

**THE ROLE OF RACE AND CARETAKER SUBSTANCE ABUSE IN CHILD
PROTECTIVE SERVICES RESPONSES TO CHILD ABUSE REPORTS**

by

Kevin M. Ralston

A thesis submitted to the Faculty of the University of Delaware in partial
fulfillment of the requirements for the degree of Master of Arts in
Sociology

Fall 2009

Copyright 2009 Kevin M. Ralston
All Rights Reserved

**THE ROLE OF RACE AND CARETAKER SUBSTANCE ABUSE IN CHILD
PROTECTIVE SERVICES RESPONSES TO CHILD ABUSE REPORTS**

by

Kevin M. Ralston

Approved: _____
Cynthia Robbins, Ph.D
Professor in charge of thesis on behalf of the Advisory Committee

Approved: _____
Ronet Bachman, Ph.D
Chair of the Department of Sociology

Approved: _____
George Watson, Ph.D
Interim Dean of the College of Arts and Science

Approved: _____
Debra Hess Norris, M.S.
Vice Provost for Graduate and Professional Education

ACKNOWLEDGMENTS

The analyses presented in this thesis were based on data from the National Child Abuse and Neglect Data System (NCANDS) Child File, FFY 2006. These data were provided by the National Data Archive on Child Abuse and Neglect at Cornell University, and have been used with permission. The data were originally collected under the auspices of the Children's Bureau. Funding was provided by the Children's Bureau, Administration on Children, Youth and Families, Administration for Children and Families, U.S. Department of Health and Human Services. The collector of the original data, the funding agency, NDACAN, Cornell University, and the agents or employees of these institutions bear no responsibility for the analyses or interpretations presented here. The information and opinions expressed reflect solely the opinions of the author.

TABLE OF CONTENTS

LIST OF TABLES.....	v
ABSTRACT.....	vi
INTRODUCTION.....	1
LITERATURE REVIEW.....	3
<i>Child Maltreatment Literature</i>	3
<i>Substance Abuse and the CPS Investigation</i>	6
<i>Disparities in Social Services</i>	8
<i>Reporting Phase</i>	10
<i>Substantiation Phase</i>	12
<i>The Disposition: Family Preservation Services Versus Foster Care</i>	14
<i>Contributions to Literature</i>	18
METHODS.....	19
<i>Description of Data</i>	20
<i>Research Design</i>	25
<i>Variables</i>	28
<i>Length of the Investigation</i>	33
<i>Substantiation Phase</i>	37
<i>Disposition Phase</i>	37
RESULTS.....	39
<i>Hypothesis 1</i>	39
<i>Hypothesis 2</i>	40
<i>Hypothesis 3</i>	42
<i>Hypothesis 4</i>	43
<i>Hypothesis 5</i>	47
DISCUSSION.....	49
<i>Investigation Length</i>	49
<i>Substantiated Claims of Abuse</i>	51
<i>Disposition</i>	53
CONCLUSION.....	58
REFERENCES.....	63
APPENDICES.....	69

LIST OF TABLES

Table 1: Descriptive Statistics in Percents for Different Subset of Cases from the 2006 NCANDS Child File.....	69
Table 2: Tolerance and Variance Inflation (VIF) Values for Independent Variables..	71
Table 3: OLS Regression Results Predicting Time it Takes and Investigation to Begin.....	72
Table 4: OLS Regression Results Predicting Investigation Length.....	74
Table 5: Logistic Regression Results Predicting Substantiated Claims of Abuse.....	76
Table 6: Logistic Regression Results Predicting Family Preservation Services.....	78
Table 7: Logistic Regression Results for Predicting Foster Care Services.....	80
Table 8: Logistic Regression Results Predicting the Filing of a Juvenile Petition.....	82

ABSTRACT

It is believed that approximately 30% of the child maltreatment cases involve a caretaker with a substance abuse problem. Previous literature has established a link between caretaker substance abuse and child maltreatment. However, little research has examined how caretaker substance abuse and race together influence the Child Protective Services investigation of child abuse reports. A series of regression analyses examine African American/White disparities at three distinct points in the investigation process: length of the investigation, substantiation, and disposition. The results do not indicate a racial disparity exists at any point in the investigation. Instead, other factors stereotypically associated with residents of poor inner-city communities, have the largest influence on the decision, especially in cases where a decision includes out-of-home placement or criminal justice involvement. This could indicate a medicalization of caretaker substance abuse in the cases that do not involve serious sanctions, while those cases deemed more serious, underlying stereotypes take over and influence the disposition of an investigation.

INTRODUCTION

Child abuse is a horrific crime. Every year, there are countless children abused, but too little attention is paid to the victims. During fiscal year 2006, approximately six million children were referred to Child Protective Services based on an estimated 3.3 million claims of child abuse and neglect (U.S. Department of Health and Human Services, 2006). Of the 3.3 million suspected cases of child abuse and neglect, 61.7% (approximately 2.04 million cases) reached the report phase, meaning a formal investigation or another response based on the specifics of the case was completed. A claim of abuse or neglect was deemed credible for approximately 28.6% or 580,000 of the cases that reached the report phase (U.S. Department of Health and Human Services, 2006). The media follows mostly high profile kidnappings, disappearances, or occasionally inappropriate behavior between teachers and their students. However, the media portrayal of the child abuse victim does not reflect reality. The majority of victims who come in contact with child protective service agencies are of low socioeconomic status, and a disproportionate number of these victims are African American (Ards et al., 2003; Feiring, Coates, and Taska, 2001; Fluke et al., 2003; Schuck, 2005).

It is estimated that more than eight million children live with a caregiver who has a substance abuse problem (SAMHSA, 2009). This puts these children at a

greater risk of being abused (four times greater) or neglected (three times greater) by their primary caregiver than children living in a household without a primary caregiver with a substance abuse problem (Kelleher et al., 1994). There is a large estimated range for the number of child abuse cases that involve a caretaker with a substance abuse problem. The Health and Human Services (1997) report estimates that 30% of child abuse cases involve a caretaker with a substance abuse problem. However, the majority of studies agree that the range is between 33% and 66% of child maltreatment cases involve a caregiver with a substance abuse problem (HHS, 1999). Regardless, it is evident that substance abuse is highly related to child abuse victimization. It is important to examine the services that child abuse victims receive since a large proportion of children receiving state services belong to a marginalized group and live with a caregiver with a substance abuse problem. This research examines whether there are racial disparities in the treatment that victims of child maltreatment receive when caretaker substance abuse is present and they are referred to Child Protective Services (CPS).

This study examines racial disparities at three points in the investigative process: substantiation of claim, length of investigation, and disposition of the investigation. This is an important issue to research due to the link between child abuse victimization and later negative life outcomes, including juvenile and adult

criminal activity (Brezina, 1998; Fagan, 2005; Feiring, Miller-Johnson, and Cleland, 2007; Maas, Herrenkohl, and Sousa, 2000; 8 Makarios, 2007; McDaniels-Wilson and Belknap, 2008; Ryan and Testa, 2005; Siegel and Williams, 2003), continued child abuse victimization (Connell et al., 2007; Dong et al., 2003; Rich et al., 2005), lower economic attainment (Lansford et al., 2007; Macmillan and Hagan, 2004), decreased mental health, increased substance use (Goodkind, Ng, and Sarri, 2006; Moran, Vuchinich, and Hall, 2004), and an increased chance of becoming an abuser (Fagan, 2005). Therefore, disparities in the treatment of child abuse victims are important to consider because inadequate treatment of a certain group can put that group at a greater risk for negative outcomes later in life.

LITERATURE REVIEW

Child Maltreatment Literature

Prior to examining the treatment of child abuse victims, it is important to review some of the basic literature on child maltreatment, including characteristics of the abused population and predictors of becoming an abused child. The child maltreatment literature indicates a disproportionate number of the child abuse victims referred to Child Protective Services are members of a minority group (Ards et al., 2003; Feiring et al., 2001; Fluke et al., 2003; Schuck, 2005). Ards and colleagues

(2003) examined two reputable compilations of data to examine whether African Americans are disproportionately represented in the population of maltreated youth. They conclude that the disproportionate representation of African American youth in the child maltreatment population is not a result of reporting bias, and instead indicates that the disparities in both the National Child Abuse and Neglect Data System (NCANDS) and the National Incidence Study of Child Abuse and Neglect (NIS) data sets reflect actual racial differences in the likelihood of child victimization¹. Fluke and colleagues (2003) examined the NCANDS data to determine any disparity in racial and ethnic representation at both the investigation and disposition phases. Of approximately 700,000 child victims from five states (selected as a result of the racial and ethnic make-up of the population), the researchers concluded that in all five states, at both the investigation and disposition phases, African Americans were over represented and Whites were under represented. Similar to the conclusion of Ards et al. (2003), Schuck (2005) found that the disparity between African Americans and Whites in the child maltreatment population cannot be explained simply by controlling for any single variable. For instance, Schuck concluded the difference in the percentage of female-headed households between African Americans and Whites

¹ Ards et al. (2003) found, among welfare cases, that half of the difference in African American and White maltreatment was the result of different rates of substantiation; among non-welfare cases, approximately half of the African American and White difference in maltreatment is the result of a difference in the rates of allegation. In both instances, only half of the racial disparity can be explained.

could only explain some of the disproportionate representation of African Americans in the child maltreatment population. Therefore, other factors must explain the remainder of the disparity. Based on these studies, it is evident that African Americans are disproportionately represented in the population of maltreated children, but it is unclear why the disparity exists.

Both community and individual factors determine why racial disparities exist in the population of maltreated youth. Community level characteristics that predict child maltreatment rates for African Americans include high rates of poverty, concentration of liquor stores, decreasing population, an increase in residents who move, and an increase in the percentage of African American residents. For Hispanics, child maltreatment is associated with poverty, unemployment, and the percent of households headed by women, and for Whites with an increased elderly population, poverty, an increased ratio of children to adults, and a larger percentage of Hispanic residents² (Freisthler, Bruce, and Needell, 2007). Individual characteristics that predict child maltreatment include substance use by the primary caregiver (Yampolskaya and Banks, 2006), a decrease in income for single-parent families (Berger, 2005), caregiver depression, maternal alcohol consumption, and a history of family violence for both single and two parent families (Berger, 2005).

² Freisthler, Bruce, and Needell (2007) examined 940 census tracts in California to determine whether neighborhood characteristics predicted child maltreatment rates for African American, Hispanic, and White children.

Other characteristics put a child at greater risk for repeated abuse, including certain characteristics of an infant's first maltreatment episode such as caretaker emotional disturbance and violence between caregivers (Palusci, Smith, and Paneth, 2005), and foster care placement (Fluke et al., 2008). A decreased likelihood of subsequent abuse is related to having a caretaker with a high school diploma, permanent exit from welfare benefits, and receipt of family preservation services (Drake, Johnson-Reid, and Sapokaite, 2006).

Substance Abuse and the CPS Investigation

Another characteristic that influences all three phases of the Child Protective Services investigation is substance abuse, especially alcohol abuse, by the primary caregiver of the suspected maltreated child. Substance abuse by the primary caregiver negatively affects children during their childhood and later in their lives. Many studies have examined the link between caretaker substance abuse and child maltreatment. However, there is no consensus as to the exact number of cases that involve caretaker substance abuse, leading to a very large range of estimates. In a review of past literature, Young, Boles, and Otero (2007) estimated the range falls somewhere between 11% and 79%. Semidei, Radel, and Nolan (2001) undertook a similar process and found the range to be between 5% and 60%. While neither study could reach a consensus on the percentage of child maltreatment cases that involve

caretaker substance abuse, it is evident that estimates depend on how substance abuse is defined and how intensively possible caregiver substance abuse is probed. If the higher estimates are correct, caretaker substance abuse has a large impact on the child maltreatment population. As a result, it is very important to examine how it affects both the child victims and the investigation process.

Regardless of the non-consensus of estimated abuse claims involving caretaker substance abuse, it is evident that caretaker substance abuse has a major impact on child maltreatment. Dube and colleagues (2001) examined the link between parental alcohol abuse and adverse childhood experiences. They found that alcohol abuse by either parent increased the likelihood of adverse childhood experiences, including verbal abuse, physical abuse, sexual abuse, emotional neglect, physical neglect, battered mother, household substance abuse, mental illness in household, parental separation or divorce, and incarcerated household member, with the likelihood increasing even more when both parents abuse alcohol.

Examining community level characteristics that influence rates of referral, substantiation, and foster care placement, Freisthler and colleagues (2007) found that the number and proximity of alcohol outlets is positively correlated to all three phases of an investigation. Implementing a spatial random effects panel model method, they studied 579 zip codes in California between 1998 and 2003, and concluded that

reducing the number of alcohol outlets in each zip code, even by one, can significantly decrease the number of children referred as suspected victims of maltreatment, meaning a decrease in the number of substantiated maltreatment cases and children placed in foster care. The problem with this conclusion by Freisthler and colleagues (2007) is that it implies that the availability of alcohol causes child maltreatment, and that if alcohol is banned or is harder to obtain, child maltreatment will be dramatically reduced. They mention, but do not take into account the role household size and the concentration of poverty might have on their results and conclusions. Therefore, they do not account for the possibility that some other factor causes both the high incidence of child abuse and prevalence of alcohol outlets.

Disparities in Social Services

Social service agencies are not perfect. Sometimes these agencies appear to assist a certain segment of the population more than others, thus creating disparities. Instead of examining many different social service issues, this section reviews how welfare reform affects women differently depending on their racial group.

The experience that women have on welfare differs. However, this should not be the case because of the strict requirements enacted with the passing of the Personal Responsibility and Work Opportunity Act (PRWORA) in 1996, which created Temporary Assistance for Needy Families (TANF). The main goal of TANF is to

reduce welfare rolls by transitioning welfare recipients into employment, and having strict regulations and time limits for receiving welfare benefits. With the strict rules, women receiving welfare should have the same experience with welfare agencies.

Women on welfare seek to increase their human capital through education and training programs. According to Bullock and Limbert (2003), women in these programs self-identify as both poor and middle class³, and through their hard work in these programs, they can achieve middle class status because education is the key to upward mobility in their minds. However, according to Jones-DeWeever, Dill, and Schram (2009), many of the education and training programs available through TANF do not work, and do nothing more than promote more low-income employment. Examining racial differences in these programs, welfare caseworkers are more likely to go the extra mile to provide extra benefits, such as transportation and childcare, for Whites compared to women of color (Jones-DeWeever, Dill, and Schram, 2009). This places women of color at a disadvantage in obtaining new education and skills, ultimately hurting them in a labor market that is already tilted towards the benefit of White women.

Since TANF was established in 1996, the welfare experience has not been particularly equitable. Even with strict eligibility requirements, African American and

³ Bullock and Limbert (2003) base their results on the survey responses of 69 women from a community college in California. The racial make-up of the sample of women was 48% European American, 29% Latina, 6% African American, 3% Asian, 1% Native American, and 13% other.

White women experience their time on welfare differently. If disparities exist in one social service agency, it is important to examine whether these disparities exist in other social service agencies. The remainder of this study focuses solely on the Child Protective Services investigation and whether any racial disparities exist in the process.

Reporting Phase

The reporting phase of the Child Protective Services investigation is important to examine in order to determine if, independently of actual prevalence of abuse, a specific group is more likely to be reported to Child Protective Services. This section reviews literature that examines the viewpoint of professionals to determine if a specific group is more likely to be reported to Child Protective Services. According to Ards, Chung, and Meyers (1998), there is a racial disparity in who is reported to Child Protective Services. They conclude that abuse of low-income White children is more likely to be reported than is abuse of White children from a higher socioeconomic class. However, African American children from a higher socioeconomic class are just as likely to be reported as low-income African American children. The difference may be a result of how professionals view maltreatment and race, including what groups of children they believe are more likely to be abused. In an analysis of all children under the age of three admitted to the Children's Hospital of Philadelphia

between 1994 and 2000 (n=414) for an acute primary skull or long-bone fracture, Lane and colleagues (2002) found that children from a minority group were more likely to be suspected as abuse victims, even after controlling for insurance status (a proxy for socioeconomic status). They concluded that the racial differences in Child Protective Services reporting are most pronounced for toddlers with accidental injuries.

Not only do some professionals view members of certain racial groups as more likely to be victims of child abuse, they also view members of lower socioeconomic classes as more likely to abuse and become child abuse victims. Berger and Brooks-Gunn (2005) examined 891 cases to determine whether certain family characteristics cause a nurse practitioner to suspect maltreatment during the first three years of a child's life. Based on material collected by a pediatric nurse practitioner during clinic visits by mothers and fathers of pre-term, low birth weight children, a perceived child maltreatment variable was established using information from a rating form each nurse practitioner was required to complete after each session. The forms asked "whether a family was (1) suspected of child neglect, (2) confirmed for child neglect, (3) suspected of child abuse, and (4) confirmed for child abuse" (Berger and Brooks-Gunn, 2005: p. 242). The results indicate that socioeconomic status and parental characteristics influence the nurse practitioner's decision regarding maltreatment of

young children. These results are troubling because a disproportionate number of African Americans are poor. As a result of no apparent racial bias by nurse practitioners, African Americans may be referred to Child Protective Services at greater rates for suspected maltreatment victimization due to their lower average socioeconomic status.

Another aspect of reporting to Child Protective Services is over and under reporting. This can not only put a certain group at a higher risk of involvement with social agencies, but can also impede the investigation by Child Protective Services by limiting their resources and causing them to investigate false claims. The other side of this argument is that not enough cases are reported. This can ultimately lead to children not being provided the appropriate treatment, which can ultimately hurt them later in life. According to Webster and colleagues (2005) the problem of under reporting child abuse cases to Child Protective Services is reduced when serious physical or sexual abuse is suspected. This does not mean that every suspected victim of serious and non-serious child abuse is referred to Child Protective Services. The cases that are referred appear to be disproportionately African American and poor.

Substantiation Phase

The substantiation phase is very important in the investigation process because it determines whether a suspected claim of child abuse is deemed credible or not. If

abuse is substantiated, possible dispositions include out of home placement, family preservation services, or referral to the criminal justice system.

Substantiation influences the disposition outcome in a Child Protective Services investigation. However, a substantiated claim of child abuse does not always have a significant effect on the behavior of a child. According to Hussey and colleagues (2005), substantiated abuse does not significantly change the behavior of children by age eight⁴. The researchers used official CPS reports to determine the maltreatment status of the children and relied on the Child Behavior Checklist (CBCL) administered to the parents when the children were eight-years old to determine any behavioral issues. Hussey and colleagues conclude that more research needs to be conducted to examine the entire range of ages during childhood. One reason there is no difference in behavior at age eight could be that children do not fully understand what happened to them. As they grow older, the issues might manifest themselves through their behavior. Therefore, it is important to study the entire childhood as Hussey and colleagues suggest, and also possibly include early adulthood in the analysis.

⁴ Hussey et al. (2005) examined whether there were any behavioral differences between children with substantiated abuse versus children with unsubstantiated claims of abuse by the age of eight. The study was limited to interviews conducted at age four and age eight to determine pre-adolescent behavioral issues associated with abuse victimization.

There are reliability concerns associated with the research design employed by Hussey and colleagues. The main focus of their research is determining whether maltreatment victimization causes behavioral problems in young children. However, the researchers do not use a uniform data collection process. While they focus on official reports in determining the maltreatment status of the child, they rely on parental reports when determining whether the same child is having behavioral problems. This could bias results if parents are inclined to deny that abuse they have committed or allowed has impacted the child. The study would benefit from the use of official reports in determining behavioral problems, or at least reports of an impartial professional.

The person who reports the case to Child Protective Services influences whether the claim of abuse is substantiated. According to Kesner (2007), when a child or a non-professional adult reports the abuse, the rate of substantiation decreases significantly. While the substantiation phase is important, the ultimate disposition decision is probably the most important in order to understand the episode's effect on the child.

The Disposition: Family Preservation Versus Foster Care

The disposition phase is important because it determines what will happen to both the victim and the perpetrator. This can involve out-of-home placement, family

preservation services, or involvement in the criminal justice system. This section examines literature pertaining to the disposition phase, as it relates to the family. The goal of this section is to shed light on how family preservation services are implemented and whether African American victims of child abuse are less likely to receive family preservation services rather than foster care. The main focus is on the child victim instead of the perpetrator because the services provided have a primary influence on the life of the child victim.

The goal of family preservation services is to keep the family together for the good of the child. According to Bagdasaryan (2004), increased duration of family preservation services is the best predictor of success⁵. The researcher examined the reasons for the closure of cases and coded the results into three categories; successful completion of the family preservation program, noncompliance by the parent, or unsuccessful completion of the program and child placed in foster care. The results indicate that family preservation services are most successful for two-parent headed households. Bagdasaryan found that family preservation services are 61% less likely to be successful for single-parent families when compared to two-parent households. This indicates a group with a disproportionate number of single-parent families is at a disadvantage for benefiting from family preservation services. If a single-parent heads

⁵ The results from Bagdasaryan (2004) are based on 488 families in Los Angeles County that received family preservation services.

a child's family, Child Protective Services might be less likely to refer the child for family preservation services. This increases the likelihood of dispositions other than family preservation services for children of single parents, which are disproportionately African American. In order for African Americans to become involved in family preservation services, the group must be targeted for placement. According to Denby and Curtis (2003), children of color are not targeted for intensive family preservation services. Instead, Denby and Curtis found that workers' attitudes, beliefs, and behaviors led them to ignore mandates, and not suggest family preservation services for African American families. This is based on the Decision Making Survey, a reliable 127-question Likert scale survey, completed by 500 family preservation workers from 250 agencies. The research by Denby and Curtis suggest that a bias against the involvement of African Americans in family preservation services exists, leading to increased referrals for African Americans to dispositions that do not preserve the family.

Foster care involves out-of-home placement of the child victim of abuse. This out-of-home placement may be provisional however, with the goal of eventual family reunification. In this sense, the goal is to separate the family, especially removing the child from an abusive situation or a situation where the youth is more at risk for abuse. However, foster care placement does not guarantee a non-abusive environment.

According to Fluke and colleagues (2008), foster care increases the likelihood of subsequent abuse. This is based on case-level data between 2001 and 2002 from the NCANDS. McMahon and Clay-Warner (2002) found that foster care placement also increased the likelihood of subsequent criminal behavior by the victimized youth. Child maltreatment victimization can increase the likelihood of adverse effects later in life if not treated properly.

Foster care appears to have a negative effect on the child victim of abuse. In regard to racial differences among placement in welfare, Lau and colleagues (2003) suggest that African American youth are placed in foster care at a significantly higher rate than are White youth even after controlling for gender, age, income, and youth self-reported maltreatment. This indicates African American children are placed in an at-risk situation, foster care, at a higher rate than their White counterparts. African American youth may be set-up for failure by the group that should be helping them. As Bishop and colleagues (2000) suggest, the foster care system fails victims of child maltreatment by not promptly placing them into safe permanent settings. All family preservation services should be exhausted before placing a child into a foster care setting.

Contributions to Literature

. This research intends to extend two aspects of the child maltreatment literature. First, the literature pertaining to length of the investigation and what it means to the well-being of the suspected child victim is non-existent. Through this research, I hope to start a dialogue regarding what the length of investigation means, and why an expedited investigation may or may not be beneficial to the child victim. This research also intends to further understanding of the association between caretaker substance abuse and child maltreatment. Based on the literature, we know that caretaker alcohol abuse increases the likelihood of child maltreatment (Berger, 2005; Dube et al., 2001; Freisthler et al., 2007; Yampolskaya and Banks, 2006), and that the availability of alcohol in a community increases the rates of referral to Child Protective Services, substantiation, and foster care placement (Freisthler et al., 2007). However, one area where the literature on caretaker substance abuse and child maltreatment is lacking is how does caretaker substance abuse influence the Child Protective Services investigation, and more importantly, does caretaker substance abuse affect the investigation process differently depending on the race of the child victim? The research intends to answer these questions and provide recommendations for how better to serve children who have been maltreated.

METHODS

The main goal of this study is to determine whether African American and White alleged victims of child abuse and neglect are treated differently by Child Protective Services when caretaker substance abuse is indicated in the investigation record. If racial disparities exist in any aspect of the investigation process, it is important to examine why the disparities exist, so we can better understand the situations surrounding child abuse and neglect, and how to better serve the child victims and the workers from Child Protective Services who are forced to make very difficult decisions.

This study examines disparities in the investigation process at three distinct points: length of the investigation, substantiation, and disposition. . Each point of the investigation process is important in its own right, but put together, the stages of the investigation influence the child victim at the time of the investigation and later in their lives. Each part of the investigation process ultimately influences the next chronological point of the investigation. Therefore, it is important to examine all aspects of the investigation instead of only one distinct point. This allows the analysis to determine at what point a disparity begins, and limits the possibility of falsely labeling a point of the investigation as the problem. For instance, if a researcher only examines the disposition phase of the investigation process and finds that a certain

group is disproportionately referred for foster care services, and concludes a racial disparity exists, the researcher may be missing the entire picture. While a racial disparity might not exist in the disposition phase of an investigation, other aspects of the investigation might also influence the eventual disposition, including over reporting of a certain group for suspected abuse or higher rates of substantiated abuse. Without implementing a research design that examines the entire investigation, a complete picture and explanation may be missed. Through the analysis of the entire investigation process, this study examines what, is causing a racial disparity and what policies need to be undertaken to ensure the disparity does not continue.

Description of Data

In order to examine the CPS investigation, this study statistically analyzes a subset from the 2006 National Child Abuse and Neglect Data System (NCANDS) Child File. This is a multi-state data set that consists of case-level data on juveniles who were referred to Child Protective Services (U.S. Department of Health and Human Services, 2008). The data have been compiled by the National Data Archive on Child Abuse and Neglect (NDACAN) located at Cornell University since 1995. The case-level data “include demographics of children and their perpetrators, types of maltreatment, investigation or assessment dispositions, risk factors, and services provided as a result of the investigation or assessment,” (U.S. Department of Health

and Human Services, 2008: p. 6). The variables include characteristics pertaining to the case, victim characteristics (age, gender, race, prior victimization, and living arrangements), the type of maltreatment, child risk factors (alcohol abuse, drug abuse, mentally challenged, emotionally disturbed, learning disability, physical disability, behavioral problem, and medical problem), caretaker risk factors (alcohol or drug abuse, mentally challenged, emotionally disturbed, visually or hearing impaired, learning disability, physically disabled, other medical problems, domestic violence, inadequate housing, and having financial problems), and various perpetrator characteristics (relationship with the victim, gender, race, and whether the perpetrator is a prior abuser).

The 2006 NCANDS Child File consists of 3,477,988 national cases of suspected child abuse. The data were compiled by state agencies during federal fiscal year 2006, October 1, 2005 through September 30, 2006. After the data were compiled by state agencies, the information was sent to the NDACAN at Cornell University. The NDACAN granted access to the NCANDS 2006 Child File for the research after the research was approved by the Institutional Review Board (IRB) at the University of Delaware and an application was sent to NDACAN requesting access.

The data package includes a random subset from the 2006 NCANDS Child File consisting of 10,023 child cases that the NDACAN randomly selects to provide a more workable data set for researchers. Two subsets of the random sample are used in the subsequent analyses reported here. The mean age of the suspected child victims in the random subset is 8.4 years old. The sample consists of 50.5% females, 24.2% African Americans, and 60.2% Whites. For further descriptive statistics from the random subset, refer to table 1 located in the appendix. Out of 10,023 cases in the random subset, 50.3% of the suspected child victims lived in a two-parent household at the time of the suspected abuse, while 39.4% lived in a single-parent household and 10.3% lived in a group home or other residential facility. The claims of abuse in the sample consist of 17.3% physical abuse, 49.1% neglect, 5.7% sexual abuse, 4.1% emotional abuse, and 7.3% other abuse including medical neglect. Out of all the claims of abuse from the sample, 22.2% were substantiated. In regards to the alleged perpetrator, 22.3% were African American, 63.6% were White, 96.1% were the parent of the victim, and 32.3% had been convicted of prior abuse. The average investigation began just under 3.5 days once a claim of abuse was reported and the average investigation took approximately 49 days. Once an investigation was completed, 7.5% resulted in family preservation services, 11.6% in foster care services, and 8.6% ended with a juvenile petition being filed in court. Prior to releasing the 2006

NCANDS Child File to researchers, the NDACAN undertakes a lengthy procedure to ensure the confidentiality of the children in the data set.⁶

For the purpose of this study, a subset of 520 cases indicating caretaker substance abuse (either alcohol or drug abuse) was created from the random sample provided by the NDACAN. If the study analyzed the entire data set, every result would be significant because the study would be examining the population rather than a sample. Moreover, substantially trivial differences would appear to be statistically significant if statistical tests were run with such a large N. The use of the random subset in the analysis should limit the problems associated with a large sample size, and since the sample is randomly selected, the results can be generalized to the population of child abuse investigations conducted by Child Protective Services.

The subset being analyzed consists of 520 cases that indicate caretaker substance abuse from the random sample of cases provided by the NDACAN for researchers. The mean age of the suspected child victims in the subset is 7.6 years old. The sample consists of approximately 51% females, 16.2% African Americans, and 74.8% Whites. For further victim characteristics from the random subset, refer to table 1 located in the appendix. Out of the 520 cases in the subset, 43.5% of the

⁶ For further information see pages 5-6 from U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families Children's Bureau. 2008. National Child Abuse and Neglect Data System (NCANDS) Child File, FFY 2006.

suspected child victims lived in a two-parent household at the time of the suspected abuse, while 49.7% lived in a single-parent household and 6.8% lived in other living arrangements, including a group home or other residential facility. The claims of abuse from the subset consist of 18.5% physical abuse, 58.5% neglect, and 4.2% sexual abuse. Out of all the claims of abuse from the subset, 47.5% resulted in a substantiated claim of abuse.

The subset containing the cases with caretaker substance abuse differs from the entire random sample in a number of ways. The first way that the two subsets differ deals with victim characteristics. The entire random sample consists of 24.2% African American victims, 60.2% White victims, 50.3% of the victims reside in a two-parent household while 39.4% reside in a one-parent household, 26.6% are former abuse victims, 49.1% of the cases are a result of neglect, and 22.2% of the abuse claims were substantiated. The subset containing the cases with caretaker substance abuse consists of more White victims (74.8%), less African American victims (16.2%), a greater percentage of victims residing in a one-parent household (49.7%), more victims with a history of past abuse (35.9%), a greater percentage of cases involving neglect (58.5%), and a much higher percentage of abuse claims becoming substantiated (47.5%).

Research Design

To examine any disparity, the study statistically evaluates two subsets, one containing 520 cases from the NCANDS 2006 Child File dataset and the other containing the substantiated cases (N=247) from that subset at three points of the investigation process: substantiation, final disposition, and length of the investigation. The analysis examines the two subsets to decipher between the cases that are merely reported indicating caretaker substance abuse, and those cases indicating caretaker substance abuse, where the claim is deemed credible and substantiated. It is important to examine both subsets because of the issue of over reporting of certain racial groups. As the literature says, certain groups are suspected as abuse victims and perpetrators more than other groups (Ards, Chung, and Meyers, 1998; Berger and Brooks-Gunn, 2005; Lane et al., 2002). Examining both the cases containing caretaker substance abuse, and then those cases containing caretaker substance abuse where the claim of abuse is actually substantiated allows this analysis to determine what factors lead to the over reporting, and what factors actually matter in determining whether a claim of abuse is substantiated. The analysis is limited to a Black/White comparison because of the limitations of the data set. The Hispanic variable is coded the same way as on the census, with a classification of Black or White and then Hispanic or not. For Simplicity, this analysis focuses on a Black/White comparison.

The analysis examines Black/White disparities during the investigation process with regards to the role that caretaker substance abuse has on the investigation. The NCANDS 2006 Child File incorporates two primary variables to measure caretaker substance use, differentiating between caretaker alcohol abuse and caretaker drug abuse. The investigation focuses on caretaker substance abuse because there is limited literature that focuses on the role that it plays in the Child Protective Services investigation of claims of child maltreatment. Instead the literature focuses on the correlation between caretaker substance abuse and child maltreatment, thus ignoring what part it plays in the investigations of that maltreatment.

The variables for caretaker substance abuse indicate whether the caretaker has a drug or alcohol problem. Each state determines how to code this variable based on directions issued to them from the NDACAN. The directions ask them to indicate whether the primary caretaker of the victim has an alcohol or drug problem that is not temporary. During federal fiscal year 2006, only 36 of 51 states provided data for these two variables, leading to missing data. Both the caretaker alcohol abuse and the caretaker drug abuse variables contain many missing cases (6606 and 6817 cases respectively). This means that an analysis using the random subset provided by the NDACAN that focuses on caretaker substance abuse will only contain a sample size of approximately 3200 out of the 10,023 cases in the random subset. However, the

number of missing cases does not hurt the analysis too much. The random subset of 10,023 cases contains 24.2% African Americans and 60.2% Whites. When examining a cross tabulation of African Americans and Whites with the caretaker alcohol abuse variable, the number of African Americans and Whites represented is 25.7% and 69.9% respectively. Similar results are illustrated when examining the cross tabulation of the two races and the caretaker drug abuse variable, with 25.8% African Americans and 69.9% Whites. The percentage of African Americans and Whites contained in the caretaker substance abuse subsample is very similar to the percentage of African Americans and Whites in the random subset of 10,023 cases. Therefore, even with the large amount of missing cases in the caretaker substance abuse variables, an analysis can still be undertaken that focuses on the role of caretaker substance abuse on the Child Protective Services investigation. However, it must be noted that when examining the role of caretaker substance abuse, Whites are over represented in the sample.

Each hypothesis and its corresponding statistical test examine two subsets. The first subset contains cases consisting of the cases with indicated caretaker substance abuse. The other subset consists of the substantiated cases with indicated caretaker substance abuse. In the section discussing the results, attention is paid to the similarities and differences between the two subsets and what this means in regards to

child abuse victimization and the investigation process undertaken by Child Protective Services.

Variables

The study consists of six regression analyses, and thus six different dependent variables. The study uses the same independent variables throughout to keep a uniform analysis. This section describes the study variables, including any recoding or creation of variables.

Dependent variables.

Investigation start timeframe.

The investigation start timeframe variable was created by calculating the time between the report date (RptDt) and the investigation start date (InvDate). The variable is measured in days.

Investigation length.

The investigation length variable was created by calculating the time between the investigation start date (InvDate) and the report disposition date (RpDispDt) to determine the length of an investigation once it begins. This variable is also measured in days.

Substantiated claim of abuse.

The substantiated claim of abuse variable was created by taking only the cases where a claim of abuse was substantiated. To do this, the substantiated variable was created with any case indicating substantiated from the Maltreatment-1 disposition level variable (Mal1Lev). In the new variable, zero refers to an unsubstantiated claim and one indicates a substantiated claim.

Family preservation services.

The family preservation services variable indicates whether a disposition included family preservation services, and was recoded so one indicates family preservation services was provided and zero indicates no family preservation services was provided.

Foster care services.

The foster care services variable indicates whether a disposition included foster care. The variable was recoded so one indicates foster care services and zero indicates no foster care services. Foster care is synonymous with out-of-home placement, which can include temporary or permanent out-of-home placement.

Juvenile court petition.

The juvenile court petition variable indicates whether a juvenile petition was filed in juvenile court, or the court with the original jurisdiction for the case, and was recoded so one indicates the filing of a juvenile petition and zero indicates no juvenile petition was filed. A juvenile petition has a wide range of uses, but the majority of juvenile court petitions are filed to indicate a “child be placed in an out of home setting” or change the status of the child by “requesting the child be declared a dependent or delinquent child” (Codebook: p. 32).

Independent variables.

Victim characteristics.

The analysis uses a number of victim characteristic measures as independent variables. The age of the victim variable (ChAge) measures the age of the victim in years. The gender of the victim variable (ChSex) indicates the gender of the alleged child victim, and was recoded so zero indicates male and one indicates female. In the analysis, the gender variable has been renamed the female variable. The race of the victim variables are coded as dummy variables, with separate variables indicating a White victim (ChRacWh) and an African American victim (ChRacBl). Each of the race variables was recoded, so one indicates that the victim is that race and zero indicates

the victim is not that race. Since the analysis focuses on the Black/White comparison, only the White and African American victim variables will be used in the analyses.

Living arrangements.

The living arrangement variable (ChLvng) indicates where the child victim was living at the time of the alleged abuse incident. The NCANDS originally has the victim's living arrangements coded into one variable. For the purpose of the analyses, the variable was recoded into a series of dummy variables indicating the victim was living in a two-parent household, one-parent household, or other living arrangements. Each variable is coded so zero indicates the child was not living in that arrangement and one indicates the child was living in that arrangement.

Type of abuse.

The type of abuse variable (ChMal1) is coded as one variable in the NCANDS data set. Similar to the living arrangements variable, the type of abuse variable was recoded into a series of dummy variables for the analyses to indicate physical abuse, neglect, sexual abuse, emotional abuse, and other types of abuse, which includes medical neglect.

Alleged Perpetrator characteristics.

The study implements only one variable pertaining to alleged perpetrator characteristics. The only alleged perpetrator characteristic included in the study is the

prior abuser variable (Per1Pior) indicating whether the perpetrator has a history of being an abuser, with one indicating yes and zero indicating no. The analysis does not contain the perpetrator as a parent variable because of the high percentage of cases that involve a perpetrator as a parent, 99.5% for the subset consisting of the cases with caretaker substance abuse and 96.2% for the subset containing the substantiated cases. The high percentages do not allow for a comparison group, since basically the entire subset deals with a parent who is the alleged perpetrator. As a result, the variable is not used as an independent variable in any of the statistical tests. Since the percentage of cases involving an alleged perpetrator who is the parent of the victim is so high, the analyses do not include the race of the alleged perpetrator. The race of the alleged perpetrator and victim would be the same because of the high percentage of parents as alleged perpetrators. As a result, inclusion of the race of the alleged perpetrator would lead to issues surrounding multicollinearity. The gender of the alleged perpetrator is also not included in the analyses because when a claim of abuse is reported, there might be multiple alleged perpetrators with multiple genders. This has led to a large number of missing cases for the gender of the alleged perpetrator. As a result, the analysis will also not include the gender of the alleged perpetrator.

Length of the Investigation

The first two hypotheses examine whether caretaker substance abuse influences the length of the investigation differently for White and African American victims of child maltreatment.

H₁: Investigations will take significantly longer to begin once a claim of abuse is reported to Child Protective Services for African Americans compared to Whites.

The new investigation start timeframe variable acts as the dependent variable, and is regressed on the independent variables. As a result of the nature of the dependent variable, the first statistical model implements ordinary least squares (OLS) regression. The independent variables for the first regression model are a mixture of victim characteristics (age, gender, and race), the type of suspected maltreatment, and an alleged perpetrator characteristic (prior abuser). Within the independent variables, there are two sets of dummy variables. The first set of dummy variables is for the race of the victim. Included in the analysis is the African American victim variable, and the White victim variable is excluded making it the reference variable. The type of suspected maltreatment variables are set-up as dummy variables. The neglect variable is excluded in the regression analysis, and thus is the reference variable, while the physical abuse, sexual abuse, emotional abuse, and medical neglect variables are

included in the analysis. The independent variables remain the same throughout the subsequent regression analyses, including the same reference variables in each set of dummy variables.

Prior to performing any analyses, diagnostics were performed to assess multicollinearity, missing data, and heteroskedasticity. The first process performed was to test each variable for missing data. This was accomplished by performing frequency graphs to determine the amount of cases that have missing data. Based on an examination of the frequency distribution of all the study variables, only the caretaker substance abuse variables have a large number of missing data. As indicated in the previous discussion of the two variables, the remaining values are consistent with the population of the entire random subset, and therefore the random sample was subsetting based on the results of caretaker substance abuse variables. . In instances with missing data, those cases are excluded from the analyses in a pairwise method, as is the default method of the SAS statistical software package.

To reduce the possibility of multicollinearity, a high correlation between the independent variables, the research regressed one of the independent variables on all the others to test how correlated they are to one another. Then, the tolerance score ($1 - R^2$), and variance inflation factor (VIF) were examined. Low tolerance scores were examined more closely, as they imply less independence from the other independent

variables. The tolerance and VIF values for each subset are recorded in table 2. The VIF values for the subset containing the cases with caretaker substance abuse range from 1.04 (other living arrangements) to 6.31 (African American victim). The two variables with the highest correlation are the African American victim and White victim variables with VIF values of 6.31 and 6.27 respectively. The VIF values for the subset containing the substantiated cases with caretaker substance abuse range from 1.06 (female victim) to 4.34 (African American victim). The two independent variables with the highest correlation in this subset are the White victim and African American victim variables, with VIF values of 4.18 and 4.34 respectively. Since no VIF value for either subset is greater than 10, it can be determined that multicollinearity is not an issue for the independent variables.

The final diagnostic test of the independent variables is to test for heteroskedasticity. This was accomplished by using the White test, which examines the homogeneity of the residual variance. The null hypothesis for the White test is that the variance for the residuals is homogenous, meaning a significant result signifies the residuals are not homogenous, thus indicating issues with heteroskedasticity. Therefore, non-significant results for the White test are desirable. The chi-square value for the White test coinciding to the subset containing the cases with caretaker substance abuse is 11.03 with a corresponding significance level of 1.000, thus

indicating the variance of the residuals for this subset are homogenous. The chi-square value for the White test analyzing the subset containing the substantiated cases with caretaker substance abuse is 14.46 with a corresponding significance level of 1.000, meaning the variances of the residuals for this subset are also homogenous. Therefore, neither subset has an issue with heteroskedasticity.

The results of the first regression model examine how quickly Child Protective Services begins an investigation once a claim of abuse is reported and determine whether this period of time is significantly different when comparing two racial groups. The second hypothesis and regression model examine the same concept, but across the entire length of the investigation.

H₂: The length of the investigation will be shorter when an issue of caretaker substance abuse exists if the suspected claim of maltreatment involves an African American victim compared to a claim of maltreatment involving a White victim.

The new, length of investigation, variable acts as the dependent variable and is regressed on the same independent variables used to test Hypothesis 1. A disparity in the length of an investigation does not necessarily mean one group is being discriminated against. It does raise the question whether a short investigation is better than a long investigation, and what a long versus short investigation means.

Substantiation Phase

The next hypothesis examines racial disparities in the substantiation of suspected claims of maltreatment when caretaker substance abuse is present. The statistical test examines only the subset containing cases with caretaker substance abuse because the dependent variable is the substantiated claim of abuse variable.

H₃: When a caregiver has a substance abuse problem, the claim of abuse is more likely to be substantiated if the race of the victim is African American.

The statistical model employs logistic regression due to the dichotomous dependent variable indicating whether a claim of abuse is substantiated. The independent variables for this logistic regression model remain the same as the first two statistical models. This hypothesis and the corresponding regression analysis intend to determine whether the characteristics of the primary caregiver influence the investigation process differently for African Americans than Whites. Will the negative stigma associated with African Americans and drug/alcohol abuse permeate into the decision making process for child abuse investigation?

Disposition Phase

The fourth hypothesis and regression model examine the role caretaker characteristics and drug and alcohol abuse have on the disposition of child abuse investigations.

H₄: When a caregiver has a substance abuse problem, family preservation services is a more likely disposition if the victim is White.

For this regression model, the dependent variable is a family preservation services variable, indicating whether the victim and his/her family received family preservation services. Since the dependent variable is dichotomous, the fourth statistical model implements logistic regression. The independent variables for the model remain the same as the other statistical models. The final hypothesis intends to examine the role of race in determining juvenile court petitions in cases of caretaker substance abuse and child victimization.

H₅: In cases where there is a substance-abusing caretaker, African Americans are more likely to have a juvenile petition filed.

The dependent variable for this logistic regression model indicates whether a juvenile petition was filed, and therefore whether the disposition of the case involved criminal justice contact. The independent variables for the final regression model remain the same as the other statistical models. The results of the research will help to determine if caretaker substance abuse issues lead to criminal justice involvement more for one race as opposed to another race.

RESULTS

Hypothesis 1

The first statistical model regressed investigation start timeframe on victim's age, female victim, African American victim, one-parent household, other living arrangements, physical abuse, sexual abuse, emotional abuse, medical neglect, and prior abuser using ordinary least squares regression (OLS). The results of the statistical test are recorded in table 3. As indicated in the methods section of this research, the regression was conducted using two subsets of the random sample provided by the NDACAN.

The first subset consists of cases with caretaker substance abuse indicated. The analysis consists of 395 cases, with an R-square of 0.03. The F-value of the model is 1.36, with a corresponding significance of 0.196, meaning the model is not significant and any results from the model need to be interpreted with a grain of salt. The model produced one significant result for the sexual abuse variable. The results for the sexual abuse variable produced a coefficient of 13.2, with a corresponding significance level of 0.013. The results for the sexual abuse variable indicate that cases involving sexual abuse allegations on average take approximately 13 days longer to start than cases involving neglect allegations.

The other subset being analyzed in the analysis consists of the substantiated cases with caretaker substance abuse indicated. For this statistical test, the same variables were tested, producing an R-square of 0.04 based on 184 cases. The F-value is 0.88, with a corresponding significance level of 0.543, meaning this model is also not significant. The model produced no significant results, although one near significant result for the sexual abuse variable. The coefficient for the sexual abuse variable is 14.4, meaning that on average investigations take 14.4 days longer to start when a case involves a sexual abuse allegation compared to a case involving a neglect allegation, at a significance level of 0.063.

While the overall statistical model for each subset is not significant, it is worth noting the similarities between the results. Both models produced a significant result or near significant result for sexual abuse victimization, with the results indicating that a sexual abuse allegation increases the timeframe for an investigation to begin compared to cases involving neglect allegations. Neither regression produced significant results for the race of the victim.

Hypothesis 2

The statistical test corresponding to investigation length regressed the investigation length variable on variables pertaining to victim's age, female victim, African American victim, one-parent household, other living arrangements, physical

abuse, sexual abuse, emotional abuse, medical neglect, and prior abuser. The same ordinary least squares regression models were used for both the subset containing caretaker substance abuse and the subset containing the substantiated cases with caretaker substance abuse. For the detailed results to the regression analyses, see table 4.

The statistical model pertaining to the subset with the cases containing caretaker substance abuse has an N of 395, an R-square of 0.02, an F-value of 0.96, at a corresponding significance level of 0.481, meaning the model is not significant. The regression model produced a significant value for the female victim variable. The coefficient for the female victim variable in the model is -11.02 at a significance level of 0.057, meaning when an abuse allegation involves a female victim, the length of the investigation decreases on average approximately 11 days compared to cases involving a male victim.

The OLS regression model for the subset containing the substantiated cases with caretaker substance abuse has an N of 184 cases, an R-square of 0.03, an F-value of 0.59, at a significance level of 0.80, meaning the model is not significant. The regression model produced no significant results for any of the independent variables in the statistical model.

The results of the statistical tests for each subset of cases produced very different results. The subset containing all cases with indicated caretaker substance abuse produced significant results for the female victim variable, while the subset containing only the substantiated cases did not produce any significant results.

Hypothesis 3

The results of the logistic regression model that regressed the substantiation variable on the independent variables has a N of 463, chi-square of 43.47, and is significant at the 0.0001 level, meaning the chi-square values of the independent variables are not zero. The results are recorded in table 5. Cases were far more likely to be substantiated when the alleged perpetrator was known as a prior abuser. The results for the prior abuser variable produced a coefficient of 3.67, an exponentiated beta of 39.38, at a significance level of 0.0001, meaning that when all the independent variables are held constant, investigations involving an alleged perpetrator who has a history of being a past abuser increase the odds of a claim of abuse being substantiated by 3840%. The other living arrangements (group homes, foster care, etc.) results produced a coefficient of 1.27, an exponentiated beta value of 3.57, at a significance level of 0.085, meaning that when holding all of the independent variables constant, an abuse allegation involving a victim living outside of a one or two-parent household increases the odds of a substantiated claim of abuse by 256.5% compared to an

allegation involving a two-parent household. The coefficient value for the sexual abuse variable is -1.05, with an exponentiated beta value of 0.349, at a significance level of 0.085, signifying that when holding all the independent variables constant, an abuse claim involving sexual abuse reduces the odds of the claim becoming substantiated by 65.1% compared to claims involving neglect.

Hypothesis 4

Two statistical models were undertaken to test hypothesis 4. The first logistic regression model regressed the family preservation variable on the independent variables, which have remained constant throughout the analysis, and the second logistic regression model regressed the foster care variable on the same independent variables. Each model tests both subsets, as did the tests for hypotheses one and two. The results are recorded in tables 6 and 7.

The logistic regression results for the model examining family preservation services with the subset containing all cases with caretaker substance abuse indicated include an N of 463, a Chi-square value of 25.93, and are significant at the 0.004 level, meaning the model is significant and the beta values for the independent variables do not equal zero. The model produced significant results for the physical abuse and prior abuser variables. The results for the physical abuse variable produced a coefficient value of 0.74, an exponentiated beta value of 2.1, at a 0.027 significance

level. The results indicate that when all the independent variables are held constant, a physical abuse claim increases the odds of a disposition involving family preservation services by 110% compared to claims involving neglect. The results for the prior abuser variable produced a coefficient of 1.44, with an exponentiated beta value of 4.22, and are significant at the 0.0001 level. The results indicate that when all the independent variables are held constant, a case involving an alleged perpetrator who has a history of being a past abuser increases the odds of a disposition including family preservation services by 322%.

The results of the logistic regression model with the family preservation variable as the dependent variables and the subset of data consisting of the substantiated cases with caretaker substance abuse produced an N of 218, Chi-square of 17.2, and the model is significant at the 0.071 level. The model produced significant results for the prior abuse variable, with a coefficient value of 0.80, an exponentiated beta value of 2.23, at a significance level of 0.03. The results indicate that when all the independent variables are held constant, a case involving an alleged perpetrator who has a history of being a past abuser increases the odds of a disposition including family preservation services by 123%.

The goal of the fourth hypothesis is to not only examine caretaker substance abuse and family preservation services, but also how it relates to dispositions

involving foster care. Therefore, the next set of statistical models included the foster care variable as the dependent variable. The logistic regression model testing the subset of all cases indicating caretaker substance abuse has an N of 463, a chi-square of 40.2, and is significant at the 0.0001 level. This model produced significant results for the other living arrangements and prior abuser variables. The model also produced near significant results for the age of the victim and emotional abuse variables. The results are recorded in table 7. The results for the other living arrangements variable has a coefficient of 2.57, an exponentiated beta value of 13.02, and is significant at the 0.0007 level, signifying that when all the independent variables are held constant, abuse claims involving victims in living arrangements such as group homes or foster care, increase the odds of a disposition involving foster care services by 1202% compared to abuse claims involving two-parent households. The results for the prior abuser variable produced a coefficient of 1.5, an exponentiated beta of 4.46, at a 0.0001 significance level, meaning that when all the independent variables are held constant, claims involving an alleged perpetrator with a history of being a past abuser increase the odds of a disposition including foster care services by 346%. The model produced near significant results for the age of the victim (coefficient = -0.05; exponentiated beta=0.955; alpha level=0.062) and emotional abuse (coefficient = -1.93; exponentiated beta=0.146; alpha level=0.066) variables. The results indicate

that for each year an alleged abuse victim ages, it reduces the odds of a disposition involving foster care. An abuse claim involving emotional abuse also decreases the odds of a disposition involving foster care compared to allegations involving neglect. The results for both of these variables (age of the victim and emotional abuse) indicate an inverse relationship with the foster care services variable.

The logistic regression model with the foster care variable as the dependent variable testing the subset consisting of the substantiated cases with caretaker substance abuse indicated has an N of 218, a chi-square value of 29.45, and is significant at the 0.007 level. The results produced significant coefficient values for the other living arrangements and emotional abuse variables. The results for the other living arrangements variable has a coefficient value of 2.93, an exponentiated beta value of 18.82, and is significant at the 0.025 level, meaning that when all the independent variables are held constant, abuse claims involving an alleged victim that lives outside of a one or two-parent household increases the odds of a disposition involving foster care services by 1782% compared to abuse claims involving a two-parent household. The results for the emotional abuse variable produce a coefficient of -2.22, an exponentiated beta value of 0.108, and are significant at the 0.037 level, signifying that when all the independent variables are held constant, abuse claims

involving emotional abuse decrease the odds of foster care services by 89.2% compared to abuse claims involving neglect.

The two subsets produced very similar results with the foster care services variable as the dependent variable. Both subsets produced significant results for the other living arrangements variable and significant or near significant results for the emotional abuse variable. The subsets differed in their results for both victim and perpetrator characteristics. The subset consisting of the cases with caretaker substance abuse produced significant results for the prior abuser variable and near significant results for the age of the victim variable, while the other subset did not.

Hypothesis 5

The final hypothesis examines the role that race and caretaker substance abuse play in regard to juvenile petitions and ultimately criminal justice interaction. The logistic regression model for each subset uses the juvenile petition variable as the dependent variable. The results for the logistic regression model with the subset consisting of all cases with indicated caretaker substance abuse has an N of 463, a chi-square of 18.98, and is significant at the 0.041 level. The model produced significant results for the prior abuser variable and near significant results for the one-parent household variable. The results are recorded in table 8. The results for the prior abuser variable produced a coefficient of 1.45, an exponentiated beta of 4.28, at a

significance level of 0.002, meaning that when all the independent variables are held constant, claims involving an alleged perpetrator who has a history of being a past abuser increase the odds of a disposition including the filing of a juvenile petition by 328%. The results for the one-parent household variable produced a coefficient of 0.93, an exponentiated beta of 2.53, at a 0.071 significance level, meaning cases involving a one-parent household increase the odds of a juvenile petition by 153% compared to cases involving a two-parent household.

The model with the subset consisting of the substantiated cases with caretaker substance abuse has an N of 218, a chi-square value of 12.59, and is significant at the 0.0247 level. The model produced significant results for the one-parent household variable and near significant results for the prior abuser variable. The results are recorded in table 8. The results for the one-parent household variable produced a coefficient of 1.34, an exponentiated beta of 3.803, at a significance level of 0.029, meaning that when all the independent variables are held constant, claims involving a victim who lives in a one-parent household increase the odds of a disposition including the filing of a juvenile petition by 280% compared to cases involving a victim who lives in a two-parent household. The results for the prior abuser variable produced a coefficient of 0.99, an exponentiated beta of 2.68, at a 0.062 significance level; meaning cases involving a prior abuser increase the odds of a disposition

including a juvenile petition by 168%. The results for each subset produced significant or near significant results for both the one-parent household and prior abuser variables.

DISCUSSION

Investigation Length

The first two hypotheses refer to the length of the investigation, with hypothesis one dealing with the timeframe for an investigation to begin once a report is made, and hypothesis two encompassing the formal investigation timeframe. The OLS regression examining disparities for the time it takes an investigation to begin produced significant results for only the sexual abuse variable for both subsets. The results indicate that investigators are mainly influenced by the type of the alleged abuse in determining how quickly to begin an investigation.

The type of suspected abuse can have a significant impact on how soon an investigation begins. The results indicate that cases involving sexual abuse on average, take longer to begin than cases involving neglect. This may seem odd that not all types of abuse are treated equally. However, investigations might take longer to begin on average for sexual abuse cases because sexual abuse cases are not as apparent, and do not always include outward physical injuries, and instead might manifest as a psychological or emotional issue. Another reason could be that sexual

abuse cases, especially when a victim receives medical attention; an investigation might be delayed while waiting for results of medical tests or while a criminal case is undertaken against the alleged perpetrator. Therefore, it may take longer for an investigator to know whether abuse has taken place and an investigation needs to begin. Based on the results from these two models, it appears that investigators are influenced more by the type of alleged abuse than any victim or alleged perpetrator characteristics when determining how quickly to open an investigation since no other characteristic significantly influences the time it takes an investigation to begin once it is reported.

Since the racial characteristics for the victim do not significantly influence the time it takes to open an investigation, it appears a racial disparity does not exist at that time. Instead, the investigator seems to be impacted by the type of abuse allegation. It may also point towards a uniform way of beginning investigations. Since sexual abuse increases the time it takes to open an investigation by more than thirteen days for both subsets, this may indicate that investigators have certain instructions for dealing with sexual abuse cases, which could increase the time it takes to open an investigation.

The OLS regression model examining disparities in the length of an investigation when caretaker substance abuse is present produced significant results

for the female victim variable in the subset containing the cases with caretaker substance abuse, while the subset with the substantiated cases did not produce any significant results. The results all indicate the length of investigations involving cases with caretaker substance abuse is influenced primarily by victim characteristics. For instance, cases involving an alleged female victim significantly decrease the length of the investigation on average. This could mean that investigators take cases involving an alleged female victim more seriously, leading to a shorter investigation.

Substantiated Claims of Abuse

The logistic regression model examining racial disparities in substantiated claims of abuse produced significant results for the prior abuser variable, and near significant results for the other living arrangements and sexual abuse variables. The results are not as clear-cut as those pertaining to investigation length. Claims involving victims living in a situation other than a one or two-parent household increase the odds of a substantiated claim compared to cases involving a victim who lives in a two-parent household. The obvious reason for the comparison could be that more adults are present to abuse juveniles living in a group home or foster care, thus raising the odds of an abuse claim being substantiated. Also, literature suggests that African American are more likely to be targets for foster care services (Lau et al., 2003), and based on the literature, certain groups of people are thought to be abuse

victims, as well as abusers (Berger and Brooks-Gunn, 2005; Lane et al., 2002). If professionals are more likely to report African Americans, it makes sense that the results indicate living in a group home or foster care increase the odds of the claim becoming substantiated. Since African Americans are more likely to become involved with social services, it makes sense that they are more likely to have a claim of abuse substantiated.

Claims involving sexual abuse decrease the odds of a substantiated claim compared to claims involving neglect. A reason might be that sexual abuse is more difficult to prove. It might also indicate that more false claims are reported for sexual abuse (e.g., to gain an advantage in custody disputes). Professionals, especially medical personnel, might mistakenly report sexual abuse, but the results of the medical tests might indicate that abuse did not occur.

It makes sense that a case involving an alleged perpetrator who has a history of being a past abuser increases the odds of an abuse claim being substantiated. This could be because of the recidivism associated with child maltreatment. It could also indicate that investigators make more of an effort to substantiate a claim of abuse when an alleged perpetrator has a history of child maltreatment.

The results surrounding caretaker substance abuse and substantiated claims of abuse indicate that both victim and perpetrator characteristics are important. On the

surface, the results indicate the race of the victim is not a factor. However, a closer examination of the results indicates that may not be the case. For instance, examining the other living arrangements results might shed some light on the role that race plays in the decision making process. A disproportionate number of African American children are in foster care. So, while the results for the other living arrangements variable cannot be directly related to the race of the victim, some inferences can be made about the results. For instance, literature indicates that African American victims are over represented in the population of children referred to child protective services (Ards, Chung, and Meyers, 1998). It also states that professionals are more likely to believe African Americans as abuse victims and abusers, thus reporting them at a greater rate than Whites (Berger and Brooks-Gunn, 2005). This leaves a larger population of African Americans being investigated for suspected abuse as both victims and perpetrators. Hypothesis three predicted African American victims as more likely to have their claims of abuse substantiated, and based on the results of the other living arrangements variable, this appears to be the case.

Disposition

Foster care versus family preservation services.

An examination of the significant results for the models examining family preservation services and foster care indicate both victim and perpetrator

characteristics as important factors in the decision making process. For the family preservation model examining the cases with caretaker substance abuse, cases involving physical abuse and a prior abuser increase the odds of a disposition involving family preservation services. Examining family preservation services closer by only focusing on the substantiated claims with caretaker substance also indicate that cases involving an alleged perpetrator with a history of being an abuser increase the odds of family preservation services. It seems odd that CPS investigators would ultimately keep alleged victims with an alleged perpetrator with a history of being a past abuser.

The results indicate that with caretaker substance abuse, perpetrator characteristics are more important compared to victim characteristics when considering family preservation services. This is not surprising because the subset of data analyzed, upwards of 90% of the perpetrators can be classified as the parents of the alleged victim (see table 1). Since over 90% of the alleged perpetrators in this sample are the parent of the alleged victim, it is logical that the perpetrator characteristics would be an important factor in deciding whether a disposition includes family preservation services. What is surprising is that a case involving an alleged perpetrator who has a history of prior abuse actually increases the odds of family preservation services. The logical assumption would be that a case involving a prior

abuser should decrease the odds of family preservation services. However, the results from the subset with the substantiated cases does not produce significant results for the prior abuser variable, indicating that an alleged perpetrator with a history of being a past abuser is more likely to be reported for alleged abuse, leading to more false accusations that are not substantiated. This does not however, explain why a history of being a prior abuser increases the odds of family preservation services.

Cases involving physical abuse increase the odds of family preservation services compared to cases involving neglect. Cases involving physical abuse may lead to family preservation services at a greater rate than cases involving neglect because physical abuse may be viewed as a one time issue, while neglect may be viewed as ongoing. Therefore, investigators may see physical abuse as easier to treat compared to neglect.

The results for foster care services indicate a number of characteristics are important in the decision making process. For the foster care services model that analyzed the subset containing the cases with caretaker substance abuse, a case involving an alleged perpetrator with a history of being a past abuser increases the odds of foster care services. This is not surprising because over 90% of the alleged perpetrators in the sample are the parent of the victim. Therefore, it would make sense

that foster care services would be involved to take the child victim out of an abusive environment.

As indicated in the results section, the other living arrangements and emotional abuse variables were significant in the models examining both subsets. The results indicated that cases involving other living arrangements increase the odds of foster care services compared to cases involving a two-parent household and cases involving emotional abuse reduce the odds of foster care services compared to cases involving neglect. Emotional abuse has little to do with the race of either the victim or perpetrator, and may simply be thought of as less severe compared to neglect, thus reducing the odds of a disposition involving foster care services. The other living arrangements variable indicates that the child lives in a non-traditional setting of foster care, group home, or other residential facility. Therefore, the results for the other living arrangements variable coincide with race to a larger extent that only those cases involving a child who either already lives in foster care or a group home increase the odds for placement into foster care for White families.

Juvenile petition.

The logistic regression model examining juvenile petition as an outcome, and criminal justice involvement produced two significant results, the prior abuser and one-parent household variables. It makes sense that cases involving an alleged

perpetrator with a history of being a past abuser increase the odds of a juvenile petition being filed because it goes along with the results from the foster care services model. If a history of being a past abuser leads to greater odds of foster care, it would make sense that it also leads to greater odds of criminal justice involvement through a juvenile petition.

The one-parent household variable is significant in the models examining both subsets. A disproportionate number of African Americans live in one-parent households. Therefore, it is not a stretch to believe that since cases involving a one-parent household increase the odds of a juvenile petition compared to cases involving a two-parent household that a disproportionate number of African Americans are involved in these cases. A juvenile petition is commonly used as a tool to file charges against the perpetrator or change the dependent status of the child victim. This indicates that the criminal justice system is more likely to punish African Americans when they are involved as a perpetrator in a case. These results seem to solidify the idea that the criminal justice system is more likely to punish African Americans criminally, especially when you compare the results with the same information for Whites. This may occur because the child would be at the mercy of the abuser—another parent in the household could protect the child from further abuse. The results do not completely coincide with hypothesis five, which stated that a juvenile petition

is more likely to be filed if the victim is African American. However, when a perpetrator is African American, a juvenile petition is more likely to be filed, indicating that African Americans are more likely to be punished for their transgressions by the criminal justice system. The analysis of the subset containing the substantiated cases with caretaker substance abuse did not provide any significant results.

CONCLUSION

Based on the results of this study, race does not appear to have a significant impact on the CPS investigation when caretaker substance abuse is present. However, taking a closer look at the results indicates otherwise. The time it takes for an investigation to begin once it is reported does not appear to be influenced by race, but instead by the type of abuse pointing to a uniform way for CPS to begin an investigation. The length of the investigation also does not appear to be impacted by race. It is not until an investigator must decide whether a claim of abuse should be substantiated that race is a factor in the investigation. While the results only indicate that an alleged perpetrator with a history of being a prior abuser and victims living in arrangements outside of a one or two parent household influence the substantiation phase of the investigation, it does not illustrate the entire picture. Literature suggests that African Americans are disproportionately represented in the population of

children living in foster care (Lau et al., 2003). As a result, African Americans are disproportionately represented in the population of victims who have their claims of abuse substantiated.

The racial disparity that begins during the substantiation phase of the investigation continues during the disposition phase. While race does not appear to be a factor in the decision of who receives family preservation services, it does seem to be a factor in the decision regarding foster care services. The disparity manifests itself in the results of the other living arrangements variable, which increases the odds of foster care services being part of the disposition. Following the same logic as the results of the substantiation phase, more African American victims appear to be involved in foster care services. This means that more African Americans are put in foster care, leading to a greater chance of negative life outcomes. Race continues to be a factor with criminal justice involvement. Once again this is evident through the results of the living arrangements variable. A disproportionate percentage of African Americans live in a one-parent household, and living in a one-parent household increases the odds of a juvenile petition being filed. Thus, African Americans are being set-up for criminal justice involvement at a greater rate than their White counterparts.

Based on the results of this study, race appears to have a significant impact on the CPS investigation process when caretaker substance abuse is present. However, race does not appear to have a significant impact on the investigation until a decision must be made to substantiate a claim of abuse and decide on a proper disposition. This does not significantly impact how quickly an investigation begins or even how long the investigation takes. Certain conclusions can be made based on the results of this study: (1) the patterns that previous literature illustrate about White privilege at distinct points of child abuse investigations do not significantly change when caretaker substance abuse is present; (2) even when caretaker substance abuse is present, White victims and their families are more likely to be targeted for family preservation services, while African American victims and their families are more likely to encounter foster care services; and (3) criminal justice involvement, based on juvenile petition filings, is more likely if the perpetrator is African American. The results are supported by examining some simple cross tabulations of the African American victim variable with the substantiated abuse claim, foster care services, family preservation services, and juvenile petition variables. The racial demographics of the subset containing the cases with caretaker substance abuse from table 1 indicate that approximately 16% of the sample is African American. However, an examination of the cross tabulation for African American victims and substantiated claims of abuse,

foster care services, family preservation services, and juvenile petitions indicate that greater than 16% of the child victims in these categories are African American (18%, 20%, 20%, and 16% respectively). While it is great that African American victims are over represented in family preservation services and relatively represented in the filing of juvenile petitions for this sample, it is still troubling that African Americans continue to be disproportionately represented in foster care services and substantiated claims of abuse.

The conclusions and results are not without their issues because of limitations of the data set. The data set, while encompassing the entire United States is not completely uniform. Each state sends the NDACAN their results based on directions they receive from the NDACAN. However, it is unclear how closely each state actually follows the instructions, or whether they actually send the information at all. As a result, some of the variables have a large number of missing cases, making it very important to examine the diagnostics of each variable. That being said, the missing cases do not appear to have a huge impact on this particular study. However, it would be beneficial to replicate the study using a more uniform national data set. Aside from replicating the study with a more uniform data set, future research could involve more of an emphasis on the role of the criminal justice system. Instead of simply examining how race influences juvenile petitions, it would be beneficial to

include a variable indicating whether actual criminal sanctions were filed in the case. Another area of interest for future research could be to examine how the investigation process is influenced when the victim and perpetrator are different races, and to examine what combination of races has the largest influence on the investigation. The final area for future research is to expand the analysis to more than simply an African American/White comparison, which could be accomplished by simply expanding the current study. The current study indicates that race has a significant impact on the investigation of suspected abuse claims when caretaker substance abuse is present. However, further research has to be completed to determine if this is present in a more uniform data set.

REFERENCES

- Ards, S., Chung, C., & Meyers, S.L. (1998). The Effects of Sample Selection Bias on Racial Differences in Child Abuse Reporting. *Child Abuse and Neglect*, 22:103-115.
- Ards, S.D., Myers, S.L. Jr., Chung, C., Malkis, A., & Hagerty, B. (2003). Decomposing Black-White Differences in Child Maltreatment. *Child Maltreatment*, 8(2):112-121.
- Bagdasaryan, S. (2004). Evaluating Family Preservation Services: Reframing the Question of Effectiveness. *Children and Youth Services Review*, 27(6):615-635.
- Berger, L.M. (2005). Income, Family Characteristics, and Physical Violence Toward Children. *Child Abuse and Neglect*, 29(2):107-133.
- Berger, L.M. & Brooks-Gunn, J. (2005). Socioeconomic Status, Parenting Knowledge and Behaviors, and Perceived Maltreatment of Young Low-Birth-Weight Children. *Social Service Review*:232-267.
- Bishop, S.J., Murphy, M., Hicks, R., Quinn, D., Lewis, P.J., Grace, M., & Jellinek, M.S. (2000). What Progress Has Been Made in Meeting the Needs of Seriously Maltreated Children? The Course of 200 Cases Through the Boston Juvenile Court. *Child Abuse and Neglect*, 24(5):599-610.
- Brezina, T. (1998). Adolescent Maltreatment and Delinquency: The Question of Intervening Processes. *Journal of Research in Crime and Delinquency*, 35(1):71-99.
- Bullock, H.E. & Limbert, W.M. (2003). Scaling the Socioeconomic Ladder: Low-Income Women's Perceptions of Class Status and Opportunity. *Journal of Social Issues*, 59(4): 693-709.
- Butler, S.S., Corbett, J., Bond, C., & Hastedt, C. (2008). Long-Term TANF Participants and Barriers to Employment: A Qualitative Study in Maine. *Journal of Sociology and Social Welfare*, 35(3): 49-69.

- Connell, C.M., Bergeron, N., Katz, K.H., Saunders, L., & Tebes, J.K. (2007). Re-referral to Child Protective Services: The Influence of Child, Family, and Case Characteristics on Risk Status. *Child Abuse and Neglect*, 31:573-588.
- Denby, R.W. & Curtis, C.M. (2003). Why Special Populations Are Not the Target of Family Preservation Services: A Case for Program Reform. *Journal of Sociology and Social Welfare*, 30(2):149-173.
- Dong, M., Anda, R.F., Dube, S.R., Giles, W.H., & Felitti, V.J. (2003). The Relationship of Exposure to Childhood Sexual Abuse to Other Forms of Abuse, Neglect, and Household Dysfunction During Childhood. *Child Abuse and Neglect*, 27: 625-639.
- Drake, B., Johnson-Reid, M., & Sapokaite, L. (2006). Rereporting of Child Maltreatment: Does Participation in other Public Sector Services Moderate the Likelihood of a Second Maltreatment Report? *Child Abuse and Neglect*, 30(11):1201-1226.
- Dube, S.R., Anda, R.F., Felitti, V.J., Croft, J.B., Edwards, V.J., & Giles, W.H. (2001). Growing Up With Parental Alcohol Abuse: Exposure to Childhood Abuse, Neglect, and Household Dysfunction. *Child Abuse and Neglect* 25(12): 1627-1640.
- Fagan, A.A. (2005). The Relationship Between Adolescent Physical Abuse and Criminal Offending: Support for an Enduring and Generalized Cycle of Violence. *Journal of Family Violence*, 20(5):279-290.
- Feiring, C., Coates, D.L., & Taska, L.S. (2001). Ethnic Status, Stigmatization, Support, and Symptom Development Following Sexual Abuse. *Journal of Interpersonal Violence*, 16(12):1307-1329.
- Feiring, C., Miller-Johnson, S., & Cleland, C.M. (2007). Potential Pathways From Stigmatization and Internalizing Symptoms to Delinquency in Sexually Abused Youth. *Child Maltreatment*, 12(3):220-232.
- Fluke, J.D., Yuan, Y.T., Hedderson, J., & Curtis, P.A. (2003). Disproportionate Representation of Race and Ethnicity in Child Maltreatment: Investigation and Victimization. *Children and Youth Services Review*, 25(5/6):359-373.

- Fluke, J.D., Shusterman, G.R., Hollingshead, D.M., & Yuan, Y.T. (2008). Longitudinal Analysis of Repeated Child Abuse Reporting and Victimization: Multistate Analysis of Associated Factors. *Child Maltreatment*, 13(1):76-88.
- Freisthler, B., Bruce, E., & Needell, B. (2007). Understanding the Geospatial Relationship of Neighborhood Characteristics and Rates of Maltreatment for Black, Hispanic, and White Children. *Social Work*, 52(1):7-16.
- Gooden, S.T. (2004). Examining the Implementation of Welfare Reform by Race: Do Blacks, Hispanics and Whites Report Similar Experiences with Welfare Agencies? *The Review of Black Political Economy*, 32(2): 27-53.
- Goodkind, S., NG, I., & Sarri, R.C. (2006). The Impact of Sexual Abuse in the Lives of Young Women Involved or At Risk of Involvement with the Juvenile Justice System. *Violence Against Women*, 12(5):456-477.
- Hussey, J.M., Marshall, J.M., English, D.J., Knight, E.D., Lau, A.S., Dubowitz, H., & Kotch, J.B. (2005). Defining Maltreatment According to Substantiation: Distinction Without a Difference? *Child Abuse and Neglect*, 29(5):479-492.
- Jones-DeWeever, A., Dill, B.T., & Schram, S. (2009). Racial, Ethnic, and Gender Disparities in the Workforce, Education, and Training under Welfare Reform. Pp. 150-179 in *Emerging Intersections: Race, Class, and Gender in Theory, Policy, and Practice*, edited by Bonnie Thornton Dill and Ruth Enid Zambrana. New Brunswick, NJ: Rutgers University Press.
- Kesner, J.E. (2007). Self-Reports of Child Maltreatment in the U.S.: A Key Social Indicator. *Social Indicators Research*, 83:117-124.
- Lane, W.G., Rubin, D.M., Monteith, R., & Christian, C.W. (2002). Racial Differences in the Evaluation of Pediatric Fractures for Physical Abuse. *JAMA*, 288(13):1603-1609.
- Lansford, J.E., Miller-Johnson, S., Berlin, L.J., Dodge, K.A., Bates, J.E., & Pettit, G.S. (2007). Early Physical Abuse and Later Violent Delinquency: A Prospective Longitudinal Study. *Child Maltreatment*, 12(3):233-245.

- Lau, A., McCabe, K., Yeh, M., Garland, A., Hough, K., & Landsverk, J. (2003). Race/Ethnicity and Rates of Self-Reported Maltreatment Among High-Risk Youth in Public Sectors of Care. *Child Maltreatment*, 8:183-194.
- Maas, C., Herrenkohl, T.I., & Sousa, C. (2008). Review of Research on Child Maltreatment and Violence in Youth. *Trauma, Violence, and Abuse*, 9(1):56-67.
- Macmillan, R., & Hagan, J. (2004). Violence in the Transition to Adulthood: Adolescent Victimization, Education, and Socioeconomic Attainment in Later Life. *Journal of Research on Adolescence*, 14(2):127-158.
- Makarios, M.D. (2007). Race, Abuse, and Female Criminal Violence. *Feminist Criminology*, 2(2):100-116.
- McDaniels-Wilson, C., & Belknap, J. (2008). The Extensive Sexual Violation and Sexual Abuse Histories of Incarcerated Women. *Violence Against Women*, 14(10):1090-1127.
- McMahon, J., & Clay-Warner, J. (2002). Child Abuse and Future Criminology: The Role of Social Service Placement, Family Disorganization, and Gender. *Journal of Interpersonal Violence*, 17(9):1002-1019.
- Moran, P.B., Vuchinich, S., & Hall, N.K. (2004). Associations Between Types of Maltreatment and Substance Use During Adolescence. *Child Abuse and Neglect*, 28: 565-574.
- Palusci, V.J., Smith, E.G., & Paneth, N. (2005). Predicting and Responding to Physical Abuse in Young Children Using NCANDS. *Children and Youth Services Review*, 27:667-682.
- Rich, C.L., Gidycz, C.A., Warkentin, J.B., Loh, C., & Weiland, P. (2005). Child and Adolescent Abuse and Subsequent Victimization: A Prospective Study. *Child Abuse and Neglect*, 29(12):1373-1394.
- Ryan, J.P., & Testa, M.F. (2005). Child Maltreatment and Juvenile Delinquency: Investigating the Role of Placement and Placement Instability. *Child and Youth Services Review*, 27:227-249.

- Schuck, A.M. (2005). Explaining Black-White Disparity in Maltreatment: Poverty, Female-Headed Families, and Urbanization. *Journal of Marriage and Family*, 67:543-551.
- Semidei, J., Radcl, L.F., & Nolan, C. (2001). Substance Abuse and Child Welfare: Clear Linkages and Promising Responses. *Child Welfare*, 80(2): 109-128.
- Siegel, J.A., & Williams, L.M. (2003). The Relationship Between Child Sexual Abuse and Female Delinquency and Crime: A Prospective Study. *Journal of Research in Crime and Delinquency*, 40(1):71-94.
- U.S. Department of Health and Human Services [HHS]. (1997). Ninth Special Report to the US Congress on Alcohol and Health. Rockville, MD.
- U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families Children's Bureau. (2008). Codebook for National Child Abuse and Neglect Data System (NCANDS) Child File, FFY 2006.
- U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau (2008). National Child Abuse and Neglect Data System (NCANDS) Child File, FFY 2006 [Dataset]. Available from the National Data Archive on Child Abuse and Neglect Web site, <http://www.ndacan.cornell.edu>.
- U.S. Department of Health and Human Services, Administration on Children, Youth and Families. *Child Maltreatment 2006* (Washington, DC: U.S. Government Printing Office, 2008).
- Webster, S.W., O'Toole, R., O'Toole, A.W., & Lucal, B. (2005). Overreporting and Underreporting of Child Abuse: Teachers Use of Professional Discretion. *Child Abuse and Neglect*, 29(11):1281-1296.
- Yampolskaya, S., & Banks, S.M. (2006). An Assessment of the Extent of Child Maltreatment Using Administrative Databases. *Assessment*, 13(3):342-355.

Young, N., Boles, S.M., & Otero, C. (2007). Parental Substance Use Disorders and Child Maltreatment: Overlap, Gaps, and Opportunities. *Child Maltreatment*, 12(2): 137-149.

APPENDIX: TABLES OF DESCRIPTIVE STATISTICS AND RESULTS

Table 1

Descriptive Statistics in Percents for different Subset of Cases from the 2006 NCANDS Child File

Characteristic	Caretaker Substance Abuse (N=520)	No Caretaker Substance Abuse (N=3303)	All with Caretaker Substance Abuse Info (N=3472)	All Without Caretaker Substance Abuse Info (N=6619)	Entire Random Sample from NCANDS (N=10023)
Victim Characteristic					
Male	49.03	49.47	49.70	49.40	49.46
Female	50.97	50.53	50.30	50.60	50.54
African American	16.15	24.70	24.14	24.16	24.16
White	74.81	65.18	65.70	57.40	60.17
Prior Child Abuse Victim	35.88	20.76	22.17	29.90	26.63
Physically Abused	18.46	23.13	22.81	14.26	17.25
Neglected	58.46	43.23	43.46	52.06	49.11
Sexually Abused	4.23	7.78	7.72	4.67	5.73
Emotionally Abused	5.58	3.97	4.09	4.08	4.09
Other Abuse Victimization	9.42	8.30	8.96	6.72	7.32
Two-Parent Household	43.54	46.57	46.82	52.13	50.30
One-Parent Household	49.66	43.14	42.93	37.56	39.42
Other Living Arrangements	6.80	10.29	10.25	10.31	10.28
Substantiated Abuse Claim	47.50	22.98	24.40	21.18	22.15
Services Provided					
Family Preservation Services	13.75	6.41	6.80	8.14	7.48
Foster Care Services	21.43	6.50	7.79	15.75	11.63
Juvenile Court Petition	5.98	4.16	4.33	12.16	8.63

Perpetrator Characteristic					
Male Perpetrator	25.96	38.45	37.39	36.55	37.03
Female Perpetrator	74.04	61.55	62.61	63.45	62.97
African American	14.66	22.69	21.07	22.96	22.30
White	80.30	70.68	69.24	61.14	63.60
Perpetrator as a Parent	99.45	96.15	96.60	96.00	96.06
Prior Abuser	36.59	29.21	29.91	34.58	32.32
Characteristic	Mean				
Age of Victim	7.58 years	8.46 years	8.44 years	8.34 years	8.38 years
Time to Start Investigation	5.01 days	4.75 days	4.65 days	2.75 days	3.41 days
Investigation Length	57.85 days	50.11 days	50.77 days	48.23 days	49.04 days

Table 2

Tolerance and Variance Inflation (VIF) Values for Independent Variables

	Subset with Caretaker Substance Abuse		Substantiated Cases within the subset	
Variable	Tolerance	VIF Value	Tolerance	VIF Value
Victim Characteristics				
Age of Victim	0.97	1.03	0.96	1.05
Female Victim	0.95	1.05	0.95	1.06
African American Victim	0.16	6.31	0.23	4.34
White Victim	0.16	6.27	0.24	4.18
Living Arrangements				
Two-Parent Household	0.92	1.09	0.84	1.19
One-Parent Household	0.88	1.13	0.83	1.20
Other Living Arrangements	0.96	1.04	0.87	1.15
Type of Abuse				
Physical Abuse	0.41	2.44	0.44	2.28
Neglect	0.36	2.75	0.37	2.67
Sexual Abuse	0.75	1.34	0.76	1.32
Emotional Abuse	0.72	1.38	0.63	1.59
Medical Neglect	0.94	1.06	-----	-----
Alleged Perpetrator Characteristics				
Prior Abuser	0.95	1.06	0.93	1.08
N	395		184	

Table 3

OLS Regression Results Predicting Time it Takes an Investigation to Begin

	Subset with Caretaker Substance Abuse⁷		Substantiated Cases within the subset⁸	
Variable	Parameter Estimate	Significance	Parameter Estimate	Significance
Intercept	7.29	0.0001	7.41	0.0016
Victim Characteristics				
Age of Victim	0.018	0.901	-0.03	0.828
Female Victim	-2.64	0.197	-2.52	0.313
African American Victim ⁹	-0.46	0.865	-2.74	0.423
Living Arrangements¹⁰				
One-Parent Household	-4.65	0.116	-4.12	0.251
Other Living Arrangements	-7.13	0.322	-6.28	0.389
Type of Abuse¹¹				
Physical Abuse	-1.61	0.521	-1.93	0.540
Sexual Abuse	13.23	0.013*	14.39	0.063
Emotional Abuse	-3.30	0.520	-3.41	0.518
Medical Neglect	-4.42	0.756	0	-----
Alleged Perpetrator Characteristics				
Prior Abuser	-0.56	0.836	0.03	0.990

⁷ F-Value=1.36; Pr > F=0.196⁸ F-Value=0.88; Pr > F=0.543⁹ The White victim variable is the reference variable.¹⁰ The reference variable for living arrangements of the child victim is the two-parent household variable.¹¹ The reference variable for type of abuse is neglect.

N	395		184	
R ²	0.034		0.044	

* The value is significant at the .05 level.

** The value is significant at the .01 level.

*** The value is significant at the .001 level.

Table 4

OLS Regression Results Predicting Investigation Length

	Subset with Caretaker Substance Abuse¹²		Substantiated Cases within the subset¹³	
Variable	Parameter Estimate	Significance	Parameter Estimate	Significance
Intercept	61.51	<0.0001	54.15	<0.0001
Victim Characteristics				
Age of Victim	0.21	0.609	0.11	0.740
Female Victim	-11.02	0.057*	-9.36	0.104
African American Victim ¹⁴	-5.94	0.437	1.00	0.898
Living Arrangements¹⁵				
One-Parent Household	3.34	0.688	2.49	0.762
Other Living Arrangements	0.89	0.965	15.38	0.359
Type of Abuse¹⁶				
Physical Abuse	6.62	0.350	-5.37	0.459
Sexual Abuse	3.86	0.796	-8.39	0.635
Emotional Abuse	-10.13	0.484	-6.40	0.597
Medical Neglect	13.87	0.729	0	-----
Alleged Perpetrator Characteristics				
Prior Abuser	-11.87	0.121	-3.18	0.598

¹² F-Value=0.96; Pr > F=0.481¹³ F-Value=0.59; Pr > F=0.80¹⁴ The White victim variable is the reference variable.¹⁵ The reference variable for living arrangements of the child victim is the two-parent household variable.¹⁶ The reference variable for type of abuse is neglect.

N	395		184	
R ²	0.024		0.030	

* The value is significant at the .05 level.

** The value is significant at the .01 level.

*** The value is significant at the .001 level.

Table 5

Logistic Regression Results Predicting Substantiated Claims of Abuse.

	Subset with Caretaker Substance Abuse¹⁷		
Variable	Estimate	Significance	Exp(b)
Intercept	-0.35	0.079	0.707
Victim Characteristics			
Age of Victim	-0.02	0.314	0.983
Female Victim	0.13	0.519	1.143
African American Victim ¹⁸	0.007	0.980	1.007
Living Arrangements¹⁹			
One-Parent Household	-0.48	0.149	0.619
Other Living Arrangements	1.27	0.085	3.565
Type of Abuse²⁰			
Physical Abuse	-0.17	0.536	0.845
Sexual Abuse	-1.05	0.085	0.349
Emotional Abuse	0.58	0.202	1.780
Medical Neglect	-0.66	0.573	0.519

¹⁷ Chi-Square = 43.47; Pr > Chi-Square = < 0.0001¹⁸ The White victim variable is the reference variable.¹⁹ The reference variable for living arrangements of the child victim is the two-parent household variable.²⁰ The reference variable for type of abuse is neglect.

Alleged Perpetrator Characteristics			
Prior Abuser	3.67	< 0.0001***	39.379
N	463		

* The value is significant at the .05 level.

** The value is significant at the .01 level.

*** The value is significant at the .001 level.

Table 6

Logistic Regression Results Predicting Family Preservation Services

	Subset with Caretaker Substance Abuse ²¹			Substantiated Cases Within the Subset ²²		
Variable	Estimate	Significance	Exp(b)	Estimate	Significance	Exp(b)
Intercept	-1.96	<0.0001	0.141	-1.29	0.0004	0.276
Victim Characteristics						
Age of Victim	-0.04	0.150	0.957	-0.04	0.262	0.962
Female Victim	-0.10	0.726	0.901	-0.21	0.557	0.813
African American Victim ²³	0.27	0.476	1.306	0.16	0.717	1.179
Living Arrangements²⁴						
One-Parent Household	-0.78	0.128	0.459	-0.33	0.564	0.720
Other Living Arrangements	-0.04	0.972	0.961	-0.38	0.749	0.686
Type of Abuse²⁵						
Physical Abuse	0.74	0.027*	2.10	0.63	0.138	1.884
Sexual Abuse	-0.65	0.538	0.523	0.17	0.884	1.189
Emotional Abuse	-12.95	0.970	0.000	-13.22	0.973	0.000
Medical Neglect	-12.74	0.989	0.000	-13.43	0.993	0.000

²¹ Chi-Square = 25.93; Pr > Chi-Square = 0.004

²² Chi-Square = 17.18; Pr > Chi-Square = 0.071

²³ The White victim variable is the reference variable.

²⁴ The reference variable for living arrangements of the child victim is the two-parent household variable.

²⁵ The reference variable for type of abuse is neglect.

Alleged Perpetrator Characteristics						
Prior Abuser	1.44	< 0.0001***	4.215	0.80	0.03*	2.233
N	463			218		

* The value is significant at the .05 level.

** The value is significant at the .01 level.

*** The value is significant at the .001 level.

Table 7

Logistic Regression Results for Predicting Foster Care Services

	Subset with Caretaker Substance Abuse²⁶			Substantiated Cases Within the Subset²⁷		
Variable	Estimate	Significance	Exp(b)	Estimate	Significance	Exp(b)
Intercept	-1.31	<0.0001	0.271	-0.53	0.069	0.587
Victim Characteristics						
Age of Victim	-0.05	0.062	0.955	-0.03	0.248	0.975
Female Victim	-0.16	0.521	0.853	-0.18	0.550	0.834
African American Victim ²⁸	0.007	0.983	1.007	-0.23	0.578	0.796
Living Arrangements²⁹						
One-Parent Household	0.10	0.781	1.104	0.63	1.171	1.878
Other Living Arrangements	2.57	0.0007***	13.02	2.93	0.025*	18.815
Type of Abuse³⁰						
Physical Abuse	0.13	0.675	1.139	0.32	0.412	1.381
Sexual Abuse	-0.91	0.261	0.403	-1.74	0.197	0.176
Emotional Abuse	-1.93	0.066	0.146	-2.22	0.037*	0.108
Medical Neglect	0.70	0.553	2.018	14.91	0.991	298345 9

²⁶ Chi-Square = 40.20; Pr > Chi-Square = < 0.0001

²⁷ Chi-Square = 29.45; Pr > Chi-Square = 0.007

²⁸ The White victim variable is the reference variable.

²⁹ The reference variable for living arrangements of the child victim is the two-parent household variable.

³⁰ The reference variable for type of abuse is neglect.

Alleged Perpetrator Characteristics						
Prior Abuser	1.50	< 0.0001***	4.460	0.49	0.130	1.635
N	463			218		

* The value is significant at the .05 level.

** The value is significant at the .01 level.

*** The value is significant at the .001 level.

Table 8

Logistic Regression Results Predicting the Filing of a Juvenile Petition

	Subset with Caretaker Substance Abuse³¹			Substantiated Cases Within the Subset³²		
Variable	Estimate	Significance	Exp(b)	Estimate	Significance	Exp(b)
Intercept	-3.01	<0.0001	0.049	-2.74	<0.0001	0.064
Victim Characteristics						
Age of Victim	0.01	0.581	1.013	0.01	0.646	1.011
Female Victim	-0.63	0.160	0.534	-0.29	0.571	0.745
African American Victim ³³	-0.25	0.674	0.779	-0.50	0.494	0.607
Living Arrangements³⁴						
One-Parent Household	0.93	0.071	2.532	1.34	0.029*	3.803
Other Living Arrangements	1.61	0.155	5.006	1.91	0.127	6.720
Type of Abuse³⁵						
Physical Abuse	-0.94	0.213	0.389	-0.60	0.454	0.549
Sexual Abuse	-11.93	0.968	0.000	-12.74	0.979	0.000
Emotional Abuse	-0.83	0.446	0.438	-0.82	0.465	0.440
Medical Neglect	-11.77	0.989	0.000	-11.75	0.990	0.000

³¹ Chi-Square = 18.98; Pr > Chi-Square = 0.041

³² Chi-Square = 12.59; Pr > Chi-Square = 0.247

³³ The White victim variable is the reference variable.

³⁴ The reference variable for living arrangements of the child victim is the two-parent household variable.

³⁵ The reference variable for type of abuse is neglect.

Alleged Perpetrator Characteristics						
Prior Abuser	1.45	0.002**	4.284	0.99	0.062	2.681
N	463			218		

* The value is significant at the .05 level.

** The value is significant at the .01 level.

*** The value is significant at the .001 level

