

PARENTAL SUBSTANCE ABUSE AND CHILD MALTREATMENT:
A STUDY OF CHILD PROTECTIVE SERVICES

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ABSTRACT

PARENTAL SUBSTANCE ABUSE AND CHILD MALTREATMENT: A STUDY OF CHILD PROTECTIVE SERVICES

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Child maltreatment continues to be a serious and prevalent issue that affects a significant portion of the population each year, and has been shown to predict negative short and long term effects on victims, and the family as a unit. Much of the literature concerning child maltreatment focuses on Child Protective Services (CPS), a department charged with the responsibility of intervening in cases of child abuse and neglect. One of the responsibilities of CPS is to prevent recidivism (i.e., the reoccurrence of child maltreatment after an initial finding of neglect or abuse), which transpires in an alarming number of cases. Previous literature has focused on risk factors of recidivism, including child and parent variables. Substance use has been identified as a factor that often, but not always, has been found to predict both maltreatment severity and recidivism. The current study aimed to investigate the presence of both alcohol and illicit substance abuse in a CPS sample, and understand its relationship to abuse severity, removal from the home, and recidivism. Findings of this study showed that neither substance nor alcohol abuse was predictive of severity as measured by CPS. However, families where parents abused alcohol and other drugs (AOD) or just substances were more likely to be removed from the home. Additionally, this research identified substance abuse as a significant predictor in both removal from the home and recidivism. The results of this research may provide information into further investigation of links between substance use, child maltreatment, and other parental variables.

INTRODUCTION

Child maltreatment, including physical abuse, sexual abuse, and neglect affects approximately 9.2 to 10 children per every 1,000 children in the United States (U.S. Department of Health and Human Services 2011a; U.S. Department of Health and Human Services, 2011b). In North Carolina, over 130,000 cases of child maltreatment are reported each year, approximately 60 per every 1,000 children (U.S. Department of Health and Human Services, 2011b). Child maltreatment has been shown to have both short- and long-term negative effects on the child's physical and emotional health (Annerbäck, Sahlqvist, Svedin, Wingren, & Gustafsson, 2012; Hildyard & Wolfe, 2002; Mendoza, 2013; Reese-Weber & Smith, 2011) and may increase also the risk of substance abuse and child abuse perpetration in adulthood (Afifi, Henriksen, Asmundson, & Sareen, 2012).

Although certain types of maltreatment are declining (e.g., sexual abuse; Finklehor & Jones, 2006) the safety of children continues to be of great interest and concern to researchers, policy makers, service providers, and the community at large (Svevo-Cianci, Hart, & Rubinson, 2010; World Health Organization (WHO), 2006). To date, most studies have focused on factors that increase the risk of mistreatment and abuse of children, including daily life stress, poverty, and lack of social support (MacKenzie, Kotch, & Lee, 2011; McGuinness & Schneider, 2007; Patel, Bhaju, Thompson, & Kaslow, 2012). Further, some studies have linked substance or alcohol misuse or abuse to harsher, more problematic parenting, even maltreatment (Barnard & McKeganey, 2004; Dunn et al., 2002; Kandel, 1990; Taylor & Kroll, 2004; Taylor, Toner, Templeton, & Velleman, 2008) and abandonment (Onigu-Otite & Belcher, 2012). For example, substance use disorders (SUDs) have been strongly associated with the risk of both physical

abuse and neglect, even in comparison to other risk factors such as social and demographic variables (Chaffin, Kelleher, & Hollenberg, 1996; Mirick, 2014). In such cases, involvement with child protective services (CPS) might be initiated (Jones, 2004), with neglect being the most common reason for intervention from CPS (i.e., when one or both parents are using substances; Barnard & McKeganey, 2004). Substance abuse tends to be prevalent in maltreatment cases, especially abuse. In at least one study, over half of the cases in a CPS sample involved alcohol or substance abusing mothers (Jones, 2004). Additionally, research has shown that substance use contributes to maltreatment in between one-third to two-thirds of families involved with child welfare or CPS services (Semidei, Radel, & Nolan, 2001). Due to the prevalence of substance use and misuse among families with CPS involvement, it is important to identify the mechanism by which substance use affects families (e.g., substance use may increase the severity of maltreatment). Moreover, it is also important to examine the degree to which substance use presents such a risk, especially in the context of other risk factors (e.g., family structure; Mendoza, 2013). In fact, the literature on the substance abuse – maltreatment link is mixed, with some studies reporting that substance use disorders directly correlate with maltreatment severity (Dunn et al., 2001) and recidivism (Solomon & Åsberg, 2012), but fails to predict these and other outcomes when other variables are considered (Stover, Urdahl, & Easton, 2012). Despite these mixed findings, it appears important to account for substance use and abuse in the examination of maltreatment risk, severity, and recidivism (Donohue, Romero, & Hill, 2006; Mirick, 2014), but other factors must also be taken into consideration.

In addition to identifying predictors of maltreatment risk and severity, studies have also examined the impact of CPS services in preventing re-abuse or recidivism (i.e., re-involvement with CPS; e.g., Solomon & Åsberg, 2012). CPS has been shown in some cases to predict better

outcomes for children who have experienced maltreatment, although the evidence is inconsistent (Connell, Bergeron, Katz, Saunders, & Tebes, 2007). In some cases, CPS involvement is not associated with improvement in modifiable risk factors in the family (e.g., social support, family functioning, child behavior problems), and children may therefore be at risk for re-abuse (Campbell, Cook, LaFleur, & Keenan, 2010). This may be due to the severity of the initial maltreatment, especially cases involving physical abuse (Connell et al., 2007). In addition to the conflicting research about the risk predictors for abuse recidivism, even less is known about the role that substance abuse may play in predicting abuse recidivism or abuse severity among families with CPS involvement (Califano, 2003; English, Marshal, & Orme, 1999). Some research has shown that a parent with substance use disorder is likely to engage in more serious maltreatment than parents who do not (Kirisici et al., 2001). This heightened severity of initial abuse that substance abuse has been shown to contribute to may also increase the risk for re-abuse.

Given the importance of identifying predictors of child maltreatment severity and re-abuse, as well as the conflicting findings regarding the role of parental substance abuse, the proposed study will examine substance use more broadly, but also explore specific substances (e.g., alcohol, cannabis, amphetamines, opiates, poly drug use) that may be linked to more severe abuse and recidivism risk. The current study may aid in our understanding of risk factors in families that are involved with CPS, and shed light on the specific types of substances that may be particularly problematic (i.e., related to abuse or neglect severity, recidivism). Findings may also benefit the Department of Social Services and CPS directly by helping to identify sources that may contribute to more severe abuse and re-abuse. In doing this, the DSS may take action to identify and reduce risk factors, especially those related to substance abuse.

CHAPTER ONE: LITERATURE REVIEW

Child Maltreatment

Child maltreatment, as defined by the Child Abuse Prevention and Treatment Act of 2010 is “any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act, which presents an imminent risk of serious harm.” In 2010, an estimated 695,000 children were victims of substantiated child maltreatment, or 9.2 victims for every 1,000 children (U.S. Department of Health and Human Services 2011a). Although there is evidence that certain types of maltreatment have continued to decline since the 1990s, the evidence is inconclusive, and the prevalence is still of considerable concern both in the United States and internationally (Finklehor & Jones, 2006; Gilbert et al., 2012). In the United States the most common type of maltreatment tends to be neglect (more than 75 percent of cases), followed by physical abuse (more than 25 percent), and then sexual abuse (less than 10 percent) (U.S. Department of Health and Human Services, 2011b). These types of maltreatment will be discussed next.

Child Neglect. Child neglect, in the United States, is “the failure of a parent, guardian, or other caregiver to provide for a child’s basic needs, including physical, medical, educational, and emotional needs” (Child Welfare Information Gateway, 2008). The most recent reports show that in 2010, neglect accounted for 78.3 percent of the total cases (U.S. Department of Health and Human Services, 2011a). In a recent study (Solomon & Åsberg, 2012), 90.8 percent of substantiated cases in a rural county involved neglect.

Of all types of child maltreatment, child neglect shows the least decline, si percent between 1992 and 2004 according to a study by Finklehor and Jones (2006). Other sources may

indicate that since this report, child neglect has not continued to decline, and may have even begun to increase (Finklehor, Turner, Omrod, & Hamby, 2010; U.S. Department of Health and Human Services, 2011a). Therefore, understanding the risk factors for this type of maltreatment is paramount.

Furthermore, the outcomes or consequences of child neglect tend to be just as severe as other types of child maltreatment(e.g., physical and sexual abuse; Hildyard & Wolfe, 2002; Trickett & McBride-Chang, 1995). Child neglect can impact the victim both physically and psychologically in the short and long term. For example, neglected children may suffer from developmental problems, including cognitive, socio-emotional, and behavioral issues (Hildyard & Wolfe, 2002). Child neglect has also been shown to correlate with future diagnoses of psychological disorders, particularly Substance Use Disorder (SUD) later in life (Dunn et al., 2002).

Child Physical Abuse. According to Federal regulations in United States welfare laws, child physical abuse is “any nonaccidental physical injury to the child” and can include striking, kicking, burning, or biting the child, or any action that results in a physical impairment of the child” (Child Welfare Information Gateway, 2008). In 38 of the 50 states and American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the Virgin Islands, this definition also includes a clause including acts or circumstances that threaten the child with harm or create a substantial risk of harm to the child’s health or welfare, such as exposing the child to an environment where drugs are being used (Child Welfare Information Gateway, 2008). In the 2010 report by the U.S. Department of Health and Human Services (2011a), 17.6 percent of the victims of child maltreatment suffered from physical abuse. A study by Finklehor and Jones (2006) reveals that between 1992 and 2004, child physical abuse had declined by 43 percent,

with the most dramatic decrease between 1997 and 2000. The authors suggest this decline may be due to a general decrease in crime and improvements in contraceptive use, rather than improvements by federal and state agencies.

Similar to neglect, childhood physical maltreatment has been shown to have both short and long term outcomes for the victim. For examples, victims of physical child abuse have been shown to be more likely to engage in risk taking behaviors, and also have poorer health than their nonabused peers (Annerbäck et al., 2012). A study by Lown, Nayak, Korcha, and Greenfield (2011) also suggests that victims of child physical abuse are more likely to abuse alcohol later in life.

Child Sexual Abuse. The Child Abuse Prevention and Treatment Act (CAPTA) defines child sexual abuse (CSA) as “the employment, use, persuasion, inducement, enticement, or coercion of any child to engage in, or assist any other person to engage in, any sexually explicit conduct or simulation of such conduct for the purpose of producing a visual depiction of such conduct; or the rape, and in cases of caretaker or inter-familial relationships, statutory rape, molestation, prostitution, or other form of sexual exploitation of children, or incest with children” (Child Welfare Information Gateway, 2008). This definition has been widely accepted and used in law codes for all United States territories. According to the report from the U.S. Department of Health and Human Services (2011a) for the year 2010, 9.2 percent of abuse victims were victims of sexual abuse. Between 1990 and 2004, child sexual abuse appears to have declined by 49 percent; similar to physical abuse, this may not be due to improvements in state and federal agencies (Jones & Finklehor, 2006). There is some speculation that these changes may be due to changes in crime rates, decreases in reports, reduced funding, and changing standards for investigation (Jones & Finklehor, 2006).

Moreover, CSA survivors may suffer many consequences both directly after the assault(s) and in the long term. For example, survivors are at an increased risk of experiencing both psychological and physical problems, including interpersonal problems, lack of perceived support, and increased sexual risk taking behavior, which increases the chance of exposure to sexually transmitted diseases (Lacelle, Hébert, Lavoie, Vitaro, & Tremblay, 2012; Lamoureux, Palmieri, Jackson, & Hobfoll, 2012). Survivors of child sexual abuse are also more likely to become targets of sexual victimization later in life (Reese-Weber & Smith, 2011) as well as engage in more instances of risky sexual behavior (Rommele & Messman-Moore, 2011). Furthermore, CSA severity predicts adult involvement with the criminal justice system among female survivors (i.e., incarceration; Åsberg & Renk, 2012).

Emotional/Psychological Abuse. Emotional or psychological abuse is most typically defined in the United States as “a pattern of behavior that impairs a child’s emotional development or sense of self-worth” (Child Welfare Information Gateway, 2008). This most often includes criticism, withholding loving emotions, and threats (Child Welfare Information Gateway, 2008). Because Child Protective Services (CPS) rarely intervenes in this sort of abuse, there is little data on its prevalence or the increases and decreases in this prevalence. Such abuse may, however, have negative consequences, including substance abuse problems and poorer coping strategies (Hager & Runtz, 2012; Rosenkranz, Muller, & Henderson, 2012). However, because of the lack of data on this abuse and the lack of involvement with Child Protective Services, from where our sample will be drawn, this type of maltreatment will not be the focus of this study.

Child Protective Services (CPS)

Child Protective Services (CPS), a division of the Department of Social Services, is a government agency that is aimed at responding and taking action in cases of child abuse and neglect. More specifically, CPS works both to prevent abuse and neglect in high-risk situations, as well as to take action in situations where abuse and neglect has allegedly already occurred (U.S. Department of Health and Human Services, 2011a).

After CPS receives a claim of alleged abuse or neglect, it is the responsibility of social workers (also called child welfare workers) employed by the department to investigate the matter, assess the family's situation, and then to recommend action from CPS based on this information. Postresponse services, which take place after the investigation, may include in-home services, social or monetary assistance, and certain other interventions including foster care services (U.S. Department of Health and Human Services, 2011a). Further, CPS agencies are an important part of the social welfare system in many countries. Of 42 of the original countries in the United Nations, at least 33% of the countries have established a basic CP system, formed to protect children and prevent maltreatment and violence (Svevo-Cianci et al., 2010). Although there is a worldwide concern for the welfare of children, experts have also identified deficits in CP systems of each country. Additionally, when looking at CP systems worldwide, the United States was not included, because the country has signed, but not ratified the United Nations Convention on the Rights of the Child (UNCRC; Svevo-Cianci et al., 2010). This evidence suggests that more data is necessary to understand the role and effectiveness of Child Protective Services in America.

Overall, and specifically in the United States, there is evidence to show that prevention services have a positive effect on children's welfare by lowering the risk of caregiver abuse or

neglect (Silovsky et al., 2011; Zielinski, Eckenrode, & Olds, 2009). These services are a continued effort by many child protective services to prevent initial maltreatment events, because a previous history with CPS services is often related to future indexed events of abuse or neglect (Fluke et al., 1999). Although prevention is an important aspect of CPS, it will not be examined in this study, as the focus will be on the severity substantiated maltreatment and on recidivism among families with CPS involvement.

CPS Investigation Process. As noted, CPS is charged with investigating families when there is an allegation of suspected child maltreatment. Regardless of the outcome of the investigation, an initiation of investigation signals that a family that is at risk of maltreatment at the indexed event or in the future (WHO, 2006). After the initial investigation by the social worker or other child welfare worker, CPS makes a decision of whether or not to initiate postresponse services. In 2010, sixty percent of duplicate victims received postresponse services (U.S. Department of Health and Human Services, 2011a). The presence of duplicate victims indicates victims who were involved in more than one case of maltreatment in the year. Although CPS has a mission to serve as many families as possible, welfare services are limited and must be distributed to those who have the most severe current problems, and may therefore have a risk of future problems as well.

There are several different actions that CPS may take when evaluating a substantiated case of maltreatment. Nationally, the National Data Archive on Child Abuse and Neglect (NDCAN) is used to classify cases on many variables, including services received. This archive classifies families as cases receiving in-home services or foster care services, which they define as any out of home placement. Of the child survivors who received postresponse services,

approximately 79% received in-home services, and approximately 21% received foster care services (U.S. Department of Health and Human Services, 2011a).

Specific services provided or recommended by CPS (e.g., individual therapy) may also reduce the risk of abuse recidivism. Findings of research by Solomon and Åsberg (2012) indicated that therapy for the parent was related to decreased odds for maltreatment recidivism. Counseling referral has also been shown to correlate with decreased abuse reoccurrence in psychological maltreatment cases (Palusci & Ondersma, 2012). Other research by Sinanan and Pomona (2011) showed that while receiving CPS family support services increased sexual abuse recidivism, receiving family preservation services decreased this risk. In certain situations, it may not be the type of services provided that lowers the risk for cases of reabuse. Research by DePanfilis and Zuravin (2002) found that when controlling for all other variables, client attendance at services was the only significant predictor of recurrence, even in the presence of other service-related variables. The results of Mirick's (2014) research showed that although parents with substance abuse were more likely to be involved in CPS services, substance abuse was also highly correlated with engagement in social services, such as therapy. In addition to understanding what interventions can lower the risk of recurrence, CPS investigates different factors that may predict recidivism.

Many CPS services use risk assessment instruments to evaluate the investigated event (e.g., Coohy, Johnson, Renner, & Easton, 2013). By assessing the severity of the factors at the current time, the department can assess what action is necessary. By providing the most helpful and efficient services, CPS can work especially to prevent recurring instances of maltreatment. The assessment of severity and risk often includes measures of income stability, mental health issues, parent history, substance abuse, and prior CPS reports. Although these evaluations are

useful in gaining data, there is some evidence that they are not useful in preventing recidivism (Rittner, 2002). Because of this, it is important that assessment tools are successful in predicting risk for future maltreatment.

Parental Substance Use and Misuse

As noted previously, substance misuse has been linked to various types of child maltreatment, including neglect, physical abuse, and sexual abuse (Chaffin et al., 1996; Dunn et al., 2002; Mirick, 2014; Svevo-Cianci et al., 2010; Walsh, MacMillan, & Jamieson, 2003).

Although the measurement of parental substance abuse has varied across studies and populations, researchers have found that substance use remains a significant predictor of risk. In fact, substance-abusing parents more likely to maltreat their children (e.g., Califano, 2003; Jones, 2004) and, in cases of substantiated maltreatment, parental substance abuse may also function as a predictor of recidivism and severity (e.g., Chaffin et al., 1996; Connell et al., 2007; Dunn et al., 2001).

Researchers estimate that among children receiving protective- or child welfare services, substance use may be implicated in a significant number of cases (Chaffin et al., 1996; Jones, 2004; Mendoza, 2013; Semidei et al., 2001). Although the exact amount may not be clear, literature reviews have suggested the prevalence of parental substance abuse is anywhere between 10 and 70 percent (Magura & Laudet, 1996. In a study by Dunn et al. (2002), an actual SUD diagnosis was found in 51 percent of parents who were implicated in child neglect, whereas more general substance abuse ‘problems’ (i.e., not a confirmed diagnosis) has been found in between one-third to two-thirds of maltreating parents (e.g., Semidei et al., 2001; Solomon & Åsberg, 2012). Overall, substance use and misuse remains an important factor to consider in parents and families with CPS involvement.

Moreover, beyond prevalence rates of substance use, misuse, and abuse in parents and caregivers, studies have examined also the consequences of such use. In fact, substance abuse problems may affect parenting in a variety of maladaptive ways. Previous research has shown a link between parental drug use problems and parental control problems with children (Kandel, 1990). Specifically, Kandel (1990) found that maternal substance use was one of the two strongest predictors of control problems. The results of this study also showed that poorer parenting by the mother increased as substance use problems increased. In addition to its correlations with substance abuse, parental control problems may contribute to additional parental stress, which has been predictive of maltreatment. In previous research, both parental problems and parental stress have been predictive of the recurrence of child maltreatment (DePanfilis & Zuravin, 1999). Many factors contribute to overall parental stress, but this stress has repeatedly shown to function as a risk factor for child maltreatment (Guterman, Lee, Taylor, & Rathouz, 2009; Stith et al., 2009). Parental substance abuse may contribute to overall parental stress by predicting control problems as seen by Kandel (1990), and possibly attributing to other factors correlated with stress. Substance abuse may also contribute to parental stress because of feelings of ineffectiveness and lowered self-efficacy reported by mothers with Substance Use Disorder (SUD; Kelly, 1992). Moreover, a recent study by Mendoza (2013) suggested that children of substance using single mothers had more externalizing problems and were more often involved with CPS compared to children of non-substance using single mothers.

In addition to contributing to other risk factors for maltreatment, parental substance misuse and SUD has functioned independently as a risk factor for child maltreatment. Research by Chaffin et al. (1996) found that parents with a SUD were more than three times more likely to neglect their children and almost three times more likely to physically abuse their children in

comparison to a control group of parents who did not have a SUD. The results of Chaffin et al.'s study also suggest that substance abuse may play a mediating role in socioeconomic or other demographic variables, because while all these variables were significant in a bi-variate analysis, when controlling for substance abuse, these variables no longer remained significant. One interpretation of this finding is that substance abuse presents a significant risk of child physical abuse, even in the context of other risk factors. However, caretaker drug and/or alcohol abuse is sometimes (Mirick, 2014; Fuller & Wells, 2003), but not always (Solomon & Åsberg, 2012), related significantly to maltreatment re-abuse. It should be noted that in both Fuller and Wells' (2003) and Solomon and Åsberg's (2012) study, neglect was the most common type of abuse. It is possible that recidivism may be better predicted by other variables, such as severity of abuse and previous CPS history. However, substance abuse may play a substantial role in both the severity of the abuse, as well as part of the continuing pattern of abuse history. Additionally, social workers may not identify substance use problems until they become unavoidably apparent, after multiple cases occur (Dore, 1995; Wiechelt & Okundaye, 2012).

In studies spanning longer periods of time, researchers have noted that parental substance abuse had a long lasting negative impact on families. These negative impacts have included increased reports of child maltreatment throughout a period of years (Wolock & Magura, 1996). In their research, Wolock and Magura (1996) found that substance abuse had a direct effect on re-reports of maltreatment. Their findings reflect the importance of early identification of parental substance abuse in order to prevent and reduce instances of child abuse. Because parental substance abuse may become more problematic over longer periods of time, it is important to identify the role of substance misuse and child maltreatment, so that effective interventions may be established.

Although substance abuse may not always be a predictor of re-abuse, it may play a role in the severity of abuse. As hypothesized by Solomon and Åsberg (2012), child maltreatment events that are more severe are also more likely to result in removal from the home. Removal from the home was one of the few significant predictors of recidivism in their study using the same data as the proposed research. They suggest that the indexed event of maltreatment is often severe enough to warrant removal from the home. The severity of the initial abuse, rather than the action from CPS, may explain the increased risk of recidivism.

Alcohol and substance abuse is also prevalent in severe cases of maltreatment, when children are forcibly removed from the home. When Famularo and Kinscherff (1992) examined maltreatment cases of children who were removed from the home by the justice system, they found that almost 70 percent of the parents were classified as substance abusers. Additionally, they identified specific correlations between different classifications of substances and type of maltreatment. The results of their research indicated a relationship between cocaine use and sexual maltreatment as well as between alcohol abuse and physical maltreatment (Famularo & Kinscherff, 1992).

Alcohol Use and Misuse. Several studies have shown alcohol misuse and abuse to be a significant contributing factor in child maltreatment (Berger, 2005; Kelleher, Chaffin, Hollenberg, & Fischer, 1994; Tajima, 2000). For example, a study by Laslett et al. (2012) found that the misuse of alcohol significantly contributed to the reoccurrence of child maltreatment as well as the severity of the maltreatment. Other research has focused on drinking that is not always identified as problematic (e.g., Berger, 2005) as well as other social factors that may be present in alcohol-charged scenarios (e.g., Freisthler, 2011). Additionally, previous literature indicates a relationship between parental alcohol misuse and certain types of child maltreatment.

As mentioned earlier, Famularo and Kinscherff (1992) identified important substance abuse patterns in the most severe child maltreatment cases, where children were removed from the maltreating environment. Their research also showed that alcohol abuse related specifically to child maltreatment in the form of physical abuse. Similarly, Freisthler (2011) found that frequent parental alcohol consumption, as well as drinking in other settings such as parties and bars, is associated with child maltreatment, specifically physical abuse. In explaining these results, Freisthler suggests that these findings may be due to situational factors as well as the alcohol use itself; it is possible that in alcohol charged situations, parents interact with people who may share similar views of expressing aggression with externalizing violence. This norm of violence may be extended to the children, resulting in events of physical abuse.

Research has also focused on formal maltreatment cases in families involved with CPS. In a CPS sample, children who were maltreated when caretaker alcohol abuse was indicated had a higher likelihood of being exposed to reabuse than maltreated children where there was no indication of caretaker alcohol abuse (Laslett, Room, Dietze, & Ferris, 2012). In the same sample, more than 80 percent of the families that also suffered from alcohol abuse were subject to later interventions or incident reports. These findings support the importance of the role of alcohol abuse as it relates to maltreatment.

Unlike many other drugs being examined, alcohol is a legal substance. Alcohol is easily obtainable, and using it is not only legal, in many situations it is encouraged. Because of the integrated role that alcohol has in average functioning social situations, it may be difficult to record misuse of alcohol. Additionally, alcohol is not often present on a toxicology screen unless the person is presently intoxicated. Although there are more developed screenings for alcohol abuse than screenings for other substance abuse, many social workers are not adequately

educated on these methods (Dore, 1995; Howell, 2008), and therefore problem drinking may be mistaken for non-problematic alcohol use.

Other Substance Use and Misuse. Few studies have detailed specific substances as predictors of child maltreatment or parenting effectiveness. Instead, researchers often choose to evaluate substance use in parent populations where there is an indication of SUD diagnosis. However, some research seems to indicate that certain drugs may predict different types of maltreatment. The existing research is scarce and conflicting, but some researchers have been able to predict different maltreatment depending on different classifications of substances.

Even researchers focusing on drugs in the same classification, such as amphetamines, have found conflicting results, ranging from neglect of parental responsibilities to severe acts of direct abuse (Brown & Hohman, 2006; Magura & Laudet, 1996). In some situations, a certain amphetamine, cocaine, has even been related to child sexual abuse (Famularo & Kinscherff, 1992). Research by Brown and Hohman (2006) showed relationships between parent methamphetamine abuse and parenting characteristics. Their results suggested that parents who used methamphetamine exposed their children to violence, did not provide a stable living environment, and seemed rather indifferent when discussing these things. The amphetamine category of substances is one of the most populated categories of parental substance abuse, although the amount of information remains small in comparison to other risk factors predicting child maltreatment (Brown & Hohman, 2006; Magura & Laudet, 1996). The increased availability of literature on amphetamine abuse may be due to an increase of research attention toward the sociocultural effects of crack cocaine as it rose in popularity. Certain research suggests a relationship between the increase of crack cocaine use with both incidences and severity of child maltreatment (Magura & Laudet, 1996). However, other sources explain that

this is a complicated model, implicating a harsher effect for combined drug use in which crack cocaine may play a role (The National Center on Addiction and Substance Abuse at Columbia University, 1999). If a relationship exists in which a combination of substances predicts more severe or reoccurring child maltreatment, it is important to assess which substances contribute to this model. If only certain combinations of substances predict more problematic parenting or maltreatment, identifying these substances may help CPS to prevent or intervene in maltreatment situations to prevent recidivism.

By predicting the role of classifications of different substances, rather than substance use as a dichotomous variable, researchers and practitioners have the opportunity to further understand substance use as a risk factor for maltreatment. While certain substances may impair a caregiver's ability to fulfill parental responsibilities, other substances may have a small effect, if any at all. Previous research has shown that certain substances, although possessing addictive potential (e.g., nicotine), do not have the significant interpersonal effects on parenting that other addictive substances do (Dunn et al., 2002). By identifying which substances contribute significantly toward parenting problems, researchers may further explore what these substances have in common that may contribute to the problems.

Further, some studies have been able to identify different substances that contribute to poorer outcomes for families. Research by Davis (1994), for example, indicated that mothers who use cocaine, PCP, amphetamines, and heroin also more frequently have children placed out of the home (i.e., in foster care) due to child maltreatment. The findings of this research also suggest that these mothers experience more anger and hostility. These parent characteristics contribute more problematic parenting and harsher punishments (Bauman & Dougherty, 1983; Davis, 1994), as well as to overall parent stress, previously shown to predict child maltreatment

(Pereira et al., 2012). The results of Davis' (1994) supported other existing literature in showing that overall substance abuse and specific substance abuse may predict the risk and severity of child maltreatment. Another aspect to consider is the role of substance use in predicting re-involvement with CPS (i.e., abuse recidivism), which will be discussed next.

Predicting Recidivism

Because of its importance in promoting and protecting the welfare of children, it is necessary to continue to assess the effectiveness of CPS. One important and often-examined way of assessing CPS effectiveness involves measuring the occurrence recidivism, or repetition of maltreatment occurrences within a family. Many researchers argue that this is a good way of assessing failures of CPS to protect children (Connell et al., 2007; Fluke et al., 1999; Solomon & Åsberg, 2012). Researchers have found that when using recidivism as an outcome variable, stable risk factors emerge. For example, a review by Fluke et al. (1999) displayed several factors correlated to child maltreatment recidivism. These factors included an increased risk for cases of neglect, younger children, domestic violence, and most consistently, having previous history with CPS (Fluke et al., 1999). Other research has shown results supporting the correlation between previous maltreatment being the greatest predictor of future maltreatment, possibly due to the at-risk nature of the families in the CPS system (Hindley et al., 2006). Recent research has shown that temporary loss of parental custody is predictive of cases of recidivism (Solomon & Åsberg, 2012), and may indicate cases of greater severity.

Researchers studying CPS and other at-risk populations have worked toward identifying factors that lead to increased parental custody of children (Famularo & Kinscherff, 1992; Rittner & Dozier, 2000). Research by Grant et al. (2011) indicated that mothers with substance-abuse history were at a higher risk to lose custody of their children. Additionally, mothers were

significantly more likely to have custody of their children if they had remained abstinent from alcohol and other substances, with the highest success rate being for at least two years. In discussing the results, the researchers suggest that substance use and misuse may be an important predictor in reoccurrence of child maltreatment, especially in cases where caregivers have had a history of substance use problems.

Parental alcohol and substance use, however, does not always directly predict the risk of child maltreatment. Certain other variables, such as depression, have sometimes been shown to mediate parental substance use as predictors of the outcome for children's adjustment within a family (El-Sheikh & Flanagan, 2001). Mental illness and substance use have been shown repeatedly by research to be correlated (Torrens, Gilchrist, & Domingo-Salvany, 2011). Because certain risk factors may be strongly correlated, it may be useful to investigate substance use as a risk factor in itself as well as a signal of possible other problems within the family. Because of the correlations with other risk factors, parental substance abuse may have been difficult to study as an independent risk factor, and therefore a lack of literature on the subject exists.

In a study by Solomon and Åsberg (2012), which used part of the sample as the current study, parental alcohol or substance abuse was not predictive of recidivism. The authors found that the largest predictor of recidivism in Haywood County CPS files was temporary removal from the home; in fact in this study, cases where the child was temporarily removed from the parent were almost nine times more likely to involve recurrence of maltreatment (Solomon & Åsberg, 2012). The authors suggest that the cases where children were removed from the home represented the cases with the most severe initial abuse, and that severity of initial (index) abuse may be a good predictor of recidivism. Because of this, it is important then, to understand the predictors of abuse severity, including substance use and misuse by the caregiver.

Furthermore, there is an increased prevalence of parents, especially mothers, with substance abuse to have children temporarily or permanently removed from the home (Famularo & Kinscherff, 1992; Gilchrist & Taylor, 2009; Grant et al., 2011). In both the study by Gilchrist and Taylor (2009) and the study by Grant et al. (2011), over 50 percent of mothers who were also drug users had their children either temporarily or permanently removed from their custody. As previously mentioned, the study by Famularo and Kinscherff (1992) showed that 67 percent of parents who had children removed by the justice system had substance abuse problems. This may suggest that the severity hypothesis of removal from the home predicting recidivism by Solomon and Åsberg (2012) may also correlate with substance abuse and the relationship with maltreatment severity.

It is also of note, although unidentifiable in this study, that there is a notable deficit in the training of child protective services workers and other child welfare personnel; little attention is given toward identification and confrontation of substance abuse in families (Dore, 1995; Wiechelt & Okundaye, 2012). Therefore, in many cases, CPS may not indicate substance use or misuse unless it is directly involved in the specific incidence of maltreatment. Because of this, there may be more cases of recidivism in substance using families than what is recorded.

Predicting Severity of Maltreatment

Although it has been discussed that substance abuse problems have a high comorbidity with other diagnoses (Chaffin et al., 1996), it may be more predictive of perpetrating maltreatment. For example, Dunn et al. (2001) found a direct correlation between SUDs and severity of neglectful parenting, even when controlling for other mental illness diagnoses. In addition, Kirisci et al. (2002) found that children interpreted neglect to be more severe in cases where their parent had a diagnosis of SUD compared to children who did not have a parent with

an Axis I diagnosis. Findings by Kirisci et al. (2002) also showed that more severe neglect was related to further problems as the child developed into adulthood, including an increased risk of a substance use disorder by the age of 19. By identifying and preventing the role of substance abuse and maltreatment, CPS may also prevent substance abuse spanning over many generations of a family, and may in turn also prevent or reduce maltreatment occurring over generations.

In addition to substance abuse as a direct predictor, there are personality correlates of addiction and substance use that may mediate the substance abuse itself, such as hostility and negative affect (Davis, 1994). These personality features, more common in substance-abusing parents, may lead mothers to misinterpret infant's common behavior as the child acting irritable or having a low adaptability (Davis, 1994). In addition to misinterpreting the child's behavior, mothers with substance use disorders also report feelings of ineffectiveness, lowered competence, and difficulty developing attachment to the child (Kelly, 1992). Kelly (1992) notes that these feelings and difficulties may often misguide mothers to perceive the child as being demanding.

These characteristics that are correlated with substance use, may also act as a predictor of maltreatment recidivism by ways of influencing overall parental stress. Further, certain personal characteristics have been identified both in substance abusing and maltreating parents (Bay, 1990; Davis, 1994), suggesting that there may be a link between substance abuse and maltreatment risk. For example, a history of neglect in the family, certain personality traits (e.g., impulsivity), and mental illness is common in parents who abuse substances and also in maltreating parents (Bay, 1990). Although assessment of personality, hostility, and negative affect among parents is beyond the scope of this study, it is important to continue to understand how substance abuse may contribute to overall parental stress and risk for child maltreatment. In

addition to the statistical significance, the results of this research have important practical applications for child maltreatment. Bay's (1990) results demonstrate predictive effects of substance abuse, even when controlling for mental illness, suggesting that substance abuse continues to be an important predictor.

Although much research suggests correlations between substance abuse severity and severity of maltreatment, there is conflicting evidence. Research by Shultz (2001) focusing on physical maltreatment in CPS samples did not show a direct relationship between substance abuse and abuse severity. However, parents who reported two or more symptoms of alcohol and other substance abuse showed an increased risk to engage in future physical abuse. This group of parents was also more likely to endorse negative feelings of parental stress, including feelings of unhappiness and diminished ego strength. Unlike the study by Shultz (2001), the current study aims to identify the role of substance abuse in cases of neglect as well as abuse. Previous studies have shown stronger relationships between SUD and neglectful parenting (Dunn et al., 2001; Kirisci et al., 2002), but little research has focused on different substances as well as different types of maltreatment. The proposed study also focuses on caseworker-identified substance use in CPS predictions of risk, allowing for practical applications for social services which may include improved measures of risk of future abuse.

Given that the present study will rely on caseworker-identified substance abuse (rather than diagnostic data), a word of caution is warranted. For example, some studies have recognized a weakness of social workers to appropriately consider and evaluate parents with potential substance use problems (Donohue, Holland, Lopez, Urgelles, & Allen, 2014; Dore, 1995; Wiechelt & Okundaye, 2012). Donohue et al. (2014) examined significant differences in mothers' self reports of substance abuse and social workers' and family members' report of the

mother's substance use, suggesting some error in both self report and social worker report methods. However, caseworker-perceived caregiver substance abuse is highly correlated with increased caseworker-perceived maltreatment severity as well as all increased services from CPS, with the exception of termination of parental rights (Berger, Slack, Waldfogel, & Bruch, 2010). Consistent with these findings, research by Berger et al. (2010) showed that caseworker observations of substance abuse predicted perceptions of severity of the maltreatment incident. Orsi, Drury, and Mackert (2014) found that interrater reliability varied widely between different items on risk and safety assessments, but found greatest reliability for demographics, current CPS involvement, substance use, or mental health issues. However, workers often differed on their ratings of severity of these issues. It may be important, then, to extract substance abuse from any maltreatment severity index, thereby allowing substance abuse to be examined as an individual predictor of both severity and recidivism.

The Current Study

Child maltreatment has been shown to be a critical and continuing problem affecting a significant number of children every year (U.S. Department of Health and Human Services, 2011b). In addition to the problem of prevalence, child maltreatment has previously predicted both severe short and long-term effects on the surviving child and the family unit as a whole (Annerbäck et al., 2012; Hildyard & Wolfe, 2002; Reese-Weber & Smith, 2011). Previous literature has indicated that parental substance use can increase the instances and severity of child maltreatment (Dunn et al., 2001; Grant et al., 2011; Kirisci et al., 2001). For example, studies have correlated substance use directly to incidents of child maltreatment (Chaffin et al., 1996; Freisthler, 2011; Fuller & Wells, 2003), while others show it correlating with other risk factors (Bays, 1990; Davis, 1994; Donohue et al., 2006).

Contrary to this evidence, recent research drawing from the same population as the proposed study did not find significant indications of substance use as a predictor of maltreatment recidivism when other variables were considered (Solomon & Åsberg, 2012). Rather than dismissing substance use as a predictor of maltreatment recidivism, it is important, then, to understand in what *context* substance use affects child maltreatment risk, severity, and re-occurrence. Some research suggests that substance-using parents, especially mothers, are more likely to have children temporarily or permanently removed from the home (Famularo & Kinscherff, 1992; Gilchrist & Taylor, 2009; Grant et al., 2011). Removal from the home may, in turn, predict risk of maltreatment recidivism (Solomon & Åsberg, 2012). Other researchers propose that substance abuse affects child maltreatment in terms of the actual and perceived *severity* of the abuse (Berger et al., 2010; Dunn et al., 2001).

It is also possible that the effect of substance abuse is especially problematic when considered with other risk factors of maltreatment, such that the additive effect leads to more severe maltreatment. Previous research (e.g., Jones, 2004; Magura & Laudet, 1996) has focused primarily on the prevalence of parental substance abuse in CPS-involved samples, or examined substance abuse as a predictor of maltreatment recidivism (e.g., Solomon & Åsberg, 2012). Few studies, however, have examined the interplay among parental substance abuse, specific substances, maltreatment types, and the *severity* of maltreatment at the index event. Thus, the primary aim of the current study was to improve our understanding of the way in which parental substance abuse (yes/no), different classifications of substances (alcohol abuse, substance abuse, or combined alcohol and substance abuse), and severity of substance abuse (as assessed by caseworkers and noted in the file), related to maltreatment *severity* at the index event and to maltreatment *recidivism* (i.e., re-involvement with CPS following index). Substance abuse

variables were also examined in the context of other risk factors (e.g., previous CPS history, mental health diagnoses, physical disability, minority status).

The study also investigated substance abuse prevalence, severity, and classifications in subsamples of CPS-involved families, including those families who had their child removed from the home, and/or those families who experienced re-involvement with CPS. Likewise, prevalence of substance abuse, severity of substance abuse, and classifications were examined also for each type of maltreatment (i.e., sexual and physical abuse, neglect). Although the data may not consistently provide evidence of various interventions, significant findings may suggest increased severity. When using a sample drawn from the same population as the present study, Solomon and Åsberg's (2012) results showed that although there was inconsistent data on whether recommended services were actually provided, certain recommended interventions reduced the risk of recidivism. These results may be similar or different, when taking into account both substance use, and substance use therapy as an intervention.

The findings of this study may benefit the Department of Social Services and CPS directly by aiding and identifying sources that may contribute to more severe child abuse and re-abuse. By doing this, the departments may better service the population in preventing the primary instance of abuse, in addition to recidivism cases.

Hypotheses and Data Analytic Strategy

The current study aimed to identify group differences between different substances, as well as their effect on other factors involved in measuring severity, as assessed in the Family Assessment of Neglect and Abuse used by the Haywood County Department of Social Services. Specifically, this study aimed to identify answers to the following hypotheses:

1. Similar to previous research findings of correlations between parental substance use and CPS history (e.g., Fluke et al., 1999), additional mental health diagnoses (Chaffin et al., 1996; Dunn et al., 2002), and parenting skills (Barnard & McKeganey, 2004; Kandel, 1990), it was hypothesized that families where parental substance abuse is present will have more additional risk variables (as measured by The Family Risk Assessment of Abuse/Neglect) than families where parental substance abuse is not present. This hypothesis was investigated using a t-test to examine overall risk factors between substance use families and those without.
2. Given the mixed findings regarding the association between substance abuse and maltreatment (Brown & Hohman, 2006; Davis, 1994; Laslett et al., 2012), substance abuse categories were examined in relation to removal from the home. Specifically, when parental substance abuse is categorized by type (alcohol abuse, substance abuse, and combined alcohol and substance abuse), these categories as independent variables were predicted to affect a removal from the home, a proxy for severity of the indexed event. A chi square of substance abuse versus removal was selected to explore this research question.
3. Given that parental substance abuse in and of it self may sometimes (Grant et al., 2011; Wolock & Magura, 1996) but not always (Solomon & Åsberg, 2012) predict recidivism, it was hypothesized that substance abuse categories (i.e., classification) would predict significantly removal from the home (yes/no) and recidivism (yes/no) in the context of other risk factors for these outcomes. These two questions were tested using two logistic regressions, including substance use

classification as well as other variables, including mental and physical disabilities, minority status, and type of abuse.

4. Although removal from the home has been linked previously to recidivism (Solomon & Åsberg, 2012), the number of risk factors were predicted to mediate fully the association between removal from the home and recidivism.

CHAPTER TWO: METHOD

Procedure

The data used in this study was archival, and collected from CPS case files in Haywood County in western North Carolina. Although some cases ($n = 120$) were extracted for a previous study (see Solomon & Åsberg, 2012), additional case files from the aforementioned archival data were extracted for the proposed study. Additionally, we extracted new information from previously collected files, including type of drug use and other risk factor variables. To fulfill the needs of this study, the complete sample size included 191 cases.

Participants

Selected cases ($n = 191$) involved at least one instance of substantiated maltreatment, meaning that cases where CPS did not become involved after investigation were excluded, including findings of “Unsubstantiated” and cases where services were not recommended. Cases were collected chronologically until the quota of approximately 200 families of necessary cases for the present study was met. Certain cases were removed when cases were not categorizable or able to be indexed (e.g., a family case separating into multiple cases, families moving away after primary event). To control for the amount of time that had passed since initial referral, which is a significant predictor of recidivism (English et al., 1999; Hindley et al., 2006), all cases were selected from a pool of cases with an event ranging from years 2007 through 2010. While many of cases will have their original case of maltreatment during these years, some cases’ original index event will be from prior years, as data was be collected from the first instance of substantiated maltreatment. Therefore, the first recorded instance of substantiated maltreatment

was identified as the index event, and the substantiated event thereafter was considered to be a recidivism event.

Due to the nature of the archival data, specific cases, each of which typically follows a specific family, were examined rather than the study of individual persons. In this way, specific family units as a whole can be evaluated. To control for children who were not re-abused due to aging out of the system, cases were excluded if the child involved in the event was to turn 18 before the end of time period being assessed (3 years from original index).

Files included data coded by the primary investigator (PI; $n = 68$) and co-investigators (SIs; $n=52$) of a previous research project at the Haywood County CPS (see Solomon & Åsberg, 2012). Data collection is ongoing for the purpose continued examination of risk and protective factors in this population. It should be noted that all co-investigators and trainees involved in the data collection or handling of case files first observed either the original PI's coding procedures and then coded several files with the PI present, or were subsequently trained by the current PI according to the original procedures. Specifically, co-investigators or research assistants coded a file while being observed by the original or current PI before coding several files on their own, which were then checked by the PI for accuracy. Several weeks into the study, the PI and SIs coded the same case files independently. Both forms were then compared to insure inter-rater agreement.

Materials

Case/Predictor Variables. Background variables were collected from the CPS case reports. These variables included child demographics, parent demographics, family situational factors including use of substances and substance type, and CPS interventions given or ordered. In addition, we recorded the amount of time since the initial substantiated referral. Child

characteristics collected include: the age of the child at index event, gender of the child, and minority status of the child. Caregiver characteristics include: the relationship to child (biological parent, stepparent, other family member, non-family caregiver), gender of caregiver, age of caregiver, and minority status of caregiver. Situational characteristics recorded include: number of children in household, presence of caregiver alcohol abuse, and presence of caregiver substance abuse. In addition to the data collected for a previous study by Solomon & Åsberg, 2012 this present study also identified and classified type of substance use (cannabis, amphetamine, opiate, other, and poly-drug use). The intervention variables by CPS collected are: child placed outside of the house (yes/no), where child is placed (other parent, other family member, foster care), length of placement, child returned to parents after placement (yes/no), substance abuse counseling for parent (yes/no), other psychological counseling for parent (yes/no), and parenting courses (yes/no). The number and nature of concrete supports given were also be recorded. For the purposes of this study, only new services were considered to be an intervention. For example, if a family was already involved in mental health services or parenting classes, this was not recorded as an intervention. Additionally, since the aim of this study was to identify CPS's first responses to maltreatment, this research did not include interventions initiated over 3 months after the index as initial interventions.

Family Assessment of Neglect and Abuse. An existing form currently used by The Haywood County Department of Social Services was used to gather data on risk variables (See Appendix A). This form details different risk factors, which additively contribute to a risk and abuse score used by the department. This study used the information from the first substantiated case of child maltreatment. All data was de-identified and encoded onto a data form before being taken from DSS premises.

CHAPTER THREE: RESULTS

Case Demographics

The 191 family cases included 350 children with an average age of 6.26 years ($SD = 5.0$ years). The sample was fairly homogenous, with only 13.4% of the sample having a minority status. This is, however, representative of the community from which the sample was drawn. Specifically, 3.7% of the sample was African American, 6.3% were Latino, 2.3% identified as Native American, and 1.1% identifying as other or mixed ethnicity. In the current sample, 52.1% of the children were female. Sixty-three of the children (18%) were reported to suffer from a mental or emotional disability, while 18 children total (5.1%) were reported to have physical disabilities or chronic health problems.

This sample also included 355 caregivers, with an average age of 30.3 years ($SD = 9.82$). In this sample, 268 of the caregivers were reported to be perpetrators in the initial maltreatment; 35.9% of the sample identified the primary female caregiver as the perpetrator of maltreatment, 22.4% reported the primary male caregiver to be the perpetrator, and the remaining 40.1% identified both caregivers as maltreating. Further, 302 of the caregivers were biological parents to at least one child in the family, while 14 identified as stepparents, nine identified as relatives, and 27 identified as nonrelated caregivers, including boyfriends or girlfriends of a parent, and day care workers. In our sample, 49.5% of caregivers were identified as single, divorced, or separated, with the remaining cases involving caregivers who were married or cohabitating. Similar to the children, the parents' ethnicities tended to be predominantly Caucasian (89.9%), with a much smaller proportion reported as Latino (4.8%), African American (2.6%), Native American (2.0%), and other ethnicities (0.8%). 97 (27.3%) of the caregivers reported to have

mental or emotional disabilities, and 27 (7.7%) parents were identified as having physical disabilities or chronic health issues.

Substance and alcohol abuse was indicated in 70.2% of the cases, with 68 (35.6%) mentioning alcohol abuse, 49 (25.5%) indicating marijuana misuse, 45 (23.4%) mentioning amphetamine abuse 32 (16.7%) indicating opiate abuse, and 34 (17.7%) cases reporting other substance abuse. These results are largely consistent with previous studies reporting the prevalence of substance use in CPS cases (Semidei et al., 2001; Solomon & Åsberg, 2012). The prevalence rate in this sample is somewhat higher than the results of Dunn et al. (2002) who found a prevalence of 51 percent. However, it is of note that this investigation examined substance abuse instances, while the previous study investigated parental SUD diagnoses.

The most common type of initial maltreatment was neglect, reported in 178 (93.2%) cases. The next most common type of maltreatment was physical abuse (20.4%), followed by sexual abuse (6.8%). These results were fairly consistent with findings by the (U.S. Department of Health and Human Services (2011a) and largely consistent with Solomon and Åsberg's (2012) findings observing the same population. It should be noted, however, that in cases of physical or sexual abuse, neglect was also indicated as having co-occurred with the neglect, thus the categories above are not mutually exclusive. Pure neglect (without any other type present) was indicated in approximately 70% of the cases.

Analyses

To test the hypothesis that cases where parental substance abuse is present would have differences from cases where there is no substance abuse, an independent t-test of overall risk factors was performed, examining differences between substance use families and those without. The hypothesis that there would be group differences between substance abusing parents and non

using parents when measuring other risk factors measured by the Department of Social Services (DSS) was not supported. Results indicated that substance and alcohol abuse within a family was not predictive of overall risk factors of neglect $t(157) = 1.05, p = .29$ or abuse $t(157) = -1.56, p = .12$ measured by DSS.

To test the second hypothesis, that when categorized, substance use would predict removal from the home as a proxy for severity, a chi square of independence of substance abuse versus removal was performed. Although chi square tests are much less powerful than parametric tests, previous research indicates that we may achieve a moderate to large effect size and level of power with a sample size of at least 100 to 150 (Oyeyemi, Adewara, Adebola, & Salau, 2010). The hypothesis was partially supported. Combined alcohol and other drug (AOD) abuse within a family had a significant relationship with removal from the home as a proxy for severity, $X^2 = (1, 191) = 6.87, p = .009$, with a Phi of .190, indicating that children in AOD using families were more likely to be removed from the home. Children in families where caregivers used substances without any alcohol abuse were also more likely to be temporarily or permanently removed from their home, $X^2 = (1, 123) = 8.33, p = .004$, with a Phi of .260. Conversely, parental alcohol abuse *without* other substance use was not related to removal from the home, $X^2 = (1, 80) = .418, p = .518$. Results also indicated that removal was more likely to occur in families where families with poly AOD use than in families with no substance or alcohol abuse, $X^2 = (1, 124) = 4.01, p = .045$, with a Phi value of .180, indicating a relationship between multiple substances and DSS and CPS action to remove children from the home. Such a relationship did not exist when comparing poly AOD and single substance use by caregivers, $X^2 = (1, 130) = .50, p = .479$, or when comparing caregivers who abused a single substance versus non drug using caregivers, $X^2 = (1, 128) = 1.79, p = .181$.

To test the third hypothesis, that different categories of substance abuse independent variables will predict removal from the home and recidivism, two logistic regressions were used. In the first regression, the dependent variable was removal from home (yes/no), and in the second regression, the dependent variable was recidivism (yes/no).

In both regressions, variables of interest were selected in addition to other risk variables to predict removal from home, including: caregiver alcohol abuse without other substance abuse, caregiver substance use without alcohol abuse, presence of emotional/mental health issues in any children, presence of physical health issues or disabilities in any children, caregiver mental health diagnosis, presence of caregiver physical health issues or disabilities, caregiver minority status, finding of neglect, finding of physical abuse, and finding of sexual abuse. Like the other regression analyses, the predictor variables were maintained below 10, to match the same sample size considerations.

Table 1 displays the findings of the first logistic regression, predicting removal from the home. The overall model was found to be significant, $X^2(14, n=191) = 51.41, p < .01$, indicating that the model was effective at predicting removal from the home. The model as a whole accounted for between 23.5% (Cox & Snell R Squared) and 31.4% (Nagelkerke R Squared) of the variance in removal from the home. The model predicted 53.9% of the cases. Of the predictors variables, four were found to be significant in the model: parental substance abuse ($p < .01$), child(ren)'s physical health issues ($p < .05$), finding of physical abuse ($p < .05$), and finding of sexual abuse ($p < .01$).

Table 1. Logistic Regression for Removal From Home

PREDICTOR	B	S. E. B	WALD'S	SIG.	EXP(B)
Alcohol Abuse Only	-.13	.34	.14	.708	.88
Substance(s) Abuse Only	-1.07	.37	8.48	.004*	.34
Child Mental Health Issues	.68	.44	2.41	.120	1.97
Child Physical Issues	-1.30	.60	4.73	.030*	.27
Caregiver Mental Health Issues	-.60	.35	2.94	.087	.55
Caregiver Physical Issues	.06	.56	.01	.91	1.06
Caregiver Minority Status	-.25	.65	.15	.708	.88
Neglect	.52	.78	.44	.505	1.69
Physical Abuse	-.95	.45	4.45	.035*	.39
Sexual Abuse	-3.63	1.12	10.44	.001*	.03

Table 2 displays the findings of the second logistic regression, which depicts the variables predicting recidivism. The overall model was significant, $X^2(11, n=163) = 46.34, p < .001$, indicating its ability to predict recidivism. The model as a whole accounted for between 21.5% (Cox & Snell R Square) and 28.8% (Nagelkerke R Squared) of the variance in recidivism outcomes. Though the model predicted 71.7% of the cases, only broad parental substance abuse was significant ($p < .05$).

Table 2. Logistic Regression for Recidivism

PREDICTOR	B	S. E. B,	WALD'S	SIG.	EXP(B)
Alcohol Abuse Only	-.16	.38	.17	.678	.85
Substance(s) Abuse Only	-.99	.37	7.01	.008*	.37
Child Mental Health Issues	-.61	.47	1.69	.193	.541
Child Physical Issues	.33	.63	.26	.607	1.39
Caregiver Mental Health Issues	-.38	.39	.98	.322	.681
Caregiver Physical Issues	.33	.63	.26	.607	1.39
Caregiver Minority Status	.31	.71	.19	.665	1.36
Neglect	-1.17	.89	1.71	.191	.31
Physical Abuse	-.87	.57	2.26	.132	.42
Sexual Abuse	-.799	1.39	.33	.56	.45

The final hypothesis, that the number of risk factors are predicted to mediate fully the association between removal from the home and recidivism, was to be tested using step-wise regression equations to test the mediation model, using guidelines established by Baron and Kenny (1986). However, when testing the association between removal from the home (IV) and recidivism (mediator) in step one, we found no significant predictive relationship, $F(3, 161) = 3.01, p > .05$, thus subsequent steps could not be computed.

CHAPTER FOUR: DISCUSSION

Child maltreatment continues to render adverse short and long term outcomes, including severe adjustment issues, delinquency, and mental health repercussions (Annerbäck et al., 2012; Hildyard & Wolfe, 2002; Mendoza, 2013; Reese-Weber & Smith, 2011). Given these outcomes, as well as the continued prevalence of child maltreatment, it is essential to continue to prioritize prevention measures. Child Protective Services (CPS) is the government agency that assumes responsibility preventing and intervening in maltreatment situations by providing families with services, connecting families with other resources (e.g., therapy), and even removing children from the home in serious situations. Much of the research on child maltreatment has focused on identifying risk factors for child abuse and reabuse, or recidivism (Famularo & Kinscherff, 1992; Rittner & Dozier, 2000), but often does not focus around CPS involvement and the effects on recidivism (Solomon & Åsberg, 2012). Research focusing on Child Protective Services and their role in predicting recidivism can inform state and federal agencies on how to best intervene to prevent multiple instances of child maltreatment within a family. Research on child maltreatment and CPS involvement have identified several predictors of child abuse and reabuse, including parents' age, socioeconomic status, and substance misuse (Califano, 2003; Connell et al., 2007, English et al., 1999). Parental substance use has often (Grant et al., 2011; Wolock & Magura, 1996) but not always (Solomon & Åsberg, 2012) predicted maltreatment recidivism and severity. Understanding substance abuse and its role in parenting and CPS involvement may be important in designing successful interventions to prevent maltreatment recidivism.

The current study aimed to focus on the inconsistencies in substance abuse as it relates to child maltreatment. This research targeted group differences between different categories of

substance abuse, as well as their covariance and effect on other CPS identified risk factors, as assessed by the Haywood County Department of Social Services (HCDSS). Thus, archival data was collected from 191 cases from HCDSS in rural western North Carolina.

The results of the study indicate that neither illicit substance abuse nor alcohol abuse was predictive of severity as measured by other overall risk factors documented by the Family Assessment of Abuse and Neglect. Though it is possible that including more families in the sample *may* have yielded more significant results, it is also possible that variables not examined in this study, such as stress coping skills, would better explain the relationships between risk factors and recidivism, or that the substance abuse variable is only relevant in certain contexts, such as when it leads to physical abuse of a child. Another plausible explanation is that substance the ‘risk factor index’ is not the best indicator of abuse severity of the abuse. This would be supported by our findings suggesting that illegal substance abuse either with or without alcohol abuse tends to predict severity in removal from home, but is not predictive of other risk factors that sometimes predict severity. Illicit substance abuse was found to be predictive of removal from home and recidivism, while alcohol misuse was not found to be predictive of removal from home, other risk factors, or recidivism/re-abuse. Removal from the home, then, may be viewed as a more robust proxy for severity (Berger, Bruch, Johnson, James, & Rubin, 2009) than the combined number of risk factors, in which case illicit substance use is indeed a predictor and warrants further attention.

Less powerful chi square analyses indicated that children in families where alcohol and drugs were abused were more likely to be removed from the home. Children in families where caregivers used substances without any alcohol abuse were also more likely to be temporarily or permanently removed. Results also showed that removal was more likely to occur in families

where families with poly AOD use than in families with no substance or alcohol abuse. This suggests a relationship between multiple substances and DSS action to remove children from the environment.

Next, two logistic regressions were used to identify certain risk factors (i.e., alcohol and substance abuse in conjunction with certain background variables (i.e., index event was for physical abuse v. sexual abuse) in predicting both recidivism and removal from home. Parental substance abuse, child(ren)'s physical health issues, finding of physical abuse, and finding of sexual abuse were all related to a child's removal from home. Using the same variables, only substance abuse was related in recidivism as indicated by another indexed maltreatment event. This finding is noteworthy, in that it corroborates previous research indicating that substance abuse plays a significant role in both child maltreatment recidivism as well as CPS involvement (Donohue et al., 2012; Grant et al., 2011; Mirick, 2014; Wolock & Magura, 1996). Additionally, similar to results from Solomon and Åsberg (2012), certain well-established predictors, such as having children with disabilities (e.g., Connell, et al. 2007) were not found to be significant in this model. Additionally, dissimilar to other findings (e.g., Hindley, et al., 2006), CPS findings of neglect were not predictive of parental reabuse; however, this may be due to the large amount of neglect findings in cases in comparison to other charges, such as physical abuse or sexual abuse. These findings strongly suggest that illicit substance abuse especially plays a role in both removal from the home and recidivism, and that sexual abuse also plays a large role in CPS decisions of removal from home.

Contrary to our final hypothesis, results did not indicate that the number of risk factors mediated the association between removal from the home and recidivism. Unlike the results of Solomon and Åsberg (2012), there was not a significant relationship between removal from the

home and recidivism in this larger sample, nor was there a relationship with either of these and the number of risk factors associated in maltreatment. This may have been due to extended sample size, or may have reflected changes in interventions (e.g., removal from home) in years after the previous study. Also, given that the present study did not have access to intervention adherence data, conclusions about the effectiveness of other interventions (besides removal from the home) cannot be drawn. Substance use, especially illicit drug use, may warrant further examination in the context of internalizing problems (e.g., depression), as such problems have shown a stronger correlation with child abuse potential relative to substance use in previous studies (Solomon, Morgan, Asberg, & McCord, 2014).

Inferences

The results of this study may have relevance to Child Protective Services practices in understanding substance abuse. Continued research in AOD misuse and child maltreatment as it relates to CPS is essential to understanding the findings of this study as it relates to previous investigations involving these variables. What was most significant in this study is the misuse of illicit substances as it relates to both removal from the home and reabuse. This likely strongly relates to the fact that when CPS finds illicit substance use, parents often are involved with both the DSS system and the criminal court system. In these cases, it may be essential to try and provide early intervention systems to prevent both relapse for substance use and child maltreatment recidivism. Additionally, the results of this research may provide information into further investigation of links between substance use, child maltreatment, and other parental variables (e.g., stress coping). Research provides evidence that poor stress coping can lead to psychological problems including SUDs and depression, which has been found to be linked to maltreatment (Shanahan, 2011). Lack of resources often results in a lack of counseling services

of parents (occurring in approximately 25% of cases in this study), and it may be imperative that CPS require more caregivers to attend counseling in appropriate cases, as it has previous showed improvement in parenting and SUD use (Palusci & Ondersma, 2012).

Limitations

This study includes several limitations notable of consideration. Foremost, the data used for the current research was archival, and all CPS interventions were not controlled nor randomly assigned, resulting in numerous extraneous variables that may have affected the outcomes, including whether or not parents enrolled in recommended interventions. Different social service employees collected the data used and results were heavily affected by their judgment. CPS documents are largely evaluations from social workers, and their assessments are often what becomes the most salient in case. Therefore, in this research it cannot be assumed that all DSS employees used the same criteria to measure maltreatment, SUD abuse, or other variables examined (Donohue et al., 2014). When added to the inherent complexity of families involved in CPS, it makes the causality impossible to determine in this study. To address this, CPS workers may seek to include more standardized testing of parents for SUD variables, and randomly assign interventions to understand causality.

Related to CPS employee judgments, the current study only relates to substantiated cases determined by social workers involved in these cases. There were several cases reported where sufficient evidence was not reached for a finding of substantiated maltreatment. Finally, the population of this study was largely homogeneous, and it is difficult to generalize the results of this study to minority populations. The results of this study did compare well to the population of Haywood County, NC, that found that of 94% of the population identified as Caucasian (2013). The DSS reports often mistakenly identified mixed-race or undetermined race individuals as

Caucasian. Further research in this population could seek to better follow individuals of the maltreatment, rather than families, which would help to more specifically identify background variables of both parents and children.

Even with the noted limitations, the current study provided new evidence about the role of substance and alcohol abuse as it relates to child maltreatment and Child Protective Services interventions, and addressed the importance of exploring SUD and other recidivism variables. This research seeks to inform DSS and CPS policy and enquiries toward effective interventions. This can encourage more action toward lowering the distressing rates of child abuse and reabuse.

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Appendix A

1

NORTH CAROLINA FAMILY RISK ASSESSMENT OF ABUSE/NEGLECT

Case Name: _____ Case #: _____ Date: _____
 County Name: _____ Social Worker Name: _____ Date Report Received: _____
 Children: _____
 Primary Caregiver: _____ Secondary Caregiver: _____

(Regardless of the type of allegations reported, ALL items on the risk assessment are to be completed.)

NEGLECT	Score	ABUSE	Score
N1. Current Report is for Neglect		A1. Current Report is for Abuse	
a. No 0		a. No 0	
b. Yes 1		b. Yes 1	
N2. Number of Prior Assigned Reports		A2. Prior Assigned Abuse Reports	
a. None 0		a. None 0	
b. One 1		b. Abuse report(s) 1	
c. Two or more 2		c. Sexual abuse report(s) 2	
		d. Both b and c 3	
N3. Number of Children in the Home		A3. Prior CPS Service History	
a. Two or fewer 0		a. No 0	
b. Three or more 1		b. Yes 1	
N4. Number of Adults in Home at Time of Report		A4. Number of Children in the Home	
a. Two or more 0		a. One 0	
b. One or none 1		b. Two or more 1	
N5. Age of Primary Caregiver		A5. Caregiver(s) Abused as Child(ren)	
a. 30 or older 0		a. No 0	
b. 29 or younger 1		b. Yes 1	
N6. Characteristics of Primary Caregiver		A6. Secondary Caregiver has a Current Substance Abuse problem.	
<i>(check and add for Score)</i>		a. No, or no secondary caregiver 0	
a. Not applicable 0		b. Yes (check all that apply)	
b. Lacks parenting skills 1		Alcohol abuse problem 1	
c. Lacks self-esteem 1		Drug abuse problem 1	
d. Apathetic or hopeless 1		A7. Primary or Secondary Caregiver Employs Excessive and/or inappropriate Discipline	
N7. Primary Caregiver Involved in Harmful Relationships		a. No 0	
a. No 0		b. Yes 2	
b. Yes, but not a victim of domestic violence 1		A8. Caregiver(s) has a History of Domestic Violence	
c. Yes, as a victim of domestic violence 2		a. No 0	
N8. Primary Caregiver has a Current Substance Abuse Problem		b. Yes 1	
a. No 0		A9. Caregiver(s) is a Domineering Parent	
b. Alcohol only 1		a. No 0	
c. Other drug(s) (with or without alcohol) 3		b. Yes 1	
N9. Household is Experiencing Severe Financial Difficulty		A10. Child in the Home has a Developmental Disability or History of Delinquency	
a. No 0		a. No 0	
b. Yes 1		b. Yes (check all that apply) 1	
N10. Primary Caregiver's Motivation to Improve Parenting Skills		Developmental disability including emotionally impaired	
a. Motivated and realistic 0		History of delinquency	
b. Unmotivated 1		A11. Secondary Caregiver Motivated to Improve Parenting	
c. Motivated but unrealistic 2		a. Yes, or no secondary caregiver in home 0	
N11. Caregiver(s) Response to Assessment		b. No 2	
a. Viewed situation as seriously as social worker and cooperated satisfactorily 0		A12. Primary Caregiver Views Incident Less Seriously than Agency	
b. Viewed situation less seriously than social worker 1		a. No 0	
c. Failed to cooperate satisfactorily 2		b. Yes 1	
d. Both b and c 3			
TOTAL NEGLECT RISK SCORE	_____	TOTAL ABUSE RISK SCORE	_____

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