retention of foster children and in greater parenting competence. In one two-year study in Oregon, foster parents who received extra training and support, along with an additional monthly stipend, showed only a 9.6% dropout rate from the foster system (Chamberlain, Moreland, & Reid, 1992). Foster parents who received an additional monthly stipend but no extra training showed a 14.3% dropout rate, while the control group had a 25.9% dropout rate and the statewide dropout rate was 40%. In addition, while foster mothers in the extra training and support group were initially rated lowest on their ability to use appropriate discipline measures, these foster mothers were later rated as having improved their behavioral management techniques and evidenced the greatest drop in the occurrence of child problems. The authors concluded that additional training, contact, and/or support is helpful to foster parents and results in increased retention rates.

For foster parents who are working with children who have been sexually abused, training which is specifically focused on childhood sexual abuse may be particularly helpful. Two studies, both from the early 1990's, were identified which examined the impact of educating and training foster parents to parent sexually abused children (Barth et al., 1994; Treacy & Fisher, 1993).

Treacy and Fisher (1993) developed a program designed to both educate parents on child sexual abuse and normal sexual development, and to increase parental sense of competence. The program was composed of five weekly, two-hour sessions. Sessions

focused on sexual development and typical/atypical sexual behaviors, models of sexual abuse, parenting skills, and response to difficult child behaviors. Foster parents were greatly satisfied with the program, with 75% responding that they had learned “a great deal” more about sexual development, and 100% responding that they had learned “a great deal” more about sexual trauma. These feelings were confirmed by the foster parents’ performance on the Sexual Abuse Information Questionnaire (a measure of parent knowledge of sexual abuse impact, offender dynamics, and sexual development), which increased 22% (almost one standard deviation) from pre-test to post-test. Similar rates of foster parents felt that they were better able to consider (100% of parents) and respond to (95% of parents) the communications of sexually abused children. All of the foster parents reported that they would recommend the program to others. Unfortunately, the study used a very small sample of only 20 parents, and the effect size of the findings was not reported.

A similar program was created by Barth et al. (1994). In this program the authors used a psychoeducational group approach and presented content in the form of 10 group sessions. The length of these sessions was not specified. During the sessions topics such as behavioral and emotional problems, sexual behaviors presented by sexually abused children, discipline, therapy for sexually abused children, and normative child development were covered. In addition, information regarding working with biological parents, services provided by CPS, and dealing with placement changes was covered. The authors found that 100% of the foster parents either agreed or strongly agreed with the statements, “I am better able to care for my child” and “Taught me ways to better manage my child.” In addition, 92% of the foster parents agreed or strongly agreed with

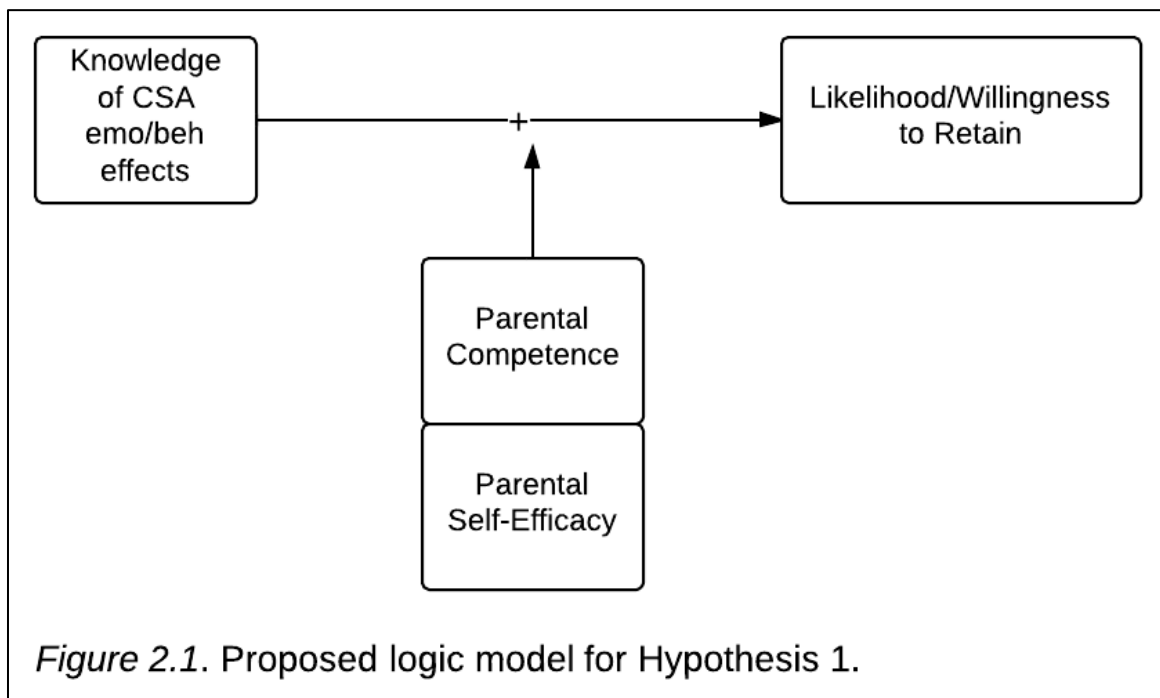
the statement, “Helped me understand my child.” While parents felt that the program had been successful, measures of child behavior using the Achenbach Child Behavior Checklist indicated otherwise. Foster parents reported worsening behavior as indicated by a majority of post-test factor scores on the Achenbach, and by a majority of post-test scale scores on the Child Behavior Checklist. While very few of these scores reached significance, the authors concluded that the foster children’s behavior “appeared to have worsened... from pre-test to follow-up.” Unfortunately little can be inferred about the strength of these findings, as the study used an even smaller sample size ($N = 15$) than did Treacy and Fisher (1993).

Knowledge of sexual abuse appears to aid in understanding difficult behaviors exhibited by sexually abused children. Problems are no longer viewed as within-child; rather, they are viewed as a normal and understandable reaction to past abuse. Similarly, knowledge of treatment options can give parents hope that problem behaviors can be reduced or even eliminated, while parental sense of competence and agreement with self-efficacious statements can be increased through psychoeducational interventions. More research is needed to determine the exact benefits of educating foster parents on sexual abuse, its effects, and its treatment.

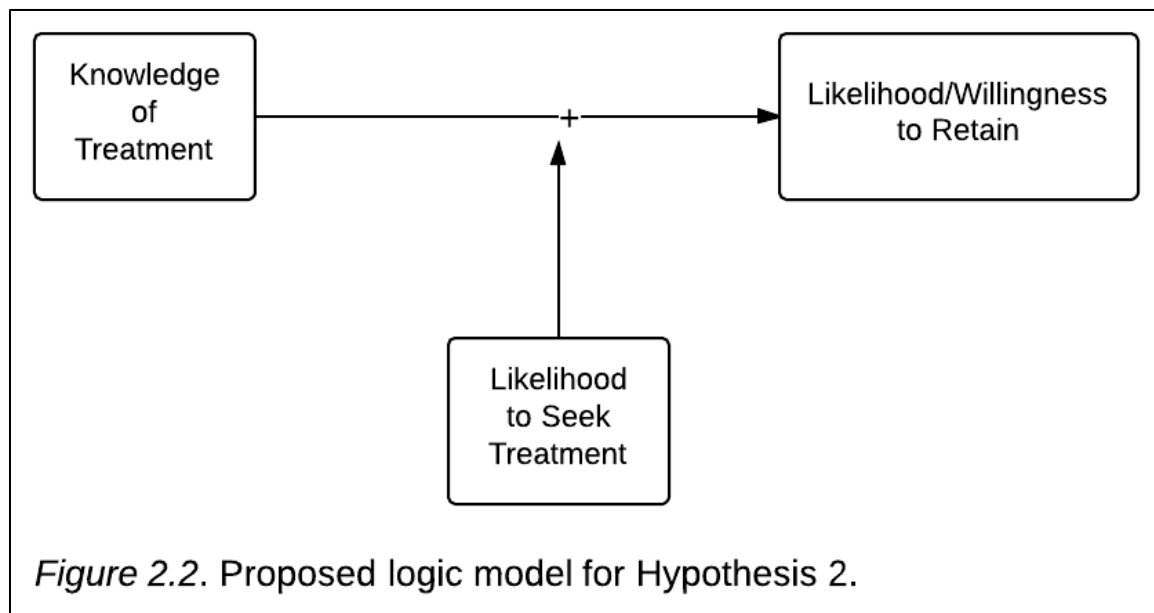
The Current Study

While much is known about the associations and outcomes of sexual trauma in children, less is known about the reactions parents have to sexually traumatized children. A special group of children and parents who often deal with sexual trauma are those in the foster care system. Relatively little research has been done on the effects of childhood sexual abuse in foster children, who undergo additional difficulties such as changing placements, switching schools, and being separated from family members. Furthermore, even less is known about the perceptions, knowledge, and abilities of foster parents attempting to raise children who have undergone sexually traumatic experiences. This study seeks to add to the research literature by exploring foster parents' (a) knowledge of childhood sexual abuse effects and treatment options, and (b) sense of competence and self-efficacy as they relate to (c) the willingness and likelihood of retainment of a foster child by the foster parent. Specifically, this study investigated three hypotheses:

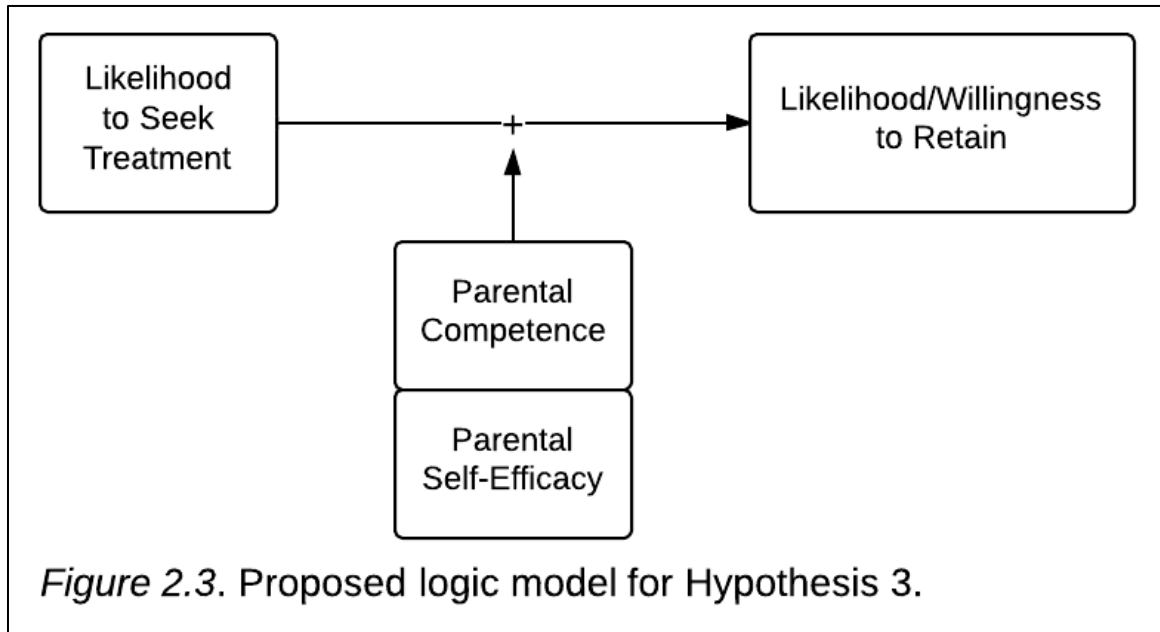
Hypothesis 1: Higher levels of foster parent knowledge of the effects of CSA will predict both willingness and predicted likelihood of fostering and retaining a sexually abused child. Furthermore, it is hypothesized that this relationship will be moderated by parental competence/self-efficacy (i.e. foster parents with a high degree of self-efficacy and a high sense of competence will be more likely to foster and retain sexually abused children). See Figure 2.1 below.



Hypothesis 2: Higher levels of foster parent knowledge of treatment options for CSA will predict both willingness and predicted likelihood of fostering and retaining a sexually abused child. It is hypothesized that this relationship will be moderated by foster parents' likelihood to seek treatment. See Figure 2.2 below.



Hypothesis 3: Higher levels of foster parent likelihood of seeking treatment will predict both willingness and predicted likelihood of fostering and retaining a sexually abused child. This relationship will be moderated by foster parents' sense of competence and self-efficacy.



Each of these hypotheses uses a moderation model. While there may be grounds for suspecting a mediation process in one or more above the research hypotheses, mediation models will not be pursued due to a lack of research establishing a strong relation between the predictor and outcome variables (Frazier, Tix, & Barron, 2004). For example, in Hypothesis 1 it is possible that increased parental competence and self-efficacy explains the relationship between knowledge of sexual abuse effects and retainment of abused children. However, the relationship between knowledge of abuse effects and retainment does not yet have strong research support, and so a mediation

model is not appropriate. If further research provides evidence of a strong relationship between these two constructs, it may then be appropriate to examine parental sense of competence and self-efficacy as a mediating variable.

Chapter III

Method

Participants

Participants were 201 current or former foster parents who have fostered at least one child in the United States. Participants who were former foster parents must have fostered a child within the past two years to be eligible for participation. Parents who had adopted a previously fostered child were eligible to participate in the study, although adoptive parents who had never been involved in the foster system were excluded from the study. Both male and female foster parents were included in the study. The sample was composed of 188 females (93.5%) and 13 males (6.5%). Participants were overwhelmingly White/Caucasian/European American, with 86.1% of the sample identifying with this group. Participants from other race/ethnicities were Black/African-American (2.5%), Asian/Asian-American (1%), Hispanic/Latino (2.5%), Biracial (2%), and American Indian (<1%), while 2% identified as “Other” and 3.5% of the sample declined to respond.

A power analysis was completed using G*Power 3 (Faul, Erdfelder, Buchner, & Lang, 2009). Results indicated that with 201 participants and an alpha level of .05, the minimum detectable effect size is $f^2 = .066$. According to Cohen (1988), small, medium, and large effect sizes for f^2 are .02, .15, and .35, respectively. Therefore, this study was able to detect a medium or large effect, but was unable to detect a small effect.

Participants were recruited in three ways. First, information about the study inviting participation was posted online in foster parenting forums and information websites. Second, invitations to participate were posted on social media websites

including Facebook, Twitter, and Google+. Viewers were encouraged to re-post, email, or share invitations in an effort to recruit more participants through a snowball sampling method. Finally, an attempt was made to recruit participants from local (Houston, Dallas, and state-level) foster care support groups by contacting local agencies. Agencies were asked to disseminate the survey link to interested foster parents.

Measures

To answer the three research questions postulated above, data on knowledge of CSA and its effects, predicted retainment of sexually abused children, foster parent competence and self-efficacy, and knowledge of treatment for CSA was gathered from foster parents using the following measures: the Parenting Sense of Competence (PSOC), the Multidimensional Scale of Perceived Parental Efficacy (MSPPE), the Attitudes and Knowledge Of Sexual Trauma Outcomes (AKOSTO), the Knowledge of Treatment (KoT), the Likelihood of Seeking Treatment (LST), and the Willingness and Likelihood to Retain (WiLi-R). Two of these measures (the PSOC and the MSPPE) have been used previously in research, while the AKOSTO is largely based off of an existing measure. However, the KoT, LST, and WiLi-R were created by the researcher specifically for this study, as no existing measures assessing the constructs of interest were found after searching PsycINFO, Google Scholar, and the Mental Measurements Yearbook. These new measures lack psychometric data. This is a necessary limitation of the study; however, in order to assess reliability and validity confirmatory factor analyses (CFA) were conducted using each of the new measures.

Parenting Sense of Competence. A slightly modified version of the Parenting Sense of Competency (PSOC) scale (Gibaud-Wallston & Wandersman 1978, cited in

Johnston & Mash, 1989) is the most commonly used tool for measuring parental feelings of competence and self-efficacy (Jones & Prinz, 2005). The PSOC consists of 17 items designed to measure sense of competence, self-efficacy, and satisfaction in parenting. Parents indicate their level of agreement to each item on a 6-point Likert scale. While the original PSOC did not contain information on factor structure, Johnston and Mash (1989) found evidence for a two-factor structure, with the factors described as Satisfaction and Efficacy. While some researchers (e.g., Ohan, Leung, & Johnston, 2000) have continued to find support for a two-factor structure, others have supported a three-factor structure, with Interest emerging as a third factor (Gilmore & Cuskelly, 2009; Rogers & Matthews, 2004).

Internal consistency for the total scale using Cronbach's alpha ranges from .75 for mothers to .79 for fathers (Gilmore & Cuskelly, 2009). The Satisfaction subscale is significantly correlated with measures of family functioning including the Child Behavior Checklist Internalizing subscale ($r = -.47$ for mothers, $-.38$ for fathers, $p < .01$) and Externalizing subscale ($r = -.41$ for mothers, $-.37$ for fathers, $p < .01$) (Ohan et al., 2000). The Satisfaction subscale is also significantly correlated with the Child-Rearing Practices Report and the Dyadic Adjustment Scale (Ohan et al., 2000). In contrast, the Efficacy subscale of the PSOC indicates much less correlation with measures of family functioning. The Efficacy subscale was correlated with the Internalizing subscale of Child Behavior Checklist ($r = -.26$ for fathers, $p < .01$) and the Easy-going subscale of the Child-Rearing Practices Report ($r = .30$ for mothers, $p < .01$) (Ohan et al., 2000). Rogers and Matthews (2004) found somewhat similar results, with the Satisfaction subscale of

the PSOC significantly negative correlated for both mothers and fathers with the Eyeberg Child Behavior Inventory, the Depression Anxiety Stress Scale, and the Parenting Scale.

Multidimensional Scale of Perceived Parental Efficacy. The Multidimensional Scale of Perceived Parental Efficacy (MSPPE; A Bandura, 1990) consists of 58 questions divided into nine sections. Each section assesses parental self-efficacy in regards to a different type of situation or problem (e.g., access to resources, ability to control high-risk behaviors in children, ability to monitor a child's peer affiliations, etc.). While no studies were found which examined the psychometric properties of the entire scale, researchers have reported data on subsections of the scale. For example, for the items assessing parental efficacy in promoting children's academic achievement, factor analysis revealed that a single factor accounted for 46% of the variance, and that the alpha reliability coefficient was .81 (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). Similarly, a later study by Bandura et al. reported that a single factor accounted for 55% of the variance, and that the alpha reliability coefficient was .87 (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001). Finally, Steca et al. (2011) used 25 items from the scale to measure parental self-efficacy related to supporting children in school, helping children handle violations of rules and duties, and preventing children's involvement in risky activities. The authors reported a Cronbach alpha value of .80 for these items (Steca et al., 2011). Three sections of the MSPPE will not be included in this study, including "Efficacy to Enlist Community Resources for School Development," "Efficacy to Influence School Resources," and "Efficacy to Influence the School System." These sections add significant length to the MSPPE and are not directly related to parental self-

efficacy as it relates directly to child care. The length of the MSPPE without these questions is 36 items.

Attitudes and Knowledge Of Sexual Trauma Outcomes. The Attitudes and Knowledge Of Sexual Trauma Outcomes (AKOSTO) was created specifically for this study, and is designed to assess parental knowledge of and attitudes toward behavioral and emotional outcomes associated with sexual abuse. It is partially inspired by the 21-item Weekly Behavior Report, or WBR, by Cohen and Mannarino (1993), which was designed to document problem behaviors associated with sexual abuse in young children. Items on the WBR are based on the clinical literature, empirical data related to symptoms of sexual abuse in young children, and the clinical experience of the authors (Cohen & Mannarino, 1996). Item analysis has shown that parents of sexually abused children endorse the majority of items significantly more often than parents in a community setting (Cohen & Mannarino, 1996). The WBR has acceptable reliability, with an average test-retest reliability of .85 and an internal consistency of .78 (Cohen & Mannarino, 1996).

While inspired by the WBR, the AKOSTO includes additional sexual trauma outcomes for older children and adolescents, additional items based on the research literature, and three “nonsense” screening items describing behaviors that have not been associated with sexual abuse (e.g., stealing, hand flapping, having imaginary friends). The following items on the AKOSTO are based on items from the WBR and the research literature: 1, 3, 4, 8, 10, 14, 15, 19, and 20. Additional items based solely on the research literature include items 5-7, 9, 12, 13, 16, and 18. The nonsense items are 2, 11, and 17. The AKOSTO presents items in the form of a statement (e.g., “Children who have

experienced sexual abuse are more likely to be aggressive”) followed by the options of “Disagree”, “Not Sure”, and “Agree”. The number of correct answers is multiplied by 2, while the number of incorrect answers is multiplied by negative 2. Items answered “Not Sure” are assigned a score of zero. Scores are added up, with an overall negative score indicating false beliefs about CSA, an overall positive score indicating accurate beliefs about CSA, and a score of zero indicating no real knowledge of CSA.

Knowledge of Treatment (KoT). The Knowledge of Treatment (KoT) is a 12-item study designed specifically for use in this study. It consists of two general questions regarding awareness and knowledge of treatment, followed by 10 questions assessing knowledge of treatment options for sexually abused children. Foster parents indicate their level of agreement to each of the 10 items on a five-point Likert scale, with “1” indicating strong disagreement and “5” indicating strong agreement. Items 1, 3, 4, 8, and 9 are reverse scored. Only questions 2-12 are scored, resulting in a total score ranging from 10 (indicating low accurate knowledge of treatment) to 50 (indicating high accurate knowledge of treatment).

The KoT is designed to assess foster parents’ knowledge of evidence-based treatment and treatment components (i.e., exposure) for common outcomes related to childhood sexual abuse, particularly trauma. Items were selected based on relevant literature related to the treatment of children who have been sexually abused. For example, Item 3 (“Cognitive behavioral therapy is rarely an effective treatment for sexually abused children”) and Item 5 (“An important component of therapy is psychoeducation about abuse”) are based in the literature on TF-CBT (Cohen et al., 2010). Items were also brought up in informal consultation with an experienced child

psychologist knowledgeable about the treatment of sexual abuse. It is theorized that items on the KoT assess one core construct (knowledge of treatment). A copy of the KoT can be found in Appendix A.

Likelihood of Seeking Treatment (LST). The Likelihood of Seeking Treatment (LST) is a 10-item survey created specifically for this study. It consists of 10 items designed to assess a foster parent's likelihood of seeking treatment for a sexually abused child. Foster parents indicate their level of agreement to each of the 10 items on a five-point Likert scale, with "1" indicating strong disagreement and "5" indicating strong agreement. Items 2, 3, 4, 7, 8, and 9 are reverse scored. Total scores range from 10-50. Higher scores on the LST are indicative of a greater likelihood of seeking treatment for a child who has been sexually abused.

An attempt was made to base items on the LST on existing research. A search was made through PsycINFO and Google Scholar to find research related to foster parent treatment seeking with sexually abused children; unfortunately, no relevant articles were found. Items were therefore chosen based on conversations with foster parents and on informal conversations with social workers. The LST is designed to address common justifications for seeking treatment as well as common objections to seeking treatment. The LST attempts to address personal variables (e.g., feelings of incompetence, a belief in the efficacy of therapy), financial reasons (e.g., therapy is too expensive), and other factors foster parents may consider when deciding to seek treatment. It is theorized that the LST measures on construct: a foster parent's likelihood of seeking treatment for a child who has been sexually abused. A copy of the LST can be found in Appendix B.

Willingness and Likelihood to Retain (WiLi-R). The Willingness and Likelihood to Retain (WiLi-R) is a 12-item survey created specifically for this study. The WiLi-R is designed to assess foster parents' stated willingness of fostering children with a history of sexual abuse, as well as the actual likelihood of such fostering taking place. Items are split into two categories: *Willingness* and *Likelihood*. *Willingness* items are designed to assess how inclined a foster parent is to fostering a sexually abused child (e.g., "I would be an effective parent to child who had been sexually abused"; "I am interested in being a foster parent to a sexually abused girl."). *Likelihood* items go beyond stated amenability to fostering and are designed to assess beliefs or behaviors that are theorized to predict greater success when fostering children with a history of CSA (e.g., "It would be easy to parent to a sexually abused child"; "I have fostered a child I knew had been sexually abused."). Foster parents indicate their level of agreement to each of the 12 items on five-point Likert scale, with "1" indicating strong disagreement and "5" indicating strong agreement. The WiLi-R provides scores for both Willingness and Likelihood, as well as an overall score, with high scores indicative of greater willingness and likelihood to foster.

Before designing the WiLi-R an attempt was made to find other instruments capable of measuring the constructs of interest (foster parent willingness to foster and retain sexually abused children; likelihood of foster parents successfully fostering and retaining sexually abused children). Searches were conducted using Google Scholar, PsycINFO, and the Mental Measurements Yearbook. No relevant measures were found, nor was any research directly pertaining to either of these constructs found.

Item creation began with consideration of the factors which would, hypothetically, influence a foster parent's willingness and likelihood to foster and retain. After talking informally with foster parents and consulting the research on parental self-efficacy items on the WiLi-R were formulated to reflect foster parents' 1) previous experience parenting sexually abused children; 2) stated interest or desire in fostering sexually abused children, and 3) reported feelings of competence or self-efficacy in parenting sexually abused foster children. It was theorized that foster parent experience, interest, and sense of competence would be important variables predictive of both Willingness and Likelihood. Items on the WiLi-R are phrased both positively ("It would be easy to parent to a sexually abused child") and negatively ("Sexually abused children are extremely difficult to have as foster children"). A copy of the WiLi-R can be found in Appendix C.

Demographic form. Demographic data were gathered using a demographic form assessing education level, socioeconomic status, race and ethnicity, age, family structure, and religion. Questions regarding experience as a foster parent were also included. Two final items asked participants if they would like to receive recommendations for evidence-based treatments for child sexual abuse, and also gave participants a chance to list any questions or comments they had about the study. A copy of the demographic form is included in Appendix D.

Procedure

An online survey site was created using the website Survey Gizmo. Participants who met criteria were directed to the site and were presented with an overview of the study, risks and benefits, and contact information for the principal investigator.

Participants were eligible to win one of the following Amazon.com gift cards: a \$100 gift card, a \$50 gift card, one of two \$25 gift cards, or one of two \$10 gift cards. Once participants indicated their agreement to participate in the study, they completed all measures online through SurveyGizmo. After completing all measures, participants were asked to provide their name and contact information in order to be contacted if they won a gift card. However, this information was immediately disconnected from the participants' responses in order to protect privacy and confidentiality. After all participants completed the measures, the data were downloaded to a secure file and the survey was closed.

Data Analysis

Data analyses were conducted using the statistical software packages SPSS Statistics version 22 and Mplus version 7.11. Data was composed of responses from 204 participants who identified as foster parents. Three participants were removed due to suspicious responses. The data were then screened for missing or incorrect values. Out of the six measures of interest only two measures, the AKOSTO and the MPSOC, had missing data. The AKOSTO was missing 26 item responses, or 0.65% of the total data for the measure. The MPSOC was missing one item response, or .038% of the total data for the measure. There were no patterns in the missing data for either measure. While the original plan was to use multiple imputation modeling (Sterne et al., 2009) to impute small amounts of missing data, this plan was discarded due to the very small amount of missing data and the problems multiple imputation can cause when performing a confirmatory factor analysis (Enders, 2010).

Confirmatory factor analyses were then conducted for each of the following measures using Mplus version 7.11: AKOSTO, KoT, LST, and WiLi-R. Full information maximum likelihood was used as the estimator for each of the models with the exception of the AKOSTO, in which items were analyzed as if they were categorical variables using Maximum Likelihood with Robust Standard Errors. Chi-Squared (χ^2), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), the Standardized Root Mean Square Residual (SRMR), and the Weighted Root Mean Square Residual (WRMR) were used to evaluate model fit. Cut-off values for each of the model fit indices were taken from Hu and Bentler (1999).

After each of the confirmatory factor analyses were completed, the total scores for each of the measures were calculated. The data were examined for normal distribution using histograms and P-P plots, followed by an analysis of measures of central tendency, skewness, and kurtosis. Kolmogorov-Smirnov and Shapiro-Wilk tests were used to check for normal distribution. The assumptions specific to regression models such as independence of errors, homoscedasticity, and normality of error distribution were tested. Data analyses were performed using SPSS version 22 according to the three hypotheses. Each of the three hypotheses were tested using moderated regression analyses.

To test **Hypothesis 1**, foster parent knowledge of sexual trauma (measured by the AKOSTO) and the putative moderator of parental sense of competence (measured by scores on the PSOC) were entered simultaneously on the first step. Next, an interaction term between knowledge of sexual trauma outcomes and parental sense of competence was created and entered on the second step. Both simple effects and the change in R^2

were analyzed. The analysis was then repeated with self-efficacy (as measured by scores on the MSPPE) as the moderator. Hypothesis 1 is represented formulaically below:

$$\hat{Y} = \beta_0 + \beta_1 X + \beta_2 Z + \beta_3 XZ$$

where \hat{Y} is the predicted value of willingness to retain, X represents foster parent knowledge of CSA effects, Z represents parental competence/self-efficacy, and XZ is the interaction term.

To test **Hypothesis 2**, foster parent knowledge of treatment options for CSA (measured by the KoT), as well as the putative moderator of likelihood of seeking treatment (measured by the LST), were entered simultaneously on the first step. Next, an interaction term between knowledge of treatment options for CSA and likelihood of seeking treatment was created and entered on the second step. Both simple effects and the change in R^2 were analyzed. Hypothesis 2 is represented formulaically below:

$$\hat{Y} = \beta_0 + \beta_1 X + \beta_2 Z + \beta_3 XZ$$

where \hat{Y} is the predicted value of willingness to retain, X represents foster parent knowledge of treatment options for CSA, Z represents parental competence/self-efficacy, and XZ is the interaction term.

Finally, to test **Hypothesis 3**, foster parent likelihood of seeking treatment (measured by the LST) and the putative moderator of parental sense of competence (measured by scores on the PSOC) were entered simultaneously on the first step. Next, an interaction term between likelihood of seeking treatment and parental sense of competence was created and entered on the second step. Both simple effects and the change in R^2 were analyzed. The analysis was then repeated with self-efficacy (as

measured by scores on the MSPPE) as the moderator. Hypothesis 3 is represented formulaically below:

$$\hat{Y} = \beta_0 + \beta_1 X + \beta_2 Z + \beta_3 XZ$$

where \hat{Y} is the predicted value of willingness and likelihood to retain, X represents foster parent likelihood of seeking treatment, Z represents parental competence/self-efficacy, and XZ is the interaction term.

Chapter IV

Results

Confirmatory Factor Analyses

AKOSTO. The AKOSTO is designed to measure foster parent knowledge of possible sexual abuse outcomes; therefore, a single factor structure was used, with foster parent knowledge as the latent factor. Factor variances were constrained to 1, while all indicators were allowed to freely vary. Due to clear violations of distributional assumptions (i.e. multivariate normality), largely due restricted range of responses, these items were recoded items into categorical responses, and as such parameters were estimated using MLR. To recode the items, scores of 1 (“Disagree”) and 2 (“Don’t Know”) were combined into one response (“1”) signifying incorrect or no knowledge of a sexual abuse outcome, and scores of 3 (“Agree”) were recoded into one response (“2”) signifying correct knowledge of a sexual abuse outcome. High total scores continued to indicate correct knowledge of sexual abuse outcomes, but each individual item changed from a three-response interval scale into a two-response categorical scale.

Next, highly skewed items in which 95% of participants responded the same way were removed (Clark & Watson, 1995), as these items provided no added value in discriminating between respondents with correct knowledge and respondents with incorrect knowledge. This resulted in the following items being removed: 1, 5, 12, 14, and 20. With these items removed the model fit poorly $\chi^2 (90, N=201) = 151.46$, $p=.0001$, CFI=.86, RMSEA=.058 (90% CI between .042 and .074), $p=.193$, WRMR=1.047. To improve the fit, three non-significant items were removed (items 2, 11, and 17). This resulted in a better fit, $\chi^2 (54, N=201) = 83.91$, $p=.006$, CFI=.93,

RMSEA=.052 (90% CI between .029 and .074), $p=.40$, WRMR=.90. Factor loadings ranged from .38 to .96 and are presented in Table 1. The final scale evidenced good reliability, Cronbach's $\alpha = .72$.

Table 1

Final Confirmatory Factor Analysis for the AKOSTO

Item	Factor
	Knowledge of Outcomes
3	.64
4	.54
6	.71
7	.72
8	.53
9	.83
10	.63
13	.80
15	.65
16	.55
18	.96
19	.38

Scoring of the AKOSTO was revised in light of the significant changes to the original scale. Incorrect answers were scored “1”, while correct answers were scored as “2”. A total score equal to 12 indicates no real knowledge of sexual abuse outcomes, while a score of 24 indicates completely correct knowledge of common sexual abuse outcomes.

KoT. The Knowledge of Treatment was analyzed using a single factor model with knowledge of treatment options for sexual abuse as the latent factor. Before performing the CFA, two items (items 8 and 9) were removed due to at least 95% of

participants responding similarly (Clark & Watson, 1995). Next, factor variances were constrained to 1, while all indicators were allowed to freely vary. The initial model had a poor fit, χ^2 (20, N=201) = 41.51, $p=.003$, CFI=.77, RMSEA=.073 (90% CI between .041 and .105), $p=.107$, SRMR=.06. To improve the fit items that were non-significant (items 3, 11, and 12) were removed. With these items removed, a good fit was obtained, χ^2 (5, N=201) = 7.742, $p=.171$, CFI=.96, RMSEA=.052 (90% CI between .000 and .120), $p=.405$, SRMR=.034. Factor loadings ranged from .26 to .5 and are presented in Table 2. The final scale evidenced poor reliability, Cronbach's $\alpha = .58$.

Table 2

Final Confirmatory Factor Analysis for the KoT

Item	Factor
	Knowledge of Treatment
4	.26
5	.50
6	.43
7	.38
10	.31

LST. The Likelihood of Seeking Treatment was analyzed using a single factor model with likelihood of seeking treatment as the latent factor. Before performing the CFA five items (items 1, 3, 4, 5, and 9) were removed due to at least 95% of participants responding similarly (Clark & Watson, 1995). Next, factor variances were constrained to 1, while all indicators were allowed to freely vary. The initial model had a poor fit, χ^2 (5, N=201) = 13.02, $p=.023$, CFI=.87, RMSEA=.089 (90% CI between .03 and .15), $p=.115$, SRMR=.047. All items were significant, although loadings were fairly low. Factor

loadings ranged from .28 to .4 and are presented in Table 3. The final scale evidenced poor reliability, Cronbach's $\alpha = .53$.

Table 3

Final Confirmatory Factor Analysis for the LST

Item	Factor
	Likelihood of Seeking Treatment
2	.31
6	.37
7	.29
8	.28
10	.40

WiLi-R. The Willingness and Likelihood of Retainment was analyzed using a two-factor model with stated willingness to foster a sexually abused child as the first factor and estimated likelihood of actually fostering the child as the second factor. Before performing the CFA one item (item 11) was removed due to at least 95% of participants responding similarly (Clark & Watson, 1995). Next, factor variances were constrained to 1, while all indicators were allowed to freely vary. The initial model had a poor fit, $\chi^2 (43, N=201) = 182.189, p=.000, CFI=.84, RMSEA=.127$ (90% CI between .108 and .146), $p=.000, SRMR=.132$. To improve the fit items that were non-significant (items 1, 7 and 8) were removed. With these items removed the model continued to fit poorly, $\chi^2 (19, N=201) = 87.97, p=.000, CFI=.92, RMSEA=.134$ (90% CI between .107 and .163), $p=.000, SRMR=.084$. Next, items 2 and 3 were removed as they had abnormally high loadings (1.26 and 1.27, respectively) and, as the only two items remaining on the Likelihood factor, were also deemed insufficient to accurately reflect the hypothesized factor.

With these items removed, the model became a single factor model with stated willingness to foster a sexually abused child as the latent factor. This resulted in a better fit, $\chi^2 (9, N=201) = 20$, $p=.018$, CFI=.98, RMSEA=.078 (90% CI between .031 and .124), $p=.14$, SRMR=.031. However, to further improve the fit the lowest loading item (item 5) was removed. This resulted in a moderately good fit, $\chi^2 (5, N=201) = 5.89$, $p=.317$, CFI=.998, RMSEA=.030 (90% CI between .000 and .106), $p=.577$, SRMR=.017. Factor loadings ranged from .57 to .82 and are presented in Table 4. The final scale evidenced good reliability, Cronbach's $\alpha = .87$.

Table 4

Final Confirmatory Factor Analysis for the WiLi-R with Likelihood Factor Removed

Item	Factor
	Willingness
4	.78
6	.74
9	.82
10	.71
12	.57

Moderation Analyses

Before performing the moderation analyses, assumptions for the analyses were checked. An analysis of histograms and P-P plots indicated that scores on the MPSOC, the MSPPE, the KoT, and the WiLi-R were normally distributed. Scores on the AKOSTO and LST, however, appeared negatively skewed. Skewness and kurtosis z-scores were then calculated for each measure. Significant skewness was indicated in the MSPPE, AKOSTO, LST, and WiLi-R, while significant kurtosis was indicated in the MSPPE and the AKOSTO. However, significant z-scores can be present in large

samples even when there is no significant skewness and kurtosis (Field, 2009), and visual inspection of P-P plots and histograms approximated normality. Kolmogorov-Smirnov and Shapiro-Wilk tests indicated non-normal distribution for each of the measures except the MPSOC. Similar to skewness and kurtosis z-scores, however, K-S and S-W tests are also very sensitive in large sample sizes (Field, 2009). After reviewing all the normality indices it was decided that only the AKOSTO and LST were significantly non-normal. Transformation of the data was considered but was ultimately rejected due to complications with interpretation and generalizable inferences (Grayson, 2004). Furthermore, multiple regression models are quite robust even in the presence of skew and kurtosis (Osbourne & Waters, 2002). The assumptions for independence of errors, homoscedasticity, and normality of error distribution were all met. Outliers on each of the measures were identified and inspected. However, each of the outliers appeared to be valid responses, and, as such, none were discarded.

To test **Hypothesis 1** (higher levels of foster parent knowledge of the effects of CSA will predict willingness and predicted likelihood of fostering and retaining a sexually abused child, and this relationship will be moderated by parental competence/self-efficacy) two moderation analyses were performed. Scores on all measures were centered to enhance interpretability. Foster parent knowledge of sexual trauma (measured by the AKOSTO), as well as the putative moderator of parental sense of competence (measured by scores on the PSOC), were entered simultaneously on the first step. These variables accounted for a non-significant amount of variance in the predicted willingness to foster a sexually abused child, $R^2 = .03$, $F(2, 198) = 2.79$, $p = .06$. Next, an interaction term between knowledge of sexual trauma outcomes and

parental sense of competence was created and entered on the second step. The model continued to account for a non-significant amount of the variance in the predicted willingness to foster a sexually abused child, $\Delta R^2 = .00$, $\Delta F(1, 197) = .79$, $p = .38$, $b = .06$, $t(197) = .89$, $p = .38$. The results of the analysis are presented in Table 5.

Table 5

Moderated Regression: Willingness to Retain on Knowledge of Sexual Abuse Outcomes with Parental Sense of Competence as the Moderator

	<i>B</i>	<i>SE B</i>	β
Step 1			
Constant	.00	3.16	
Knowledge	.02	.12	.01
Competence	.06	.03	.16*
Step 2			
Constant	-.01	.272	
Knowledge	.01	.12	.009
Competence	.07	.02	.17*
Knowledge*Competence	.01	.01	.06

* $p < .05$

The analysis was then repeated with self-efficacy (as measured by scores on the MSPPE) as the moderator. Foster parent knowledge of sexual trauma (measured by the AKOSTO) and the putative moderator of self-efficacy (as measured by scores on the MSPPE) were entered simultaneously on the first step. These variables accounted for a non-significant amount of variance in the predicted willingness to foster a sexually abused child, $R^2 = .02$, $F(2, 198) = 1.902$, $p = .15$. Next, an interaction term between knowledge of sexual trauma outcomes and self-efficacy was created and entered on the second step. The model continued to account for a non-significant amount of the variance in the predicted willingness to foster a sexually abused child, $\Delta R^2 = .00$, $\Delta F(1,$

197) = .06, $p = .81$, $b = -.02$, $t(197) = -.25$, $p = .81$. The results of the analysis are presented in Table 6.

Table 6

Moderated Regression: Willingness to Retain on Knowledge of Sexual Abuse Outcomes with Parental Self-Efficacy as the Moderator

	<i>B</i>	<i>SE B</i>	β
Step 1			
Constant	.00	.27	
Knowledge	.04	.12	.02
Self-Efficacy	.02	.01	.14
Step 2			
Constant	-.00	.27	
Knowledge	.04	.12	.03
Self-Efficacy	.02	.01	.13
Knowledge* Self-Efficacy	-.00	.01	-.02

To test **Hypothesis 2** (higher levels of foster parent knowledge of treatment options for CSA will predict willingness/likelihood of fostering and retaining a sexually abused child, and this relationship will be moderated by foster parents' likelihood to seek treatment) a moderation analysis was performed. Scores on all measures were centered to increase interpretability. Foster parent knowledge of treatment options for CSA (measured by the KoT), as well as the putative moderator of likelihood of seeking treatment (measured by the LST), were entered simultaneously on the first step. These variables accounted for a significant amount of variance in the predicted willingness to foster a sexually abused child, $R^2 = .08$, $F(2, 198) = 8.52$, $p = .000$. Next, an interaction term between knowledge of treatment options for CSA and likelihood of seeking treatment was created and entered on the second step. This accounted for a non-significant amount of the variance in the predicted willingness to foster a sexually abused

child, $\Delta R^2 = .01$, $\Delta F(1, 197) = 1.52$, $p = .22$, $b = -.09$, $t(197) = -1.23$, $p = .22$. The results of the analysis are presented in Table 7.

Table 7

Moderated Regression: Willingness to Retain on Knowledge of Treatment with Likelihood of Seeking Treatment as the Moderator

	<i>B</i>	<i>SE B</i>	β
Step 1			
Constant	.00	.26	
KnowledgeT	.44	.11	.30***
Likelihood	.01	.12	.01
Step 2			
Constant	.09	.27	
KnowledgeT	.45	.11	.28***
Likelihood	-.01	.13	-.01
KnowledgeT* Likelihood	-.05	.04	-.09

*** $p < .001$

Finally, to test **Hypothesis 3** (higher levels of foster parent likelihood of seeking treatment will predict willingness/likelihood of fostering and retaining a sexually abused child, and this relationship will be moderated by foster parents' sense of competence/self-efficacy) two moderation analyses were performed. Scores on all measures were centered to increase interpretability. Foster parent likelihood of seeking treatment (measured by the LST), as well as the putative moderator of parental sense of competence (measured by scores on the PSOC), were entered simultaneously on the first step. These variables accounted for a significant amount of variance in the predicted willingness to foster a sexually abused child, $R^2 = .033$, $F(2, 198) = 3.33$, $p = .04$. Next, an interaction term between likelihood of seeking treatment and parental sense of competence was created and entered on the second step. The model accounted for a non-

significant amount of the variance in the predicted willingness to foster a sexually abused child, $\Delta R^2 = .00$, $\Delta F(1, 197) = .28$, $p = .60$, $b = .04$, $t(197) = .53$, $p = .60$. The results of the analysis are presented in Table 8.

Table 8

Moderated Regression: Willingness to Retain on Likelihood of Seeking Treatment with Parental Sense of Competence as the Moderator

	<i>B</i>	<i>SE B</i>	β
Step 1			
Constant	.00	.27	
Likelihood	.13	.12	.07
Competence	.06	.03	.15*
Step 2			
Constant	-.02	.28	
Likelihood	.14	.12	.08
Competence	.06	.03	.15*
Likelihood *Competence	.01	.01	.04

* $p < .05$

The analysis was then repeated with self-efficacy (as measured by scores on the MSPPE) as the moderator. Foster parent likelihood of seeking treatment (measured by the LST), as well as the putative moderator of parental self-efficacy (as measured by scores on the MSPPE), were entered simultaneously on the first step. These variables accounted for a non-significant amount of variance in the predicted willingness to foster a sexually abused child, $R^2 = .03$, $F(2, 198) = 2.56$, $p = .08$. Next, an interaction term between likelihood of seeking treatment and parental self-efficacy was created and entered on the second step. The model continued to account for a non-significant amount of the variance in the predicted willingness to foster a sexually abused child, $\Delta R^2 = .00$,

$\Delta F(1, 197) = .09, p = .76, b = -.02, t(197) = -.30, p = .76$. The results of the analysis are presented in Table 9.

Table 9

Moderated Regression: Willingness to Retain on Likelihood of Seeking Treatment with Parental Self-Efficacy as the Moderator

	<i>B</i>	<i>SE B</i>	β
Step 1			
Constant	.00	.27	
Likelihood	.14	.12	.08
Self-Efficacy	.02	.01	.13
Step 2			
Constant	.01	.27	
Likelihood	.14	.12	.08
Self-Efficacy	.02	.01	.13
Likelihood * Self-Efficacy	-.00	.01	-.02

Chapter V

Discussion

This research project attempted to determine what foster parents know about childhood sexual abuse, and how that knowledge predicted their attitudes toward fostering and retaining sexually abused children. Stable placements are extremely important for foster children, as there are many negative effects on foster children when their foster parents fail to retain them or when such children experience numerous placement disruptions (Newton et al., 2000). More specifically, this research examined how accurate foster parents' knowledge of sexual abuse outcomes is, as well as how much foster parents know about evidence-based treatments for childhood sexual abuse. In addition, this research project attempted to ascertain the role of parental sense of competence and self-efficacy as it relates to foster parents' willingness to foster sexually abused children.

To accomplish these goals, over 200 foster parents were surveyed on their knowledge of sexual abuse outcomes, their parental sense of competence and self-efficacy, their knowledge of treatment for common problems associated with childhood sexual abuse, their likelihood of seeking treatment for foster children who have been sexually abused, and their stated willingness to foster and retain sexually abused foster children. Four measures were created specifically for use in this study: the Attitudes and Knowledge Of Sexual Trauma Outcomes (AKOSTO), the Knowledge of Treatment (KoT), the Likelihood of Seeking Treatment (LST), and the Willingness and Likelihood to Retain (WiLi-R). Creating of these scales was necessary due to the lack of research related to foster parents' knowledge and attitudes in these areas. This research therefore

faced the dual challenges of validating newly created measures as well as empirically investigating the study's hypotheses.

This study was somewhat successful in creating adequate measures for several relevant constructs which lack valid and reliable scales. The AKOSTO, which started with 20 items on a 3-point scale, was reduced to 12 items on a categorical scale, with total scores ranging from 12 (completely incorrect knowledge) to 24 (completely correct knowledge). The revised scale indicates adequate fit; however, the AKOSTO has a low ceiling and lacks the ability to discriminate between foster parents who have some correct knowledge regarding sexual abuse outcomes. This lack of ability is evidenced by the fact that 43% of foster parents surveyed scored either 23 or 24 on the measure. Despite this, the AKOSTO generated some important findings related to foster parents' knowledge of sexual abuse outcomes. 77% of parents either agreed or were unsure of the following statement: "Children who have experienced sexual abuse will often show strange behaviors, such as flapping their arms or avoiding eye contact." The fact that only 23% of foster parents correctly identified this statement as untrue speaks to the some of the damaging and incorrect ways in which sexually abused children can be perceived. Similarly, 93% of foster parents either agreed or were unsure of the statement, "Children who have experienced sexual abuse are more likely to have imaginary friends," while 76% either agreed with or were unsure of the statement, "Sexual abuse makes children more likely to steal things." Clearly there is a need for more accurate information being given to foster parents regarding the real effects of childhood sexual abuse. The AKOSTO is an important first step in discovering how much foster parents know about sexual abuse outcomes, and how accurate their knowledge is.

The Knowledge of Treatment (KoT), the second measure developed for this study, was designed to assess foster parents' knowledge of effective treatments for problems related to childhood sexual abuse. The original scale contained 10 items and was eventually reduced to five items. A confirmatory factor analysis for the revised, five-item scale indicated good fit. The KoT is a brief, yet useful, scale for assessing basic knowledge of treatments related to sexual abuse. However, additional items need to be added to the scale in order to gain a more comprehensive picture of foster parents' understanding in this area. Despite being a short scale, the KoT yielded some valuable findings. Encouragingly, 93% of foster parents either disagreed or strongly disagreed with the statement, "Medication alone is an effective treatment for sexually abused children." This is an important point given recent findings regarding the over-prescription of psychotropic medications to foster children (Brenner, Southerland, Burns, Wagner, & Farmer, 2014; United States Government Accountability Office, 2012). While foster parents varied widely in their knowledge of treatment, few were confident in their beliefs. Only 8.5% of foster parents reported that they were "very knowledgeable" about the treatment of childhood sexual abuse, while 52% reported that they were either "not knowledgeable at all" or were "a little knowledgeable." Results from the KoT suggest that more education regarding treatment for sexually abused children is needed for foster parents.

The Likelihood of Seeking Treatment (LST) was the third measure developed specifically for this study, and was designed to assess foster parents' likelihood of seeking treatment for a child who has been sexually abused. Despite the removal of five items from the scale due to poor discriminative ability, a confirmatory factor analysis

indicated that the model had poor fit. This is likely due to the fact that the overwhelming majority of participants indicated a high likelihood of seeking treatment. A positive and encouraging finding is that a large majority of foster parents are eager to seek treatment for foster children who have been sexually abused, and that no foster parents indicated consistent disagreement with treatment-seeking options. While a hopeful finding, the LST is poorly suited to adequately assessing foster parents' likelihood of seeking treatment. More research is needed in this area in order to construct a more valid scale.

The final measure created for this study was the Willingness and Likelihood of Retainment (WiLi-R). Originally designed to assess foster parents' stated willingness to foster children with a history of sexual abuse, as well as the actual likelihood of such fostering taking place, revisions reduced the WiLi-R from 12 items to 5 items. The final scale was comprised entirely of items indicating willingness to foster and retain children who have been sexually abused; all "likelihood" items were removed. Confirmatory factor analysis with the revised WiLi-R showed good fit for the "willingness" construct. Foster parents responded in a wide variety of ways to the WiLi-R, and total scores on the measure were normally distributed. One encouraging finding is that 65% of the sample obtained a score of 16 or higher, indicating a willingness to foster children with a history of sexual abuse.

Study Hypotheses

Although the development and validation of newly created measures was an important component of this study, it was not the primary goal. The main objective of this study was to determine how knowledge of sexual abuse, knowledge of treatment options, and likelihood of seeking treatment were related to foster parents' reported

willingness to parent children with a history of sexual abuse; as well as how parental sense of competence and self-efficacy, and likelihood of seeking treatment, would moderate these relationships. This study found evidence of several direct relationships. Parental sense of competence was found to have a small, but significant, positive relationship with foster parents' willingness to foster a child with a history of CSA; that is, foster parents who felt themselves to be competent as parents reported an increased willingness to foster sexually abused children. Similarly, knowledge of treatment was found to have a significant positive relationship with foster parents' willingness to foster a child with a history of CSA. This study found that as a foster parent's knowledge of treatment increases by one standard deviation, willingness to foster sexually abused children increases by .28 standard deviations.

These findings have important implications. First, one way to increase the number of foster parents who are willing to parent sexually abused children may be to simply provide more education regarding available and effective treatments. Previous research has demonstrated that increased training of foster parents results in better retention rates of foster children (Chamberlain et al., 1992; Leathers, Spielfogel, McMeel, & Atkins, 2011). Providing education with regard to the treatment of sexual abuse outcomes specifically is likely to be easy and inexpensive, yet has the potential to result in a significant increase in the number of parents ready and willing to foster sexually abused children. Given that the vast majority of foster parents in this study reported a strong likelihood of seeking treatment, accurate education regarding effective treatments would have the added benefit of making sure foster parents who do seek treatment seek treatments that are evidence-based.

Second, parental sense of competence emerged as an important and significant variable in both analyses in which it was included. Parents who feel they have the knowledge and skills to parent effectively report a greater willingness to foster sexually abused children. As with knowledge of treatment, parental sense of competence is a variable that is amenable to change through education and intervention. Numerous interventions have been developed which increase parents' knowledge and skills, and therefore competence, with regard to a wide variety of problematic behaviors and situations (e.g., Chamberlain et al., 1992; Leathers et al., 2011; Linares et al., 2006; McNeil, Herschell, Gurwitch, & Clemens-Mowrer, 2005; Sofronoff & Farbotko, 2002). Interventions targeting the specific knowledge and skills needed to parent sexually abused children should be developed and should be disseminated through foster care organizations, state agencies, and other relevant stakeholders.

While significant main effects of parental sense of competence and knowledge of treatment were found, this study found no evidence of moderation effects. This is likely due to errors in measurement. Two of the study's core hypotheses relied upon either the AKOSTO or the LST as their predictor variable. Both of these measures had issues with construct validity according to the results of confirmatory factor analyses. It is likely that neither of these measures fully assessed the constructs of interest (knowledge of sexual abuse outcomes for the AKOSTO and likelihood of seeking treatment for the LST). Responses on both measures were negatively skewed, indicating a reduced ability to adequately discriminate among participants who scored highly. Stronger predictor measures are needed in order to accurately test for moderation effects.

While the WiLi-R is a much stronger measure than the AKOSTO or the LST, it still suffers from several measurement problems. Chief among these problems is the lack of items. Through revisions and testing the WiLi-R was reduced from 12 items to 5 items. More items are needed in order to comprehensively assess the construct of interest (willingness to foster children with a history of sexual abuse). Furthermore, as documented earlier, items on the WiLi-R have limited response options (i.e., a 5-point Likert scale), which inhibits the ability of the WiLi-R to fully assess foster parents' intentions.

It is surprising is that while parental sense of competence was found to be a significant predictor of willingness to foster and retain children with a history of CSA, parental self-efficacy was not a significant predictor. Competence and self-efficacy are different constructs in that competence refers to actual skills and knowledge, while self-efficacy refers to beliefs about one's ability to execute certain actions and decisions. However, this study did not assess true parental competence; rather, the PSOC measured foster parents' *sense* or *feelings* of competence. It seems that the PSOC would therefore be measuring a very similar construct to parental self-efficacy, and it is unclear why sense of competence was significant while self-efficacy was not. One possible reason for this finding is measurement issues. The PSOC and MSPPE, while both fairly well-supported in the literature, ask different types of questions. The PSOC tends to ask more global questions revolving around a parent's subjective feelings, while the MSPPE asks more often about the ability to carry out specific tasks or behaviors with regards to one's children. Given the myriad of challenges foster parents face, it could be that they have a high degree of confidence in themselves and their abilities in a broad sense, but are less

confident in their abilities when asked about specific tasks which involve altering a child's behavior.

The results of this research lay an important foundation for future examination of and intervention in the factors that relate to foster parents' perception and retainment of sexually abused children. Specifically, the variables connected to foster parents' willingness to foster children with a history of CSA are amenable to intervention and change. Psychoeducation can result in a greater awareness and understanding of how sexual abuse affects children, as well as provide hope for the relief that effective, evidence-based treatments can provide. Similarly, parental sense of competence and self-efficacy, even for parents dealing with difficult populations, can be significantly increased through training and intervention (Sofronoff & Farbotko, 2002).

This study also provides a stepping stone to addressing issues that other researchers have noted. After investigating problem behaviors and other factors that predict placement disruption, Chamberlain et al. (1992) identified three areas of focus for child welfare policy and practice. These areas were a) interventions which reduce problem behaviors and increase foster parenting skills, b) placing limits on the number of foster children placed in each home, particularly when foster children exhibit high rates of problem behaviors, and c) increasing efforts to identify, recruit, train, and support appropriate placements. The results of this study expand the evidence base in two of these areas with regards to sexually abused children in the foster system. First, the results of this study show that foster parents' self-reported competence is an important variable in parenting sexually abused children. Second, through the development of the AKOSTO and the KoT this study provides a first step in determining if foster parents have the skills

needed to effectively deal with a challenging population, and if not, what training and education can be added. Finally, the results of this study provide a base for future research examining methods of identifying, recruiting, and training future foster parents of sexually abused children. It is hoped that the data collected through this research, along with other empirical studies, will result (among other things) in the creation of a foster parent screener able to reliably and effectively match potential foster parents with foster children who have been sexually abused.

The results of this study are useful not only to foster parents, but to those who interact with foster parents and foster children. One important group that interacts often with the foster system is school personnel, including school psychologists, counselors, social workers, and teachers. These professionals deal with sexually abused children every year, and face many of the same challenges that foster parents face, including externalizing problems and academic underperformance (Paolucci et al., 2001). The school system may be the second-most important system in a foster child's life in terms of time and involvement, and is therefore in an ideal place to effect change and to assist in treatment. Schools should partner with foster parents to more effectively address the mental health needs of child victims of sexual abuse. School psychologists, counselors, and social workers are qualified to deliver evidence-based treatments for child sexual abuse such as TF-CBT, and are uniquely positioned as the most affordable, available treatment professionals likely available to busy foster parents. Schools could play an important role in educating parents about evidence-based treatments for sexual trauma, and could even assist in the development of parental competence through parent-training classes or through the dissemination of educational material related to parenting skills.

It is hoped that this study will also assist schools in becoming aware of the behavioral signifiers of avoidant coping which are associated with later, more severe psychopathology (Shapiro et al., 2012). Children's behavior can be a significant indicator of risk and need for treatment. Sexually abused children who display behaviors such as fidgetiness and distractibility are more likely to engage in avoidant coping strategies and are at an increased risk for psychopathology (Shapiro et al., 2012). These types of behaviors can indicate an inability to adaptively regulate emotions, and can result in more severe symptoms (Etkin & Wager, 2007). Training in child sexual abuse theory, signifiers, and outcomes, while likely helpful for foster parents, may also be very helpful for teachers. Approximately 60-70% of adults who were sexually abused as children say they never disclosed their abuse as children (London, Bruck, Ceci, & Shuman, 2005). Teachers who are knowledgeable about child sexual abuse and competent in dealing with victims are much more likely to be able to assist child victims, notice warning signs, and potentially stop abuse that has not yet been reported.

Finally, this study indirectly disseminates research about evidence-based treatments for child sexual abuse to participants through questions on the LST and KoT, and directly disseminated research to participants who requested it on the demographic form. Evidence-based interventions are treatments that have been proven to be effective through rigorous empirical evaluation. It is hoped that this study results in greater knowledge of and exposure to evidence-based treatment practices for victims of child sexual abuse. It is essential that treatments for child sexual abuse are based on sound theory and research and are effective, particularly given the risks that sometimes accompany abuse (e.g., suicidal ideation, self-harm, risky behaviors, etc.). Information

regarding these interventions should be delivered to all parents. While delivering such information may be difficult in some cases, foster training programs are optimally placed to disseminate information regarding evidence-based interventions. It is hoped that the results of the research will ultimately help expose child care agencies and foster training programs to the need for greater education of foster parents in this area.

Limitations

While this research has generated significant and important findings, it faces a number of limitations. These limitations consist primarily of issues with adequate measurement and with generalization. Several of the constructs of interest did not have established, norm-referenced measures available, and so measures had to be created. While every attempt was made to structure these measures based on sound theory and research, more work is needed to determine if these measures are valid and reliable. The AKOSTO and LST, in particular, had somewhat poor fit when subjected to confirmatory factor analyses. Measurement error, in turn, can result in a reduced reliability of the interaction term created from the measured variables, which may result in an increase in standard error and reduced power to detect moderator effects (Aiken & West, 1991; Frazier et al., 2004).

Second, the outcome measure (the WiLi-R, which was designed to measure likelihood and willingness to retain) may not have enough response options to adequately reflect the interaction between the independent variable and the moderator variable (Frazier et al., 2004; Russell & Bobko, 1992). This problem may also be called “scale coarseness.” When the predictor and moderator are both measured with Likert scales it is recommended that the outcome measure have as many response options as the product of

the response options of the predictor and moderator measures. In order to do this, however, the WiLi-R would need to have 25 or 30 response options for each item. Therefore, the power of this study to detect an interaction effect was decreased. However, most measures do not have these kinds of response options, and effects of scale coarseness are difficult to avoid (Frazier et al., 2004).

Third, the sample used in this study was overwhelming female (93.5%), White (86.1%), and Christian (80%). Numerous methods of recruitment were used in order to obtain a representative sample, including recruiting through a variety of online channels, contacting local agencies, and using a snowball sampling method. This resulted in a large sample size; unfortunately, the sample was not as diverse as intended. Due to sample characteristics the results of this research must be interpreted with caution, especially when applied to foster parents who are male, who identify as a race or ethnicity that is non-White, and/or who do not identify as Christian.

A final limitation of this study is that it relies fully on parental self-report. It is possible that parents may inaccurately report their feelings or behaviors based on their own biases, social desirability, etc., particularly on the outcome measure of likelihood and willingness to retain. Future research in this area should incorporate more objective measures of parent competence, knowledge of sexual abuse effects, and retainment behaviors.

Future Directions

It is hoped that the results of this study will provide a firm base for future exploration of the factors that contribute to safe, stable, and therapeutic placements for sexually abused foster children. Future research will first need to address issues in

measurement. The four measures created specifically for this study have not been thoroughly tested nor examined, and their validity and reliability is not yet established. The LST and AKOSTO in particular need significant revision in order to increase their construct validity. While these two measures are in need of the most serious attention, the KoT and WiLi-R would both benefit from further testing and from the addition of additional items. Future research should therefore work on refining the instruments used for assessing knowledge of sexual trauma and effects, knowledge of treatment, and likelihood of seeking treatment. While measures based on self-report are valuable, measures that incorporate more objective data points are needed. An objective measure of a foster parent's retainment of children who have a history of sexual abuse, for example, might result in increased predictive validity with regards to the parent's future retainment behavior when used in conjunction with the WiLi-R. Additionally, a parental sense of competence measure tailored specifically to foster parents is desirable, as foster parents are a unique population facing challenges that other parents do not face.

Second, future research should be experimental. While this study provides valuable data related to foster parents' perceptions of child sexual abuse and retainment, the data are all self-reported and cannot be definitively linked to real-world outcomes. Interventions should be developed which educate foster parents about the harmful outcomes associated with child sexual abuse, as well about empirically-based treatment options. Ideally these interventions would be tested in randomized control trials with foster parents across the US, and the results rigorously analyzed. Since knowledge of treatment and parental sense of competence were found to play a significant role with regards to willingness to foster sexually abused children, future research should also test

interventions designed to increase parental competence and knowledge of treatment. It is likely that well-designed interventions would be of interest to foster parents. Other interventions delivered to foster parents have proved successful; for example Price et al. (2008) found that caregivers were satisfied with and very likely to attend the KEEP training, with 81% completing 80% or more of the group training sessions.

Third, future research should examine alternative delivery systems. Foster parents are often busy and strapped for time, and would likely benefit from training that is easily accessible and time-limited. One possibility is that future foster parent training could be done through web-based training programs. Pacifici et al. (2006) found that foster parents responded well to web-based training program and reported increased competence in dealing with problem behaviors, including sexualized behavior. It is likely that a psychoeducational program focused on sexual abuse outcomes and treatment would be similarly received.

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Appendix A

Knowledge of Treatment (KoT)

I. How many different treatment options are you aware of for children with sexual abuse?

II. Please select the best answer to the following sentence:

I am _____ about the treatment of child sexual abuse.

- A. Very knowledgeable
- B. Somewhat knowledgeable
- C. A little knowledgeable
- D. Not knowledgeable at all

Please indicate your agreement to each of the following statements according to the following scale:

1	2	3	4	5
Strongly Disagree	Disagree	Neutral/Don't Know	Agree	Strongly Agree

1. Medication alone is an effective treatment for sexually abused children.
2. Talking about the abuse is one step in helping children cope with past sexual abuse.
3. Cognitive behavioral therapy is rarely an effective treatment for sexually abused children.
4. Talking with a parent and processing memories of the abuse can be harmful to children who have been sexually abused.
5. An important component of therapy is psychoeducation about abuse.
6. An important component of therapy is learning how to stay safe in the future.
7. Foster parents can play an important role in their child's treatment.
8. Treatment of sexual abuse rarely reduces behavior problems in children.
9. Treatment for child victims of sexual abuse usually lasts many years.
10. Trained and licensed social workers, psychologists, and counselors are all capable of providing effective therapy for child victims of sexual abuse.

Scoring

1. Medication is an effective treatment for sexually abused children. (R)
2. Talking about the abuse is one step in helping children cope with past sexual abuse.
3. Cognitive behavioral therapy is rarely an effective treatment for sexually abused children. (R)
4. Talking with a parent and processing memories of the abuse is harmful to children who have been sexually abused. (R)
5. An important component of therapy is psychoeducation about abuse.
6. An important component of therapy is learning how to stay safe in the future.
7. Foster parents can play an important role in their child's treatment.
8. Treatment of sexual abuse rarely reduces behavior problems in children. (R)

- 9. Treatment for child victims of sexual abuse usually lasts many years. (R)
- 10. Trained and licensed social workers, psychologists, and counselors are all capable of providing effective therapy for child victims of sexual abuse.

Reverse score 1, 3, 4, 8, 9. Do not score items I and II.

Score ____ / 50.

Higher scores are indicative of more accurate knowledge of sexual abuse treatment.

Appendix B

Likelihood of Seeking Treatment (LST)

Please indicate your agreement to each of the following statements according to the following scale:

1	2	3	4	5
Strongly Disagree	Disagree	Neutral/Don't Know	Agree	Strongly Agree

1. It is very important to seek therapy for children who have been sexually abused.
2. Children can get over the effects of sexual abuse with enough time and no other intervention.
3. Therapy is really not necessary for sexually abused children.
4. Therapy is too expensive and time-consuming to be practical.
5. If I discovered my foster child had been sexually abused, I would take him or her to a counselor, psychologist, or other mental health worker.
6. Therapy can result in improved mood and behavior for many sexually abused children.
7. A psychologist, social worker, or counselor is not needed for effective therapy. All that is needed is a loving and caring adult.
8. I would feel inadequate as a foster parent if I had to seek treatment for a sexually abused child.
9. Taking a child to a therapist would be embarrassing for me as a foster parent.
10. There are mental health professionals near me who could help a child who had been sexually abused.

Scoring

1. It is very important to seek therapy for children who have been sexually abused.
2. Children can easily get over the effects of sexual abuse with enough time and no other intervention. (R)
3. Therapy is rarely necessary for sexually abused children. (R)
4. Therapy is too expensive and time-consuming to be practical. (R)
5. If I discovered my foster child had been sexually abused and was having problems, I would take him or her to a counselor, psychologist, or other mental health worker.
6. Therapy can result in improved mood and behavior for many sexually abused children.
7. A psychologist, social worker, or counselor is not needed for effective therapy. All that is needed is a loving and caring adult. (R)
8. I would feel incompetent as a foster parent if I had to seek treatment for a sexually abused child. (R)
9. Taking a child to a therapist would be embarrassing for me as a foster parent. (R)
10. There are mental health professionals near me who could help a child who had been sexually abused.

Reverse score: 2, 3, 4, 7, 8, 9

Score ____/ 50

Higher scores are indicative of a greater likelihood of seeking treatment.

Appendix C

Willingness and Likelihood to Retain (WiLi-R)

Please indicate your agreement to each of the following statements according to the following scale:

1	2	3	4	5
Strongly Disagree	Disagree	Neutral/Don't Know	Agree	Strongly Agree

1. It would be easy to parent to a sexually abused child. (R)
2. I have fostered a child I knew had been sexually abused.
3. I have fostered a child I suspected had been sexually abused.
4. I would prefer not to foster a child who had been sexually abused. (R)
5. I would be an effective parent to child who had been sexually abused.
6. I am interested in being a foster parent to a sexually abused girl.
7. Sexually abused children are extremely difficult to have as foster children. (R)
8. Parenting sexually abused children is no different from parenting other children. (R)
9. I would like to foster a child who had been sexually abused.
10. I am interested in being a foster parent to a sexually abused boy.
11. Foster parenting is both challenging and rewarding.
12. I've considered fostering children with a history of sexual abuse.

Scoring

Willingness:

4. I would prefer not to foster a child who had been sexually abused.
5. I would be an effective parent to child who had been sexually abused.
6. I am interested in being a foster parent to a sexually abused girl.
9. I would like to foster a child who had been sexually abused.
10. I am interested in being a foster parent to a sexually abused boy.
12. I've considered fostering children with a history of sexual abuse.

Likelihood:

1. It would be easy to parent to a sexually abused child.
2. I have fostered a child I knew had been sexually abused.
3. I have fostered a child I suspected had been sexually abused.
7. Sexually abused children are extremely difficult to have as foster children.
8. Parenting sexually abused children is no different from parenting other children.
11. Foster parenting is both challenging and rewarding.

Reverse score 1, 4, 7, and 8

Willingness score ____ / 30

Likelihood score ____ / 30

Total score ____ / 60

Appendix D
Demographic Form

Please answer the following questions.

1. What is your age? _____
2. What is your gender? _____
3. What is the highest level of education you have completed?
 - a. High school or GED
 - b. Some college/university
 - c. 4-year college/university degree
 - d. Advanced degree (Masters or PhD)
4. What is your total yearly household income?
 - a. \$10,000-\$19,999
 - b. \$20,000-\$29,999
 - c. \$30,000-\$39,999
 - d. \$40,000-\$49,999
 - e. \$50,000-\$59,999
 - f. \$60,000-\$69,999
 - g. \$70,000-\$79,999
 - h. \$80,000-\$89,999
 - i. \$90,000-\$99,999
 - j. Over \$100,000
5. What best describes you current marital status?
 - a. Never married
 - b. Currently married to first spouse
 - c. Currently divorced
 - d. Currently re-married
6. How many children below the age of 18 are currently living in your house?
7. What is your race?
8. What is your mother's country of origin?
9. What is your father's country of origin?
10. What is your religion?

- 11.** How often do you attend religious services?
- 12.** Are you currently a foster parent?
- a. If so, how many years have you been a foster parent?
 - b. If not, how many years were you a foster parent for?
- 13.** Do you currently have foster children living in your home?
- a. If so, how many?
- 14.** How many children in total have you fostered?
- 15.** How many children with a confirmed history of sexual abuse have you fostered?
- 16.** Would you like to receive additional information about evidence-based treatments for sexual abuse?
- a. YES, please email me an informational packet at _____.
 - b. NO
- 17.** Please list any comments, questions, or suggestions you may have:
-
-
-
-
-
-

Thank you for your participation in this study!

Appendix E

P-P Plot, Q-Q Plot, and Histogram for the Willingness and Likelihood to Retain

(Wili-R)

