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Parental Substance Abuse and Child Neglect: Findings from a
Family Treatment Drug Court

A Dissertation submitted in partial satisfaction of the
requirements for the degree of Doctor of Philosophy
in Counseling, Clinical, School Psychology

by

Jennifer B. Hughes

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September 2014

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October 2013

Parental Substance Abuse and Child Neglect: Findings from a
Family Treatment Drug Court

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by

Jennifer B. Hughes

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ABSTRACT

Parental Substance Abuse and Child Neglect: Findings from a Family Treatment Drug Court

by

Jennifer B. Hughes

Child neglect is the most common form of child maltreatment, and yet less recognized, treated, or researched than child physical or sexual abuse. Child neglect is also highly associated with parental substance abuse, parents' trauma histories, and trauma symptoms. This study explores the relation between parental substance abuse, parental history of trauma and trauma-related symptoms, and child neglect within a sample of families involved in a family treatment drug court (FTDC) for parental substance abuse and child neglect. Data were collected on 70 mothers and fathers who became involved with the FTDC because they neglected their children as a result of their substance abuse. Parental substance abuse was assessed at intake using a semi-structured clinical interview. Parents' trauma history, trauma symptoms, and parenting attitudes were collected using self-report measures. A trained clinician assessed family functioning and parenting techniques. The severity of parents' alcohol problems and trauma histories were found to impact their use of adaptive parenting techniques. Parents' trauma symptoms and trauma histories were found to differentially impact the parent-child relationship; children of parents with more severe trauma symptoms were at a greater risk of neglect while children of parents who experienced four or more adverse childhood experiences were at a lower risk of neglect. Parents' trauma histories and experience of childhood neglect also impacted treatment gains. Recommendations for

assessing parents' trauma histories and symptoms as they relate to substance abuse and child welfare treatment planning are discussed. Methods to improve the study of child neglect are also identified as they pertain to families affected by substance abuse and trauma.

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Chapter I

Introduction

Child neglect has been the most common form of child maltreatment for decades (U.S. Department of Health and Human Services [USDHHS], 2010). The etiology of neglect is complex, and while there is a relation between low socioeconomic life circumstances and neglect, the literature has demonstrated that this is not the only, or even primary, contributing factor. Factors shown to predict neglect above and beyond poverty include parental history of child abuse and neglect, the presence of a psychiatric disorder in one or both parents, lack of prosocial social support, and parental substance abuse (Dunn et al., 2002). The impact of parental substance abuse on the severity of child neglect seems to be particularly important (Dunn, Mezzich, Janiszewski, Kirisci, & Tarter, 2001), as it is consistently found to be more predictive of child neglect than other risk factors (Carter & Myers, 2007; Ondersma, 2002).

The extant literature reveals that substance-abusing and neglectful parents share many of the aforementioned risk factors (Cash & Wilke, 2003), and that both groups have tendencies to use similar maladaptive parenting techniques. These include a failure to provide a nurturing home environment (Palusci, Crum, Bliss, & Bavolek, 2008), an ineffective and punitive use of discipline (Pears, Capaldi, & Owen, 2007), a lack of supervision of their children's whereabouts and activities (Coohey, 2008), and role-reversal relationships with their children (Palusci et al., 2008). This does not mean that all substance-abusing parents neglect their children, but currently there is a lack in the ability to discern which parents are most likely to overlook their children's basic needs.

Defining Child Neglect

Defining child neglect is difficult because there are many types of neglect, and we lack a consensus as to the minimum requirements necessary to care for a child (OCAN, 2006). Currently, the federal government recognizes physical, psychological, educational, and medical neglect (CWIG, 2008). Federal law defines child abuse and neglect as “any recent act or failure to act on the part of a parent or caregiver which results in death, serious physical or emotional harm, sexual abuse, or exploitation; or an act or failure to act which presents an imminent risk of serious harm” (Child Welfare Information Gateway [CWIG], 2008). While this is the minimum standard of *both* child abuse and neglect set by the federal government, state laws vary from being more inclusive and citing specific examples of neglect and recommendations for intervention by Child Welfare Services (CWS), to presenting a very general definition that may be more open to interpretation. The primary forms of physical neglect include lack of supervision and failure to provide for a child’s basic needs, and the most common forms of psychological neglect are a poor parent-child relationship, punitive and ineffective discipline, and parentification of the child, that is, when children are expected to care for their parents’ physical and/or emotional needs.

Due to the varying definitions of neglect and its differential impact depending upon a child’s developmental level, it has been difficult to clearly operationalize this construct. Even the form of neglect most highly correlated with poverty, failure to provide, is often difficult to define and thus substantiate. To address this variability, much of the current research operationalizes neglect as deficient parenting skills within the context of children’s level of development. There is agreement that a lack of emotional warmth and nurturing (Suchman et al., 2005), punitive and ineffective discipline (Palusci et al., 2008), lack of supervision of

their children (Coohey, 2008), and child parentification (Palusci et al., 2008) can lead to neglect. However, what each of these concepts looks like in practice and for children at different stages of development is difficult to measure. Moreover comparing findings across studies is problematic due to a lack of widely used standardized measures.

Prevalence of Child Neglect

According to the U.S. Department of Health and Human Services (USDHHS), there were 676,569 reported victims of child maltreatment in 2011. Of these, 78%, or 531,413 children, were reported for neglect. In contrast, 18% of maltreatment reports were for child physical abuse, whereas only 9% of the reports were for child sexual abuse (USDHHS, 2012)¹. The difference in these numbers is staggering, and it is likely that the difference is higher because neglect is notoriously under-reported (Office on Child Abuse and Neglect [OCAN], 2006). Furthermore, most studies estimate that between one- and two-thirds of the reported cases of child neglect are related to parental substance abuse (SA) (USDHHS, 1999). The National Survey on Drug Use and Health reported that over 8.3 million children lived with at least one substance-dependent or substance-abusing parent between 2002 and 2007 (NSDUH, 2009). Although it is not possible to draw any direct conclusions regarding a causal relationship between parental SA and child neglect, it is apparent that a strong relation exists.

Etiology of Neglect

There is not one single cause of neglect; it is more frequently the cumulative result of multiple risk factors. For this reason, conceptualizing the etiology of neglect through the lens of a developmental-ecological framework that accounts for the effect of child, parent, family,

¹ Percentages sum to more than 100% because a child may have experienced more than one type of maltreatment.

and community factors provides a more comprehensive and realistic idea of why children are neglected (Belsky, 1993). Although limited, there is some research indicating child characteristics might contribute to the incidence of child neglect. Specifically, children are more likely to be neglected if they have developmental delays, learning disorders (Mayer, Lavergne, Tourigny, & Wright, 2007), or psychological problems (Dunn et al., 2001). It is important to consider and learn more about how child and other risk factors may impact the incidence of neglect. However, due to the scope of this study, child or community factors will not be covered because its focus is the effect of parental substance abuse and parents' trauma histories their children's experience of neglect.

While it may be easy to vilify neglectful parents, we must not overlook the numerous variables that impede their ability to be good enough parents for their children and that contribute to the etiology of child neglect. These include parents' experiences of abuse and/or neglect as children (Mayer et al., 2007) and other traumatic events in childhood and as adults (Banyard, Williams, & Siegel, 2003; Cohen, Hien, & Batchelder, 2008). Additional precipitating factors are mental health disorders (Connors et al., 2004), low socioeconomic circumstances (Sedlak et al., 2010), and a lack of sufficient social support (Mayer et al., 2007; Ondersma, 2002). Furthermore, many neglectful parents use or abuse alcohol or other drugs (Carter & Myers, 2007; Cash & Wilke, 2003; Ondersma, 2002). Each of these risk factors, individually and in combination, influenced the occurrence and severity of child neglect.

Neglect in Families Affected by Substance Abuse

A substantial body of literature ties child neglect to parental substance abuse by providing evidence that parental SA predicts neglect above and beyond other variables and

by revealing the shared risk factors and parenting difficulties of neglectful parents and SA parents. For example, recent research has found children of a SA parent tend to experience more severe neglect compared to children without a SA parent (Kirisci et al., 2002). Furthermore, similar to neglectful parents, many SA parents were also neglected and/or abused as children (Dunn et al., 2001; Connors et al., 2004; Cash & Wilke, 2003), and report other traumatic experiences as children and adults (Cohen et al., 2008). Mental health diagnoses are common (Connors et al., 2004; Stanger et al., 2002; Kirisci, Dunn, Mezzich, & Tarter, 2002), and a vast majority of SA parents live in poverty (Carta et al., 2001; Ondersma, 2002; Osborne & Berger, 2009) in addition to lacking social support (Connors et al., 2004; Suchman, McMahon, Slade, & Luthar, 2005).

Drawing upon the broader developmental-ecological approach conceptualizing the etiology of neglect, Cash and Wilke (2003) conducted a study of 1,404 SA women and their minor children. The study's findings support and integrate the previously cited research by showing that the mother's history of child sexual abuse, mental health problems, namely anxiety, low socioeconomic circumstances, and poor social support were among the variables most predictive of child neglect. The authors also found the severity of the mother's drug use to be highly predictive of child neglect.

Responses to Parental Substance Abuse and Child Neglect

There has been a historical neglect of neglect in the literature and, until recently, neither researchers nor clinicians seemed to appreciate the gravity of its consequences. However, there has been a recent movement towards a better understanding of the impact of parental SA on the occurrence and severity of child neglect. Much of this attention has stemmed from the work done within family treatment drug courts (FTDC), which were

established to help improve family reunification outcomes for SA parents (Marlowe & Carey, 2012). To reach this goal, the FTDC branch of problem-solving courts enrolls SA parents and their children. The affiliated intervention teams, including substance abuse providers, child and family therapists, and CWS workers, then provide services to address each family member's individual or family system-related needs within a developmentally informed treatment model (CSAT, 2004). As a result of the intensive and well-rounded intervention and support services offered by FTDCs, the field is seeing improvements in family reunification outcomes compared to traditional dependency courts (Marlowe & Carey, 2012). However, overall there still remains a lack of research on the relation between parental SA, child neglect, and effective responses to this problem, such as family treatment drug courts.

Purpose

This study was designed to explore the relation between parental substance abuse, parental history of trauma and trauma-related symptoms, and child neglect within a sample of families involved in a family treatment drug court (FTDC) for parental substance abuse and child neglect. While there is agreement among researchers that parental substance abuse can result in physical and emotional neglect, which some have defined and measured as a poor parent-child relationship, parentification (Palusci et al., 2008), harsh discipline (Pears et al., 2007), and lack of supervision (Coohey, 2008), the inter-relations among these variables have not been examined together in a single study. Furthermore, there is a paucity of literature on the relation between parents' neglect of their children and parental history of potentially traumatic events in addition to childhood maltreatment. Thus, the relation between severity of parental substance abuse, parental history of potentially traumatic events,

severity of parents' trauma symptoms, and their children's risk of experiencing neglect was examined.

The present study will add to the growing literature that is defining neglect from a developmental perspective. The goal of this approach is to better understand children's experiences of neglect and the severity of this neglect while acknowledging that an infant has different needs than an adolescent. Risk factors for neglect have been informed by the literature and include less than satisfactory parenting behaviors common to both neglectful and SA parents. Therefore, rather than defining child neglect solely based on socioeconomic circumstances or a failure to provide for a child's basic needs, children's risk of neglect within families affected by parental substance abuse was operationalized as problematic levels of poor parent-child relationship, ineffective discipline, lack of supervision, and parentification. Another reason neglect was defined in this way is because the details of the children's experience of neglect and their reasons for entering the FTDC were unknown. However, we were able to measure parents' perceptions of and attitudes about the parent-child relationship and parents' parenting techniques as rated by a trained service provider. Although these are indirect measurements of neglect, they will be used to describe the construct of child neglect in this study.

One potentially confounding factor inherent to researching child neglect is the fact that neglect rarely occurs by itself, and even when it does, it is difficult to substantiate and typically is not investigated by child welfare unless it is extreme or there is co-occurring abuse. The sample used in this study includes children who entered the system at the time of assessment for neglect only. Data on prior instances of child abuse or neglect was not available. The parents in the study also reported extensive trauma histories; according to their

self-report, many experienced childhood neglect, and some had histories of neglect and abuse. As such, because it was anticipated that childhood neglect would have a specific impact on parents' later parenting behaviors, parents were grouped based on whether they had ever experienced physical or emotional neglect, with or without abuse, compared to parents who did not report a history of physical or emotional neglect.

Parental substance abuse, history of potentially traumatic events, including a history of childhood maltreatment, and parents' trauma symptoms were expected to be related to their children's risk of experiencing neglect. These relations were examined individually and in combination with each other to explore their unique associations and their combined effect on parents' risk level of neglecting their children. A quasi-experimental research design was used to investigate the research questions and hypotheses (Heppner, Wampold, & Kivlighan, 2008). This design was used to accomplish two goals: first, to establish that the substance- and trauma-related characteristics of parents in a family treatment drug court program are heterogeneous and related to their children's risk of experiencing neglect; and second, to determine the causal relation between parental trauma and trauma symptoms, parental substance abuse, and the subsequent neglect of their children.

Research Questions and Hypotheses

This study addresses four general research questions:

Question 1. How is a parent's history of physical and/or emotional neglect related to their children's risk of experiencing neglect, as measured by parents' perceptions of and attitudes about problematic levels of a poor parent-child relationship and interviewer report of parents' use of poor parenting techniques? Specifically, are children of parents with a history of childhood neglect at greater risk of experiencing poorer relationships with their

parents and having parents who use less effective and appropriate parenting techniques compared to children of parents without a history of childhood neglect?

Hypothesis 1.1. It is predicted that the children of parents who experienced physical and/or emotional neglect with or without abuse as children, measured using the *Adverse Childhood Experiences Scale* (ACE; Felitti et al., 1998) will be at greater risk of experiencing a poorer parent-child relationship, as measured by the *Adult Adolescent Parenting Inventory – Version 2* (AAPI-2; Bavolek & Keene, 2001) Lack of Empathy, Inappropriate Expectations, and Parental Role Reversal subscales, than will children of parents who did not experience childhood neglect.

Hypothesis 1.2. It is predicted that children of parents who experienced physical and/or emotional neglect with or without abuse as children, measured using the ACE, will be more likely to have parents who use poorer parenting techniques, as measured by the *North Carolina Family Assessment System* (NCFAS; Reed, 1998) Family Interactions and Parenting Capabilities subscales, than will children of parents who did not experience childhood neglect.

Question 2. Based on the findings from Anda and colleagues (2002) showing that adults with an ACE score of four or more are at greater risk of negative outcomes like substance abuse, the present study seeks to expand this knowledge base by exploring the relation between number of potentially traumatic events and child neglect. Therefore, how is a parent's history of traumatic experiences related to their children's risk of experiencing neglect, as measured by parents' perceptions of and attitudes about parent-child relationships and interviewer report on parents' use of poor parenting techniques? Specifically, are children of parents who have experienced more potentially traumatic events in childhood at

greater risk of experiencing poorer relationships with their parents and having parents who use less effective and appropriate parenting techniques?

Hypothesis 2.1. It is predicted that children of parents who experienced four or more potentially traumatic events (PTE) during their lifetime, measured using the sum of endorsed items on the ACE, will be at greater risk of experiencing a poorer parent-child relationship, as measured using the AAPI-2 Lack of Empathy, Inappropriate Expectations, and Parental Role Reversal subscales, than will children of parents who experienced fewer than four traumatic events in their lives.

Hypothesis 2.2. It is predicted that children of parents who experienced four or more PTEs during their lifetime, measured using the sum of endorsed items on the ACE, will be at greater risk of having parents who use poorer parenting techniques, as measured by the NCFAS Family Interactions and Parenting Capabilities subscales, than will children of parents who experienced fewer lifetime traumatic events.

Question 3. How is the severity of parental substance use related to their children's risk of experiencing neglect, as measured by parents' perceptions of and attitudes about parent-child relationships and interviewer report on parents' use of poor parenting techniques? Specifically, are children of parents with more severe current and lifetime substance use problems at greater risk of experiencing a poorer parent-child relationship and having parents who employ poorer parenting techniques than are children of parents with less severe current and lifetime substance use problems?

Hypothesis 3.1. Based on the literature suggesting that the parent-child relationships of SA parents are less adaptive compared to non-SA parent-child relationships (Palusic et al., 2007), it is hypothesized that children of parents with more severe current and lifetime

substance use problems at intake, as measured by ASI clinical factor scores, will be at greater risk of experiencing a poorer parent-child relationship, as measured using the AAPI-2 Lack of Empathy, Inappropriate Expectations, and Parental Role Reversal subscales, than will children of parents with less severe current and lifetime substance use problems.

Hypothesis 3.2. Based on the literature suggesting that the parenting techniques of SA parents are not as effective as those of non-SA parents (Coohey, 2008; Pears et al., 2007), it is hypothesized that children of parents with more severe current and lifetime substance use problems at intake, as measured by ASI clinical factor scores, will be at greater risk of having parents who use poorer parenting techniques, as measured by the NCFAS Family Interactions and Parenting Capabilities subscales, than will children of parents with less severe current and lifetime substance use problems.

Question 4. Current research in the area of trauma and substance abuse has documented relations between parental trauma and parental substance abuse (Cohen et al., 2008), parental trauma and the neglect of their children (Banyard et al., 2003; Cohen et al., 2008), and parental substance abuse and the neglect of their children (Carter & Myers, 2007; Ondersma, 2002). Building upon the literature, is it possible to predict children's risk of experiencing neglect, as measured by parents' perceptions of and attitudes about parent-child relationships and interviewer report on parents' use of poor parenting techniques, based on the severity of parents' trauma history, level of clinical trauma symptoms, and severity of current drug and alcohol abuse?

Hypothesis 4.1. It is hypothesized that the combination of parental history of child maltreatment and other traumatic events (measured using the sum of endorsed items on the ACE), associated trauma symptoms (measured using TSI-2 summary factors), and current

and lifetime severity of substance abuse (measured using ASI clinical factor scores), will predict children's risk of experiencing neglect as measured by problematic levels of a poor parent-child relationship and poor parenting techniques measured using the NCFAS and AAPI-2. It is also hypothesized that children of parents with more risk factors will be classified more at risk for experiencing neglect compared to children with fewer risk factors.

Chapter II

Literature Review

Children need parents who provide a safe, nurturing, and predictable environment. When parents are not able to provide this for their children, a variety of emotional and developmental problems could emerge (Lester, Andreozzi, & Appiah, 2004). This is quite common among SA parents, as they often struggle to provide appropriate and adequate care for their children, which in turn may increase the likelihood of neglectful parenting. Some parenting deficits identified among SA parents include insufficient emotional and nurturing interactions between parents and their children (Suchman et al., 2005), inappropriate and ineffective discipline (Palusci et al., 2008), lack of supervision of children's whereabouts and activities (Coohey, 2008), and role-reversal or parentification of children (Palusci et al., 2008). While there is a growing body of literature on the effect of parental substance use on parenting abilities, the current research is somewhat limited methodologically.

This chapter further explores the historical and contemporary debates over what constitutes child neglect, and integrates and summarizes the research reviewing the most common and potentially the most detrimental forms of neglect: physical neglect, including failure to provide and lack of supervision, and psychological neglect, in its various forms. It also delineates the potentially detrimental outcomes of neglected children with substance-abusing parents in order to highlight the need for more evidence-based interventions for these families. Finally, it examines the current research on family treatment drug courts, which implement evidence-based practices to treat parental substance abuse and child neglect, and discuss how they are impacting reunification rates of dependency cases and improvements in parent functioning following completion of the program.

What is Neglect?

Due to the varying definitions of neglect, even within the government, there has been a recent movement in the literature to develop a definition of neglect that can be consistently used by researchers, clinicians, and government agencies such as CWS. Historically, the definition has been based on more measurable parental omissions of behavior, including failing to provide for a child's basic needs of food, clothing, and shelter (CWIG, 2008). However, the current trend emphasizes the child's experience of the neglect and his or her developmental needs. This is important because children's needs vary by their developmental stage, and it is recognized that parents ought to create a home environment and implement boundaries that are commensurate with the child's level of development. Therefore, it is first necessary to identify a child's unique needs before it can be determined if parental omissions of behavior constitute neglect. This approach is preferable because it prioritizes the child's health and development, avoids assigning blame to the parents, and considers parental intent (Dubowitz et al., 2005; English, Thompson, Graham, & Briggs, 2005). However, it is more difficult to measure because of its subjective nature. This has resulted in methodological problems, such as the reliability and validity of assessments of neglect, and the lack of consistency across studies, thus hindering their comparability.

Although still limited, the recent work devoted to developing a more standardized definition of neglect has revealed a number of children's needs that historically have been ignored. Most of the current research addresses the definitions of the physical and psychological subtypes of neglect because these are the most common (English et al., 2005), and the most difficult to operationalize compared to educational and medical neglect. Physical neglect is often broken into its distinct subtypes of failure to provide (FTP) and lack

of supervision (LOS). FTP includes any failure to provide for a child's basic needs, such as insufficient food and inadequate shelter and clothing (English et al., 2005), whereas LOS occurs when a parent does not adequately supervise their children or does not arrange for an appropriate substitute caregiver (Coohey, 2008). Despite awareness of the occurrence and outcomes of physical neglect, psychological neglect may be more common and can be more damaging for some children (Hildyard & Wolfe, 2002). Psychological neglect includes, but is not limited to, a lack of parental warmth and nurturance (Dubowitz et al., 2005), inconsistent and/or poor parenting practices (English et al., 2005), and role-reversal or parentification of children (Palusci et al., 2008). Due to their common co-occurrence with parental substance abuse and the available assessment measures, the present study is focused on the physical neglect subtype of LOS, and the psychological neglect subtypes of insufficient nurturing, ineffective discipline, and parentification. Each will be explored in detail in the following section.

Physical Neglect

Lack of supervision. Substance abuse appears to affect parenting skills, and it is also related to parents' lack of supervision of their children. According to the Office of Child Abuse and Neglect (OCAN; 2009), SA parents may not prioritize the supervision of their children because they are engaged in the search for and use of drugs, or they may be recovering from a using episode. By diverting their energy to their drug use, they are not using their time or energy to care for and supervise their children, thus putting the children's safety at risk and potentially neglecting other basic physical and emotional needs. To further examine LOS and its relation with other forms of neglect, Stanger and colleagues (2004) examined parenting techniques, parental monitoring, and parent involvement in a study of

251 substance-abusing caregivers and their 399 children, aged 6-18 years. Their findings indicated negative parenting, as measured by the degree to which the parent offers praise, affection, and positive reinforcement, was negatively correlated with parental monitoring. Low parental monitoring was also positively correlated with inconsistent discipline and low levels of parental involvement in their child's life, supporting the theory that LOS is related to other parenting deficits.

Lack of supervision leading to physical injury is the cause of approximately one-half of child maltreatment reports (USDHHS, 2000). Coohy (2008) examined the correlates of different types of supervisory neglect (LOS) in a study of 126 families. Specifically, the author analyzed "...did not watch child closely enough, left child alone, and left child with an inadequate caregiver" (Coohy, 2008, p. 61). Within the sample, 27% ($n = 34$) of the mothers were found to be using substances at the time of the supervisory neglect. Of the SA mothers, 33% did not watch their child closely, 27% left their child alone, 4% left their child with an inadequate caregiver, and 36% perpetrated multiple types of supervisory neglect. If a child's mother was using drugs or alcohol at the time of the supervisory neglect, the odds of the child being left with an inadequate caregiver increased by a factor of 12.9 and the odds of experiencing multiple types increased by a factor of 14.1. Many of these children were seriously injured as a result of their neglect, and the SA mothers in this sample were less likely to see their supervisory neglect as a problem compared to the non-SA mothers (Coohy, 2008). While these results are not conclusive in nature and the sample is made of both SA and non-SA mothers, this study provides some evidence to support the notion that SA parents are less likely to provide adequate supervision for their children and that these children are at increased risk of serious injury.

Psychological Neglect

Insufficient nurturing. Growing up in a nurturing home environment is important for children to adaptively negotiate each stage of development (English et al., 2005). Unfortunately, many SA parents neglect their children's emotional needs and tend to engage in fewer nurturing interactions with their children compared to non-SA parents. This may leave these children without a sense of psychological safety and security (English et al., 2005) and could result in the development of insecure attachment styles (Seifer et al., 2004). These children might then have a heightened risk of later social problems because they expect others to treat them poorly and thus develop maladaptive relationships (Cicchetti & Toth, 1995).

Various studies have investigated the relation between parental substance abuse and the parent-child relationship. In a study of 125 mothers enrolled in a 36-month methadone maintenance program, the researchers found that 87% of the mothers experienced their relationships as detached or disengaged, and described these relationships with their children as lacking closeness and cohesion (Suchman et al., 2005). In a study of 365 adolescents and their families, adolescents of alcoholic parents reported significantly lower levels of parental support compared to adolescents of nonalcoholic parents (King & Chassin, 2004). In another study of 860 infants who were exposed to cocaine and other substances both during pre- and post-natal development, children of mothers who scored in the clinical range on a measure of parent-child dysfunctional interactions were more likely to develop a disorganized attachment style at 18 months. Additionally, greater postnatal alcohol use was associated with increased rates of disorganized and insecure attachment styles (Seifer et al., 2004).

Though these studies support the notion that maternal substance abuse affects the mother-child relationship and could negatively affect a child's attachment status, the extant literature is somewhat limited. This is especially true in regards to the effect of SA parents' parenting techniques on the attachment status of their children. In the Seifer et al. (2004) study, children's attachment status was only tested at 18 and 36 months, and the authors did not examine the effect of postnatal substance exposure on children's attachment status for those who were not exposed prenatally. Although attachment status tends to be stable over time, it can also be dynamic (Bolen, 2000). Thus, more longitudinal research on the attachment status of children of SA parents is needed. Other limitations are due to the fact that much of the current research is only conducted with mothers, and relies on the mother's self-report of her parenting interactions and her relationship with her children. Finally, the cross-sectional nature of Suchman and colleague's (2005) study limits its ability to establish temporal precedence.

Ineffective discipline. When SA parents do not provide a nurturing environment for their children, they may also be using ineffective and perhaps inappropriate discipline techniques. Examples of such parenting deficits include harsh or punitive discipline and/or corporal punishment, discipline techniques that do not result in the desired changes in children's behavior, and discipline following parental expectations of behaviors beyond the child's developmental stage. While these parenting deficits do not by themselves constitute neglect, these parents may be more prone to neglect their children (Cash & Wilke, 2003).

To determine the incidence of poor parenting among SA parents, a study of 930 SA families used the *Adult-Adolescent Parenting Inventory* (AAPI-2; Bavolek & Keene, 2001) to measure participants' attitudes about parenting techniques. According to the aggregate

results, participants' attitudes indicated they believed discipline techniques such as corporal punishment were both appropriate and effective parenting practices (Palusci et al., 2008). These findings are supported by a study of 1,204 SA mothers in which 68% of the women self-reported fair to poor parenting skills (Cash & Wilke, 2003).

According to these studies, there appears to be a relation between parental substance use and poor parenting, but the exact nature of the parenting techniques employed by SA parents is unknown. The first study used the AAPI-2, which is a valid and reliable instrument (Bavolek & Keene, 2001), but it does not directly measure parenting techniques and behaviors. Instead, it collects information on the respondent's attitudes and beliefs about parenting and child behaviors, which is used to infer the types of techniques the parent uses. In the second study, parenting ability was measured by asking mothers to provide an overall subjective assessment of their parenting skills, which was then recoded categorically as poor, fair, or well. This self-report, nonstandardized data limits the interpretation and informative use of these findings.

Parentification. Without proper discipline or supervision, children of SA parents are likely to be parentified or to experience the reversal of child and parent roles within a family. When this occurs the child becomes the caregiver of the family, which includes the physical and emotional care of not only younger siblings but frequently of their SA parents as well (OCAN, 2009). In a study directly measuring the experience of parentification amongst 103 female adult children of alcoholics (ACOAs) compared to 233 non-ACOAs, the authors found the ACOAs reported more parentification overall. They also reported more instrumental and emotional caregiving responsibilities within their families of origin, and felt as though their parents treated them more unfairly than the non-ACOAs. Respondents who

indicated their mother had the alcohol problem, as opposed to their father, were more likely to report greater past unfairness, more emotional caregiving of their parent, and greater parentification in general (Kelley et al., 2007). This study supports the notion that children of substance-abusing parents (CSAPs) tend to be parentified, but the data were obtained with adults via retrospective self-report. This type of data collection is subject to error, thus it is necessary also look at studies of children currently living with SA parents.

Palusci and colleagues (2008) identified parentification amongst 930 SA families. As a whole, these parents scored above the clinical cutoff on the Role-Reversal subscale of the AAPI-2, suggesting they held beliefs that would lead them to use their children to meet their own emotional needs. Suchman et al. (2005) observed that 50% of the 125 SA mothers in their sample characterized their relationships with their children as “flexible.” Within the context of the observably inconsistent and chaotic mother-child relationships and home environments, the authors theorized that these findings might be suggestive of parentification. A closer look at these data revealed that these results reflected the abandonment of the mother’s parental authority to her children in terms of household responsibilities and rules. It also revealed a lack of parental monitoring of children’s behavior that was instead left to the older children. Similar to previously cited research, neither of these studies directly measured the effect of parental substance abuse on the parentification of children. However, the findings did reveal that SA parents may have unrealistic expectations of their children and may be unaware of the harmful effect this role-reversal could have on their children’s later development.

While not all SA parents neglect their children, and not all neglectful parents abuse substances, it is clear that neglectful and SA parents struggle to adequately care for and

appropriately parent their children in similar ways. It is known that both share many risk factors and can tend to neglect the psychological and physical needs of their children. However, the extant literature on parenting techniques of neglectful and SA parents has not identified specific parental acts that constitute deficient parenting. Furthermore, researchers must keep in mind the developmental stage of the children in their samples to more accurately determine if neglect occurred. Thus, future studies ought to use more sensitive and comprehensive assessment procedures to capture the data needed to improve the prediction of which parents are most likely to neglect their children, and thus who most needs prevention and treatment interventions. What is known is that assessing parental SA may help to improve the prediction of which families are at greatest risk of child neglect and facilitate rapid and early interventions to avoid potentially deleterious outcomes for the child victims.

Effects of Parental Substance Abuse and Neglect on Children's Outcomes

Growing up with SA parents who also exhibit parenting deficits can negatively affect children's cognitive, emotional, and behavioral development. Many children of SA parents have difficulties with emotion regulation (Osborne & Berger, 2009; Stanger et al., 2004), fall behind their peers academically (Connors et al., 2004), and are more likely to abuse substances (Kirisci et al., 2001; Pears et al., 2007). Neglectful parents tend to have children with similar outcomes (Hildyard & Wolfe, 2002), which again begs the question of whether children suffer as a result of parental substance abuse and its associated risk factors, parental neglect of their children's needs, or a combination?

Cognitive. A number of difficulties in cognitive development have been documented among CSAPs. When children are exposed to drugs or alcohol in utero, brain functioning can

be compromised. This may result in problems with cognitive processing (Lester et al., 2004) and neurobehavioral impairments (Dunn et al., 2002). Although prenatal substance exposure can be very harmful, Carta and colleagues (2001) found that the cumulative environmental risk of other factors not related to substance use, such as poverty, single parent households, large family size, and having a parent without a high school education, accounted for more variance in the developmental outcomes of 278 infants followed from 3 to 57 months of age. Furthermore, the children with the greatest number of risk factors had the most delayed developmental trajectories. This suggests that negative environmental effects outweighed the effects of prenatal substance exposure, perhaps because children are exposed to negative environments for prolonged periods of time. Because many of these risk factors are also seen in SA parents, it is possible that children growing up in SA homes have worse outcomes than neglected children due to the added danger of parental substance abuse to the already present risk factors.

Children who have experienced neglect are also more likely to suffer from delayed development in various areas. In a study of 267 neglected infants and preschoolers, the researchers found significant declines for emotionally neglected children in overall developmental quotient scores, and physically neglected children exhibited more anger and frustration when solving problems (Hildyard & Wolfe, 2002). According to a study of 68 severely neglected children, ages 2-36 months, neglected preschool-age children were more likely to exhibit language delays compared to non-neglected children (Sylvestre & Merette, 2010).

Academic. Although the research is limited, in childhood and adolescence, CSAPs exhibit more problems in school than their peers. Connors et al. (2004) examined educational

outcomes of 4,084 children of substance-abusing mothers. In their sample, 7% of seven-year-old children were diagnosed with a learning disorder, 8% were diagnosed with Attention Deficit/Hyperactivity Disorder, and 4% of three-year-olds had some type of communication disorder. This is compared to national averages of 5%, 4-12%, and 2%, respectively.

Unfortunately, there is little to no research on CSAPs' academic achievement compared to their peers, but they do tend to have the lowest standardized test scores of intelligence and academic achievement in kindergarten (OCAN, 2009). It is unclear whether these findings are due to prenatal substance exposure, postnatal substance exposure, environmental risks, or a combination. Based on the literature, it is most likely a combination, and again may be related to parenting deficits because SA parents may be less likely to help their children with schoolwork at home, or to be involved in their children's school life.

Neglected children also seem to experience more academic problems than their non-neglected counterparts. In a study of 1,080 nationally representative children, the authors found neglected youth were more likely to have school problems in general, and poorer educational outcomes overall compared to non-neglected youth (Chapple & Vaske, 2010). Children who have experienced neglect also tend to have the lowest standardized test scores of intelligence and academic achievement in kindergarten (Hildyard & Wolfe, 2002).

Behavioral. Internalizing and externalizing behavioral problems are not uncommon among CSAPs. These children tend to exhibit more aggressive behaviors compared to children of parents who do not abuse substances. The severity of these behaviors is worse when both parents are abusing substances as opposed to one parent (Osborne & Berger, 2009). In the study conducted by Osborne and Berger, the authors examined 386 families with one or more SA parent for the presence or absence of behavioral problems in three-year-

old children. They found that CSAPs were more likely to display aggressive behaviors, and to have symptoms of Attention Deficit/Hyperactivity Disorder, Oppositional Defiant Disorder, anxiety, and depression than were children who did not have a SA parent. Another study of 211 children of cocaine and opiate dependent parents found that family problems predicted children's internalizing and externalizing problems. The data indicated that these findings were a result of the parents' drug use, which affected family problems, thus having an indirect effect on children's behaviors (Stanger et al., 2002). Again, this shows how parental substance abuse can negatively affect the environment, and thus their children.

Behavioral problems are also common among neglected children compared to their same age peers. A study of 1,318 young children found that early childhood neglect was predictive of later aggressive behaviors (Kotch et al., 2008). Children and adolescents who have experienced neglect display more internalizing and externalizing behaviors than do other maltreated children (Arata, Langhinrichsen-Rohling, Bowers, & O'Brien, 2007; Dubowitz et al., 2005). The severity of physical neglect, especially when experienced in the preschool years, appears to be related to internalizing and withdrawn behaviors (Manly, Kim, Rogosch, & Cicchetti, 2001). Severity of neglect experienced in infancy or toddlerhood has been shown to predict externalizing problems, aggression, ego control, and lower ego resilience in middle childhood, which presents an increased risk for unsuccessful adaptation of developmental stages later in life (Manly et al., 2001).

Substance abuse. Children raised in SA homes are more likely to engage in substance abuse themselves. Pears and colleagues (2007) used path modeling to examine the intergenerational transmission of substance abuse across three generations. The sample consisted of the 141 first-generation (G1) biological mothers and fathers of the 103 second-

generation (G2) male offspring, who fathered 178 third-generation (G3) male and female children². Path analysis revealed a significant direct path between G1's alcohol use and poor parenting and G2's alcohol use. G1's illicit drug use was predictive of poor parenting of G2, which appeared to negatively impact G2's inhibitory control. This was negatively associated with G2's later substance use. This study is representative of the literature on the intergenerational transmission of substance abuse. It also furthers the idea that negative outcomes are not just a result of parental substance abuse but also other factors, such as poor parenting. Kirisci and colleagues (2002) also found that boys of SA parents were more likely to develop a substance use disorder (SUD) in early adulthood compared to children of non-SA parents.

Neglected children are also more likely to engage in substance abuse compared to their non-neglected peers (Kirisci et al., 2002) and compared to their physically and sexually abused counterparts (Arata et al., 2007). Kirisci and colleagues conducted a longitudinal study of 344 boys aged 10-12 who were CSAPs and had experienced neglect.³ After controlling for parental SUD and psychopathology, the boys' self-report of child neglect using the authors' neglect scale predicted later substance use, the severity of substance use, and the risk for substance use at age 19. Furthermore, boys with higher neglect scores tended to have more severe SUD at the 7- to 9-year follow-up. In a study of 1,452 maltreated middle and high school youth, 267 of whom had experienced neglect only, the authors found that compared to physically and sexually abused youth, neglected-only youth had the highest

² Although this study collects data for the G3 children up to age 12, only 21-month and three-year data were used for these analyses. Thus, substance-use in G3 was not examined.

³ Of the total sample of 344 boys, 122 boys had at least one SA parent at baseline and 222 boys had no SA parents at baseline. At the 7- to 9-year follow-up, there were 35 boys from SA families and 64 boys from non-SA families.

levels of current substance use. Only the youth who had experienced physical abuse and neglect or physical abuse, sexual abuse, and neglect had higher levels of substance use compared to the neglect only youth (Arata et al., 2007).

It is apparent that CSAPs and neglected children share many outcomes and often do not have typical cognitive or emotional development compared to their peers. They also seem to be more likely to engage in maladaptive behaviors like substance use. Similar to shared parental traits, are the children's shared outcomes because of parental SA, neglect, a combination, or something else? Future research needs to explore the effect of risk factors such as parents' history of trauma, parenting deficits, and parental SA to determine what accounts for the most variance in children's outcomes to help us target our prevention and intervention efforts in the most effective and efficient ways possible.

Treatment of Child Neglect in Substance-Abusing Families

Although not all substance-abusing parents neglect their children, most of them need help to stop using substances and improve their parenting practices. Unfortunately, there are very few interventions specific to this population as most neglectful SA parents participate in interventions shown effective amongst samples of abusive SA parents. Some authors have recommended these treatments for neglectful SA parents because their data analyses have revealed successful results. However, reliable data supporting the efficacy of even these programs are scarce and many studies have a number of methodological flaws (Allin, Wathen, & MacMillan, 2005). Furthermore, many parents, particularly mothers, are hesitant to enter treatment. It appears as though some of this resistance is related to childcare responsibilities; parents who do not have an adequate alternative caregiver for their children

while they are in treatment are significantly less likely to enter treatment in the first place (Stewart, Gossop, & Trakada, 2007).

Neglectful SA parents have a variety of unique treatment needs. The most obvious and perhaps the most pressing is their substance abuse, but there are often multiple reasons why people abuse substances. For many people, the discussed risk factors have a large influence. Therefore, treatment needs to address not only their use, but also any past experiences of child maltreatment, other traumatic experiences, mental health problems, their economic situation, and lack of prosocial support. A comprehensive approach to the parents' substance abuse treatment, therefore, might address some of the underlying reasons for their neglectful parenting due to the shared risk factors. However, many of these parents also need parenting education, and children frequently need services as well.

Addressing the unique treatment needs of this population is not usually successful with treatment-as-usual approaches. It has been recommended that services be family-centered, which includes placing equal emphasis on substance abuse and parenting needs while providing onsite childcare and treatment as well as children's services in outpatient programs (Magura & Laudet, 1996). For parents that need more intensive treatment, residential programs where they can reside at the facility with their minor children have shown some success (Connors, Bradley, Whiteside-Mansell, & Crone, 2001). Despite these recommendations, there is a dearth of literature examining either of these treatment approaches, especially outpatient programs. However, family treatment drug courts (FTDC), which aim to provide comprehensive and integrated services, do address each family's specific presenting problems, and provides the appropriate interventions that are evidence-based and culturally responsive.

Family treatment drug courts. The basic premise of FTDCs was adapted from adult drug courts, such that participants receive coordinated and integrated treatment and case management services. However, FTDCs are not carbon copies of adult drug courts for families; in order to intervene effectively, they have incorporated aspects of dependency court as well, and rely on CWS as an integral team player (Wheeler & Fox, 2006). Additionally, whereas adult drug court participants are able to have their drug-related charges dismissed following successful completion of drug court, FTDC participants are motivated to reunify with their children, but typically do not have charges dismissed (Green, Furrer, Worcel, Burrus, & Finigan, 2009).

Time to reunification is not solely dependent upon parents' progress in treatment following the enactment of the Adoption and Safe Families Act of 1997 (ASFA). ASFA was enacted to facilitate permanency planning in child welfare cases while keeping the child's best interests in mind. Thus, if families are not ready to reunify within 12 months of the children being placed in foster care, parents are at risk of losing their children permanently. Furthermore, under ASFA, dependency courts are required to begin the process of terminating parental rights after the child has been in out of home care for the last 15 of 22 months (ASFA, 1997). This is a key incentive for parents in FTDCs because if they do not successfully graduate, they are at an increased risk of having their parental rights terminated and seeing their children placed in long-term foster care.

In addition to a high level of court supervision in FTDCs, SA parents and their children also benefit from rapid engagement in a range of integrated evidence-based services. Parents are required to enroll in either inpatient or outpatient substance abuse treatment, must submit to random drug and alcohol testing, and receive parent education classes (Green et al.,

2009). Additionally, although there is no standard array of services provided by all FTDCs, there is recognition of the high correlation between substance abuse and trauma histories, and thus a movement towards using trauma-informed care models both in the court and treatment centers (Cosden, Hughes, Drake, & Haro, 2011). However, no evaluation or outcome studies have been published by FTDCs using a trauma-informed system of care.

Family treatment drug court effectiveness research. Although the first FTDC was established in 1995, and there are currently over 300 operating courts in the United States (Marlowe & Carey, 2012), there is still a lack of published evaluation and outcome studies. However, findings from methodologically rigorous work are demonstrating positive outcomes for FTDC-enrolled families compared to families not enrolled in an FTDC. These studies primarily report on parents' treatment status outcomes (i.e., whether they were successful or not) and children's placement status outcomes (i.e., whether they reunified and if there were any subsequent removals following reunification). Overall, most evaluation studies are demonstrating superior outcomes for families enrolled in FTDCs compared to families that are not. Moreover, a recent review of the literature named FTDCs among the most effective intervention solutions for substance-abusing parents involved with child welfare (Oliveros & Kaufman, 2011).

Worcel and colleagues (2008) completed the first large-scale, methodologically sound FTDC outcome study. In this study, the authors compared three FTDCs, consisting of 301 families enrolled in FTDC and 919 comparison families. The sample was made up of the 1,220 mothers and their 2,522 children. For both groups, the mothers' primary drug of choice was methamphetamine, followed by alcohol and cocaine. Results indicated FTDC mothers were more likely to enter treatment than were comparison mothers (82% versus 59%). FTDC

mothers also entered substance abuse treatment more quickly following the disposition of their child welfare case ($M = 84$ days versus $M = 122$ days), were in treatment longer ($M = 384$ days versus $M = 241$ days), and were more likely to complete treatment than were mothers in the comparison groups (65% versus 33%). In terms of child welfare outcomes, for children of FTDC families, it took longer to be placed in permanent placements than for children of comparison families ($M = 288$ days versus $M = 228$ days). However, children of FTDC parents spent fewer days in out of home care ($M = 403$ days versus $M = 493$ days) and FTDC parents were more likely to reunify with at least one of their children than were comparison families (69% versus 39%; Worcel et al.).

Another large-scale evaluation is that of the Sacramento County Dependency Court (Boles & Young, 2011). This FTDC is in its ninth year of operation, and they currently have data on 3,073 parents and their 4,858 children. Analyses were conducted using a comparison group of 111 parents and 173 children who entered the dependency system before the FTDC was created in 2001. Similar to the previous study, parents were more likely to report their drug of choice as methamphetamine, but comparison parents were more likely to report crack cocaine as their drug of choice than were FTDC parents. However, this must be interpreted with caution because comparison data are *only* from 2001, when crack cocaine use was more prevalent. These authors reported findings similar to those of Worcel et al. (2008), such that compared to the non-FTDC group, FTDC parents were more likely to enter treatment before their disposition date (26% versus 13%) and were more likely to successfully complete treatment (66% versus 57%). However, the comparison group spent more days in treatment than did the FTDC group ($M = 293$ days versus $M = 190$ days). The authors interpreted these findings within the budgetary climate of the time because fiscal constraints have forced

treatment programs to shorten the length of interventions. Finally, child welfare outcomes at 12 months post intake indicated FTDC children were more likely to reunify than were comparison children (40% versus 19%). This finding was replicated for all subsequent time points up to 60 months (Boles & Young, 2011).

Given these positive findings, it appears as though the FTDC program design, including rapid engagement in evidence-based, culturally competent, family-centered services is effective for many substance-abusing parents and their children. FTDC parents were more likely to successfully complete treatment and reunify with their children. Moreover, findings from the Sacramento Dependency Court demonstrated how these outcomes can be long-lasting. However, in addition to needing more methodologically sound outcome studies, there is still limited knowledge about the relation between parental trauma, both as children and adults, their substance use disorders, and the neglect of their children amongst FTDC samples.

Conclusions

One would be hard-pressed to deny the relation between parental substance abuse and the incidence of child neglect. Not only do neglectful and SA parents share many risk factors and use similar maladaptive parenting techniques, research has shown parental SA to be the primary and strongest predictor of child neglect (Carter & Myers, 2007; Ondersma, 2002). Neglected children and children from SA homes also exhibit similar developmental delays (Carta et al., 2001), psychological problems (Osborne & Berger, 2009) and are more likely to use substances themselves (Pears et al., 2007). Despite all this, it is not true that all SA parents neglect their children. Without more sophisticated, comprehensive, and widely used assessments to better predict which SA parents are more likely to neglect their children

though, we are still limited in our abilities to protect the most at-risk children. Furthermore, the lack of a widely recognized and commonly used definition of neglect further limits efforts to advance knowledge because without a clear operationalization of this construct, information cannot be shared or better measures developed to assess at-risk populations.

The limitations in understanding of this population also negatively affect efforts to offer interventions that meet SA parents' unique needs. There are many interventions specific to maltreating parents or SA parents, but very few for neglectful SA parents. Moreover, most treatments do not place an emphasis on addressing parents' trauma histories alongside their substance abuse and parenting deficits. Those that are available were not originally developed for this population, and instead have been adapted to meet their needs (Moore & Finkelstein, 2001). While these efforts are very important to advancing treatments for neglectful SA parents, further research is still necessary to determine whether the adaptations are appropriate and sufficient for these families. Although abusive, neglectful, and SA parents share many traits and risk factors, they are still unique groups with unique needs. Finally, the treatment community has been moving towards a more family-centered approach (Magura & Laudet, 1996), such as family treatment drug courts, but this needs to be considered treatment-as-usual for many of the most severe and at-risk families to help engage and retain the parents in treatment.

Chapter III

Method

Participants

The participants in this study were from a larger program evaluation of the Santa Barbara County family treatment drug court (FTDC), funded by the Substance Abuse and Mental Health Services Administration (SAMHSA) *Children Affected by Methamphetamine (CAM)* multisite federal grant. Participants included mothers and fathers with substance abuse problems in general, and methamphetamine use in particular. While assessments of the participants' children are not directly included in the analyses, their risk of experiencing neglect as well as its severity was examined using parent and family-wise measures. All participants resided in a rural part of southern California and were referred to the six-month FTDC program following the detention of a minor child as a result of prenatal drug exposure or child neglect resulting from parental substance abuse.

Data were obtained on a total of 53 mothers and 17 fathers. Subsamples of these 70 parents were used for each question in the study based on availability of data. For questions 1 and 2 (Q1 & Q2), hypothesis 1 (Q1H1 & Q2H1), intake Adult-Adolescent Parenting Inventory Version 2 (AAPI-2) and Adverse Childhood Experiences scale (ACE) data were available on 55 parents. For Q1 and Q2, hypothesis 2 (Q1H2 & Q2H2), intake North Carolina Family Assessment Scale (NCFAS) and ACE data were available on 62 parents. For question 3, hypothesis 1 (Q3H1), intake Addiction Severity Index (ASI) and AAPI-2 data were available on 58 parents, and for Q3 hypothesis 2 (Q3H2), intake ASI and NCFAS data were available on the full sample of 70 parents. For question 4 hypothesis 1 (Q4H1), intake AAPI-2, ASI, TSI-2 and ACE data were available on 48 parents while for question 4

hypothesis 2 (Q4H2), intake NCFAS, ASI, TSI-2, and ACE data were available on 52 parents.

A description of the full sample and differences between samples for each question and hypothesis are presented in Table 1. For the full sample, three quarters of parents were women, a majority of parents identified as either European American or Hispanic/Latino/a, and the average age of participants was 29; the different subsamples did not differ on gender, ethnicity, or age. The parents had an average of 12 years of education, 63% reported being unemployed at program entry, and there was an average of 2.70 children per family. In terms of parents' report of adverse childhood experiences, 60% of parents had an ACE score of four or more and 61% of parents reported experiencing childhood neglect.

Table 1

Parents' Demographic Characteristics at Intake by Research Question

Characteristic		Q1H1 & Q2H1 (n = 55)	Q1H2 & Q2H2 (n = 62)	Q3H1 (n = 58)	Q3H2 (n = 70)	Q4H1 (n = 48)	Q4H2 (n = 52)
Gender	Male	20%	21%	21%	24%	17%	15%
	Female	80%	79%	79%	76%	83%	85%
Ethnicity	Latino/a	44%	44%	43%	44%	40%	40%
	White	44%	45%	43%	44%	46%	46%
	Black	4%	3%	3%	3%	4%	4%
	American Indian	7%	7%	7%	6%	8%	8%
	Asian	2%	2%	3%	3%	2%	2%
Age	18 - 24	29%	27%	30%	27%	31%	31%
	25 - 35	55%	57%	53%	56%	56%	58%
	36 – 50	16%	16%	17%	17%	13%	12%

Table 1 continued

Parents' Demographic Characteristics at Intake by Research Question

Characteristic	Q1H1 & Q2H1 (n = 47)	Q1H2 & Q2H2 (n = 54)	Q3H1 (n = 48)	Q3H2 (n = 60)	Q4H1 (n = 40)	Q4H2 (n = 44)
ACE Score						
4 or more	57%	56%	57%	56%	58%	59%
Less than 4	43%	44%	43%	44%	42%	41%
Childhood Neglect						
Yes	57%	57%	57%	57%	55%	59%
No	43%	43%	43%	43%	45%	41%

Program

Families came into contact with the CAM program if their child or children had been legally removed from their custody as a result of parental substance abuse that resulted in child neglect. Following the removal, child welfare services (CWS) determined program eligibility based on a comprehensive assessment of the family. In addition to the substance abuse-related eligibility criteria, potential families were only admitted into the six-month program if they met the following conditions: (a) parents and children were County residents; (b) case was before disposition, or before the CWS case had been substantiated or not; (c) parents must not have had any pending probation violations or new criminal charges that could result in long-term incarceration, and; (d) only families for whom CWS was recommending family maintenance or family reunification were enrolled in the program. This last criterion resulted in enrollment of families whose children had experienced neglect as a result of their parents' substance abuse, but not physical or sexual abuse.

Following recommendation to the FTDC/CAM program, parents were referred to community service programs that could provide inpatient and/or outpatient substance abuse treatment, as recommended. Children received services from a community agency specializing in the treatment of child abuse and neglect that provided individual and group therapy for children, family therapy, and parent training. Whenever possible, young children were placed with their mothers in residential treatment. Temporary placements with relatives or foster parents were selected for older children or children whose mothers were not enrolled in residential programs. While in treatment, parents received: screening and assessment; detoxification; substance abuse treatment and prevention; trauma-informed services; medical health care; employment readiness, training, and placement; housing

assistance and food stamps; education and tutoring assistance; individual and group counseling; parenting education/intervention; child care services; case management services; and outreach and referral. Children received: screenings and assessment; individual therapeutic interventions; substance abuse treatment and prevention; family therapy; pediatric health care; social services and financial supports; educational and recreational services; and outreach and referral.

Parents' substance abuse and trauma issues were addressed using two treatment approaches: *Seeking Safety* and *Matrix Model*. *Seeking Safety* (Najavits, 2002) is an integrated trauma-informed substance abuse intervention that combines a present-oriented therapy to treat clients' trauma symptoms and a Cognitive Behavioral Therapy (CBT) approach to substance abuse treatment. Treatment goals include educating clients on the interrelation and co-occurrence of substance abuse and trauma and the subsequent effect on daily functioning. This is a highly structured yet flexible intervention that aims to help clients find safety in their relationships, thinking, behavior, and emotions. Close case management coupled with the 25 manualized session topics, organized into the domains of cognitive, behavioral, and interpersonal, help clients restore their ideals and understand substance abuse as a coping mechanism for their trauma symptoms. CAM participants received 90-minute sessions of *Seeking Safety* in a group format at least once per week, depending on their treatment plan. As this intervention is present-focused, in-depth processing of past traumas was done during individual therapy sessions.

The *Matrix Model* (Matrix Institute, 2008) was created as an intensive outpatient substance abuse treatment. This intervention integrates CBT, motivational interviewing, and consumer run organizations such as Narcotics Anonymous, in a group format. The key

elements of this intervention include its high level of structure and therapist support, relapse prevention and education, and family involvement. It is also indicated for methamphetamine use and co-occurring disorders, and its focus on developing individualized treatment plans facilitates a culturally competent approach to treatment. Participants in residential treatment attended at least four 60-minute groups per day, and one 60-minute individual session per week. Participants in outpatient treatment attended substance abuse groups as indicated by their treatment plan.

Parenting needs were addressed by the *Nurturing Parenting Program* (NPP; Bavolek, 1979), which aims to stop the intergenerational transmission of child maltreatment by replacing maladaptive and abusive parenting practices with more appropriate and consistent discipline strategies that also improve parent-child bonding and attachment. The curriculum educates parents on child development so they will have more appropriate expectations of their children. Another goal of the program is to reverse parent-child role reversals common to these families, in hopes of decreasing children's anxiety over having to care for their parents and siblings. The *Nurturing Parenting Program* is suitable for use with prenatal families, and for families with children ages 0-18 years. There are many different modules to suit the diverse needs of families (Bavolek, 2000).

The NPP program specific to substance-abusing and neglectful parents, the *Nurturing Program for Families in Substance-Abuse Treatment and Recovery*, was developed in a residential treatment program for women and was used by CAM treatment providers. This intervention was created to directly address both child maltreatment and parental substance abuse. The goals of the program are to improve parenting, child development, and parent-child relationships while reducing the risk of parental substance use relapse and the

recurrence of child maltreatment. The authors also adapted the NPP curriculum to address the parents' experiences of child maltreatment (Moore & Finkelstein, 2001). CAM participants received one 60-minute NPP group per week from a trained service provider.

Due to the complex and comprehensive array of interventions, treatment was delivered and monitored by a multidisciplinary team that was coordinated by the CAM Service Coordinator. The team consisted of the FTDC Judge, CWS case worker, substance abuse treatment providers, children's treatment providers, network providers, and referral agencies. Service providers were trained in *Seeking Safety*, *Matrix Model*, and *Nurturing Parenting*, as well as the administration of assessment measures. After parents successfully completed sufficient court and program requirements, they graduated from the FTDC but continued to receive after care and reintegration services as indicated, including services for parents' substance abuse problems and children's therapy.

Measures

To measure the severity of parent's current and lifetime substance abuse, the *Addiction Severity Index* was used; this measure was also used to collect basic demographic information. The *Trauma Symptom Inventory*, Second Edition, was used to evaluate parents' trauma symptoms while the *Adverse Childhood Experiences Scale* was used to assess the experience of potentially traumatic events in childhood. The *North Carolina Family Assessment System* was used to assess overall family functioning and parenting techniques as rated by a trained interviewer. Finally, the *Adult-Adolescent Parenting Inventory*, Version 2, was used to assess parenting attitudes, including the quality of the parent-child relationship.

Addition Severity Index (ASI; McLellan et al., 1992). The ASI is a structured clinical interview developed to evaluate clients' current and lifetime substance abuse-related

problems across seven domains: medical, employment, legal, drug use, alcohol use, family/social, and psychiatric. Current problems within the past 30 days for each domain are measured using composite scores derived from clients' self-report. Composite scores range from 0 to 1, where 0 indicates no problems in the past 30 days and 1 indicates a severe level of current problems. Lifetime problems for each domain are measured using interviewer severity ratings ranging from 0 to 10, where 10 is the most severe. Finally, clinical factor scores are used to assess overall severity of lifetime and current problems across domains. Clinical factor scores use responses to items measuring current and lifetime problems, and are converted into *T*-scores.

A large body of research has demonstrated the reliability and validity of this instrument (Makela, 2004). In a study of 128 individuals with substance abuse and psychiatric problems who were interviewed two times ($M = 51$ days), the authors reported satisfactory test-retest reliability for lifetime items across all seven domains. This study also examined the test-retest reliability for the clinical factor scores, and reported intraclass coefficients (ICC) ranging from .21 to .72. The authors noted that the clinical factors that had the highest percentage of lifetime items had the highest ICCs, including alcohol problems (ICC = .61) (Cacciola, Koppenhaver, McKay, & Alterman, 1999). Drake and colleagues (1995) reported ICCs for test-retest reliability ranging from .66 to .86. Other researchers have found evidence of high inter-rater reliability for severity and composite scores and high concurrent inter-subscale validity ($r = .94-.99$) (Makela, 2004). Furthermore, in a study of 100 dual-diagnosis patients, the internal consistencies of ASI composite scores equaled .89, .70, .87, .79, .75, .75, and .83 for the medical, employment, alcohol, drug, legal,

family/social, and psychiatric domains, respectively (Appleby, Dyson, Altman, & Luchins, 1997).

Although many clinicians prefer to use the severity ratings as an overall indication of a client's problems, it has been recommended that researchers use the clinical factor scores due to the poorer concurrent validity of severity scores for less well-trained interviewers (Alterman et al., 2001). Therefore, the present study used clinical factor scores to measure participants' current and lifetime substance abuse problems. In order to best evaluate the severity of participants' drug and alcohol problems and changes over time, updated normative data was examined. In the most current norms for the ASI, McClellan and colleagues (2006) reported data on 8,429 men and women from a nationally representative sample of substance abuse treatment program participants. The authors reported mean Composite Score (past 30 day substance use severity) and Clinical Index Summary scores (measuring overall lifetime and current substance use severity) for each subscale of the ASI. Most notably for the present study, the average Clinical Index *T*-score for alcohol use was 55 with a standard deviation of 10. For drug use, the average *T*-score was 40 with a standard deviation of 11. There are no studies using the ASI with a non-substance abusing sample, therefore this normative data and data from studies using the ASI must keep in mind that, for example, a Clinical Index *T*-score of 50 on the alcohol subscale does not necessarily mean that individual has an average, and thus presumably non-problematic, level of alcohol use. On the contrary, it means the severity of that individual's alcohol problems is, on average, about the same as the typical substance abuse treatment participant. Although McClellan and colleagues (2006) updated the normative intake data for the ASI, to date there are no studies to report on normative data over time. Therefore, other than determining how many standard

deviations one is from the means reported in the updated normative data, it is not possible to determine a statistically or clinically meaningful change in one's Clinical Index score that would be indicative of change over time.

Trauma Symptom Inventory – Second Edition (TSI – 2; Briere, 2010). The TSI-2 is a 133-item self-report measure developed to assess symptoms commonly associated with posttraumatic stress. The items load onto 12 clinical subscales, which then load onto four summary clinical scales that the authors call factors: (a) the Self-Disturbance Factor (Self), comprised of the Depression, Insecure Attachment, and Impaired Self-Reference subscales; (b) the Posttraumatic Stress Factor (Trauma), comprised of the Anxious Arousal, Intrusive Experiences, Defensive Avoidance, and Dissociation subscales; (c) the Externalization Factor, comprised of the Anger, Sexual Disturbance, Suicidality, and Tension Reduction Behavior subscales; and (d) the Somatization Factor, comprised of the Somatic Preoccupations subscale. All item-responses use a 4-point scale ranging from 0 (*never*) to 3 (*often*) and are answered based on the frequency of occurrence of the symptom over the prior six months. Respondents' level of distress are interpreted using *T*-scores that are calculated using the raw data; respondents with a *T*-score of 60 to 64 are considered to have problematic levels of trauma-related symptoms and respondents with *T*-scores of 65 or higher are identified as scoring in the clinical range. The two validity scales, Response Level and Atypical Response, measure unusual responding or exaggerated, respectively.

Using the standardization sample of 678 individuals, the author evaluated the reliability and validity of the TSI-2 (Briere, 2010). The internal consistency of the validity, clinical subscales, and factors is excellent ($\alpha = .72 - .94$). The author also reports excellent test-retest stability for all scales over a one-week interval ($r = .66 - .96$). The convergent and

discriminant validity of this measure were demonstrated using the original TSI and other measures of similar and different constructs, which also provided evidence of its criterion-related validity. In addition to the standardization sample, the TSI-2 has demonstrated reliability and validity as a measure of trauma-related symptoms in studies on a number of populations, including a clinical sample (Briere, 2010), incarcerated women (Guyton, Brown, Hinman, & Stotler-Turner, 2010), trauma-exposed university students (Gray, Elhai, & Briere, 2010), and nonclinical university students (Yates, 2010). To measure CAM participants' trauma symptoms, the present study used the *T*-scores for the trauma summary factor scale.

Adverse Childhood Experiences Scale (ACE; Felitti et al., 1998). The ACE scale was developed as part of a large-scale epidemiologic study of the influences of stressful and traumatic childhood experiences on health and behavioral outcomes later in life. The initial study was conducted with over 17,000 clients in a primary care setting. Respondents are asked about their exposure to 10 forms of childhood trauma: (a) physical abuse, (b) emotional abuse, (c) sexual abuse, (d) household substance abuse, (e) incarcerated household member, (f) household mental illness, (g) mother treated violently, (h) emotional neglect, (i) physical neglect, and (j) parental separation or divorce (see Appendix A). Scores can range between 0 and 10, with an ACE Score of zero given when a respondent reports no exposure to any type of potentially traumatic event and an ACE Score of 10 reflecting that a client reported exposure to all types of trauma. In a large-scale, retrospective study of patients in primary care, Anda et al. (2002) found that adults with an ACE score of four or more were at greater risk for depression and adult substance abuse; this has been replicated in subsequent studies (e.g., Dube et al., 2003). This study used the sum of endorsed ACE items to measure participants' experiences of potentially traumatic events (PTE).

North Carolina Family Assessment Scale for General Services and Reunification

(NCFAS; Reed, 1998). The NCFAS is used to assess the treatment needs and treatment-related changes of families involved with the child welfare system. It is comprised of 10 subscales measuring family functioning in areas such as housing, parent-child relationship, and readiness for reunification. This assessment is completed by the family's service provider who rates the family on individual subscale items and gives an overall rating ranging from Clear Strength to Serious Problem for each area assessed (see Appendix C). Current research supports its reliability and validity. In a study of 288 families, internal consistency was excellent ($\alpha = .71 - .94$). Only the overall family safety domain fell below .90. This study also supported the construct and concurrent validity of the NCFAS (Reed-Ashcraft, Kirk, & Fraser, 2001). A second large-scale study of 1,279 families replicated previous findings of the instrument's overall reliability at intake and discharge (intake $\alpha = .72 - .90$; discharge $\alpha = .79 - .91$). This study also found evidence of concurrent and predictive validity by comparing NCFAS ratings to children's placements one year after the CWS referral (Kirk, Kim, & Griffith, 2005). Currently, there are no studies measuring the test-retest reliability of this measure. In order to measure children's risk of experiencing neglect, the present study used the Family Interactions, and Caregiver/Child Ambivalence subscales as measures of the parent-child relationship, and the Parental Capabilities subscale as a measure of parenting techniques.

The Family Interaction and Caregiver/Child Ambivalence subscales were selected as the study's measurement of the parent-child relationship because their design incorporates elements of this construct that are commonly seen amongst families in the child welfare system. The Family Interaction subscale asks the family service provider to determine

whether the parent-child bond, parent-child communication patterns, parents' expectations of their children, and overall family interactions are relative strengths or weaknesses. Families for whom this area is a strength are emotionally supportive of each other and family members know they can rely on each other. The Caregiver/Child Ambivalence subscale assesses parental ambivalence towards their children and children's ambivalence towards their parents. In families with low levels of ambivalence, the parent is appropriately responsive to their children's physical and emotional needs, and is typically willing to address those needs before their own. This subscale also measures the parents' level of acceptance about how their choices and behaviors led to the removal of their children. Parents' for whom this area is a strength have an appropriate level of acceptance that their actions resulted in their children being placed in out-of-home care (Kirk, 2009).

Similar to the parent-child relationship variable, the Parental Capabilities subscale was selected to measure parenting techniques because it was designed by incorporating elements of maladaptive parenting techniques common to parents involved with the child welfare system. The Parental Capabilities subscale measures parents' level of age-appropriate supervision and discipline and the impact of substance abuse on parenting abilities. Parents rated high on this scale consistently choose appropriate substitute caregivers with whom their children are safe, enforce limits and rules consistent with the child's developmental level, and do not use illicit drugs at all or use alcohol irresponsibly. However, parents for whom this is a serious problem provide little to no supervision or inappropriate substitute caregivers, frequently do not know where their children are, and their substance use negatively affects their ability to care for their children (Kirk).

Adult Adolescent Parenting Inventory –Version 2 (AAPI-2; Bavolek & Keene, 2001). The AAPI-2 consists of two 40-item self-report assessments, forms A and B, that assess respondents' parenting attitudes in five domains related to child abuse and neglect: expectations of children, parental empathy towards children's needs, use of corporal punishment, parent-child family roles, and children's power and independence. Responses to the AAPI-2 provide professionals with an index of risk (low, medium, high) for maladaptive parenting practices. The use of two forms allows the assessment of just initial risk using form A, or to look at change over time using form B as a follow-up measure after an intervention. Analyses using the standardization sample of 998 adult and adolescent parents and non-parents confirmed the comparability of the two forms ($r = .80 - .92$), as well as the convergent and discriminant validity. Additionally, when the two forms are used together, the internal consistency of the items is excellent ($\alpha = .86 - .96$). The criterion related validity of the AAPI-2 is also supported, demonstrating its ability to differentiate between maltreating parents and non-maltreating parents (Bavolek & Keene, 2001). Currently, there are no studies measuring the test-retest reliability of this measure. The present study used the Lack of Empathy, Inappropriate Parental Expectations, Parental Value of Physical Punishment, and Parental Role Reversal subscales to measure the parent-child relationship and parenting techniques (see Appendix D).

The Lack of Empathy subscale was used as an assessment of the parent-child relationship. Parents who score in the high-risk range of this subscale are endorsing attitudes indicating they may lack appropriate nurturing skills, may not understand or value children's normal developmental needs, may fear spoiling their children, and may struggle to handle parenting-related stress. All of these risk factors are commonly seen in neglectful parents and

are related to a poor parent-child relationship. To add to the assessment of parenting techniques, the Inappropriate Parental Expectations, Parental Value of Physical Punishment, and Parental Role Reversal subscales will also be used (Bavolek & Keene, 2001).

The Inappropriate Parental Expectations subscale measures parents' attitudes related to their understanding of child development and their application of this knowledge to their parenting techniques. Parents identified as high-risk on this construct are endorsing attitudes indicating their expectations may be exceeding their child's developmental level. These attitudes suggest they are likely to use parenting techniques like demanding compliance and being over-controlling. The Parental Value of Physical Punishment scale measures one's belief in the use of corporal punishment but does not measure the use of physical abuse. High-risk parents on this subscale are endorsing attitudes indicating they believe the use of corporal punishment, such as spanking, is an appropriate and required form of discipline. These attitudes also suggest that respondents lack knowledge about alternative parenting interventions and are likely to have an overall authoritarian parenting style. Finally, the Parental Role Reversal subscale measures the type of parentification in which the parent expects the child to take care of the parent's needs. Parents who score in the high-risk range on this subscale are endorsing attitudes indicating they tend to view their children as peers and confidants and thus may expect their children to meet their emotional and self-needs. These parents are less likely to allow their children to ask for their own needs, and view this behavior as selfish (Bavolek & Keene).

Data Collection Procedures

Trained treatment staff assessed the parents in the CAM program at intake and six-months post intake with the ASI, TSI-2, NCFAS, and AAPI-2. These data were deidentified

by service providers and sent electronically or by fax to the author. Parents' history of potentially traumatic experiences were assessed by the author three months post-intake and parents were offered a \$5.00 gift card for their participation in the interview. Data were stored and entered into an onsite computer at the Gevirtz Graduate School of Education at the University of California, Santa Barbara by graduate students and trained research assistants, and all paper copies of data were stored in locked file cabinets in locked rooms. The data for this study were analyzed using the Statistical Software Package Statistics 20 (Statistical Software Package Statistics [SPSS], 2011).

Chapter IV

Results

Preliminary Analyses

Prior to examining the research questions of this study, preliminary analyses were conducted to confirm the construct validity of the parenting measures for this sample. A Pearson correlation was conducted to examine the degree to which the Adult-Adolescent Parenting Inventory – Version 2 (AAPI-2) and the North Carolina Family Assessment Scale (NCFAS) were measuring the parent-child relationship and parenting techniques. It was expected that the AAPI-2 Lack of Empathy subscale would be moderately correlated with the NCFAS Family Interaction and Caregiver/Child Ambivalence subscales and that together, these subscales would measure the parent-child relationship. Similarly, it was expected that the AAPI-2 subscales of Inappropriate Parental Expectations, Parental Value of Physical Punishment, and Parental Role Reversal would be moderately correlated with the NCFAS Parental Capabilities subscale. These subscales were expected to measure parenting techniques. Results from the Pearson correlation indicated the AAPI-2 and the NCFAS were, in fact, measuring different constructs in this sample (see Table 2) and should not be used together to examine the research questions. Instead, it was found that parent-child relationship was best measured using the AAPI-2 subscales of Lack of Empathy, Inappropriate Expectations, and Parental Role Reversal and that parenting techniques were best measured using the NCFAS Parenting Capabilities and Family Interactions subscales.

Table 2

Pearson Correlations Between NCFAS and AAPI-2 Subscales

Subscale	FI	PC	IE	LE	PP	PRR
Caregiver/Child Ambivalence (CCA)	-.23	-.27*	-.14	-.13	-.03	-.14
Family Interactions (FI)		.44***	-.06	-.03	-.12	-.10
Parenting Capabilities (PC)			-.02	.04	-.16	-.00
Inappropriate Expectations (IE)				.52***	.56***	.24
Lack of Empathy (LE)					.50***	.65***
Physical Punishment (PP)						.16
Parental Role Reversal (PRR)						

* $p < .05$. ** $p < .01$. *** $p < .001$.

Question One

The first research question asked about the relation between parents' history of childhood physical and/or emotional neglect and their children's later risk of experiencing neglect, which was operationalized as a poor parent-child relationship and parents' use of poor parenting techniques. Specifically, I wondered whether children of parents who reported experiencing childhood neglect would be at greater risk of experiencing a poor relationship with their parents and would have parents who struggled to use effective and appropriate parenting techniques compared to children whose parents did not report a history of childhood neglect. It was hypothesized that children of parents who experienced physical and/or emotional neglect as children would be at greater risk of experiencing a poorer parent-child relationship and would have parents who used poorer parenting techniques than would children of parents who did not experience childhood neglect.

A Multivariate Analysis of Variance (MANOVA) was conducted to determine if there were differences between children of parents who reported a history of childhood neglect and children of parents with no such reported history. Group differences were examined on a linear combination of variables measuring children's risk of experiencing neglect in the form of a poor parent-child relationship, measured using subscales of the AAPI-2. Assumptions of independence of observations and homogeneity of variance/covariance were met, and bivariate scatterplots indicated multivariate normality. When each dependent variable was examined for univariate normality some violations were noted. They were not deemed severe enough to transform the data for analyses but did

indicate that it would be best to use Pillai's trace as the test statistic.⁴ Using the Bonferroni correction⁵, the results of the one-way MANOVA did not reveal a significant impact of parents' reported experience of childhood neglect on their children's risk of experiencing neglect, Pillai's Trace = .04, $F(3, 51) = .79$, *ns*, partial $\eta^2 = .04$. However, the observed power for the overall MANOVA was $\beta = .21$, suggesting the possibility of a Type II error. Means and standard deviations are presented in Table 3.

Chi-square analyses were conducted to determine if children of parents who reported a history of child neglect were more likely to have parents who used poorer parenting techniques than were children of parents who did not report childhood neglect; the analyses first used the Parenting Capabilities NCFAS subscale and then used the Family Interactions subscale as dependent variables. Using the Bonferroni correction, the results of the first chi-square test, using the Parenting Capabilities subscale, were non-significant, $\chi^2(1, N = 62) = .26$, *ns*. Overall, 84% of parents who reported childhood neglect and 79% of parents who did not were rated as having mild to serious parenting problems (see Table 4). Among parents rated as using problematic parenting techniques ($n = 51$), 63% reported experiencing childhood neglected compared to 37% who did not (see Table 5). Using the Bonferroni correction, the results of the second chi-square test, using the Family Interactions subscale was not significant, $\chi^2(1, N = 62) = 3.56$, *ns*. As indicated in Table 4, 94% of parents who reported childhood neglect and 79% of parents who did not were rated as having mild to serious parenting problems. Among parents rated as using problematic parenting techniques

⁴ It is recommended to use Pillai's trace as the test statistic when MANOVA assumptions are violated as it is a more robust test statistic compared to others (Warner, 2008).

⁵ Bonferroni correction was used to adjust the alpha used to determine the significance of the MANOVA and chi-square analyses for Question 1. The significance level was adjusted to $\alpha = .05/3 = .0167$.

($n = 55$), 66% reported experiencing childhood neglect compared to 35% who did not (see Table 5). It is important to note that these results ought to be interpreted with caution due to small expected cell frequencies⁶, which are likely related to the unequal distribution of the quality of parenting techniques within each subscale.

Based on these findings, none of the hypotheses were supported. In this sample, children of parents who experienced childhood neglect were not more likely to experience a poorer parent-child relationship or to have parents who used poorer parenting techniques compared to children of parents who did not experience childhood neglect.

⁶ When expected cell frequencies are less than five, chi-square results must be interpreted with caution due to an inflated chance of Type II error (Warner, 2008).

Table 3

Parent-child relationship for children of parents with and without histories of childhood neglect (n = 55)

AAPI-2 Subscale	Parental History of Child		F
	Neglect		
	Yes	No	
	<i>M (SD)</i>	<i>M (SD)</i>	
Inappropriate Expectations ^a	5.21 (1.65)	4.81 (1.66)	0.75
Lack of Empathy ^a	5.12 (2.07)	4.86 (2.01)	0.21
Role Reversal ^a	6.50 (2.00)	5.86 (1.91)	1.39

^aAAPI-2 scores range from 1 to 10 with higher scores indicating lower risk levels and a better parent-child relationship

Table 4

Percent of Parents With and Without Histories of Childhood Neglect Rated as Using Mildly to Seriously Problematic Parenting Techniques (n = 62)

NCFAS Subscale	Parental History of Child Neglect			
	Yes		No	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Parenting Capabilities	32	84	19	79
Family Interactions	36	95	19	79

Table 5

Percent of parents rated as using mildly to seriously problematic parenting techniques with and without histories of childhood neglect (n = 62)

NCFAS Subscale	Parental History of Child			
	Neglect			
	Yes		No	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Parenting Capabilities	32	63	19	37
Family Interactions	36	66	19	35

Question 2

The second question asked whether parents' experience of adverse childhood experiences (ACE) would impact children's risk of experiencing neglect, operationalized as a poor parent-child relationship and the use of poor parenting techniques. Specifically, I wondered whether parents who reported four or more traumatic events on the Adverse Childhood Experiences questionnaire (ACE; Felitti et al., 1998) would have a less positive relationship with their children and would use more maladaptive parenting techniques compared to parents with an ACE score of less than four. It was hypothesized that parents with an ACE score of four or more (Felitti et al., 1998) would be more likely to have a poorer parent-child relationship and to use poorer parenting techniques than would parents with an ACE score of less than four.

A Multivariate Analysis of Variance (MANOVA) was conducted to determine if there were differences between children of parents with an ACE score of four or more and children of parents with an ACE score of less than four on a linear combination of variables measuring children's risk of experiencing neglect in the form of a poor parent-child relationship. Assumptions of independence of observations and homogeneity of variance/covariance were met, and bivariate scatterplots indicated multivariate normality. When each dependent variable was examined for univariate normality some violations were noted. They were not deemed severe enough to transform the data for analyses but did indicate that it would be best to use Pillai's trace as the test statistic. Using the Bonferroni correction⁷, the results of the one-way MANOVA did not reveal a significant impact of

⁷ Bonferroni correction was used to adjust the alpha used to determine the significance of the MANOVA and chi-square analyses for Question 2. The significance level was adjusted to $\alpha = .05/3 = .0167$.

parents' ACE score on their children's risk of experiencing neglect, Pillai's Trace = .01, $F(3, 51) = .22$, *ns*, partial $\eta^2 = .01$. However, the observed power for the overall MANOVA was $\beta = .09$, indicating the possibility of a Type II error. Means and standard deviations are presented in Table 6.

Chi-square analyses were conducted to determine if children of parents with an ACE score of four or more were more likely to have parents who used poorer parenting techniques than children of parents with an ACE score less than four, first using the Parenting Capabilities NCFAS subscale and then using the Family Interactions subscale. Using the Bonferroni correction, the results of the first chi-square test, using the Parenting Capabilities subscale, were non-significant, $\chi^2(1, N = 62) = .15$, *ns*. As rated by a trained professional, 84% of parents with an ACE score of four or more and 80% of parents with an ACE score of less than four were rated as having mild to serious parenting problems (see Table 7). Among parents rated as using problematic parenting techniques ($n = 51$), 61% had an ACE score of four or more compared to 39% who did not (see Table 8). Using the Bonferroni correction, the results of the second chi-square test, using the Family Interactions subscale, were also non-significant, $\chi^2(1, N = 62) = 3.17$, *ns*. As rated by a trained professional, 95% of parents with an ACE score of four or more and 80% of parents with an ACE score of less than four were rated as having mild to serious parenting problems (see Table 7). Among parents rated as using problematic parenting techniques ($n = 55$), 64% had an ACE score of four or more compared to 36% who did not (see Table 8). As with the previous analysis, these results must be interpreted with caution because there were cells with an expected frequency count of less than five.

Thus, none of the hypotheses for the second question were supported. Within this sample, parents with an ACE score of four or more were not more likely to have a poorer parent-child relationship or to use poorer parenting techniques than were parents with an ACE score of less than four. Therefore, the trauma histories of parents in this sample did not have an impact their children's risk of experiencing neglect.

Table 6

Parent-child relationship for children of parents with an ACE score of four or more (n = 55)

	ACE Score of 4 or More		F
	Yes	No	
AAPI-2 Subscale	<i>M (SD)</i>	<i>M (SD)</i>	
Inappropriate Expectations ^a	5.03 (1.71)	5.10 (1.58)	.02
Lack of Empathy ^a	4.94 (2.13)	5.14 (1.91)	.13
Role Reversal ^a	6.32 (1.92)	6.14 (2.10)	.11

^aAAPI-2 scores range from 1 to 10 with higher scores indicating lower risk levels and a better parent-child relationship

Table 7

Percent of parents with and without an ACE score of four or more rated as using mildly to seriously problematic parenting techniques (n = 62)

NCFAS Subscale	ACE Score of Four or More			
	Yes		No	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Parenting Capabilities	31	84	20	80
Family Interactions	35	95	20	80

Table 8

Percent of parents rated as using mild to seriously problematic parenting techniques with and without an ACE score of four or more (n = 62)

NCFAS Subscale	ACE Score of Four or More			
	Yes		No	
	<i>n</i>	%	<i>n</i>	%
Parenting Capabilities	31	61	20	39
Family Interactions	35	64	20	36

Question 3

The third question asked whether the severity of parents' substance abuse problems had an impact on children's risk of experiencing neglect, as operationalized by poor parent-child relationships and the use of poor parenting techniques. Specifically, I wanted to know if children of parents with more severe lifetime and current substance abuse problems would be more likely to experience a poorer parent-child relationship and have parents who used poorer parenting techniques than would children of parents with less severe substance abuse problems. I hypothesized that parents with more severe lifetime and current substance abuse problems would be more likely to have a poor parent-child relationship and to use poorer parenting techniques than would parents with less severe substance abuse problems.

A Multivariate Analysis of Variance (MANOVA) was conducted to determine if there were differences between children of parents with a *T*-score of 51 or more on the Drug Clinical Index and a *T*-score of 65 or more on the Alcohol Clinical Index of the ASI and children of parents with a *T*-score of less than 51 on the Drug Clinical Index and a *T*-score of less than 65 on the Alcohol Clinical Index using the same subscales on a linear combination of variables measuring children's risk of experiencing neglect in the form of a poor parent-child relationship. These cutoff points are based on the updated norms published by McClellan and colleagues (2006). Assumptions of independence of observations and homogeneity of variance/covariance were met, and bivariate scatterplots indicated multivariate normality. When each dependent variable was examined for univariate normality some violations were noted. They were not deemed severe enough to transform the data for analyses but did indicate that it would be best to use Pillai's trace as the test statistic.

Using the Bonferroni correction⁸, the results of the one-way MANOVA did not reveal a significant impact of the current and lifetime severity of parents' alcohol use, Pillai's Trace = .10, $F(3, 54) = 1.93$, *ns*, partial $\eta^2 = .10$, or drug use, Pillai's Trace = .04, $F(3, 54) = .70$, *ns*, partial $\eta^2 = .04$, on their children's risk of experiencing a poor parent-child relationship. The observed power for this analysis was $\beta = .23$, suggesting the possibility of a Type II error. Means and standard deviations are presented in Tables 9 and 10.

When ASI Alcohol Severity scores were used in a post hoc analysis of the data, results of the MANOVA indicated a significant effect of severity of alcohol problems at intake on the parent-child relationship⁹, Pillai's Trace = .14, $F(3, 54) = 2.96$, $p < .05$, partial $\eta^2 = .14$. The partial η^2 for this analysis represents a large effect size (Cohen, 1988) and indicates that 14% of the variance in the parent-child relationship was explained by the severity of parents' alcohol problems at intake. There were no significant effects found at the univariate level. Because univariate tests do not control for the other predictors, a Discriminant Function Analysis (DFA) was conducted to explore how parents' attitudes about the parent-child relationship differed by the severity of their alcohol problems. Results from the DFA revealed a single function that significantly explained 14% of the variance in the parent-child relationship and differentiated parents with high severity alcohol problems from low severity alcohol problems, $\Lambda = .86$, $\chi^2(3, N = 58) = 8.30$, $p < .05$, partial $\eta^2 = .14$. The correlations between the parent-child relationship and parents' severity of alcohol

⁸ Bonferroni correction was used to adjust the alpha used to determine the significance of the MANOVA and chi-square analyses for Question 3. Post hoc analyses were not included in the Bonferroni correction. The significance level was adjusted to $\alpha = .05/6 = .0083$.

⁹ Based on an interviewer's perception of parents' severity of alcohol or drug use, parents were placed in the high or low severity group for the purposes of these analyses. Individuals rated as having low to moderate alcohol or drug problems were placed in the low severity group and individuals with considerable to extreme problems were placed in the high severity group.

problems revealed that reversals in parent-child roles ($r = .61$) and developmentally inappropriate parental expectations ($r = .54$) had the highest loadings on the function compared to parents' level of empathy for their children ($r = .25$).¹⁰ The means and standard deviations (see Table 9) indicate parents with low severity alcohol problems at intake had more developmentally appropriate expectations of their children than did parents with high alcohol problems. However, parents with low alcohol problems were also more likely to engage in a parent-child role reversal and expect their children to meet their emotional needs than were parents with high alcohol problems.

The final post hoc MANOVA used the ASI Severity Ratings for the Drug subscale. There was not a significant effect of parents' drug use severity on the quality of the parent-child relationship, measured using the AAPI-2, Pillai's Trace = .03, $F(3, 54) = .64$, *ns*, partial $\eta^2 = .03$. Means and standard deviations are presented in Table 11.

Chi-square analyses were conducted to determine if children of parents with a *T*-score of 51 or more on the Drug Clinical Index and a *T*-score of 65 or more on the Alcohol Clinical Index of the ASI (high severity) were more likely to have parents who used poorer parenting techniques, measured on the NCFAS, than children of parents with a *T*-score of less than 51 on the Drug Clinical Index and a *T*-score of less than 65 on the Alcohol Clinical Index (low severity) on the same indices. Using the Bonferroni correction, the results of the first chi-square test, using the Alcohol Clinical Index as the independent variable and the NCFAS Family Interactions subscale as the dependent variable, were non-significant, $\chi^2(1, N = 70) = .28$, *ns*. As rated by a trained professional using the NCFAS, 85% of parents with a *T*-score

¹⁰ When examining the pooled within-groups correlations between discriminating variables and standardized canonical functions, there is no formal significance test. Thus, an arbitrary cutoff value is used. In this study, the cutoff value of 0.3 was used, as suggested by Warner (2008). Therefore, the Lack of Empathy subscale was dropped from the model.

of 65 or more on the ASI Alcohol Clinical Index and 75% of parents with a *T*-score less than 65 were rated as having mild to serious parenting problems on the Parenting Capabilities subscale of the NCFAS (see Table 12). Among parents rated as using problematic parenting techniques on this subscale ($n = 59$), 5% had a *T*-score of 65 or more compared to 95% who did not (see Table 13).

The results of the second chi-square test, using the using the Alcohol Clinical Index as the independent variable and the NCFAS Family Interactions subscale as the dependent variable, were also nonsignificant, $\chi^2(1, N = 70) = 1.06, ns$. As rated by a trained professional on the NCFAS, 75% of parents with a *T*-score of 65 or more on the ASI Alcohol Clinical Index and 91% of parents with a *T*-score less than 65 were rated as having mild to serious parenting problems (see Table 12). Among parents rated as using problematic parenting techniques on this subscale ($n = 63$), 5% a *T*-score of 65 or more compared to 95% who did not (see Table 13). It is important to note that these results ought to be interpreted with caution due to small expected cell frequencies, likely related to the unequal distribution of the quality of parenting techniques and severity of parents' alcohol use within each measure.

Using the Bonferroni correction, the results of the third chi-square test, using the Drug Clinical Index as the independent variable and the NCFAS Parenting Capabilities subscale as the dependent variable, were non-significant, $\chi^2(1, N = 70) = .01, ns$. As rated by a professional trained on the NCFAS, 86% of parents with a *T*-score of 51 or more on the ASI Drug Clinical Index and 84% of parents with a *T*-score less than 51 were rated as having mild to serious parenting problems on the Parenting Capabilities subscale of the NCFAS (see Table 14). Among parents rated as using problematic parenting techniques on this subscale (n

= 59), 10% had a *T*-score of 65 or more compared to 90% who did not (see Table 15).

Using the Bonferroni correction, the results of the fourth chi-square test, using the Drug Clinical Index, as the independent variable and the NCFAS Family Interactions subscale as the dependent variable, were non-significant, $\chi^2(1, N = 70) = .86, ns$. As rated by a trained professional using the NCFAS, 100% of parents with a *T*-score of 51 or more on the ASI Drug Clinical Index and 89% of parents with a *T*-score less than 51 were rated as having mild to serious parenting problems on the Parenting Capabilities subscale of the NCFAS (see Table 14). Among parents rated as using problematic parenting techniques on this subscale ($n = 63$), 11% had a *T*-score of 65 or more compared to 89% who did not (see Table 15). These results ought to be interpreted with caution due to small expected cell frequencies, likely related to the unequal distribution of the quality of parenting techniques and severity of drug use within each scale.

The above findings do not support any of the original hypotheses of the third question. Parents with more severe lifetime and current substance abuse problems were not more likely to have a poorer parent-child relationship or to use poorer parenting techniques than would parents with less severe substance abuse problems. However, when parents' substance abuse severity was measured using interviewer severity ratings rather than parents' self-report data, differences were found in parenting attitudes for parents with high and low alcohol problems. Parents whose alcohol problems were rated as low at intake had more developmentally appropriate expectations of their children than did parents with high alcohol problems. Interestingly, parents with low alcohol problems were also more likely to engage in a parent-child role reversal and expect their children to meet their emotional needs than were parents with high alcohol problems. Thus, it seems as though parents with low level

alcohol problems are aware of their children's developmental abilities in terms of adaptive skills like getting dressed for school or using the bathroom but need their children for emotional support and comfort. In contrast, parents with more severe alcohol problems have very high expectations of their children, such as requiring a five-year-old to do the dishes unattended, but are able to get their emotional needs met elsewhere.

Table 9

Parent-child relationship and severity of parents' current and lifetime alcohol problems (n = 58)

AAPI-2 Subscale	Current and Lifetime Alcohol Problems		F
	High	Low	
	<i>M (SD)</i>	<i>M (SD)</i>	
Inappropriate Expectations ^a	3.33 (1.53)	5.24 (1.62)	3.94
Lack of Empathy ^a	3.33 (1.16)	5.22 (2.03)	2.50
Role Reversal ^a	6.33 (2.08)	6.31 (1.97)	.00

^aAAPI-2 scores range from 1 to 10 with higher scores indicating lower risk levels and a better parent-child relationship

Table 10

Parent-child relationship and severity of parents' current and lifetime drug problems (n = 58)

AAPI-2 Subscale	Current and Lifetime Drug Problems		F
	High	Low	
	<i>M (SD)</i>	<i>M (SD)</i>	
Inappropriate Expectations ^a	4.40 (1.52)	5.21 (1.67)	1.08
Lack of Empathy ^a	4.00 (1.41)	5.23 (2.06)	1.68
Role Reversal ^a	6.00 (1.58)	6.34 (1.99)	.14

Table 11

Parent-child relationship and interviewer rated severity of parents' alcohol and drug problems (n = 58)

AAPI-2 Subscale	Severity of Alcohol and Drug Use					F
	Alcohol High	Alcohol Low		Drug High	Drug Low	
	<i>M (SD)</i>	<i>M (SD)</i>		<i>M (SD)</i>	<i>M (SD)</i>	
Inappropriate						
Expectations ^a	4.65 (1.95)	5.39 (1.44)	2.72	4.94 (1.58)	5.45 (1.77)	1.30
Lack of Empathy ^a	5.40 (2.37)	4.97 (1.85)	.57	4.97 (1.93)	5.36 (2.22)	.50
Role Reversal ^a	6.95 (2.99)	5.97 (1.88)	3.40	6.36 (1.66)	6.23 (2.41)	.06

^aAAPI-2 scores range from 1 to 10 with higher scores indicating lower risk levels and a better parent-child relationship.

Table 12

Percent of parents with high or low alcohol problems rated as using mild to seriously problematic parenting techniques (n = 70)

NCFAS Subscale	Current/Lifetime Alcohol Problems			
	Low		High	
	<i>n</i>	%	<i>n</i>	%
Parenting Capabilities	56	85	3	75
Family Interactions	60	91	3	75

Table 13

Percent of parents rated as using mild to seriously problematic parenting techniques with high or low alcohol problems (n = 70)

NCFAS Subscale	Current/Lifetime Alcohol Problems			
	Low		High	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Parenting Capabilities	56	95	3	5
Family Interactions	60	95	3	5

Table 14

Percent of parents with high or low drug problems rated as using mild to seriously problematic parenting techniques (n = 70)

NCFAS Subscale	Current/Lifetime Drug Problems			
	Low		High	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Parenting Capabilities	53	84	6	86
Family Interactions	56	89	7	100

Table 15

Percent of parents rated as using mild to seriously problematic parenting techniques with high or low drug problems (n = 70)

NCFAS Subscale	Current/Lifetime Drug Problems			
	Low		High	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Parenting Capabilities	53	89	6	10
Family Interactions	56	89	7	11

Question 4

Question 4 asked whether the severity of parents' trauma history, measured using the total ACE score, level of trauma symptoms, measured using the TSI-2 Trauma scale, and severity of current and past drug and alcohol use, measured using the ASI Clinical Factor *T*-scores, was related to children's risk of experiencing neglect. Child neglect was operationalized as a poor parent-child relationship and the use of poor parenting techniques. Parent risk factors were all measured at intake to the family treatment drug court. I hypothesized that the combination of these variables would predict whether children were at a low, medium, or high risk of experiencing neglect and that children of parents with more risk factors would be at the greatest risk of experiencing neglect compared to children of parents with fewer risk factors.

A multinomial logistic regression was run to test the hypothesis that the continuous independent variables of parents' trauma history, level of trauma symptoms, and the current and past severity of drug and alcohol use would predict the dependent variable of children's risk of experiencing a poor parent-child relationship, measured using the AAPI-2. This analysis used the low risk group as the reference group. The overall model was significant, $\chi^2(8, N = 48) = 15.63, p < .05$, and the goodness-of-fit showed the model adequately fit the data with a greater than .05 *p*-value. The Likelihood ratio test showed that trauma symptoms had a significant contribution to the model, $\chi^2(2, N = 48) = 10.41, p < .01$. No other predictors significantly contributed to the model. Although the overall model was significant, the parameter estimates indicated trauma symptoms did not significantly predict child neglect in

the form of a poor parent-child relationship when the other predictor variables were held constant.

Since the original analysis was inconclusive, a follow-up exploratory analysis was conducted to determine the model that best fit the data. The independent variables were entered in a backward elimination fashion. This stepwise method was chosen because backward elimination is less susceptible to suppressor effects.¹¹ This model used the low risk group as the reference group. The overall model was significant, $\chi^2(2, N = 48) = 14.23, p < .01$ and the goodness-of-fit showed the model adequately fit the data with a greater than .05 *p*-value. In this model, both trauma symptoms and trauma history predicted children's experience of neglect but drug and alcohol use did not. As parents' trauma symptoms increased, their children were more likely to be in the high-risk group for experiencing neglect in the form of a poor parent-child relationship than the low-risk group, OR = 1.86, 95% CI [1.04, 3.31], *p* < .05. Therefore, the odds of being in the high-risk group rather than the low-risk group increased by a factor of 1.86 for children of parents with significant trauma symptoms. In relative terms, children in the high-risk group were .74 times more likely to have a parent who reported significant trauma symptoms at intake compared to children in the low risk group. Since an Odds Ratio is an effect size, this OR represents a small effect (Cohen, 1988). As parents' ACE score decreased, indicating they had experienced fewer adverse childhood experiences, their children were less likely to be in the high-risk group compared to the low-risk group, OR = 0.31, 95% CI [.10, .95], *p* < .05. This means the odds of being in the high-risk group rather than the low-risk group decreased by a factor of 0.31 for children of parents with fewer adverse childhood experiences. In terms of

¹¹ Suppressor effects occur when a predictor has a significant effect to the overall model only when another variable is held constant, which can increase Type II error (Field, 2009).

relative risk, children in the low-risk group were 3.23 times more likely to have a parent with a lower ACE score compared to children in the high risk-group. This OR represents a small effect size (Cohen, 1988). Although the model had adequate goodness-of-fit, there was poor prediction of the medium risk group.

A multinomial logistic regression was run to test the second hypothesis that the continuous independent variables of parents' trauma history, level of trauma symptoms, and current severity of drug and alcohol use would predict the dependent variable of children's risk of experiencing neglect in the form of parents' use of poor parenting techniques, measured using the NCFAS. This analysis used the low-risk group as the reference group. The overall model was not significant, $\chi^2(8, n = 52) = 12.47, ns$.

A follow-up exploratory analysis was conducted to determine the model that best fit the data. The independent variables were entered in a backward elimination fashion. This model used the low risk group as the reference group. The Likelihood ratio test showed that parents' ACE score was the only variable that significantly contributed to the model, $\chi^2(2, n = 52) = 8.53, p < .05$. The goodness-of-fit showed the model adequately fit the data with a greater than .05 *p*-value. As parents' ACE score increased, their children were more likely to be in the high-risk group for experiencing neglect in the form of poor parenting techniques than the low risk group, OR = 2.41, 95% CI [1.06, 5.50], $p < .05$. Therefore, the odds of being in the high-risk group as opposed to the low-risk group increased by a factor of 2.41 for children of parents with a higher ACE score. In other words, children in the high-risk group were .41 times more likely to have a parent with a more significant trauma history compared to children in the low-risk group. This OR represents a small effect.

Although neither of the original hypotheses were supported, exploratory analyses provided important information about the relationship between parental risk factors and children's risk of experiencing neglect. It was hypothesized that the combined effect of severity of parents' trauma history, level of trauma symptoms, and severity of drug or alcohol use would predict their children's risk of experiencing neglect in the form of a poor parent-child relationship; however, only the severity of parents' trauma symptoms and the severity of their trauma history was predictive of neglect in this form. Children whose parents had more severe trauma symptoms upon entry to the family treatment drug court were more likely to be identified as being at a high risk of neglect compared to children at low risk of experiencing neglect in the form of a poor parent-child relationship. Moreover, as parents' ACE score decreased, so did their children's chances of being in the high-risk group. With regards to the second hypothesis, exploratory analyses suggest parents' trauma history may also predict of children's experience of neglect in the form of parents' use of poor parenting techniques. Children whose parents self-reported experiencing more adverse childhood experiences were more likely to be identified as being at high-risk of experiencing neglect due to their parents' use of poor parenting techniques compared to children at low-risk of neglect in this form.

Post hoc Analyses

Post hoc analyses were conducted to examine change over time in the parent-child relationship and in parenting techniques using the AAPI-2 and the NCFAS. Change from intake to discharge was also assessed for parents' substance use and associated risk factors using the ASI. Change over time was examined using paired samples *t*-tests. Additional post hoc analyses, using mixed ANOVAs with pretest and posttest data, were conducted to

explore how an ACE score of four or more and/or parents' experience of childhood neglect impacted the parent-child relationship, parenting techniques, and parents' substance use problems over the course of the intervention, measured using the AAPI-2, NCFAS, and ASI, respectively.

A paired samples *t*-test was conducted to examine whether parents' parenting attitudes changed from intake to the family treatment drug court to discharge. Assumptions of normality, independence of observations, and homogeneity of variance were met. Using the self-report AAPI-2, it was found that parents' expectations of their children significantly improved from intake to discharge, $t(1, 33) = 3.61, p = .001$; as did parents' empathy for their children's needs, $t(1, 33) = 3.46, p < .01$. No other significant changes were found (see Table 16). A paired samples *t*-test was run to examine if there were changes over time in overall family functioning as assessed by a service provider using the NCFAS. Assumptions of normality, independence of observations, and homogeneity of variance were met. Significant improvements from intake to discharge were seen in parents' ability to provide a safe environment, their overall parenting capabilities, positive family interactions, overall safety, child well-being, social support, families' self-sufficiency, and families' readiness for reunification (see Table 17).

The final paired-sample *t*-test was conducted to assess changes over time in parents' substance use and associated risk factors using the ASI Clinical Factor *T*-scores and severity scores. Assumptions of normality, independence of observations, and homogeneity of variance were met. Significant improvements in the current and lifetime severity of parents' drug use were found using the ASI Clinical Factor *T*-scores, $t(1, 44) = 5.16, p < .001$, which are derived from participant self-report data. This finding was supported by interviewer

severity ratings of parents' current drug use, $t(1, 44) = 7.85, p < .001$. Significant improvements in parents' current alcohol use were also seen from intake to discharge using interviewer severity ratings, $t(1, 44) = 3.34, p < .01$, in addition to improvements in the severity of parents' legal problems, family and social support, and psychological problems (see Table 18).

Next, the data were examined to determine whether there were significant changes over time (intake to discharge; time point) as a function of parents' ACE score (whether the score was equal to or greater than four or less than four) and experience of childhood neglect (whether it occurred or not). These changes were explored using the previously analyzed subscales of the AAPI-2 (Inappropriate Expectations, Lack of Empathy, and Role Reversal), the NCFAS (Parenting Capabilities and Family Interactions), and the ASI (Alcohol and Drug Clinical Factor scores and Severity scores).

A mixed ANOVA was conducted using the Inappropriate Expectations, Lack of Empathy, and Role Reversal subscales of the AAPI-2 to examine whether there were differences in the parent-child relationship over time as a function of parents' ACE score and experience of neglect. Assumptions of independence of observations, normality, and sphericity were met. There was a significant main effect of the AAPI-2, $F(2, 60) = 9.85, p < .001$, partial $\eta^2 = .25$. The partial η^2 for this analysis represents a medium effect (Cohen, 1988). Contrasts revealed parents' attitudes about parent-child role reversal ($M = 6.52$) were, on average, more adaptive than their attitudes about appropriate and developmentally informed expectations of their children ($M = 4.84$), $F(1, 30) = 16.30, p < .001$, partial $\eta^2 = .35$. Contrasts also showed parents' beliefs about appropriate empathic responses to their children's needs ($M = 5.66$) were more adaptive than their attitudes about appropriate and

developmentally informed expectations for their children, $F(1, 30) = 4.34, p < .05$, partial $\eta^2 = .13$. There was a significant interaction effect between the AAPI-2 and time point (intake or discharge), $F(2, 60) = 6.53, p < .01$, partial $\eta^2 = .18$, which indicates there were differences in AAPI-2 scores at intake compared to discharge (see Figure 1). The partial η^2 for this analysis represents a medium effect size (Cohen, 1988). Contrasts were conducted to further explore this interaction effect. These results also help to clarify the main effect the AAPI-2. When change from intake to discharge was compared between Inappropriate Expectations and Role Reversals, parents showed greater improvements in their attitudes about appropriate expectations while their attitudes about parents' and children's roles in the family actually got worse, $F(1, 30) = 8.94, p < .01$, partial $\eta^2 = .23$. No other contrasts were significant, but pairwise comparisons revealed similar patterns; not only did parents' attitudes about appropriate empathic responses to their children's needs change more from intake to discharge, these attitudes improved while attitudes about parent-child roles got worse. Means and standard deviations are presented in Table 19.

A mixed ANOVA was conducted to determine whether there were significant changes in parenting techniques over time as a function of parents' ACE score and experience of childhood neglect using the Parenting Capabilities and Family Interactions subscales of the NCFAS. Assumptions of independence of observations, normality, and sphericity were met. A main effect was found for time point, $F(1, 45) = 10.38, p < .01$, partial $\eta^2 = .19$. The partial η^2 for this analysis represents a medium effect size (Cohen, 1988). Contrasts indicated that on average, parents' NCFAS score improved from intake ($M = 2.94$) to discharge ($M = 3.45$). A significant interaction effect was found between the NCFAS, time point, and experience of childhood neglect, $F(1, 45) = 5.64, p < .05$, partial η^2

= .11. The partial η^2 for this analysis represents a small effect size (Cohen, 1988). This supports the main effect of time point and indicates changes over time in parenting techniques on the NCFAS is different for parents who experienced childhood neglect compared to those who did not (see Figure 2). A contrast was used to better understand this interaction, which compared parents who experienced neglect to those who did not on each subscale of the NCFAS by time point. Findings revealed that compared to parents who did experience childhood neglect, parents who did not experience childhood neglect improved significantly more from intake to discharge on both the Parenting Capabilities subscale and the Family Interactions subscales. Finally, a significant interaction effect was also found between the NCFAS, time point, and ACE score, $F(1, 45) = 4.09, p < .05$, partial $\eta^2 = .08$. The partial η^2 for this analysis represents a small effect size (Cohen, 1988). This finding also supports the main effect of time point and reveals that changes over time in parenting techniques on the NCFAS are different for parents whose ACE score is greater than four compared to parents with an ACE score of less than four (see Figure 3). Examination of a contrast revealed parents with an ACE score of four or more had significantly better gains from intake to discharge in parenting techniques compared to parents with an ACE score of less than four. Means and standard deviations are presented in Table 20.

The final mixed ANOVA post hoc analyses examined whether there were significant changes in the severity of parents' substance use over time as a function of parents' ACE score and experience of childhood neglect using the Alcohol and Drug subscales of the ASI. The first test used ASI Clinical Factor *T*-scores, which provide information about past and current problems in each domain, and the second analysis used interviewers' severity ratings. When the Clinical Factor *T*-scores were analyzed, assumptions of independence of

observations, normality, and sphericity were first checked and all were met. There was a significant main effect for the ASI, $F(1, 41) = 19.22, p < .001$, partial $\eta^2 = .32$. The partial η^2 for this analysis represents a large effect size (Cohen, 1988). Contrasts revealed that on average, Clinical Factor T -scores were higher for alcohol use ($M = 51.64$) compared to drug use ($M = 41.74$). No other significant effects were found using ASI Clinical Factor T -scores. Examination of ASI severity ratings supported the significant main effect for ASI, $F(1, 41) = 11.39, p < .01$, partial $\eta^2 = .22$. However, contrasts showed interviewers rated parents' drug problems as more severe ($M = 5.34$) than their alcohol problems ($M = 2.90$).¹² A significant main effect for time was also found, $F(1, 41) = 30.75, p < .001$, partial $\eta^2 = .43$, with contrasts showing significant improvements in parents' alcohol and drug use on average from intake ($M = 5.67$) to discharge ($M = 2.56$). A significant interaction between the ASI and time point support the main effects, $F(1, 41) = 4.84, p < .05$, partial $\eta^2 = .11$ (see Figure 4). Contrasts revealed the severity of parents' alcohol use improved less from intake ($M = 4.01$) to discharge ($M = 1.78$) compared to the severity of drug use improvements from intake ($M = 7.33$) to discharge ($M = 3.35$). Means and standard deviations are presented in Table 21.

The above post hoc analyses provide important information about parents' improvements over time as measured by the AAPI-2, NCFAS, and ASI. Parenting attitudes improved over time as measured by the AAPI-2, as did overall family functioning on the NCFAS. When parenting techniques were examined using the NCFAS, it was found that parents who did not experience childhood neglect were observed to have greater improvements in their parenting capabilities and family interactions. Moreover, parents who experienced four or more adverse childhood experiences showed greater treatment gains over

¹² ASI severity ratings range from 0 (no real problem) to 9 (extreme problem).

time than did parents with fewer than four adverse childhood experiences. Parents' substance use and related problems also improved over time, however significant findings differed by self-report compared to independent observer. A summary of all results is presented in Tables 22 and 23.

Table 16

AAPI-2 Sten Score Means, Standard Deviations, and T-Tests from Intake to Discharge (n = 33)

Subscale	Intake		Discharge		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Inappropriate Expectations ^a	4.58	1.60	5.58	1.54	3.50**
Lack of Empathy ^a	5.21	2.12	6.24	2.18	3.47**
Corporal Punishment ^a	6.03	1.79	6.55	1.77	1.34
Reversal of Roles ^a	6.55	2.06	6.64	1.87	0.29
Restrict Power ^a	5.45	2.55	5.45	2.11	0.00

* $p < .05$ ** $p < .01$

^aAAPI-2 scores range from 1 to 10 with higher scores indicating lower risk levels and a better parent-child relationship

Table 17

NCFAS Score Means^a, Standard Deviations, and T-Tests from Intake to Discharge (n = 52)

Subscale	Intake		Discharge		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Environment	2.90	1.01	3.42	0.80	3.67**
Parenting Capabilities	2.92	0.71	3.48	0.87	4.50***
Family Interactions	3.04	0.48	3.40	0.75	3.69**
Safety	3.11	0.78	3.65	0.62	4.99***
Child Well Being	3.56	0.57	3.79	0.50	2.71**
Social Support	3.19	0.56	3.40	0.60	1.97
Self Sufficiency	2.57	0.72	3.02	.75	3.33**
Health	3.37	0.74	3.54	0.74	2.13*
CG/Child Ambivalence (n = 38) ^b	3.68	0.56	3.72	0.45	0.37
Reunification ^b	2.82	0.54	3.36	0.84	3.80***

* $p < .05$ ** $p < .01$ *** $p < .001$

^aNCFAS scores range from 1-6 with higher scores indicating more adaptive family functioning

^bOnly completed for families working towards reunification

Table 18

ASI Means, Standard Deviations, and T-Tests from intake to discharge (n = 45)

Subscale	Intake		Discharge		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Medical					
Lifetime T-Score	41.53	11.84	50.96	17.35	3.35**
Severity ^a	1.11	2.00	0.76	1.63	1.49
Employment					
Lifetime T-Score	51.29	7.85	51.47	7.37	0.14
Severity ^a	2.58	2.99	2.02	2.52	1.30
Alcohol					
Lifetime T-Score	51.24	8.54	50.82	7.75	0.41
Severity ^a	3.49	3.42	1.80	2.22	3.34**

* $p < .05$ ** $p < .01$ *** $p < .001$

^aASI severity ratings range from 0 (no real problem) to 9 (extreme problem)

Table 18 continued

ASI Means, Standard Deviations, and T-Tests from intake to discharge (n = 45)

Subscale	Intake		Discharge		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Drug					
Lifetime T-Score	44.00	6.74	38.69	5.91	5.16***
Severity	6.73	2.30	3.51	2.78	7.85***
Legal					
Lifetime T-Score	51.58	9.45	50.49	9.12	0.85
Severity	2.31	3.18	0.80	1.95	2.75**
Family/Social					
Lifetime T-Score	52.12	7.69	49.76	7.88	1.98
Severity	4.58	2.70	2.11	2.16	6.03***

p*<.05 *p*<.01 *** *p*<.001

Table 18 continued

ASI Means, Standard Deviations, and T-Tests from intake to discharge (n = 45)

Subscale	Intake		Discharge		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Psychological					
Lifetime T-Score	56.33	7.52	54.13	6.90	2.24*
Severity	4.38	2.90	2.29	2.17	4.55***

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 19

AAPI-2 Mixed ANOVA Means and Standard Deviations (n = 34)

Subscale	Intake		Discharge	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Inappropriate Expectations	4.56	1.58	5.56	1.52
Lack of Empathy	5.24	2.09	6.24	2.15
Role Reversal	6.50	2.05	6.65	1.84

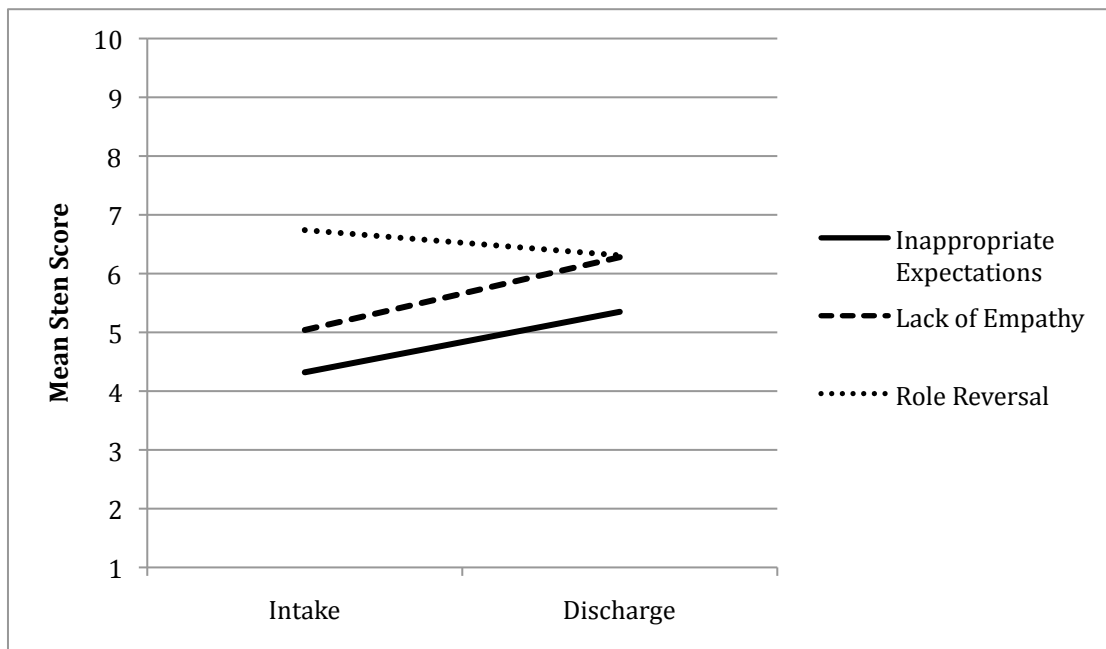


Figure 1. Mean AAPI-2 subscale Sten scores from intake to discharge

Table 20

NCFAS Mixed ANOVA Means and Standard Deviations (n = 49)

Subscale	Intake		Discharge	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Parenting Capabilities	3.04	0.68	3.61	0.79
Family Interactions	3.06	0.52	3.49	0.71

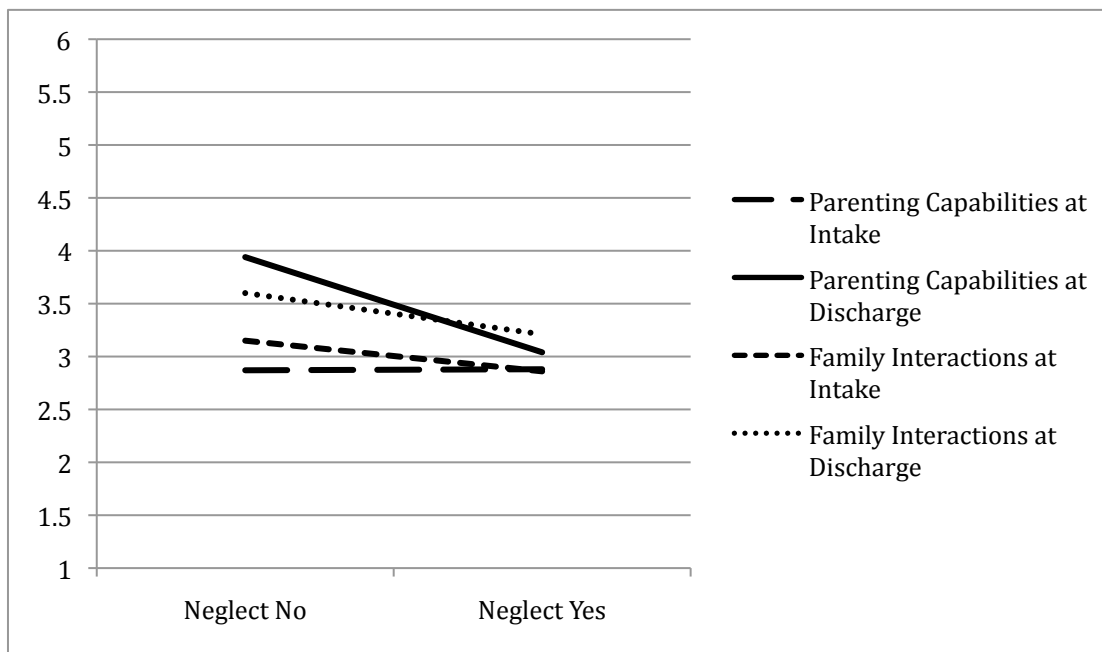


Figure 2. Mean NCFAS subscale scores for parents with childhood neglect versus parents without childhood neglect at intake and discharge

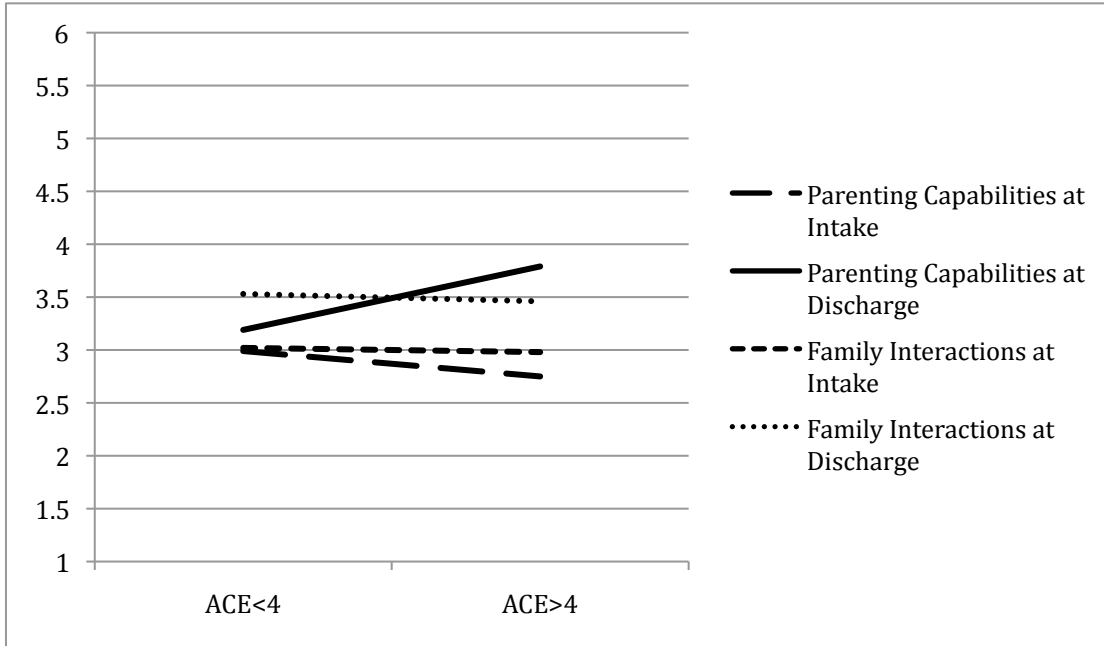


Figure 3. Mean NCFAS subscale scores for parents with and ACE score of four or more versus parents with an ACE score of less than four at intake and discharge

Table 21

ASI Mixed ANOVA Means and Standard Deviations (n = 45)

Subscale	Intake		Discharge	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Alcohol Clinical Factor T Score	51.24	8.54	50.82	7.75
Drug Clinical Factor T Score	44.00	6.74	38.69	5.91
Alcohol Severity Score ^a	3.49	3.42	1.80	2.22
Drug Severity Score ^a	6.73	2.30	3.51	2.78

^aASI Severity scores range from 0 (No Problem) to 9 (Extreme Problem)

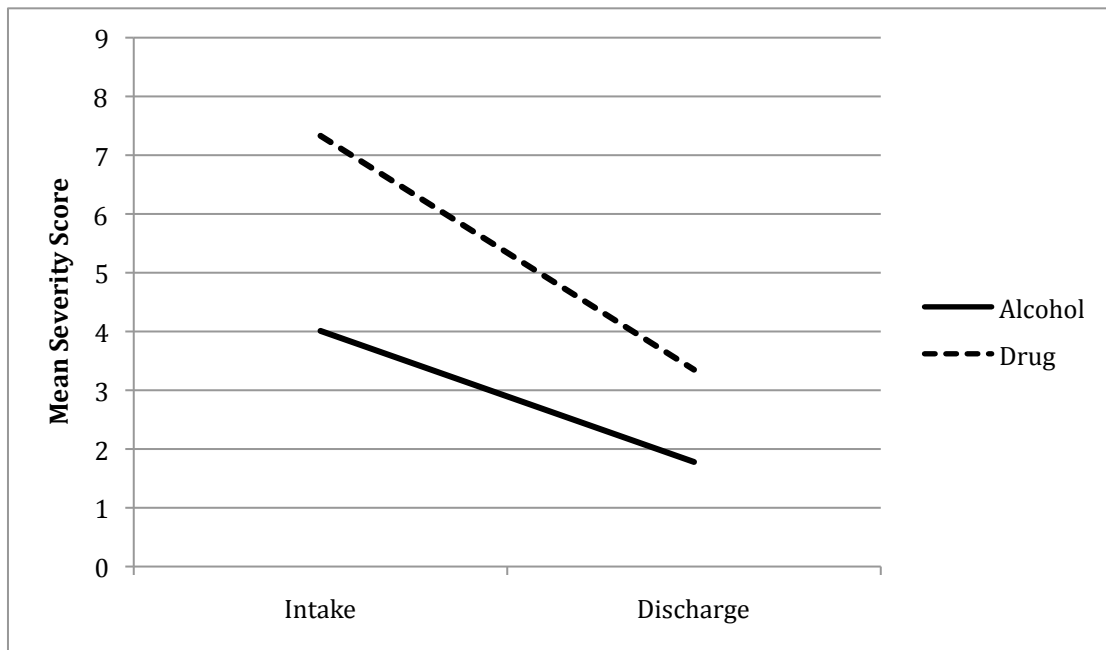


Figure 4. Mean ASI alcohol and drug severity scores from intake to discharge

Table 22

Summary of Findings

Hypotheses	Result
1.1 - It is hypothesized that the children of parents who experienced physical and/or emotional neglect with or without abuse as children will be at greater risk of experiencing a poorer parent-child relationship than will children of parents who did not experience childhood neglect.	Unsupported
1.2 - It is hypothesized that children of parents who experienced physical and/or emotional neglect with or without abuse as children will be more likely to have parents who use poorer parenting techniques than will children of parents who did not experience childhood neglect.	Unsupported
2.1 - It is hypothesized that children of parents who experienced four or more traumatic events during their lifetime will be at greater risk of experiencing a poorer parent-child relationship than will children of parents who experienced fewer than four traumatic events in their lives.	Unsupported
2.2 -It is hypothesized that children of parents who experienced four or more traumatic events during their lifetime will be at greater risk of having parents who use poorer parenting techniques than will children of parents who experienced fewer lifetime traumatic events.	Unsupported
3.1 - It is hypothesized that children of parents with more severe current and lifetime substance use problems at intake will be at greater risk of experiencing a poorer parent-child relationship than will children of parents with less severe current and lifetime substance use problems.	Partially Supported: Parents with low severity alcohol problems had more appropriate expectations of their children than did parents with high severity alcohol problems. Parents with low severity alcohol problems were more likely to engage in role reversals with their children than were parents with high severity alcohol problems.

Table 21 Continued

Summary of Findings

Hypotheses	Result
<p>3.2 - It is hypothesized that children of parents with more severe current and lifetime substance use problems at intake will be at greater risk of having parents who use poorer parenting techniques than will children of parents with less severe current and lifetime substance use problems.</p>	<p>Unsupported</p>
<p>4.1 -It is hypothesized that the combination of parental history of child maltreatment and other traumatic events, associated trauma symptoms, and current severity of substance abuse will predict their children’s risk of experiencing neglect, as measured by problematic levels of a poor parent-child relationship. It is also hypothesized that children of parents with more risk factors will classified as most at risk for experiencing neglect compared to children with fewer risk factors.</p>	<p>Partially Supported: As parents’ trauma symptoms increased, their children were more likely to be in the high-risk group for neglect in the form of a poor parent-child relationship compared to the low-risk group. As parents’ ACE score decreased, their children’s chances of being in the high-risk group for neglect in the form of a poor parent-child relationship also decreased.</p>
<p>4.2 - It is hypothesized that the combination of parental history of child maltreatment and other traumatic events, associated trauma symptoms, and current severity of substance abuse will predict their children’s risk of experiencing neglect, as measured by parents’ use of poor parenting techniques. It is also hypothesized that children of parents with more risk factors will classified as most at risk for experiencing neglect compared to children with fewer risk factors.</p>	<p>Partially Supported: As parents’ ACE score increased, children were more likely to be in the high-risk group for neglect in the form of parents’ use of poor parenting techniques compared to the low-risk group.</p>

Table 23

Summary of Post-hoc Analyses and Findings

Post-hoc Questions	Results
1.1 - Are parents' attitudes and beliefs about parenting techniques improving from intake to discharge, as measured by the AAPI-2?	Parents' expectations of their children significantly improved from intake to discharge. No other significant improvements were found.
1.2 - How are changes in parenting attitudes on the AAPI-2 differentially impacted by parents' ACE score and experience of childhood neglect?	A significant main effect for AAPI and a significant interaction effect for AAPI and time point indicated improvements in parent-child relationship from intake to discharge. No significant effects for ACE score or neglect were found.
2.1 - Is overall family functioning improving from intake to discharge, as measured by the NCFAS?	Significant improvements from intake to discharge were seen in parents' ability to provide a safe environment, in their overall parenting capabilities, in positive family interactions, in overall safety, in families' self-sufficiency, and in families' readiness for reunification.
2.2 - How are changes in overall family functioning on the NCFAS differentially impacted by parents' ACE score and experience of childhood neglect?	A significant main effect for time point indicated improvements in parenting techniques from intake to discharge. A significant interaction effect for NCFAS, time point, and neglect revealed parents who did not experience neglect had greater improvements than did parents who did experience neglect. A significant interaction effect for NCFAS, time point, and ACE score revealed parents with an ACE score of four or more improved more than did parents with an ACE score of less than four.

Chapter V

Discussion

In 2011, 531,413 children were victims of substantiated or indicated physical and/or psychological neglect. This amounts to 79% of the total number of children who were reported to child welfare services as victims of abuse and neglect. Of the neglected children, 81% of the perpetrators were the children's parents and of the 30 states that report whether child victims of maltreatment also have a caregiver alcohol or drug use risk factor, up to 56% of substantiated reports involved parental substance use (USDHHS, 2011). With rates of neglect as high as they are and the relation between parental substance use and child maltreatment, one would expect to see considerable research and development of evidence-based prevention and treatment efforts. However, there has been a historical neglect of neglect in the literature, which has left providers without the knowledge or resources necessary to respond to the unique needs of children and adult survivors of childhood neglect. Part of the paucity of research and clinical response to neglect is related the difficulties encountered when designing studies and treatment interventions for this population. The purpose of this study was to address some of these issues and explore the relations between parents' history of potentially traumatic experiences, their alcohol and drug problems, and their children's experience of neglect.

The available literature on neglect lacks consensus on a number of key issues related to this construct, including how to operationalize neglect, its etiology, and how to prevent the causes and provide treatment for affected children and families. In the present study, I attempted to address some of these inconsistencies using a sample of children and families enrolled in a Family Treatment Drug Court (FTDC) following substantiated neglect resulting

from parental substance use. A definition of neglect was developed that incorporated literature indicating a poor parent-child relationship and ineffective parenting techniques are common features of neglectful parenting. I also chose to explore the etiology of neglect and how parents' history of traumatic events, childhood neglect, and severity of parental substance use impacted their children's experience of neglect. It was hypothesized that parents with a history of childhood neglect, multiple traumatic experiences, and more severe drug and/or alcohol use would be more likely to have a poor parent-child relationship and/or use poor parenting skills upon intake to the FTDC. It was also hypothesized that the combined impact of parents' history of trauma, childhood neglect, and severity of substance use would be predictive of their children's risk level of experiencing neglect.

Contrary to my predictions, neither parents' own history of childhood neglect, traumatic experiences, nor the severity of their self-reported substance use problems were related to their children's experience of neglect in the form of a poor parent-child relationship or the use of poor parenting techniques. However, when interviewer ratings of parents' substance use problems were used, the severity of parents' alcohol problems at intake did have a significant effect on the parent-child relationship. Parents with less severe alcohol problems had more appropriate and developmentally informed expectations of their children compared to parents with more severe alcohol problems. However, parents with low severity alcohol problems were also more likely to engage in a role reversal with their children and expect their children to meet their emotional needs compared to parents with more severe alcohol problems. This converse relation is interesting because although parents with less severe alcohol problems seem to have a better understanding of their children's developmental abilities, such as not expecting a five year-old to care for their infant sibling,

they still seem to need their children's emotional support. This finding is similar to that of Kelley and colleagues (2007) in which adults who grew up with an alcoholic parent reported more emotional caregiving of their parent. When this happens, the child may not be receiving the nurturing they need for healthy emotional development, which can lead to the development of an insecure attachment style (Seifer et al., 2004).

The combined impact of parents' experience of childhood neglect, adverse childhood experiences, trauma symptoms, and substance use severity was also not predictive of children's risk of experiencing neglect. When exploratory analyses were conducted it was found that only parents' trauma histories and trauma symptoms seemed to predict whether their children would be at a higher risk of neglect compared to children at a lower risk of neglect. Specifically, children of parents with more severe trauma symptoms were at greater risk for experiencing a poor parent-child relationship and children of parents' with lower ACE scores were less likely to be in the high-risk group compared to children of parents with an ACE score of four or more. Parents' ACE score was also related to the use of poorer parenting techniques; as the ACE score increased, children were more likely to be in the high-risk group. Interestingly, when parenting techniques were examined over time, parents who experienced four or more adverse childhood experiences made greater gains than parents with fewer adverse childhood experiences. No significant effects of trauma history were found for the parent-child relationship. Although these reported findings were all statistically significant, when the effect sizes were examined, trauma symptoms and the parent-child relationship had a small effect, while the effect size for ACE score and the same outcome was a medium effect. Conversely, the effect size for parents' ACE score and parenting techniques was a small effect. Therefore, while statistically, the most clinically

relevant finding is that a lower ACE score in this sample was related to a more adaptive parent-child relationship.

The relation between parents' traumatic experiences, trauma symptoms, and the neglect of their children is documented in the literature (e.g. Banyard et al., 2003), thus supporting these findings. Parents' trauma histories are often conceptualized as "ghosts in the nursery" (Fraiberg, Adelson, & Shapiro, 1975) that theoretically facilitate the intergenerational transmission of child maltreatment. However, trauma survivors also have "angels in the nursery" (Lieberman, Padron, Van Horn, & Harris, 2005) that can serve to interrupt this transmission. These theoretical constructs are relevant to the finding that parents with higher ACE scores made more treatment gains over time. Perhaps parents in this study who had an ACE score of four or more, but did not have a problematic or clinical level of trauma symptoms, were able to overcome some of their ghosts at the time of assessment. These treatment gains could have served as a protective factor for the parent-child relationship within the context of the intervention.

When post hoc analyses were used to examine change over time in parenting attitudes, overall family functioning, and severity of parents' substance use, improvements were seen across all three constructs. These findings indicate treatment gains following involvement in a family treatment drug court and provide empirical support for the effectiveness of a restorative justice model of treatment for this sample. Neglect had a differential impact on changes over time in parenting techniques, as measured by the NCFAS; parents who did not report experiencing childhood neglect improved significantly more from intake to discharge compared to parents who did report experiencing neglect as children. ACE score also had a differential impact on changes over time in parenting

techniques, such that parents with an ACE score of four or more had greater gains on the NCFAS scales measuring parenting techniques from intake to discharge compared to parents with an ACE score of less than four. The fact that parents who experienced neglect did not experience the same treatment gains as parents with more extensive trauma histories is not entirely surprising. The research shows that adults who experienced neglect as children have worse outcomes across constructs compared to adults who experienced abuse as children (Hildyard & Wolfe, 2002). It is hypothesized by researchers that these differing outcomes is related to the lack of an emotional bond between a child and their caregiver in the case of neglect whereas children who are abused typically still have some type of emotional connection with their caregiver. This emotional connection is protective of the child's social and emotional development, which impacts later functioning in life.

The differential impact of childhood neglect and adverse childhood experiences on improvements in parenting techniques as rated by a treatment provider suggests a need to more thoroughly screen for a history of childhood neglect and other traumas, which can then better inform treatment planning. Parenting techniques were measured in this study using the Parental Capabilities and Family Interactions subscales of the NCFAS, both of which were rated in the problematic range at intake. The Parental Capabilities scale measures constructs like parents' ability to appropriately supervise their children, the impact of parents' drug and alcohol use on their parenting, and parents' promotion of age appropriate activities. The Family Interactions subscale measures constructs like parents' ability to bond and communicate with their children, have developmentally appropriate expectations, and provide mutually meaningful family interactions. It is possible that parents who experienced neglect and/or trauma as children did not learn how to use appropriate parenting techniques

within the context of a healthy parent-child relationship. Moreover, while parents with and without histories of childhood neglect all improved from intake to discharge, parents who did not report experiencing childhood neglect saw significantly greater gains. It could be that the absence of childhood neglect provided these parents with a more adaptive framework upon which to develop a relationship with their children, which informed their parenting practices and helped them learn new and more adaptive parenting practices in the FTDC. Conversely, parents with an ACE score of four or more had greater gains than parents who experienced fewer adverse childhood experiences. This finding may be related to a good fit between the parents' presenting problems and the treatment intervention. It could also provide additional support for the theory that childhood neglect is related to worse outcomes because the child does not grow up with a relational model to apply to future relationships. Thus, parents with more adverse childhood experiences at least had a relational model, whether adaptive or not, compared to parents who experienced neglect and never developed an internal working model for later relationships, including parenting their children. Further research is necessary to better understand these differences.

This study provides additional support for the relationship between parents' trauma history and trauma symptoms and their children's neglect (Banyard et al., 2003). It did not replicate findings that the severity of parents' substance use is related to the neglect of their children (Carter & Myers, 2007). Although the distribution of ACE scores above and below the cutoff of four (Anda et al., 2002) and the experience of childhood neglect were approximately equal, there was very little variance in scores measuring the parent-child relationship, parenting techniques, or parents' substance use, regardless of the informant, which impacted the analyses. This was somewhat expected since all families were enrolled

into the FTDC because parents neglected their children as a result of their substance abuse problems. Although there was a constricted range of scores on the outcome variables overall, the severity of problems did differ by informant; parents self-reported parenting attitudes mostly in the medium risk range on the AAPI-2 while trained clinicians rated their overall family functioning as consistently more severe. Moreover, ASI clinical factor *T*-scores, which are derived from parents' self-reported data, were almost all in the nonclinical range compared to interviewers' independent severity ratings that indicated mostly moderate to extreme problems with substance use. Finally, although the AAPI-2 and the NCFAS were understood to measure the same constructs, this did not hold true in the present sample. These differences highlight not only the importance of using a combination of self- and other-report measures that can be analyzed together but also suggest parents may not have been entirely forthcoming upon intake to the FTDC.

Clinical Implications

Results from this study have implications for how we intervene with parents and children affected by parental substance use and child neglect, the ways in which we assess and screen parents upon intake to FTDCs, and how we use this information. The parents in this study improved across all measured domains from intake to discharge, thus adding to the body of literature demonstrating the effectiveness of family treatment drug courts (Marlow & Carey, 2012). However, as each FTDC is unique in its approach to treatment, these results cannot be over-generalized. What is supported is a trauma-informed approach to treatment for all members of the family and a judicial stance that is collaborative and restorative in nature. This unique contribution to the field is important because while we have evidence of the effectiveness of trauma-informed care for women in residential substance abuse treatment

(Connors et al., 2001), to date only two studies have explored the impact of a trauma-informed system of care with an FTDC population. The first was an outcome study that looked at the impact of trauma-informed treatment on reunification outcomes; parents who received trauma-informed care were more likely to reunify (Powell, Stevens, Dolce, Sinclair, & Swenson-Smith, 2012). The second was a qualitative study that examined the implementation of a trauma-informed system of care with a family treatment drug court but did not analyze outcome data (Drabble, Jones, & Brown, 2013). These are important studies that are laying the foundation for a new area of study within the FTDC literature, however, many questions still remain.

The future of care in FTDCs might include tailoring the trauma-informed interventions to the presenting needs of the defendants. Research on adult drug courts has shown interventions to be most effective for very high-risk defendants that were assessed to have a poorer prognosis compared to defendants with fewer risk factors (Marlowe, 2010). Studies examining targeted interventions for substance users with histories of potentially traumatic experiences support the finding that participants with the most severe trauma-related symptoms and substance abuse problems experienced the most treatment gains (Cusack, Morrissey, & Ellis, 2008). Findings from this study indicating better treatment gains for parents with more adverse childhood experiences provides evidence that the same may hold true in FTDCs. Although in this sample parents reported a high number of potentially traumatic experiences on average, these histories did not necessarily translate into clinically significant problems as only 27% of parents reported symptoms of posttraumatic stress disorder. However, these findings must be understood in the context of the stress parents are likely feeling upon intake to the FTDC, which may have impacted their level of comfort in

openly reporting symptoms. This was seen in the discrepancies between self- and other-reported measures. Moreover, it must not be forgotten that parents who reported experiencing childhood neglect did not have treatment gains similar to parents who did not report childhood neglect. This is an often overlooked risk factor, but results from this study highlight its importance, especially in a setting in which children's safety and parental rights are at stake. Thus, assessing for history of childhood neglect, PTE and associated symptoms, mental health diagnoses, and substance use severity within FTDCs ought to inform judicial recommendations for level of treatment as well as decisions regarding clinical interventions.

The assessment of presenting problems at intake to a family treatment drug court is instrumental to developing treatment plans for parents, their children, and the family. However, findings from this study suggest parents were not entirely forthcoming about their presenting problems. As discussed above, reports of parenting attitudes and practices differed by informant and parents' self-reported trauma-related symptoms were lower than would be expected in this population. The most telling difference was seen in parents' reported substance use severity; a principle enrollment criteria for this FTDC was the use of methamphetamine, which was assessed by child welfare services to negatively impact parenting and result in child neglect. Using the ASI clinical factor T scores, 90% of parents self-reported nonclinical levels of drug use problems and 94% reported nonclinical levels of alcohol use problems at intake. Conversely, according to trained interviewers, 87% of parents' drug use severity was in the moderate to extreme range compared to 50% of parents' alcohol use severity.

It is not surprising that parents attempted to minimize their presenting problems upon intake since their parental rights were dependent upon success in the FTDC. However, in this

FTDC parents were not penalized for honestly reporting problems with substances, parenting, or trauma upon intake; sanctions were introduced later when parents were not progressing according to their treatment plan. These results highlight the need to make these distinctions more clear for parents upon intake to the FTDC and to adapt intake protocols to that balance the need to build rapport and trust between the parent and clinician with important data collection upon entry. Focusing on building a relationship with FTDC defendants is supported in the literature on family treatment drug courts. FTDC participants who reported a more positive relationship with their counselor and a relationship with the judge that was based on respect were more likely to successfully complete family treatment drug court compared to participants who did not report these positive relationships (Worcel et al., 2008). More information is needed on the relation between parents and their child welfare workers because this is one of the central relationships in an FTDC and child welfare is often seen as the bad guy who took a parent's children away and then as the gateway to parental rights, even though it is ultimately the judge who makes this decision.

Research Implications

Many research questions still remain in the area of child neglect. Future research ought to continue focusing on developing a comprehensive and consistently used definition of neglect. One goal of this study was to address this problem in the literature, but unfortunately this goal was not met. This speaks to the difficulties examining neglect, especially in a highly stressed population such as a family treatment drug court sample. Ideally, a longitudinal study would be developed to follow children and families from birth to avoid relying on retrospective data collection from parents and other sources. This study design would help avoid and tease out confounds such as abuse and other forms of

maltreatment, which would help clarify the definition of neglect based on children's experience of it rather than adults' perception. It would also help to better understand the etiology of neglect, including parental characteristics like parenting techniques, parents' trauma histories, and substance abuse; child characteristics like temperament; as well as the interplay between these factors that influences the parent-child relationship. That said, the parent-child relationship must be examined more closely and accurately since neglect, by definition, occurs in the context of a relationship (or the lack thereof). Future studies might explore attachment styles of parents and children and how those relate to parents' trauma histories, substance use, and thus children's experience of neglect. Additionally, findings from this study point towards the presence of protective factors that were not examined. Future research ought to also move towards a focus on protective factors to help us understand why parents with more adverse childhood experiences saw better treatment gains than did parents with fewer adverse childhood experiences and/or a history of childhood neglect, for example.

The measurement of neglect must be improved. In the absence of large-scale, longitudinal studies, researchers must work towards a better way to assess parents' and children's experience of neglect. One aim of this study was to integrate self- and other-report data to help balance the inherent bias found in each method of data collection. However, I was not able to integrate these data because the assessments were not measuring the same constructs as predicted. Next steps could focus on developing a comprehensive assessment system that does integrate self- and other-report data, similar to the structure of the ASI. Similarly, it would be greatly beneficial to clinicians and researchers if there were a valid and reliable screener for child neglect that incorporated elements of its etiology (for example,

parental substance abuse or trauma history) and made predictions about its sequelae that could inform prevention and intervention services. This was a goal of the present study, and the results are pointing the research in a good direction; we need to continue to examine the impact of trauma histories on current functioning, especially as it relates to child neglect. However, more work still needs to be done to fully develop a reliable and valid screener that incorporates both risk and protective factors. Future studies are urged to use a control group and a randomized design to help reveal the etiology of neglect, including the relationships between parental substance use, parents' trauma histories, and their children's experience of neglect.

Limitations

The limitation that most impacted this study was the lack of variance in the independent and dependent variables at intake to the FTDC. As discussed, this is likely related to parents' fear that honest reporting of presenting problems would negatively impact reunification with their children. Moreover, all families in the FTDC were enrolled because the parents neglected their children as a result of their substance abuse problems. Therefore, even though there was some variation in the types and severity of the neglect, all were neglected nonetheless. This lack of variance is also the product of using a sample of parents with high-risk factors and severe problems overall, thus producing a restricted range in scores on all measurements. I also did not have a control group for comparisons. The lack of power was an additional restriction on my ability to detect meaningful differences in the data. These limitations impact the external validity of the findings. A related limitation is the high number of analyses conducted using a smaller sample size. Despite the fact that I used the Bonferroni correction in all primary analyses, I did not apply this correction to any post-hoc

analyses. This naturally brings into question whether some of the significant findings in these exploratory were in fact spurious in nature, and thus due to a Type I error rather than a true significant finding.

Another important limitation is the fact that this study is part of a larger multisite evaluation funded by SAMHSA. This meant I did not select the assessments used to measure children's experience of neglect and because the measures used in the larger evaluation were not focused on neglect, I was limited in my ability to interpret results and apply them to the construct of neglect while doing my best to avoid confounds. This limitation also resulted in a need to measure neglect as assessed by the adults in a child's life rather than combining that with the experience of the child (English et al., 2005). The larger evaluation may have also impacted data collection because interviewers may have felt pressure to maintain program funding through a positive evaluation. Finally, similar to issues encountered in the literature, because neglect often co-occurs with other forms of maltreatment, it was not possible to restrict my sample to parents or children who *only* experienced neglect in their lifetimes and never experienced other forms of maltreatment. This may be a confound that can never be resolved, but addressing the above limitations and future recommendations may help us better understand neglect, both as a distinct form of child maltreatment and as a child's experience on a spectrum of potentially traumatic experiences.

Conclusions

The literature on neglect demonstrates a relationship between parental substance abuse and child neglect. There is also evidence that parents' trauma histories and related symptoms negatively impact their ability to adequately provide for their children's emotional and physical needs. In this study, I attempted to provide additional supporting evidence for

these relations and extend the literature by demonstrating the relation between parents' experience of childhood neglect, not just their trauma history, and the severity of their substance abuse and neglect of their own children. I did not find additional supporting evidence for the relations between parental substance abuse and their children's experience of neglect among this population with multiple risk factors, but parents' trauma histories and symptoms were predictive of children's risk of experiencing neglect. There was also a significant impact of parents' experience of childhood neglect and other adverse childhood experiences on improvements over time in parenting abilities. Experiencing neglect as a child made it less likely for parents to demonstrate adaptive parenting techniques following involvement in a family treatment drug court. Moreover, experiencing four or more adverse childhood experiences was related both to the use of maladaptive parenting techniques and more treatment gains over time. This questions the underlying mechanisms in one's ability to be a good enough parent after being deprived of one's physical and/or emotional needs as a child as opposed to experiencing other types of trauma or abuse. Future research is needed to explore this phenomenon so we can better understand how to prevent and treat child neglect.

In order to better explore children's and adults' experience of child neglect, researchers must develop a more consistently used definition of neglect, which can then inform standardized assessments to measure its occurrence, etiology, and prognosis. Using these data will not only help advance the literature on neglect but will also be clinically relevant to treatment planning. A focus on the parent-child relationship is especially important since neglect is by definition the lack of a nurturing, caring, and protective relationship. Within the context of an FTDC, more research is needed to understand when

and how to most accurately collect data on parents' presenting problems so that parents feel most comfortable being honest and forthcoming.

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Appendix A

Table 24

Adverse Childhood Experiences Scale

Think specifically about while you were growing up, during your first 18 years of life:

1. Yes No Did a parent or other adult in the household **often or very often** swear at you, insult you, put you down, or humiliate you? **or** Act in a way that made you afraid that you might be physically hurt?
2. Yes No Did a parent or other adult in the household **often or very often** push, grab, slap, or throw something at you? **or Ever** hit you so hard that you had marks or were injured?
3. Yes No Did an adult or person at least 5 years older than you **ever** touch or fondle you or have you touch their body in a sexual way? **or** Attempt or actually have oral, anal, or vaginal intercourse with you?
4. Yes No Did you **often or very often** feel that no one in your family loved you or thought you were important or special? **or** Your family didn't look out for each other, feel close to each other, or support each other?
5. Yes No Did you **often or very often** feel that you didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? **or** Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
6. Yes No Were your parents **ever** separated or divorced?

7. Yes No Was your mother or stepmother **often or very often** pushed, grabbed, slapped, or had something thrown at her? **or Sometimes, often, or very often** kicked, bitten, hit with a fist, or hit with something hard? **or Ever** repeatedly hit at least a few minutes or threatened with a gun or knife?
8. Yes No Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
9. Yes No Was a household member depressed or mentally ill, or attempt suicide?
10. Yes No Did a household member go to prison?

Appendix B

Table 25

North Carolina Family Assessment Scale (NCFAS) Parental Capabilities Subscale

National Family Preservation Network

B. Parental Capabilities

Note: This section refers to biological parent(s), if present, or current caregiver(s).

	Not Applic.	Clear Strength	Mild Strength	Baseline/ Adequate	Mild Problem	Moderate Problem	Serious Problem	Unknown
1. Supervision of Child(ren)								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
2. Disciplinary Practices								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
3. Provision of Developmental/Enrichment Opportunities								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
4. Use of Drugs/Alcohol Interferes with Parenting								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
5. Promotes Child(ren)'s Education								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
6. Controls Access to Media/Reading Material								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
7. Parent(s)/Caregiver(s)'s Literacy								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
8. Overall Parental Capabilities								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK

Comments:

4 NCFAS-G+R: North Carolina Family Assessment Scale for General Services and Reunification
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Table 26

NCFAS Family Interactions Subscale

National Family Preservation Network

C. Family Interactions

Note: This section refers to family members living in the same or different households.

	Not Applic.	Clear Strength	Mild Strength	Baseline/ Adequate	Mild Problem	Moderate Problem	Serious Problem	Unknown
1. Bonding with Child(ren)								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
2. Communication with Child(ren)								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
3. Expectations of Child(ren)								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
4. Mutual Support Within the Family								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
5. Relationship Between Parents/Caregivers								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
6. Family Routines/Rituals								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
7. Family Recreation and Play Activities								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
8. Overall Family Interactions								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK

Comments:

Table 27

NCFAS Caregiver/Child Ambivalence Subscale

National Family Preservation Network

I. Caregiver/Child Ambivalence

Note: This section is for Reunification cases only.

	Not Applic.	Clear Strength	Mild Strength	Baseline/ Adequate	Mild Problem	Moderate Problem	Serious Problem	Unknown
1. Parent/Caregiver Ambivalence Toward Child								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
2. Child Ambivalence Towards Parent/Caregiver								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
3. Ambivalence Exhibited By Substitute Care Provider								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
4. Disrupted Attachment								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
5. Pre-Reunification Home Visitations								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK
6. Overall Caregiver/Child Ambivalence								
Intake	N/A	+2	+1	0	-1	-2	-3	UK
Interim	N/A	+2	+1	0	-1	-2	-3	UK
Closure	N/A	+2	+1	0	-1	-2	-3	UK

Comments:

Appendix C

Table 28

Adult Adolescent Parenting Inventory – Version 2 (AAPI-2) Inappropriate Expectations of Children Subscale

Form	Item Number	Item
A	4	Strong-willed children must be taught to mind their parents.
A	8	Strict discipline is the best way to raise children.
A	12	Good children always obey their parents.
A	15	Parents need to push their children to do better.
A	18	Children learn respect through strict discipline.
A	28	Children should do what they're told to do, when they're told to do it. It's that simple.
A	29	Children should be taught to obey their parents at all times.
B	5	Children should be taught to obey their parents at all times.
B	11	Parents spoil babies by picking them up when they cry.
B	18	Give children an inch and they'll take a mile.
B	24	Good children always obey their parents.
B	28	The problem with kids today is that parents give them too much freedom.
B	31	Children should be obedient to authority figures.
B	34	Children today have it too easy.

Table 29

*Adult Adolescent Parenting Inventory – Version 2 (AAPI-2) Parental Lack of Empathy
Towards Children’s Needs Subscale*

Form	Item Number	Item
A	5	The sooner children learn to feed and dress themselves and use the toilet, the better off they will be as adults.
A	7	Babies need to learn how to be considerate of the needs of their mother.
A	11	Children have a responsibility to please their parents.
A	16	Children should keep their feelings to themselves.
A	20	A good child sleeps through the night.
A	24	Children who feel secure often grow up expecting too much.
A	25	There is nothing worse than a strong-willed two-year-old.
A	30	Children should know what their parents need without being told.
A	36	Letting a child sleep in the parents’ bed every now and then is a bad idea.
A	39	“Because I said so!” is the only reason parents need to give.
B	6	Parents should expect more from boys than girls.
B	7	Children who express their opinions usually make things worse.
B	10	Crying is a sign of weakness in boys.
B	13	Praising children is a good way to build their self-esteem.
B	14	Children cry just to get attention.
B	19	The less children know, the better off they are.
B	23	Children should be seen and not heard.
B	26	Two-year-old children make a terrible mess of everything.
B	37	Parents’ needs are more important than children’s needs.
B	39	Parents who encourage their children to talk to them only end up listening to complaints.

Table 30

Adult Adolescent Parenting Inventory – Version 2 (AAPI-2) Strong Belief in the Use of Corporal Punishment as a Means of Discipline Subscale

Form	Item Number	Item
A	2	Time-out is an effective way to discipline children.
A	6	Spanking teaches children right from wrong.
A	10	Children can learn good discipline without being spanked.
A	14	A good spanking never hurt anyone.
A	19	Hitting a child out of love is different than hitting a child out of anger.
A	22	A certain amount of fear is necessary for children to respect their parents.
A	23	Spanking teaches children it's alright to hit others.
A	26	Sometimes spanking is the only thing that will work.
A	32	It's OK to spank as a last resort.
A	35	Children need discipline, not spanking.
A	37	A good spanking lets children know parents mean business.
B	2	Children who bite others need to be bitten to teach them what it feels like.
B	4	You cannot teach children respect by spanking them.
B	8	If a child is old enough to defy a parent, then he or she is old enough to be spanked.
B	12	If you love your children, you will spank them when they misbehave.
B	17	Mild spankings can begin between 15 and 18 months of age.
B	22	Never hit a child.
B	25	Children learn violence from their parents.
B	29	Children who are spanked behave better than children who are not spanked.
B	36	You cannot teach children respect by spanking them.
B	33	Strong-willed toddlers need to be spanked to get them to behave.
B	38	Spanking children when they misbehave teaches them how to behave.

Table 31

Adult Adolescent Parenting Inventory – Version 2 (AAPI-2) Reversing Parent-Child Role Responsibilities Subscale

Form	Item Number	Item
A	3	Children who are one-year-old should be able to stay away from things that could harm them.
A	13	In father's absence, the son needs to become the man of the house.
A	17	Children should be aware of ways to comfort their parents after a hard days work.
A	31	Children should be responsible for the well-being of their parents.
A	33	Parents should be able to confide in their children.
A	38	A good child will comfort both parents after they have argued.
A	40	Children should be their parents' best friend.
B	3	Children should be the main source of comfort for their parents.
B	9	Older children should be responsible for the care of their younger brothers and sisters.
B	16	In father's absence, the son needs to become the man of the house.
B	21	Children should be considerate of their parents' needs.
B	30	Children should offer comfort when their parents are sad.
B	32	Children need to be potty trained as soon as they are two years old.
B	35	Children should know when their parents are tired.

Appendix D

Table 32

Dissertation Matrix: Questions, Hypotheses, Variables, Analyses, and Outcomes

Questions	Hypotheses	Independent Variable	Dependent Variable	Outcome
Q1. How is a parent’s history of physical and/or emotional neglect related to their children’s risk of experiencing neglect?	H1.1: It is predicted that the children of parents who experienced physical and/or emotional neglect with or without abuse as children will be at greater risk of experiencing a poorer parent-child relationship than will children of parents who did not experience childhood neglect.	Adverse Childhood Experiences (ACE) Neglect Y/N	AAPI-2: Lack of Empathy, Inappropriate Parental Expectations, Parental Role Reversal (Sten Scores)	MANOVA, non-significant
	H1.2: It is predicted that children of parents who experienced physical and/or emotional neglect with or without abuse as children will be more likely to have parents who use poorer parenting techniques than will children of parents who did not experience childhood neglect.	Adverse Childhood Experiences (ACE) Neglect Y/N	NCFAS: Parental Capabilities, Family Interactions (Baseline Functioning or Better, Mild Functioning or Worse)	Chi-Square, non-significant

Table 32 Continued

Dissertation Matrix: Questions, Hypotheses, Variables, Analyses, and Outcomes

Questions	Hypotheses	Independent Variable	Dependent Variable	Outcome
Q2. Are children of parents who have experienced more lifetime traumatic events at greater risk of experiencing poorer relationships with their parents and having parents who use less effective and appropriate parenting techniques?	H2.1: It is predicted that children of parents who experienced four or more traumatic events during their lifetime will be at greater risk of experiencing a poorer parent-child relationship than will children of parents who experienced fewer than four traumatic events in their lives.	Adverse Childhood Experiences (ACE) ACE Score of 4 or More	AAPI-2: Lack of Empathy, Inappropriate Parental Expectations, Parental Role Reversal (Sten Scores)	MANOVA, non-significant
	H2.2: It is predicted that children of parents who experienced four or more traumatic events during their lifetime will be at greater risk of having parents who use poorer parenting techniques than will children of parents who experienced fewer lifetime traumatic events.	Adverse Childhood Experiences (ACE) ACE Score of 4 or More	NCFAS: Parental Capabilities, Family Interactions (Baseline Functioning or Better, Mild Functioning or Worse)	Chi-Square, non-significant

Table 32 Continued

Dissertation Matrix: Questions, Hypotheses, Variables, Analyses, and Outcomes

Questions	Hypotheses	Independent Variable	Dependent Variable	Outcome
Q3. How is the severity of parental substance use related to their children’s risk of experiencing neglect? Specifically, are children of parents with more severe current and lifetime substance use problems at greater risk of experiencing a poorer parent-child relationship and having parents who employ poorer parenting techniques than children of parents with less severe current and lifetime substance use problems?	H3.1: It is hypothesized that children of parents with more severe current and lifetime substance use problems at intake will be at greater risk of experiencing a poorer parent-child relationship than will children of parents with less severe current and lifetime substance use problems.	ASI: Drug/Alcohol Clinical Factor T-Scores Clinical or Not	AAPI-2: Lack of Empathy, Inappropriate Parental Expectations, Parental Role Reversal (Sten Scores)	MANOVA, Partially Supported

Table 32 Continued

Dissertation Matrix: Questions, Hypotheses, Variables, Analyses, and Outcomes

Questions	Hypotheses	Independent Variable	Dependent Variable	Outcome
Q3: Continued	H3.2: It is hypothesized that children of parents with more severe current and lifetime substance use problems at intake will be at greater risk of having parents who use poorer parenting techniques than will children of parents with less severe current and lifetime substance use problems.	ASI: Drug/Alcohol Clinical Factor <i>T</i> -Scores Clinical or Not	NCFAS: Parental Capabilities, Family Interactions (Baseline Functioning or Better, Mild Functioning or Worse)	Chi-Square, non-significant

Table 32 Continued

Dissertation Matrix: Questions, Hypotheses, Variables, Analyses, and Outcomes

Questions	Hypotheses	Independent Variable	Dependent Variable	Outcome
Q4. Is it possible to predict children’s risk of experiencing neglect, as measured by poor parenting attitudes and skills and a poor parent-child relationship, based on the severity of parents’ trauma history, level of clinical trauma symptoms, and severity of current drug and alcohol abuse?	H4.1: It is hypothesized that the combination of parental history of child maltreatment and other traumatic events, associated trauma symptoms, and current severity of substance abuse will predict their children’s risk of experiencing neglect, as measured by problematic levels of a poor parent-child relationship. It is also hypothesized that children of parents with more risk factors will be classified as most at risk for experiencing neglect compared to children with fewer risk factors.	Adverse Childhood Experiences (ACE) ACE Score of 4 or More Trauma Symptom Inventory (TSI-2) Intake Summary Factor T-Scores: Trauma ASI: Intake Clinical Factor Scores	AAPI-2: Lack of Empathy, Inappropriate Parental Expectations, Parental Role Reversal (Sten Scores)	Multinomial Logistic Regression, Partially Supported

Table 32 Continued

Dissertation Matrix: Questions, Hypotheses, Variables, Analyses, and Outcomes

Questions	Hypotheses	Independent Variable	Dependent Variable	Outcome
Q4: Continued	H4.2: It is hypothesized that the combination of parental history of child maltreatment and other traumatic events, associated trauma symptoms, and current severity of substance abuse will predict their children’s risk of experiencing neglect, as measured by parents’ use of poor parenting techniques. It is also hypothesized that children of parents with more risk factors will classified as most at risk for experiencing neglect compared to children with fewer risk factors.	Adverse Childhood Experiences (ACE) ACE Score of 4 or More Trauma Symptom Inventory (TSI-2) Intake Summary Factor <i>T</i> -Scores: Trauma ASI: Intake Clinical Factor Scores	NCFAS: Parental Capabilities, Family Interactions (Baseline Functioning or Better, Mild Functioning or Worse)	Multinomial Logistic Regression, Partially Supported