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FINAL REPORT

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**CHILDHOOD VICTIMIZATION AND DELINQUENCY, ADULT
CRIMINALITY, AND VIOLENT CRIMINAL BEHAVIOR:
A Replication And Extension**

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Childhood Victimization and Delinquency. Adult Criminality and Violent Criminal Behavior: A Replication and Extension

Abstract

Childhood victimization and violent offending are two widespread and serious social problems that continue to confront our society today. The present research has four major goals: (1) to document the prevalence of delinquency, adult criminality and violence in a new cohort of abused and/or neglected children and matched controls, representing a different geographic area (Northwest), time period (1980's), and ethnic composition (to include Native American youth); (2) to examine the extent to which there are gender and ethnic differences in the relationship between childhood victimization and crime and violent offending; (3) to determine the extent to which different types of maltreatment (physical and sexual abuse and neglect) are associated with increased risk of subsequent delinquent, adult, and violent criminal behavior; and (4) to examine the extent to which placement experiences mediate delinquent and criminal consequences. Substantiated cases of child abuse and/or neglect (n=877) from court dependency records during the years 1980-1984 were selected from court files in a large urban area of the State of Washington. A control group of children matched on the basis of age, race/ethnicity, gender and approximate family social class were also identified. Juvenile and adult arrest record data was collected from local, state, and federal law enforcement agencies through 1998 (approximately 15-24 years following dependency). The findings strongly support the relationship between child abuse and neglect and delinquency, adult criminality, and violent criminal behavior. In this sample, abused and neglected children are 4.8 times more likely to be arrested as juvenile; 2 times more likely to be arrested as an adult, and

3.1 times more likely to be arrested for a violent crime than matched controls. Our findings replicate earlier findings regarding increases in risk of criminal behavior for females as well as males. Findings for race/ethnicity are more complex. Abused and neglected youth from all three backgrounds (Caucasian, African American, and Native American) were at increased risk for being arrested (as a juvenile and as an adult) compared to non-abused and non-neglected children from the same ethnic background. The results indicated that Caucasian and African American abused and neglected youth were also at significantly greater risk of arrest for a violent crime, compared to matched controls. However, for Native American abused and neglected youth, there was a slight increase in risk for arrest for violence, but it did not reach customary levels of significance. Preliminary findings regarding placement status at dependency indicated that abused and neglected youth who were placed outside the home were at greater risk of subsequent arrest than abused and neglected youth who remained with their primary caregiver or parent. Policy implications of these findings are discussed.

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CHILDHOOD VICTIMIZATION AND DELINQUENCY, ADULT CRIMINALITY AND VIOLENT CRIMINAL BEHAVIOR: A REPLICATION AND EXTENSION

I. INTRODUCTION

This report presents findings of a replication and extension of earlier research on the relationship between childhood victimization and delinquency, adult criminality and violent criminal behavior. An overview of the rationale for the study, a description of design and methodology precedes a description of the basic findings and a discussion of policy and practice implications of the data.

Childhood victimization and violent offending continue to represent serious social problems confronting our society. Despite recent decreases in juvenile violent crime rates (particularly homicide rates), there has been a steady increase in the number of reports of child abuse and neglect.

In 1986, an estimated 2.09 million children nationwide were reported as abused and/or neglected (AAPC, 1988), a rate of 33 per 1,000 children in the population. By 1996, three million children were officially reported as abused and/or neglected and referred for investigation (U.S. Children's Bureau, 1998). From 1986 to 1996, the rate of abuse/neglect per 1,000 children increased from 33 to 43.5 per 1,000 children. In terms of types of maltreatment, 1998 nationwide data indicates the majority of maltreated children were victims of neglect (53.5%) and 22.7% were physically abused, 11.5% were sexually abused, and 6.0% were emotionally abused (U.S. Department of Health and Human Services, 2000). The rate of neglect increased from 6.3 to 7.2

children per 1,000 in the population of reporting states. Nationally, in 1998, 51.9% of victims were female, compared to 53.5% in 1990. Finally, data on rates of victimization by ethnicity reveal African American children have about the same reported rate of victimization (20.7 per 1,000) as Native American children (19.8 per 1,000), but both groups have higher rates than Caucasian youth (8.5 per 1,000) (U.S. Department of Health and Human Services, 2000). Washington State reports a similar increase in reports to CPS. In 1990, 20.8 children per 1,000 were referred, and by 1996, 33.2 children per 1,000 were referred for abuse/neglect (U.S. Children's Bureau, 1998).

Researchers in both criminal justice and childhood maltreatment have been increasingly concerned about the long term consequences of child maltreatment (Cicchetti & Toth, 1993; Widom, 2000) and about the increased likelihood of involvement of abused and neglected youth in the juvenile and adult criminal justice systems (Widom, 1996). Although no single factor by itself is likely to account for the development of criminal behavior, the importance of childhood victimization as a risk factor for subsequent delinquency, adult criminality, and violence has become increasingly recognized.

Several early reviews of studies examining the relationship between child maltreatment and delinquency (Garbarino & Plantz, 1986; Gray, 1986; Widom, 1989c) concluded that knowledge about this relationship was limited because of methodological problems inherent in prior studies, including reliance on retrospective designs and lack of control/comparison groups of non-abused and non-neglected children. In addition, findings on the relationship between child maltreatment and violent criminal behavior were often contradictory. While some studies provided

support for the relationship (Geller & Ford-Somma, 1984; Lewis, Shanok, Pincus & Glaser, 1979; 1985), others found no relationship or an inverse relationship between child maltreatment and violent criminal behavior

Over the last 20 years, research has been conducted which has overcome many of the methodological problems of earlier research. For example, in one study children who were abused and/or neglected approximately 25 years earlier were followed up through an examination of official criminal records and compared with a matched control group of children of the same age, sex, race, and approximate social class. Early child abuse and neglect increased the risk for arrest as a juvenile by 59%, as an adult by 27%, and for a violent crime by 29% (Maxfield & Widom, 1996). This research was conducted in a metropolitan county in the Midwest using cases of child abuse and neglect that came to the attention of the courts during the years 1967 through 1971.

In another investigation, as part of the Rochester Youth Development Study, Smith and Thornberry (1995) collected information on child abuse and neglect from the Department of Social Services in Rochester, for their cohort of youth in upstate New York. Smith and Thornberry (1995) extended the examination of the relationship of maltreatment to later delinquent and criminal activity by comparing official arrest records to youth self report. Using a coding scheme developed by Cicchetti and Barnett (1991), Smith and Thornberry also utilized a comprehensive assessment of maltreatment, including measures of the type of abuse and neglect based on the actual allegation as well as a measure of severity and duration of maltreatment. Smith and Thornberry reported a significant relationship between child maltreatment and delinquency (self-report and official). Since the youth were approximately age 17 at the

time, adult arrest information was not yet available. Their results also suggested that more extensive maltreatment (i.e., multiple types of victimization) and chronic/severe maltreatment were related to higher rates of delinquency.

A third geographic area provided the basis for another test of the childhood victimization/delinquency connection. Using maltreated children and two non-maltreated comparison samples from Mecklenburg County, North Carolina, Zingraff, Leiter, Myers & Johnson (1993) found that maltreated children (approximately age 15) had higher rates of delinquency complaints than a non-maltreated school and comparison group of impoverished children. Compared to the school sample, the maltreated youth had a higher rate of delinquency complaints for violence (3.3% versus 0.7%) as well. Effect size was diminished when the authors controlled for demographic and family structure variables. However, the overall pattern of the relationship found in these three studies in the Midwest, Northeast, and Southeast support the child abuse/delinquency connection, despite differences in geographic region, time period, age of youth, definition of maltreatment, and assessment technique.

Differences by race/ethnicity

In earlier reports, Widom (1989b) and Maxfield and Widom (1996) reported differences in the likelihood of childhood victims of abuse and neglect to be arrested for violent crimes by race/ethnicity. For whites, abused and neglected children did not have significantly higher rates of violent arrests than controls. In contrast, African-Americans who were abused and neglected, compared to African-Americans who were not abused or neglected, had substantially higher arrest rates for violent offending (juvenile, adult, and any violent crimes). These authors argued for the need for further

examination of these striking and puzzling findings. While there are a number of possible explanations for these disparate findings (.e.g., racism, differences in types of abuse/neglect experienced by the groups, difference in family characteristics), one first issue is the extent to which those earlier findings are generalizable. As noted earlier, the Widom (1989) sample was identified from court records from a Midwest county area during a particular time period. It is possible that the racial disparity findings may be unique to that community at that time period, and not more commonly found.

One of the purposes of the present study was to examine potential differences in the connections between childhood abuse and neglect and subsequent criminal behavior using a sample of abused and neglected children from a different part of the country (Northwest) and from a different time period. Another purpose of this study was to extend the knowledge base by adding a sample of abused and neglected youth with a different ethnic background (i.e. Native American children). Although English (1998) has found that Native American children are significantly more likely to be victims of neglect than other types of abuse, there is virtually no information on the relationship between Native American children, child maltreatment and later delinquent or adult criminal behavior.

Differences by gender

Even though girls and women typically have low rates of engaging in official recorded criminal behavior (Steffensmeier & Broidy, 2000), experiencing child abuse or neglect has been found to have a substantial impact on the criminal behavior of females (Widom, 2000). For example, in their analysis of violence, Maxfield and Widom (1996) reported that abused and neglected females were significantly more likely to

have arrests for violence as juveniles and adults than non-abused and neglected females. On the other hand, very little research has examined gender differences in violent offending and even less has investigated gender differences in the intergenerational transmission of violence.

Traditionally, females are thought to express pain and suffering inwardly, whereas males are assumed to direct their anger in an outward or externalizing manner in terms of aggressive behavior. Another goal of the present research is to explore potential gender differences or similarities in the criminal consequences of early childhood victimization. If abused and neglected females are found to be at increased risk for delinquency, adult criminality, and violent criminal behavior, compared to demographically matched controls, we may need to rethink our understanding of the expression of violence and pay more attention to the development of violence in male *and* female children.

Purpose of Current Study

The current research describes a replication and extension of Widom's original study of the relationship between childhood victimization and subsequent delinquency, adult criminality, and violent criminal behavior, using a cohort of abused and neglected children from a different geographic region of the country (the Northwest), different time period (1980-1984), and different ethnic background (including Native Americans in addition to Caucasians and African-Americans). This report will: (1) describe the design of this study and the sample examined here; (2) report on the prevalence of delinquency, adult criminality and violence in this new and different cohort of abused and/or neglected children; (3) examine potential differences in the relationship between

childhood victimization and delinquency, adult criminal behavior, and violence by gender and by race/ethnicity; and (4) present findings on the consequences associated with different types of childhood victimization experiences and the role of placement as a potential mediator between child abuse and neglect and criminal consequences.

II. DESIGN AND METHODOLOGY

Design

This study is based on a prospective cohorts design, consisting of a sample of abused and neglected children who were made dependents of the Superior Court in a large urban county in the Northwest between 1980-1984, and a matched control group of children identified from birth records.

Identification of the samples

Abused and neglected group

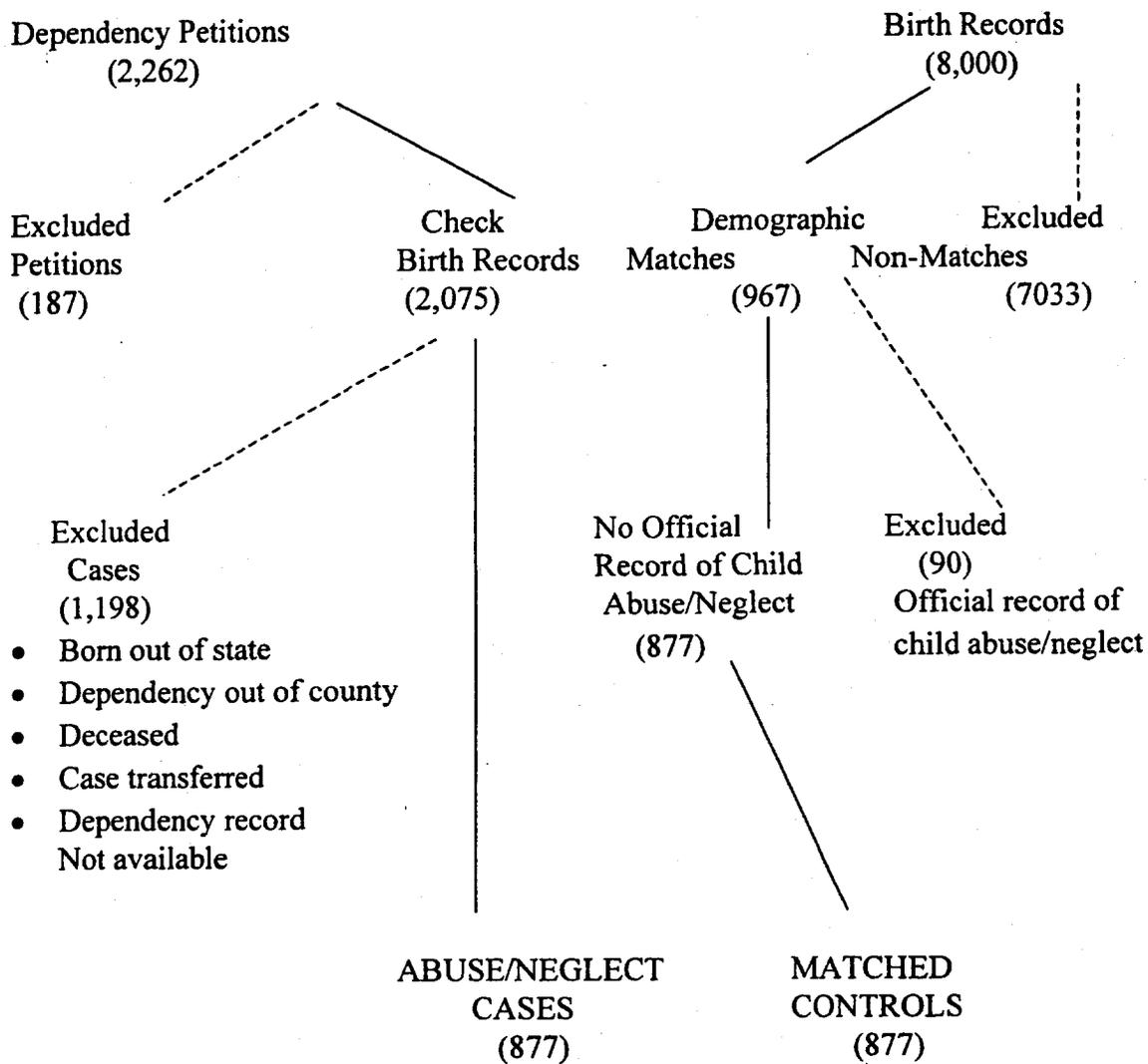
The abuse and neglect group was identified from family court dependency records. When children are alleged to be victims of abuse or neglect they are referred to Child Protective Services (CPS) for investigation. If CPS determines the child to be a victim of abuse or neglect, and the child is considered to be at risk if they remain in their parental home, the child is referred to family court on a petition of dependency. Dependency proceedings in the jurisdiction of the study can be filed on a person under the age of 18 who is alleged to be: (a) abandoned; (b) abused or neglected as defined in law; and (c) without a "parent, guardian or custodian capable of caring adequately for the child, such that the child is in circumstances which constitute a danger of substantial damage to the child's psychological or physical development." (Revised Code of Washington 13.34.0.0(4)) The family court determines whether there is sufficient evidence to remove the child from parental supervision and award custody to the state. Dependent children are those abused and neglected children for whom the state has assumed legal custody. Once dependency is established, a child may be

returned to the parental home once the home is determined to be safe for the child, or the child can be placed with relatives, in a foster home or residential treatment. The child remains in state custody until such time as the court determines it is safe to return the child to parental custody, or the child reaches the age of eighteen.

All dependency petitions filed between 1980-1984 on children age birth to eleven, in a large urban county in the Northwest, were included in the initial sample. Figure 1 presents the criteria for inclusion and exclusion of abuse and neglect cases in our study.

A total of 2,262 dependency petitions were identified as meeting the study criteria. After initial examination, 187 cases were excluded because the case was transferred out of the area, the child died, or the dependency record was not available. Birth records on the remaining 2,075 dependent children were examined to determine if they continued to meet the study criteria for inclusion, to obtain data on ethnicity, and to obtain an address to identify census tract at the time of birth. To be included in the final sample children had to have been born in the state, had to have been made dependent in the county of interest, and their dependency record had to be available (locatable). After initial review, an additional 1,198 children were excluded from the study based on the exclusionary criteria, leaving a final abused and neglected group of 877 children.

Figure 1
Sample Selection Criteria



Matched Control Group

A non-abused and non-neglected, matched control group was identified for the abused and neglected group. Figure 1 also shows the process we used for identifying the matched control group. Initially, Department of Health (DOH) birth records were reviewed to identify a match for each of the abused and neglected children. To locate a matched control group, a file of all youth born within the jurisdiction of interest, in the same time period as the abused and neglected group was obtained from the DOH. DOH birth records were searched until each abuse and/or neglect case in the study had a corresponding matched control based on age (+ or - 3 months), gender, race/ethnicity and approximate socio-economic status.

Approximate socio-economic status matching for the controls was based on birth in the same or similar census tract as the abuse and neglect group. There are 283 census tracts in the study jurisdiction. These census tracts were clustered based on median family income, percent on welfare, percent persons below poverty level, percent persons over 25 with a high school diploma, and percent single female head of household. Census tract data for each of the abuse and neglect cases was identified based on data available in their birth record. A review of approximately 8,000 birth records was required before we could locate census tract matches for the abuse and neglect sample. Once a "matched pool" was identified for the abuse and neglect group, child abuse and neglect registry records were reviewed in order to exclude any of the matched controls found to have a child abuse and neglect report history from the sample pool. These procedures produced a one to one matched control group of 877.

Table 1 provides a summary of the census tract characteristics of the abused and neglected group compared to the controls. As can be noted, the matched controls were selected from census tracts with characteristics comparable to the census tracts where the abused and neglected youth were born.

Table 1. Comparison of Census Tract Characteristics for Abuse /Neglect and Matched Control Groups

| Census Tract Characteristics | Abuse/neglect N = 877 | Controls N = 877 |
|--|--------------------------|---------------------|
| Median Family Income (\$) | 20,822 | 20,836 |
| AFDC (%) | 9.3 | 8.8 |
| % below poverty level | 9.7 | 9.2 |
| % single female head of house w/children | 14.4 | 14.8 |
| % persons w/HS diploma/GED over 25 | 75.1 | 76.9 |

Operational Definition of Variables

Independent Variables

Detailed information on each abused and/or neglected child in the sample was collected including: child's age at dependency, gender, race/ethnicity, reason for dependency, type of maltreatment, type of order at dependency, reason for resolution of dependency, final disposition, length of dependency, caregiver problems at dependency, identified child problems at dependency, whether the child was placed as a result of the dependency, type of placement, and whether the child remained in placement at the resolution of dependency (See Appendix I for a list of variables and coding categories). Census tract information on the abused and neglected group was collected from their birth record.

Demographic data available on the birth certificate for the matched control group includes child's gender, ethnicity, and census tract at time of birth. If the census tract data was not available on the birth certificate, the census tract was identified from the State census records based on street address.

Abuse/Neglect

Abuse or neglect for the purposes of this study is defined as the injury, sexual abuse, sexual exploitation, negligent treatment, or maltreatment of a child...by any person under circumstances which indicate that the child's health, welfare and safety is harmed (RCW 26.44.020(12)). Physical abuse is defined as including any non-accidental injury to a child which, regardless of motive, is inflicted or allowed to be inflicted by a caretaker; dangerous acts constituting a *serious risk* to a child's physical or mental health, safety or welfare but which do not result in the child's injury, or cruel and inhumane acts. Sexual abuse is defined as intentionally touching a child on the genitals, anus or breasts, for other than hygiene or child care purposes, either directly or through clothing. Sexual exploitation is defined as allowing, permitting, or encouraging a child to engage in prostitution by any person; or allowing, permitting, encouraging, or engaging in the obscene or pornographic photographing, filming, or depicting of a child by any person. Negligent treatment or maltreatment includes acts or omissions which evidences a serious disregard of consequences of such magnitude as to constitute a clear and present danger to the child's health, welfare, and safety. These acts or omissions can include failure to provide adequate food, clothing or shelter, failure to provide adequate supervision, and failure to provide medical care.

Type of abuse/neglect precipitating the dependency petition was collected and coded using a modified version of the Maltreatment Classification Coding Scheme (MCS) developed by Barnett, Manly & Cicchetti (1993). The MCS classification scheme provides a mechanism for classifying maltreatment by sub-types with up to six levels of severity for each maltreatment allegation type (see Appendix II). In the MCS coding scheme maltreatment is sub-divided into sub-types for physical abuse, physical neglect, sexual abuse, moral/legal, emotional maltreatment, and educational neglect. Physical abuse is sub-divided into eight sub-types based on location of the alleged act including face, torso, buttocks, and so on. Physical neglect is sub-divided into failure to provide and lack of supervision. Each neglect sub-type is sub-divided into types of failure to provide such as food, clothing, shelter, medical, and hygiene; and lack of supervision to environment and substitute care. Each sub-type is rated for severity of the allegation. For example, physical abuse severity ratings range from no physical evidence of harm (1) to severity level (3) numerous non-minor marks to severity level (6) permanent disability or death. Failure to provide food severity levels range from (1) caregiver does not ensure regular meals to (3) a pattern of frequently missed meals to (5) caregiver has provided such poor nourishment or care such that the child experiences weight loss or severe malnutrition. Each allegation within a referral is coded for type and severity.

Placement

For the purposes of this study, placement is defined as the placement status of the abuse/neglect child at the time of dependency. A dependent child could be placed with their primary caregiver, with relatives or kin, or in non-relative foster care.

Dependent Variables

The primary dependent variables of interest in this study are juvenile, adult criminal and violent arrests.

Juvenile arrests

Data on juvenile arrests from juvenile court records, including both number and types, were collected for each abused and/or neglected youth and each matched control subject. All arrests, except routine traffic offenses, which occurred before the person was age 18 are included here. Offense categories are not mutually exclusive; individual subjects may have arrests for a variety of offenses. (Appendix III provides information on arrest types).

Adult arrests

Adult criminal arrests, excluding routine traffic offenses, for all abused and neglected subjects and matched controls were collected from local, county, state and federal (FBI) law enforcement sources. Each jurisdiction has their own coding system for crimes, so a coding scheme was developed for this study to allow arrest comparisons across jurisdictions.

Two issues addressed in the coding of arrest records included the resolution of coding for aliases and duplicate arrest data from different jurisdictions. Individuals were matched to their arrest records based on name, gender and date of birth. When names were not a direct match, but date of birth and gender matched, crimes were compared for similarity between data sets. If two arrest data sources listed the exact same charges and dates of arrest, as well as another identifier (such as date of birth, or

alias), then they were considered the same individual. Additionally, the FBI sent aliases for each charge for each individual indicated. Fingerprint matches were used by the FBI as the basis for matching initial names to aliases. Duplicate charges were removed from the data set through individual examination of each case and comparison to charges from each data source. It is possible that some crimes were not attributed to an individual due to matching issues, but this was minimized by a thorough examination of each name, other identifying information, and charge.

Violent arrests

A subset of arrests consisting of violent crimes was developed as a key outcome of interest. Violent crimes include arrests as a juvenile or adult for homicide, assault, rape, robbery, burglary, kidnapping, criminal mistreatment, stalking, harassment, and attempted murder, rape, robbery and kidnapping. (Appendix IV provides a list of the specific offenses included in the violent crime category.)

Analytic Strategies

Univariate, bivariate, and multivariate statistical techniques were used to analyze these data. Frequencies and percents are provided as descriptors of the data. Chi-square analysis was used to examine initial bivariate relationships between the independent and dependent variables. Relative risk (RR) was also calculated to indicate differences in the risk of arrest for different groups of subjects. RR is a ratio of two probabilities (i.e., the likelihood of arrest for one group compared to the likelihood of arrest for another group). Multivariate logistic and multiple regression techniques were used to examine arrests (present/absent and how many, respectively) as a function of child and case related variables.

III. DEMOGRAPHIC CHARACTERISTICS OF THE ABUSE AND NEGLECT GROUP AND MATCHED CONTROLS

Table 2 presents information on the demographic characteristics of the abused and neglected group compared to the matched controls. As indicated, the percent of males (47%) and females (53%) in the groups (abuse and neglect and controls) was equivalent. The majority of the abuse and neglect and matched control group subjects was Caucasian (70.4%), with about a fifth African Americans (22.1%) and 5.8% Native Americans. Table 2 also provides information on the mean, minimum and maximum age of the subjects and controls at the time of the juvenile, adult and violent criminal history data collection. The abuse and neglect group and the matched controls were approximately 24 years of age at the time criminal histories were checked and were well matched in terms of standard deviation (2.8 years) and age range. The design of this study allowed sufficient time for the abused and neglected and matched control groups to come to the attention of authorities for delinquent, adult criminal, and violent behavior.

Table 2. Demographic Characteristics of the Sample

| | Abuse/neglect | | Controls | | Totals |
|------------------|---------------|------|----------|------|--------|
| | N | % | N | % | N |
| Gender | | | | | |
| Male | 415 | 47.3 | 415 | 47.3 | 830 |
| Female | 462 | 52.7 | 462 | 52.7 | 924 |
| Ethnicity | | | | | |
| Caucasian | 617 | 70.4 | 617 | 70.4 | 1234 |
| African American | 194 | 22.1 | 194 | 22.1 | 388 |
| Native American | 51 | 5.8 | 51 | 5.8 | 102 |
| Age (in years) * | | | | | |
| Mean | 24.1 | | 24.2 | | |
| Min | 19.7 | | 19.8 | | |
| Max | 30.1 | | 30.6 | | |
| SD | 2.8 | | 2.8 | | |
| Range | 10.5 | | 10.8 | | |

Note: There are 30 abuse/neglect and control subjects in the "other" ethnicity category.

* As of December 1998

Abused and Neglected Children at the Time of the Dependency

This section provides descriptive data on the abused and neglected group based on information available in the court record at dependency. Figure 2 provides information on the age of the abused and neglected youth at the time of dependency. As can be seen, the majority of the maltreated group was between the ages of 6 and 11 at the time of dependency.

Figure 2. Age at Dependency

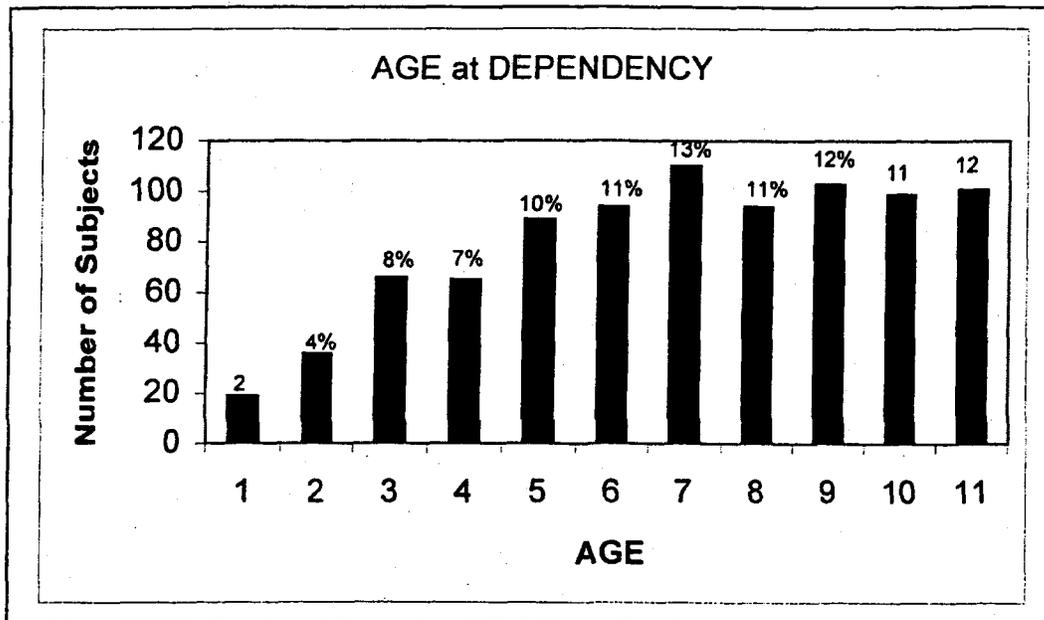


Table 3 presents information on the type of abuse identified in the court dependency record, reason for dependency petition, and child placement status at dependency. The most common type of victimization experienced by the abused and neglected group was multiple types of abuse/neglect (40%), and this was followed by neglect (33%). The remaining youth were found to be victims of physical abuse only (8%), emotional abuse only (9%), or sexual abuse only (9%).

Table 3. Abuse/Neglect Group Dependency Demographics

| Type of Abuse at Dependency | N | % |
|--|----------|----------|
| Physical abuse only | 76 | 8% |
| Neglect only | 284 | 33% |
| Emotional abuse only | 78 | 9% |
| Sexual abuse only | 79 | 9% |
| Multiple types of abuse | 343 | 40% |
| Reasons for Dependency Petition | | |
| Abandoned | 74 | 8.4% |
| Abuse/neglect | 594 | 67.7% |
| No parent/guardian willing or capable | 635 | 72.4% |
| Child Placement at Dependency Order | | |
| | N | % |
| Mother | 282 | 32.2% |
| Father | 77 | 8.8% |
| Both | 36 | 4.1% |
| Relative | 140 | 16.0% |
| Foster Care | 324 | 36.9% |
| Kin Care | 4 | 0.5% |
| Missing | 5 | 0.5% |
| Length of Time of Dependency Order | | |
| | N | % |
| 0-1 Years | 559 | 64% |
| 2-3 Years | 178 | 20% |
| 4-6 Years | 67 | 8% |
| 7-15 Years | 72 | 8% |
| Reason for Resolution of Dependency | | |
| Adoption | 17 | 1.9% |
| Conditions met | 546 | 62.3% |
| Custody change | 148 | 16.9% |
| Foster care | 4 | 0.5% |
| Kin care | 8 | 0.9% |
| Unfounded | 16 | 1.8% |
| Not established | 42 | 4.8% |
| Aged out | 51 | 5.8% |
| Missing | 44 | 5.0% |
| Child's Final Disposition | | |
| With Parent | 707 | 80.7 |
| Adopted | 15 | 1.7 |
| Kin | 58 | 6.6 |
| Foster Care | 17 | 1.9 |
| Aged Out | 49 | 5.6 |
| Missing/Unknown | 30 | 4 |

The initial reason for dependency for the majority of the maltreated group was either for abuse and neglect (67.7%) and/or no parent/guardian willing or capable of caring for the child (72.4%). This latter option was often used in contested hearings when maltreatment issues were present, but the family negotiated for a dependency order based on inability to care for the child rather than an abuse or neglect categorization (personal communication, Bill Caughey, 1999). Finally, 74 (8.4%) of the dependency petitions were filed based on abandonment of the child by their parent/caregiver. Since it is possible to cite more than one reason for a dependency petition, the categories are not mutually exclusive. The actual order of dependency reason was similar to the original reason for the dependency filing.

The court documents also provided data on child placement at dependency. Based on the order of dependency, over half (53.4%) of the children were placed in a setting other than their parents home at the time of dependency, with 36.9% of these placements in non-relative foster care, and 16.5% of the placements with relatives or other kin. The remaining children, 45.1%, were placed with their mother, father or both mother and father.

Table 3 also presents data on the length of dependency, reason for resolution, and final disposition of the case. The overwhelming majority of children were in state custody for less than one year (64%), with an additional 20% remaining in dependency status for up to three years. The most common reason for the resolution of the dependency was that the caregiver met the conditions set forth in the dependency petition (62.3%). In about 17% of the cases, the dependency case was resolved through a change in the primary caregiver custody. A small percentage of abused and

neglected children were returned to their primary caregivers based on a failure to establish grounds for the petition, e.g., allegations were not established (4.8%), or allegations were unfounded (1.8%). Cases were resolved for the remaining children who were in an alternative form of care (1.9% adopted, 0.5% in non-relative foster care, and 0.9% in relative care). An additional 5.8% of the children had "aged out" of non-relative foster care and the reason for dependency resolution was missing in 5.0% of the cases. The final part of Table 3 shows the final disposition for the child. The vast majority (80.7%) of the children had been returned to parental custody. The remaining children (less than 20%) had been adopted, were with kin, in non-relative foster care, or had turned 18 and were legally independent.

Table 4 presents information from the court records about the caregiver and child problems that were noted in the files and related to the dependency petition. Substance abuse (25.3%) and mental health problems (16.8%) were the most frequently mentioned problems associated with the primary caregiver, although domestic violence was noted in about 10% of the cases. Approximately 14% of the children who were the subject of the dependency petition were described as having behavior problems and an additional 14% were described as having victimized a sibling.

**Table 4. Abuse/Neglect Group
Caregiver and Child Problems at Dependency**

| Caregiver/Child Problems at Dependency | N | % |
|---|----------|----------|
| Caregiver problems | | |
| Substance Abuse | 222 | 25.3% |
| Mental Health | 147 | 16.8% |
| Physical Health | 16 | 1.8% |
| Developmental Delay | 4 | 0.5% |
| Receives AFDC | 3 | 0.3% |
| Domestic Violence | 84 | 9.6% |
| Child Problems | | |
| Child Behavior Problems | 120 | 13.7% |
| Sibling Victimization | 125 | 14.3% |

Characteristics of the Abuse and Neglect Experiences

Type of Maltreatment

Greater detail regarding the nature and character of the maltreatment allegations that brought these children into dependency court is provided by the maltreatment classification scheme (MCS) (see earlier description). Table 5 provides information on the major types of abuse and neglect reported in the dependency petition based on the MCS classification system.

When interpreting this information, two points should be kept in mind: 1) a child could have more than one allegation of abuse or neglect included in his or her dependency petition, and 2) the coding system (and, hence, the rating) does not take into account the history of the maltreatment. The court dependency record only provides information on the index maltreatment allegation that precipitated the dependency action. Information about prior history of CPS referrals was not available

**Table 5. Maltreatment at Dependency
By Severity for Major Abuse/Neglect Group**

| Type of Allegation (MCS)* | Low Severity (0,1,2) | | Moderate Severity (3) | | High Severity (4,5) | | Total | |
|---------------------------|----------------------|------|-----------------------|------|---------------------|------|-------------|--------------|
| | N | % | N | % | N | % | N | % |
| Physical Abuse | 192 | 49.1 | 143 | 36.6 | 56 | 14.3 | 391 | 32.4 |
| Physical Neglect | 295 | 48.7 | 102 | 16.8 | 209 | 34.5 | 606 | 50.2 |
| Sexual Abuse | 8 | 3.8 | 65 | 30.8 | 138 | 65.4 | 211 | 17.5 |
| Total | 495 | | 310 | | 403 | | 1208 | 100.0 |

*Not mutually exclusive

(Moral/Legal and educational maltreatment were coded using the maltreatment classification scheme, but were not documented here because they are not abuse categories that are accepted for investigation in the study jurisdiction.)

The majority of allegations for this group of dependency children were of physical neglect (50.2%) and about one-third of the physical neglect allegations were classified in the high severity category. High severity neglect includes failure of the caregiver to provide basic needs such as food, clothing, shelter or medical care (such that the child experiences physical consequences e.g., weight loss, non-organic failure to thrive). High severity neglect also includes prolonged experiences such as no heat during winter, failure to seek medical attention for potentially life-threatening illness or injury, or extremely unhealthy living conditions. Moderate severity neglect is similar to high severity categories, but is time limited or limited in frequency. For example, in high severity neglect, a caregiver has provided such poor nourishment that the child fails to gain weight or grow at the rate expected for their development. In moderate severity neglect, a caregiver does not provide meals on a regular basis, creating a pattern of frequently missed meals. Nearly one-half (48.7%) of the neglect allegations, based on the allegations that brought the case to dependency, fall within the low severity ranking

including such behaviors as caregiver's failure to provide food on a regular basis, appropriate clothing for the weather, hygienic shelter, medical care consistent with medical need, or adequate child hygiene.

Physical abuse allegations represented about one-third of the allegations (32.4%), with 14.3% falling within the high severity category, and nearly one-third (36.6%) classified in the moderate severity group. At a minimum, a severity "3" rating (moderate severity) indicates some physical manifestation of harm as a result of physical abuse such as multiple bruising, and a severity "4" or "5" rating (high severity) indicates serious physical harm that resulted in medical attention or hospitalization. Nearly one-half (49.1%) of the physical abuse allegations were classified as low severity (severity 1 or 2), which indicate acts that had a potential for serious harm (endangerment) to the children but did not result in a physical manifestation of harm.

Sexual abuse allegations account for less than a fifth (17.5%) of the allegations for this sample of dependent children. However, when sexual abuse was alleged, the majority of allegations were classified as severity level 4 or 5 indicating allegations of attempted or actual penetration. Sexual abuse behaviors with severity rating "3" include molestation.

While few of the sexual abuse cases were rated as low severity (less than 4%), almost half of the physical neglect and physical abuse cases were rated as low in severity. In interpreting these ratings, it is important to keep in mind that these do not take into account history. Furthermore, it is unlikely that the sole reason children are made dependent is based on one time, low severity maltreatment allegations.

Severity of Maltreatment Experience

One of the major advantages of the MCS is that it classifies cases by sub-type within the broader categories of abuse/neglect. Table 6 provides data on the level of severity by sub-types for the physical abuse and neglect maltreatment types. While the number of cases within each sub-type and severity level is too small for in-depth statistical analysis, these data do provide a context for understanding the precipitating maltreatment experience of these children who were made dependents of the court based on their alleged maltreatment. For example, when examining overall physical abuse allegations by severity, nearly one-half of the allegations fall into the low severity categories, which means that there was no physical manifestation (bruises, broken bones, skull fractures) of harm to the child included in the referral allegations. However, when examining specific sub-type allegations, Table 6 indicates that for allegations related to location of the physical acts, over one-half of the allegations of physical abuse to the face were moderate or high severity, and nearly two-thirds of the allegations of acts to the torso or buttocks of the child resulted in some physical manifestation of harm. The percentage of bruising or other damage to a child's limbs is higher (76.2%), and for burns/scalds in unspecified locations (68.4%). Although violent handling (92.9%) and choking/smothering (40.0%) had a larger percent of the allegations classified as low severity (no physical manifestation of harm), the potential for harm of this behavior, especially for young children, is considerable.

**Table 6. Maltreatment At Dependency
Sub-Types by Severity For Abuse/Neglect Group
N=877 Abuse/Neglect Children**

| Type of Allegation | Low Severity | | Moderate Severity | | High Severity | | Total | | |
|--------------------------|-----------------|-------|-------------------|------|---------------|------|-------|------|------|
| | N | % | N | % | N | % | N | % | |
| Physical Abuse | | | | | | | | | |
| Face | 39 | 43.0 | 36 | 40.0 | 15 | 16.7 | 90* | 10.3 | |
| Torso | 15 | 31.9 | 25 | 53.2 | 7 | 14.9 | 47* | 5.3 | |
| Buttocks | 17 | 28.3 | 37 | 61.7 | 6 | 10.0 | 60* | 6.8 | |
| Limbs | 14 | 23.7 | 34 | 57.6 | 11 | 18.6 | 59* | 6.7 | |
| Violent Handling | 26 | 92.9 | 1 | 3.6 | 1 | 3.6 | 28* | 3.2 | |
| Choking/Smothering | 2 | 40.0 | 2 | 40.0 | 1 | 20.0 | 5* | 0.6 | |
| Burns/Scalds | 6 | 31.6 | 3 | 15.8 | 10 | 52.6 | 19* | 2.2 | |
| Shaking | 1 | 100.0 | -- | -- | -- | -- | 1* | 0.1 | |
| Non-Descriptive | 72 | 87.8 | 5 | 6.1 | 5 | 6.1 | 82* | 9.3 | |
| Neglect | | | | | | | | | |
| Failure to Provide | Food | 59 | 81.9 | 4 | 5.6 | 9 | 12.5 | 72 | 8.2 |
| | Clothing | 39 | 100.0 | -- | -- | -- | -- | 39 | 4.4 |
| | Shelter | 45 | 54.2 | 2 | 27.7 | 15 | 18.1 | 83 | 9.5 |
| | Medical Care | 42 | 50.0 | 35 | 41.7 | 7 | 8.3 | 84 | 9.6 |
| | Hygiene | 35 | 54.7 | 17 | 26.6 | 12 | 18.8 | 64 | 7.3 |
| Lack of Super- vision | Supervision | 59 | 43.4 | 16 | 11.8 | 61 | 44.9 | 136 | 15.5 |
| | Environment | 4 | 17.4 | 4 | 17.4 | 15 | 65.2 | 23 | 2.6 |
| | Substitute Care | 12 | 11.4 | 3 | 2.9 | 90 | 85.7 | 105 | 12.0 |

* Not mutually exclusive

(1) Not coded to severity

Even cases with low severity have allegations of harm to torso.

(Moral/Legal and educational maltreatment were coded using the maltreatment classification scheme, but were not documented here because they are not abuse categories that are accepted for investigation in this state.)

Understanding the context of neglect sub-types within the MCS classification scheme is more difficult than physical abuse sub-types, because the severity ratings are based on potential for harm, not necessarily manifestations of physical harm. As noted in Table 6, the majority of the failure to provide food and clothing allegations are low severity, and about one-half of the failure to provide shelter, medical care and hygiene allegations are low severity. However, significantly more of the failure to

provide shelter, medical care, and hygiene allegations were classified as moderate or high severity. In this case, moderate or high severity allegations indicate caregiver omissions characterized by poor nourishment resulting in potential or actual physical harm to the child, gross inattention to child's medical needs, or maintaining a home environment such that living conditions are extremely unhealthy. It is interesting to note that the majority of the lack of supervision allegations related to environment and substitute care is rated in the higher severity levels. These types of allegations include failure to provide supervision for extended periods of time, allowing the child to play in very dangerous or life-threatening situations, or allowing the child to be supervised by a caregiver with a known history of violence or sexual acts against children.

Finally, within the modified MCS classification used in this study, there were 368 allegations of emotional maltreatment that were coded into 27 different sub-types of maltreatment. These 27 different allegations of emotional maltreatment were grouped into four categories (psychological safety, acceptance and self-esteem, age appropriate autonomy, and restriction or binding), but were not coded for severity level (see Table 7).

Table 7. Emotional Maltreatment Types For Abuse/Neglect Group

| <i>Emotional Maltreatment**</i> | N | % |
|--|------------|--------------|
| Psychological Safety | 286 | 77.7 |
| Acceptance & Self-esteem | 48 | 13.0 |
| Age Appropriate Autonomy | 17 | 4.6 |
| Restriction | 17 | 4.6 |
| TOTAL | 368 | 99.9* |

*Does not total to 100% due to rounding.

**Emotional maltreatment is not coded to severity because the MCS does not have emotional maltreatment divided by severity.

The overwhelming majority of emotional maltreatment allegations (77.7%) included in the dependency petition for the abused and neglected group were related to psychological safety. Examples of items that were grouped in this category included caregiver using fear or intimidation with child, exposure of child to extreme, but non-violent or violent marital conflict, threats to injure the child, and threats to commit suicide or homicide in front of the child. A much lower percent of the emotional maltreatment allegations were associated with acceptance and self-esteem issues (13.0%). Included in this category are behaviors such as caregiver belittles or ridicules child, caregiver is negative or hostile toward the child, caregiver rejects or is inattentive or unaware of child's need for affection. Finally, in the last two groups of emotional maltreatment subtypes are age appropriate autonomy (4.5%) and restriction (4.6%). Included in these two classifications are behaviors such as child is given inappropriate level of responsibility, or is not permitted to engage in age appropriate socialization, or caregiver confines or isolates child (e.g. in a closet), or binds child to furniture.

IV. FINDINGS

Child abuse and neglect and risk of arrest as a juvenile, adult, or ever

A comparison of the overall frequency of juvenile, adult, and any arrests for the abused and neglected and matched controls is presented in Table 8. Overall, 19.6% of the abused and neglected group versus 4.1% of the controls had a juvenile arrest record (chi square = 108.7, df=1, p<.001). The relative risk (RR) was 4.8, indicating

that the abused and neglected youth were 4.8 times more likely to be arrested for a juvenile crime compared to the controls.

Table 8. Arrests for Juvenile and Adult (Non-traffic) Offenses Among Abused and Neglected Individuals and Matched Controls

| Arrest | Abuse/Neglect (N=877) % | Control (N=877) % | X ² | Relative Risk |
|--------------------------|-------------------------------|-------------------------|----------------|---------------|
| Juvenile | | | | |
| Overall | 19.6 | 4.1*** | 100.89 | 4.8 |
| Male | 32.0 | 6.3*** | 89.07 | 5.1 |
| Female | 8.4 | 2.2*** | 18.12 | 3.9 |
| Caucasian | 14.9 | 2.4*** | 60.67 | 6.1 |
| African American | 34.5 | 9.3*** | 36.17 | 3.7 |
| Native American | 25.5 | 3.9*** | 9.46 | 6.5 |
| Adult | | | | |
| Overall | 41.7 | 21.0*** | 87.74 | 2.0 |
| Male | 59.5 | 31.6*** | 65.37 | 1.9 |
| Female | 25.8 | 11.5*** | 31.12 | 2.2 |
| Caucasian | 35.0 | 14.7*** | 67.75 | 2.4 |
| African American | 59.3 | 38.1*** | 17.34 | 1.5 |
| Native American | 58.8 | 35.3* | 5.67 | 1.7 |
| Juvenile or Adult | | | | |
| Overall | 45.3 | 21.9*** | 107.42 | 2.1 |
| Male | 64.3 | 32.3*** | 85.35 | 2.0 |
| Female | 28.0 | 12.6*** | 34.62 | 2.2 |
| Caucasian | 38.9 | 15.4*** | 86.15 | 2.5 |
| African American | 62.4 | 39.7*** | 19.97 | 1.6 |
| Native American | 60.8 | 37.3* | 5.65 | 1.6 |

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

Table 8 also shows the percent of the abused and neglected subjects who were arrested as an adult (41.7%) compared to the controls (21.0%) (chi square = 96.0, df=1, p<.001). this means that the abuse and neglect group was two times (RR) more likely to be arrested for an offense as an adult. Looking across the life span to

approximately age 24, abused and neglected individuals also had a significantly higher likelihood of ever being arrested than the controls (45.3% to 21.9%; chi square = 19.3, $df = 1$, $p < .001$). Thus, in terms of the first goal of this project, the current findings strongly support the childhood abuse and neglect and delinquency and adult crime connection.

Gender Comparison

Our findings on the extent of criminal behavior (arrest) as a juvenile, adult, or any by gender are also presented in Table 8. The increase in risk associated with child maltreatment was found for both males and females, replicating earlier work. Abused and neglected males were five times more likely to be arrested as a juvenile (32% versus 6%), and almost two times more likely to be arrested as an adult (59.5% versus 31.6%, respectively) compared to the matched control males. In terms of any arrest, the increase in risk for abused and neglected males, compared to control males, was two times higher as well (64.3% versus 32.3%). Abused and neglected females were nearly four times ($RR = 3.9$) more likely to be arrested as a juvenile compared to matched control females (28% versus 12.6%) and twice as likely to be arrested as an adult compared to controls (25.8% versus 11.5%). It is interesting to note that abused and neglected females had almost the same likelihood of ever being arrested (28.0%) as control males (32.3%). In sum, our findings strongly support the notion that child abuse and neglect increases the risk of arrest as a juvenile and as an adult for both males and females, compared to their non-abused and non-neglected male and female peers.

Ethnic Comparison

Another goal of this study was to determine the extent to which the earlier findings regarding the risk of arrest associated with childhood victimization effects children of different ethnic backgrounds. In the present study, children were identified as Caucasian, African American, Native American, or other. Table 8 also presents our findings for any arrest as a juvenile, adult, or ever for the abused and neglected individuals and matched controls by ethnicity.

The first observation is that abuse and neglect significantly increases a child's risk of delinquency, adult criminality, and ever being arrested, regardless of whether the youth are Caucasian, African American, or Native American. The relative risk varies for abused and neglected children compared to the controls across the three groups, however. The RR for adult and any arrest is higher for Caucasian abused and neglected children compared to Caucasian controls, than the RR for African American and Native American abused and neglected children compared to African American and Native American controls. For juvenile arrests, the RR for Caucasian and Native American abused and neglected children is higher, compared to controls (6.1 and 6.5, respectively) than the RR for African American abused and neglected children as compared to African American controls (RR=3.7).

Although we can only speculate, one possible explanation for this pattern of results may be related to the base rates of arrest for youth of different ethnic backgrounds. Because Caucasian youth have lower base rates of arrest in this sample, childhood victimization may appear to have a strong effect, resulting in the large disparity between the abused and neglected Caucasian youth compared to

Caucasian controls. The same explanation may be appropriate for understanding the relative risk for the Native American abused and neglected youth compared to Native American controls. In this sample, the base rate of arrest for the Native American controls is also low (3.9%). We need to continue to examine the meaning of these differential risk ratios across the three ethnic groups.

These findings clearly reveal that childhood victimization increases risk of arrest for delinquency, adult criminality, and any criminal behavior for Caucasian, African American, and Native American youth. These findings also replicate the earlier findings of Widom (1989) and Maxfield and Widom (1996). What about arrests for violence?

Childhood victimization and arrests for violence

This section presents our findings on the relationship between child abuse and neglect and subsequent violent criminal behavior in further attempts to replicate the findings of the earlier Widom study. We present findings on the risk of being arrested for a violent crime as a juvenile, as an adult, or ever in Table 9 for the abused and neglected subjects as compared to the matched controls.

Overall, being abused and neglected is associated with an increase in risk of arrest for a violent crime as a juvenile, as an adult, and ever, compared to controls. Thus, these findings from a Northwest sample and from a different time period provide additional evidence to strongly support the relationship between child abuse and neglect and subsequent arrest for violent criminal behavior. As a whole, the abused and neglected youth were 11 times more likely to be arrested for a violent crime as a juvenile (8.8% versus 0.8%), 2.7 times more likely to be arrested for a violent crime as

an adult (23% versus 8.7%), and 3.1 times as likely to be arrested for any (adult or juvenile) violent crime (27.1% versus 8.9%), compared to the matched control group.

Table 9. Juvenile and Adult Arrests For Violence Among Abused and Neglected Individuals and Matched Controls

| Violent Arrest | Abuse/Neglect (N=877) % | Control (N=877) % | X ² | Relative Risk |
|--------------------------|-------------------------------|-------------------------|----------------|---------------|
| Juvenile | | | | |
| Overall | 8.8 | 0.8*** | 61.27 | 11.0 |
| Male | 15.7 | 1.4*** | 53.61 | 10.8 |
| Female | 2.6 | 0.2** | 9.44 | 12.0 |
| Caucasian | 6.5 | 0.3*** | 35.59 | 20.0 |
| African American | 17.5 | 2.1*** | 26.26 | 8.5 |
| Native American | 5.9 | 2.0 NS | 1.04 | 3.0 |
| Adult | | | | |
| Overall | 23.0 | 8.7*** | 67.86 | 2.7 |
| Male | 34.0 | 16.1*** | 35.13 | 2.1 |
| Female | 13.2 | 1.9*** | 41.80 | 6.8 |
| Caucasian | 16.9 | 3.6*** | 59.43 | 4.8 |
| African American | 42.8 | 23.7*** | 15.90 | 1.8 |
| Native American | 27.5 | 15.7 NS | 2.09 | 1.8 |
| Juvenile or Adult | | | | |
| Overall | 27.1 | 8.9*** | 98.82 | 3.1 |
| Male | 40.2 | 16.4*** | 58.18 | 2.5 |
| Female | 15.4 | 2.2*** | 50.35 | 7.1 |
| Caucasian | 21.1 | 3.6*** | 87.52 | 5.9 |
| African American | 47.4 | 24.7*** | 21.64 | 1.9 |
| Native American | 29.4 | 15.7 NS | 2.75 | 1.9 |

* p<.05, ** p<.01, ***p<.001, NS = not significant

Note: There are four violent arrests with no arrest date. These are in the Juvenile/Adult Violence category, but not in Juvenile violent arrests or Adult violent arrest categories.

Risk of Arrest for Violence by Gender

Despite the fact that females are generally less likely to be arrested than males, childhood victimization increases a young girl's risk of arrest for a violent crime.

Interestingly, the increase in risk of arrest for a violent crime as a juvenile was about the

same for male and female abused and neglected youth (RR = 10.8 and 12.0, respectively), compared to the matched control group. In terms of an arrest for a violent crime as an adult, abused and neglected males were significantly more likely to be arrested compared to their matched controls (RR = 2.7). However, abused and neglected females were nearly seven (RR = 6.8) times more likely to be arrested as an adult for a violent crime compared to their matched controls.

In terms of any arrest for a violent crime (juvenile or adult), we found that abused and neglected males are 2.5 times as likely as control males to be arrested, whereas the RR for females was 7.4. Indeed, the increased likelihood for female abuse and neglect victims to be arrested for a violent crime is striking (a higher magnitude), especially compared to the more modest increase in risk of arrest for abused and neglected males, compared to control males. Despite a general belief that females who are victims of child maltreatment will direct their pain and suffering inwardly, these findings suggest that they may also direct their aggression in an outer direction.

Risk of Arrest for Violence by Race/Ethnicity

The abused and neglected Caucasians in this sample were 20 times more likely to have a juvenile arrest for a violent crime than the Caucasian matched controls. The African American abused and neglected individuals in the sample also showed a significant increase in the likelihood of an arrest for violent crimes as a juvenile, compared to the African American matched controls (RR = 8.5). In contrast, the Native American abused and neglected group was not significantly more likely to be arrested for violent crimes as a juvenile, compared to their matched controls. The same pattern

emerged with regard to the risk for being arrested as an adult and for any violent arrest. Two of the abused and neglected groups (Caucasians and African Americans) were at a significantly higher risk of arrest for violence as adults (RR = 4.8 and 1.8, respectively) whereas the relative risk for the Native American abused and neglected group did not reach customary levels of significance for juvenile, adult or any arrest.

Risk of Arrest for Violence by Type of Abuse or Neglect

The next set of findings presents the relationship between type of abuse and neglect and arrest for a violent crime. According to a strict interpretation of the cycle of violence (Widom, 1989), one would expect that children who were physically abused would have the highest risk of arrest for violent criminal behavior. That is, following social learning theory, being the victim of violence as a child (physical abuse) should provide a model for the youth to learn and imitate violence when they grow up. Widom (1989) found that physical abuse was associated with the highest risk of arrest for any violent crime, but neglected children were also at higher risk. Table 10 provides our findings on the extent of any arrest for violence by type of abuse and neglect type as defined at dependency, when these youth were removed from their parents or caretakers.

Table 10. Does Only Violence Beget Violence?

| Abuse Type | Arrest for Any Violent Offense | |
|----------------------|--------------------------------|------|
| | N | % |
| Physical Abuse Only | 76 | 30.3 |
| Neglect Only | 284 | 31.3 |
| Emotional Abuse Only | 78 | 32.1 |
| Sexual Abuse Only | 79 | 16.5 |
| Multiple Abuse Types | 343 | 23.9 |
| Controls | 877 | 8.9 |

The current findings replicate the earlier work and reveal that children who were physically abused and neglected have an increased risk of arrest for violence. However, these findings also extend earlier work by examining the risk of being arrested for a violent crime associated with emotional maltreatment. Nearly one-third of the children experiencing these three types of maltreatment were arrested for a violent crime (30.3%, 31.3%, and 32.1%, respectively). About one in four (23.9%) of the children who experienced multiple types of abuse and neglect had an arrest for a violent crime. In contrast, victims of sexual abuse were the least likely to be arrested for a violent crime (16.5%) – a finding similar to the results published earlier by Widom (1989) and Maxfield and Widom (1996). However, since child sexual abuse cases are predominantly female, multivariate analysis with controls for gender are needed to assist in interpreting these findings.

We conducted a logistic regression analysis looking at the risk of arrest for a violent crime with distinct types of abuse or neglect and controls for gender and race/ethnicity. Based on this analysis, we found that physical abuse, sexual abuse, neglect, and emotional abuse each predicted higher rates of arrest for violence,

compared to controls (see Table 11). These findings contrast to the earlier findings of Widom (1989) and Maxfield and Widom (1996) who found that physical abuse and neglect were associated with higher rates of violence, but that childhood sexual abuse was not.

Table 11. Logistic Regression Predicting to Any Violent Arrest

| | b | SE | Odds Ratio | 95% Confidence Interval |
|------------------------------|-----|-----|------------|-------------------------|
| Male | 1.4 | .15 | 4.0*** | 3.0 - 5.4 |
| African-American (vs. white) | 1.4 | .15 | 4.0*** | 3.0 - 5.3 |
| Native American (vs. white) | .5 | .27 | 1.7* | 1.0 - 2.9 |
| Physical Abuse | 1.0 | .28 | 2.7*** | 1.6 - 4.8 |
| Sexual Abuse | .8 | .33 | 2.3* | 1.2 - 4.4 |
| Neglect | 1.0 | .17 | 2.7*** | 1.9 - 3.7 |
| Emotional Abuse | .7 | .28 | 2.0* | 1.2 - 3.5 |

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

The Relationship Between Placement Status and Arrest

This section presents preliminary findings on arrest risk for juvenile, adult, any, or violent arrests for the abuse and neglect group by placement status at dependency. We are limited in the information we have regarding placement, but present initial findings here. Future analyses will attempt to expand on these results.

At the dependency, the child could remain with his or her primary caregiver, could be placed with a relative or kin, or could be placed in non-relative foster care. As shown earlier in Table 3, in our sample, over one-half of the abused and neglected youth were removed from their primary caregiver care at dependency and 16.5% were placed with relative or kin. About one-third of the removed children were in non-relative foster care (36.9%).

Table 12 provides our findings regarding the likelihood of arrest for a juvenile, an adult, any, or a violent crime by placement status at dependency. The purpose of this analysis was to determine if the risk of arrest is the same or different for abused and neglected children as a function of different caregiving arrangements at dependency. Table 12 shows the risk of arrest for children living with their primary caregivers, relatives, or kin compared to children removed from their primary caregiver and placed in non-relative foster care (paid placement, non-family). Since children removed and placed outside their homes would be more likely to come from problem families, our expectation is that these children would be at higher risk for subsequent criminal behavior (arrest as a juvenile, adult, any, or for a violent crime).

Table 12. Arrest Risk By Identified Child Behavior Problems At Dependency By Placement Status

| Arrest | Placement Status | | | | |
|----------|-------------------|-----------------------|---------------|-----------|---------|
| | Primary Caregiver | Not Primary Caregiver | Relative Risk | C.I. | Signif. |
| Juvenile | 14.9% | 23.7% | 1.6 | 1.20-2.11 | *** |
| Adult | 35.2% | 47.3% | 1.3 | 1.14-1.58 | *** |
| Any | 39.7% | 50.0% | 1.3 | 1.08-1.46 | *** |
| Violent | 23.5% | 30.5% | 1.3 | 1.04-1.62 | * |

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

Our results show that abused and neglected children removed from parental custody and placed in non-relative foster care were significantly more likely to be arrested for a juvenile, adult, any, or violent crime.

We report one further analysis which compares the risk of arrest and placement status. Abused and neglected children who remained with their primary caregiver

during dependency and entered non-relative foster care post dependency were compared to children who remained with their primary caregiver and have no documented record of placement up to age 18. Table 13 provides these results.

Table 13. Arrest Risk By Placement Status at Dependency

| | Remained w/Primary Caregiver | Primary Caregiver – Later Placed | Relative Risk | C.I. | Signif. |
|----------|------------------------------|----------------------------------|---------------|-------------|---------|
| Juvenile | 10.7% | 29.5% | 2.7 | 1.74 - 4.34 | *** |
| Adult | 30.6% | 51.1% | 1.7 | 1.28 - 2.18 | *** |
| Any | 33.9% | 60.2% | 1.8 | 1.42 - 2.85 | *** |
| Violent | 19.2% | 38.6% | 2.0 | 1.42 - 2.85 | *** |

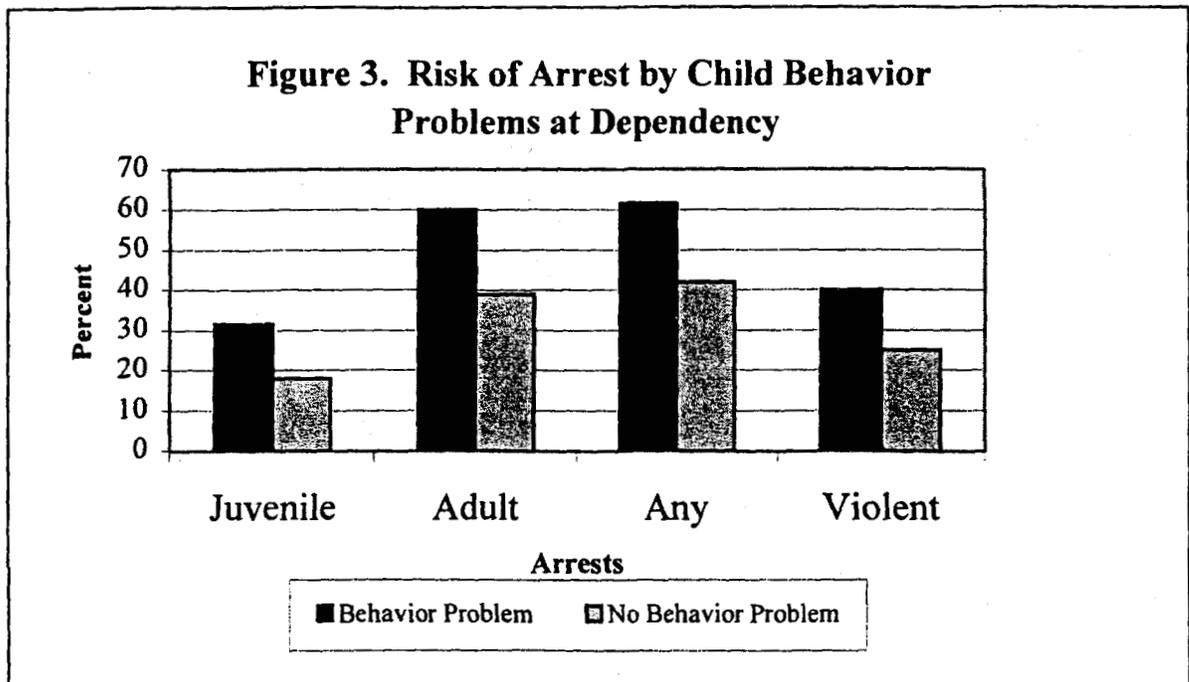
*** p<.001

Children who remained with their primary caregiver and were later removed and placed in non-relative foster care were at higher risk of arrest for juvenile (RR=2.7), adult (RR =1.7), any (RR= 1.8), and violent (RR= 2.0) crimes compared to children who remained with their primary caregivers. The relative risk of arrest for these children across juvenile, adult, any, and violent crime is higher than for those children initially removed from their primary caregivers at dependency and placed in relative/kin or non-relative foster care.

These preliminary analyses of arrest risk for the abused and neglected group based on placement status at dependency revealed that children placed in non-relative foster care at dependency were generally at higher risk for arrest compared to children who remained with their primary caregivers.

The Role of Early Behavior Problems and Placement Status at Dependency

Overall, 120 (13.8%) of the abused and neglected children were identified as having behavior problems at the time of the dependency action. As can be seen in Figure 3, children who were identified at dependency as having behavior problems were significantly more likely to be arrested as a juvenile ($p < .001$), as an adult ($p < .001$), for any crime ($p < .001$), and for a violent crime ($p < .001$). Children with identified behavior problems were nearly twice as likely to be arrested for a juvenile crime (RR = 1.8), and almost one and one-half times more likely to be arrested for an adult, any, or violent crime (RRs = 1.5, 1.4, and 1.6, respectively).



V. LIMITATIONS

Although this research overcame a number of the methodological problems associated with prior research, there remain limitations of the current research which must be taken into account. The first limitation concerns exclusive reliance on official records for both child maltreatment and arrest information. In terms of child

maltreatment, it is important to recognize that not all maltreatment is reported and, if reported, not all maltreatment allegations are investigated. If investigated, the report may not be substantiated, and even if substantiated, the victim of maltreatment may not be made dependent. Thus, the children represented in this study represent a group of youth who have had relatively unique experiences. In this study, the children in the abuse and neglect group were identified as abused and/or neglected based on a finding by the Court. It is possible that children in the matched control group may have been maltreated, but not reported. Thus, these findings are limited to children whose abuse or neglect experience was sufficient to support legal action that placed the children in the custody of the state. A similar limitation is true of the arrest data. Individuals in the abuse and neglect and control groups may have committed criminal behavior for which they were not arrested. Furthermore, abused and neglected children and matched controls could have moved to different geographical areas during their youth and we did not include information on juvenile arrests from other jurisdictions outside the study area. In addition, we were not able to take into account name changes for the children in the study. For these reasons, it is likely that these findings are underestimates of the extent of official criminal behavior.

Finally, another potential limitation is associated with the identification of the control group by using a census tract matching methodology. Since we based the matching process on residence at birth, it is possible that the abused and neglected and control group subjects did not live in the same census tract at the time of the abuse and/or neglect experience. Ideally, we would have been able to match the abused and

neglected children with control group children on the basis of a number of relevant characteristics. However, the information was not available, making this not possible.

VI. SUMMARY AND CONCLUSIONS

This study was designed as a replication and extension of earlier research by Widom (1989) and Maxfield and Widom (1996) examining the relationship between child abuse and neglect and later delinquency, adult and violent criminal behavior. In many respects, the present study replicated the earlier research in a new jurisdiction and a different time period. This study also extended the findings of the earlier work by adding a Native American sample and examining the type of maltreatment and the role of placement status at dependency.

Our findings with regard to crime in general strongly support the connection between child abuse and neglect and subsequent delinquency and adult criminal behavior. Abused and neglected children have significantly higher risk of arrest for juvenile, adult, or any crime compared to matched controls. The findings in this study regarding gender also replicate earlier findings. Male and female children who are abused and neglected are at significantly higher risk for arrest than controls, especially for arrests as juveniles.

Thus, with regard to arrests for crime in general, our findings replicated and extended earlier findings. We also found that abused and neglected children from Caucasian, African American, and Native American backgrounds were at increased risk of arrest for juvenile, adult, or any crime, compared to control youth of similar backgrounds. Interestingly, the relative risk of arrest as a juvenile for Native American

(RR = 6.5) and Caucasian (RR = 6.1) abused and neglected children, compared to non-abused and non-neglected Native American and Caucasian children, was about equal. But, the relative risk of arrest as a juvenile for the African American abused and neglected children (3.7), compared to African American controls, was considerably lower. In the adult arrest and any arrest categories, the pattern of relative risk differs, with the Caucasian abused and neglected children showing slightly higher relative risk compared to the Native American and African American groups

Our findings concerning the relationship between childhood victimization and subsequent risk of arrest for a violent crime are striking, especially for risk of arrest as a juvenile. In every instance --overall, by gender, and by ethnicity -- abused and neglected youth had a higher risk for juvenile arrests for violence, compared to matched controls. The relative risk for arrest for violence is large for abused and neglected males, females, Caucasian and African Americans, but less so for Native American children. Although the Native American abused and neglected youth had an increased risk (RR =3.0) for an arrest for violence as a juvenile, we did not find a significant difference between Native American abused and neglected youth and the controls. These findings suggest that the issue of consequences of childhood abuse and neglect by gender and race/ethnicity may be far more complex than originally anticipated.

What factors might explain the high relative risk for the abused and neglected Native American group compared to the matched controls for juvenile crimes, but not for violent crimes? While the abused and neglected Native American children had higher arrest rates for juvenile, adult, and any violent crime, these rates for the abused and neglected youth were not significantly different from the Native American matched

controls. In contrast, the difference in risk of arrest for violence (as a juvenile, adult or any) for the abused and neglected Caucasian and African American groups was significantly higher compared to their matched controls.

Although the Native American samples are smaller than the Caucasian and African American samples, we do not believe that the explanation for the lack of differences rests with the sample size and lack of power. For example, looking at the relative risk for arrest for a violent crime as a juvenile for the Native American abused and neglected youth, compared to the Native American controls, the relative risk is 3.0. Thus, the relative risk for violent juvenile crime for Native American abused and neglected youth, compared to Native American control youth, is much smaller than for African Americans and Caucasians (RRs = 8.5 and 20.0, respectively). This might achieve significance if the sample size of Native Americans was much larger. However, it seems clear that the increase in risk is of a smaller magnitude for the Native American abused and neglected youth compared to the abused and neglected children from other backgrounds.

Interestingly, we found that Caucasians in the sample had the highest relative risk of the three ethnic groups. For Caucasian abused and neglected children, compared to matched controls, the relative risk for violent juvenile crime was 20.0, for adult violent crime it was 4.8, and for any violent crime, the relative risk was 5.9. These findings are in direct contrast with those of the earlier work of Widom (1989b) and Maxfield and Widom (1996) and were not what we had expected. Unfortunately, we do not know yet how to explain these findings, although we will continue to examine possible explanations for these findings. For example, it might be worthwhile to

examine styles of policing in the two communities (midwest and Northwest) during the time period of the youth of the subjects in both studies. Nonetheless, the current findings are more in line with expectations about the general effects of child maltreatment to increase risk for delinquency and adult criminal behavior.

Our findings on the relationship between type of maltreatment and violent arrest rates replicated in part the earlier findings of Widom (1989b) and Maxfield and Widom (1996). As in the earlier study, we found that physically abused and neglected children were at increased risk for arrest for a violent crime. However, the present study found that sexual abuse was associated with increased risk for violent crime, despite controls for gender and race/ethnicity. This finding differs considerably from the earlier publications. Again, we do not have an immediate explanation for the difference. On the other hand, these findings would support what many have believed about sexual abuse. We have not yet had a chance to conduct further analyses which might permit testing of some additional hypotheses.

Confirming arrest for both physical abuse and neglect, this study added also a new finding regarding emotional maltreatment. At present, there is little information in the research literature about the connection between emotional abuse and later juvenile, adult, or violent criminal behavior. We found that victims of emotional abuse also manifest an increased risk for violent crime. The majority of emotional maltreatment allegations in this sample were assigned to the category of psychological safety and many related to witnessing domestic violence.

Research has begun to focus on the effects of witnessing violence in the home or community. Some studies have reported that the effect of a child's witnessing

violence toward parents may be as harmful as the experiences of direct victimization (Rosenbaum and O'Leary, 1981), whereas other studies have not found this to be the case (Wolfe, Zak, Wilson, and Jaffe, 1986). It is too early to draw any firm conclusions from this relatively new area of research. However, given the estimates of the extent of domestic violence in homes across the country, further research on the effects of witnessing domestic violence on children is warranted, especially as it may be linked to the child's own delinquent or violent criminal behavior.

This study found preliminary differences in risk of arrest for the abused and neglected youth associated with their placement status at dependency. Children who remained in primary caregiver care, compared to those children who were removed from parental custody and placed with either relative/kin or in non-relative foster care, had lower risk of arrest for a juvenile, adult, or violent crime.

Recent research examining factors that influence removal of children from primary caregiver custody may help explain these findings. Research conducted on non-relative foster care populations indicates that there is some selection bias associated with child placement status. Several studies have found that children with fewer behavior problems are more likely to be placed in relative/kin care (Landsverk & Garland, 1999; Leslie, Landsverk, Horton, Ganger & Newton, in press; Sowa, Litrownik, & Landsverk, 1996). Conversely, children with more identified behavior problems are more likely to be placed in non-relative foster care (Litrownik, Newton, Mitchell, Richardson & Landsverk, in preparation). These findings may help explain why children who are removed from their primary caregivers and placed have higher risk of arrest.

In another study, Landsverk, Davis, Ganger, Newton, & Johnson (1996) found that children who were reunified with their primary caregivers had fewer behavior problems, especially externalizing problems. However, for some reunified children, later assessments found that they had significantly more problems when reunified than when not reunified (Litronwik, et al, in preparation; Taussig, Clymen & Landsverk, in review).

Interestingly, children who initially remained with their primary caregivers and were later placed in non-relative foster care, had the highest risk for juvenile, adult, any, or violent arrest. The general orientation of public child welfare is to preserve the family (not remove children) as long as the children are safe and protected in their home environment. For a child to be removed from primary caregiver custody is an indication that the abuse and/or neglect was both serious and the condition of the home or primary caregiver were such that the child would not be safe or protected in that environment. Children who are removed from unsafe, chaotic homes are potentially at greater risk for all kinds of negative outcomes.

An examination of risk of arrest for abused and neglected children based on placement status at dependency extends our knowledge and opens up new avenues potentially worth exploring. Children who were not removed from primary caregiver custody as a result of dependency had lower relative risk of arrest. At the same time, they were also the children who were identified as having fewer behavior problems. Emerging research on non-relative foster care indicates a bias towards placing children who have behavior problems with relative/kin or non-relative foster care. Abused and neglected children with the most serious behavior problems are more likely to be placed

in non-relative foster care than relative/kin placement. This finding provides at least a partial explanation for the increased risk of arrest for children removed from primary caregiver custody at dependency. It is also likely that children removed from parental custody had caregivers with more serious impairments, or more chaotic and disorganized homes. Future research needs to explore the increased risk for arrest for children placed in relative/kin or non-relative foster care to clarify the effects of placement on children's behavior, particularly those who already have serious behavior problems when they enter care.

Through its replication of earlier research findings, this study again demonstrates a strong connection between childhood victimization and later delinquency and adult criminal behavior. Although we found some differences in criminal consequences by ethnicity, the demonstrable and underlying relationship between child abuse and neglect and later criminal and violent criminal behavior remains. Of special note is the finding regarding an increased risk of arrest for abused and neglected females, and particularly their increase in risk of arrest for a violent crime

In summary, the findings from this study strongly support the relationship between the child abuse and neglect and juvenile, adult, and violent criminal behavior found in earlier research. In addition to replicating earlier findings, this study extended prior knowledge by adding a new ethnic group, providing further specification of maltreatment sub-types, and examining the relationship of placement to arrest risk. In all instances, the abused and/neglected youth were at higher risk of arrest compared to the matched controls

VI. POLICY AND RESEARCH IMPLICATIONS

This study confirms that there are potentially serious criminal consequences for children who are abused and neglected. Compared to matched controls of the same age, gender, ethnicity, and approximate socio-economic status, abused and neglected youth are at significantly greater risk of involvement with the criminal justice system as a juvenile and an adult. These findings are true across gender, ethnic status, type of abuse or neglect experienced, and whether the child was removed from parental custody at dependency.

Clearly, children who are victims of abuse and neglect experience negative consequences, which, in this study were manifested by involvement in the criminal justice system. From a prevention perspective, these findings would argue for better assessments and early interventions for children who are victims of abuse and neglect to prevent later negative consequences for these children and for others. These assessments of need and interventions apply to children who remain with their primary caregivers as well as to those who are removed and placed in an alternative caregiver arrangement. Children in both groups (removed/not removed) became involved in the criminal justice system. However, the children who were removed were significantly more likely to be involved in criminal activity. If removal is based on parental incapacity, and children are already manifesting behavior problems at an early age (in this study birth to eleven), it would seem prudent to target assessments and services earlier rather than later. The ability to provide services, however, is dependent on both the availability and appropriateness of resources for these children.

Although there was a significant increase in the number of children reported for abuse and neglect between 1990 and 1996 in this Northwest state, there was actually a decrease in the number of children in out-of-home placement during the corresponding time period. In 1990, there were 13,302 children in out-of-home care, a rate of 10.2 children per 1,000 in this Northwest population of children. By 1996, there were 8,841 children in out-of-home care, a rate of 6.2 per 1,000 (Child Welfare League of America, 1998). The majority of children in out-of-home care in 1996 were in non-relative foster care (61%), with nearly one-third (27%) in relative foster homes. This decline in paid foster care represents a shift in placement policy emphasizing relative placements whenever possible. The remaining children (12%), were in other alternative care arrangements (U.S. Children's Bureau, 1998).

Our findings confirm earlier research by Widom about the relationship of subtypes of maltreatment (physical abuse and neglect) to later violent criminal behavior. But our new study contributes an additional finding to the "cycle of violence" relationship. We found that emotional abuse is associated with increased risk of violent criminal behavior as was childhood sexual abuse. More attention needs to be paid to the different types of child maltreatment, to the effects of abuse and neglect on children's growth and development, to the services provided to these children, and to the consequences to children and society if these issues are not addressed.

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Dependency Code Form

- v1. Dependency Case number: _____
- v2. Date of dependency petition ___/___/___
- v3. Child's First Name _____ v4. Last Name _____
- v5. Child's Date of Birth: ___/___/___
- v6. Child's Gender: (1=female, 2=male)
- v7. Caregiver's First Name _____ Last Name _____
- v8. 2nd Caregiver's First Name _____ Last Name _____
- v9. Location (zip code): _____
- v9b. Location (address): _____
- v9c. Location (census tract at Dependency): _____
- v10. Child is an Indian (yes=1, no=0)
 v10a. If yes, Tribal affiliation _____

The child is dependent according to RCW 13.34.030(2) in that: (More than 1 box may be indicated)

- v11. the child has been abandoned (1=yes, 0=no)
- v12. the child is abused or neglected as defined in Chpt.26.44 RCW (1=yes, 0=no)
- v13. the child has no parent, guardian, or custodian willing and capable of adequately caring for the child, such that the child is in circumstances which constitute a danger of substantial damage to the child's psychological or physical development (1=yes, 0=no)

Allegation of dependency is based on the following facts (use Barnett severity code):

PHYSICAL ABUSE:

- v14. ___ P/A Face
- v15. ___ P/A Torso
- v16. ___ P/A Buttocks
- v17. ___ P/A Limb
- v18. ___ P/A Handling
- v19. ___ P/A Choke
- v20. ___ P/A Burn
- v21. ___ P/A Shake
- v22. ___ P/A Nondescript

NEGLECT:

- v28. ___ N/Food
- v29. ___ N/Clothing
- v30. ___ N/Shelter
- v31. ___ N/Medical
- v32. ___ N/Hygiene
- v33. ___ N/Supervision
- v34. ___ N/Sup. Environment
- v35. ___ N/Sup. Sub. Care

SEXUAL ABUSE:

- v27. ___ Sexual

REFERAL SPECIFIC

DRUGS/ALCOHOL:

- v38. ___ (yes=1, no=0)

EMOTIONAL ABUSE:

- v23. ___ E/Abuse 1
- v24. ___ E/Abuse 2

MORAL/LEGAL/EDUCATIONAL:

- v36. ___ Moral/Legal
- v37. ___ Educational

v25. ___ E/Abuse 3

v26. ___ E/Abuse 4

v39. Perp. 1 Type ___ v39a. Perp.1 Gender ___

v39b. Perp. 2 Type ___ v39c. Perp.2 Gender ___

Order of Dependency:

It is ordered (concluded) that the child is dependent. (yes = 1, no = 0)

v40a. Child abandoned.v40b. Child abused and neglected.v40c. No parent capable of adequately caring for child.v40d. Child developmentally delayed.v41. It is further ordered that the child be placed: (1=With the mother, 2=with father, 3= with both parents, 4= with relative, 5=with guardian, 6= foster care.)**Reason for Resolution of this Dependency case.**v42a. Reason: (1= Adoption, 2= Conditions were met, 3= Custody changed, 4= Foster care, 5= Kin Care, 6= Unfounded, 7= Not Established, 8= Aged out of dependency.)

v42b. Other reason for Resolution _____

Child's Final Disposition:v43. What was the final disposition for child for this petition? (1=With parent, 2= Group home, 3=Adopted, 4= Kin, 5= Foster, 8= Aged out of dependency.)

v43a. Other final disposition _____

v44. Date of final disposition. ___/___/___

Caregiver / Child Problem List:v45. Parental Substance Abuse. (yes = 1, no = 0)v46. Parental Mental Health. (yes = 1, no = 0)v47. Parental Physical Health. (yes = 1, no = 0)v48. Parental Developmentally Disabled. (yes = 1, no = 0)

v49. Assistance for Families with Dependent Children (A.F.D.C).(yes= 1,no= 0)

v50. Domestic Violence (Partner/Spousal). (yes = 1, no = 0)

Caregiver / Child Problem List (Cont.) :

v51. Child Behavior Problems. (yes = 1, no = 0)

v52. Evidence of Sibling Victimization. (yes = 1, no = 0)

v53. Social Security Number

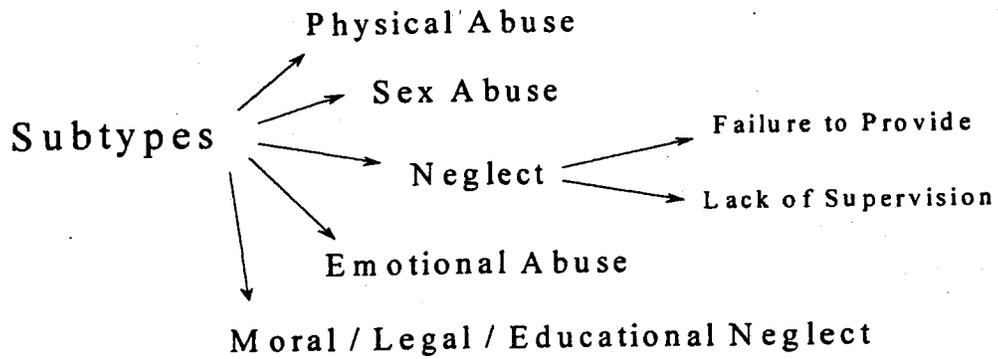
v54. Multiple Dependencies _____ (number of multiple dependencies)

Appendix II

Barnett, Manly and Cicchetti (1993) developed a coding scheme to capture type and severity of maltreatment from narrative maltreatment information. We modified this coding scheme by expanding on the abuse categories of Barnett et al. in order to capture specific types and severity levels of maltreatment.

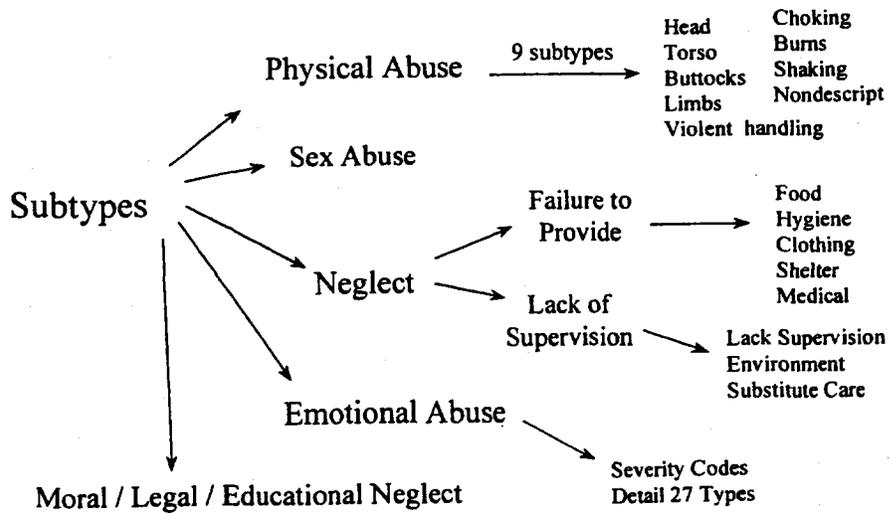
Attached are examples of the Barnett et al. coding scheme and the modified maltreatment coding scheme used in this study. A complete copy of the Maltreatment Coding Scheme (MCS) is available with the database in the National Institute of Justice archive.

Barnett Maltreatment Coding Scheme*



• Barnett, Manly, Cicchetti Coding Scheme 1993

Maltreatment Coding Scheme*



• Modified Barnett, Manly, Cicchetti Coding Scheme 1993

Appendix II

Maltreatment Coding Scheme*

Severity Coding for:

Severity is coded on a scale of 1 (low) through 5 or 6 (high)

Physical Abuse to the Head/Face/Neck

- Severity 1 = No marks indicated
- Severity 2 = Minor marks
- Severity 3 = Numerous or non-minor marks
- Severity 4 = Emergency Room or medical treatment
- Severity 5 = Hospitalization for more than 24 hours
- Severity 6 = Permanent Disability or Death

Sexual Abuse

- Severity 1 = Caretaker exposes child to explicit sexual stimuli or activities
- Severity 2 = Caretaker makes direct requests for sexual contact with child
- Severity 3 = Caretaker engages child in mutual sexual touching
- Severity 4 = Caretaker attempts to (or actually) penetrate(s) child
- Severity 5 = Caretaker has forced intercourse with child

There are two main types of Neglect, Failure to Provide and Lack of Supervision, these are divided into several sub-categories (i.e., failure to provide food, shelter, medical, etc). Each sub-category has severity levels of low (1) to high (5). Below are examples of these categories.

Neglect - Failure to Provide - Food

- Severity 1 = Caretaker does not provide regular meals
- Severity 2 = Caretaker does not ensure that food is available
- Severity 3 = Child experiences pattern of frequently missed meals
- Severity 4 = Because of poor nutrition child fails to grow
- Severity 5 = Infant weight loss; severe malnutrition

Neglect - Lack of Supervision

- Severity 1 = Caretaker fails to provide adequate supervision for short periods of time with no immediate danger in environment
- Severity 2 = Caretaker fails to provide supervision for several hours (3-8 hours) with no immediate danger in environment
- Severity 3 = Caretaker fails to provide adequate supervision for extended periods of time (8 to 10 hours)
- Severity 4 = Caretaker does not provide supervision for extensive periods of time (10 to 12 hours)
- Severity 5 = Caretaker fails to provide supervision for more than 12 hours

*Modified Barnett, Manly, Cicchetti Coding Scheme 1993

Appendix II

Maltreatment Coding* Severity for Emotional Maltreatment

- Severity for emotional maltreatment is coded using 27 different codes. These codes are clustered in groups or levels of severity.

Severity 11 = Caregiver expects inappropriate level of responsibility

Severity 12 = Caregiver undermines the child's relationships

Severity 13 = Caregiver belittles or ridicules child

Severity 14 = Caregiver ignores child's bids for attention

Severity 15 = Caregiver uses fear or intimidation as a method of discipline

Severity 21 = Caregiver does not permit age appropriate socialization

Severity 22 = Caregiver places child in a role-reversal

Severity 23 = Caregiver thwarts child's sense of maturity and responsibility

Severity 24 = Caregiver rejects or is inattentive to child's need for affection

Severity 25 = Caregiver allows child to be exposed to caregiver's extreme but non violent marital conflict

Severity 31 = Caregiver blames child for marital problems

Severity 32 = Caregiver has inappropriate or excessive expectations for the child

Severity 33 = Caregiver makes serious threats to injure the child

Severity 34 = Caregiver calls child derogatory names

Severity 35 = Caregiver binds child's hands and feet for moderate periods of time

Severity 36 = Caregiver exposes child to extreme, unpredictable, or inappropriate behavior

Severity 37 = Caregiver demonstrates a pattern of negativity or hostility toward the child

Severity 41 = Caregiver threatens suicide or abandonment in front of child

Severity 42 = Caregiver allows child to be exposed to extreme marital violence in which serious injury occurs.

Severity 43 = Caregiver blames the child for suicide or death of another family member

Severity 44 = Caregiver confines and isolates the child (between 5 and 8 hours)

Severity 45 = Caregiver binds child or places child in confinement for less than 2 hours

Severity 51 = Caregiver makes a suicidal attempt in front of child

Severity 52 = Caregiver makes a homicidal attempt or realistic threat of homicide against the child without actual physical harm to child.

Severity 53 = Caregiver abandons child for 24 hours or more

Severity 54 = Caregiver uses extremely restrictive methods to bind a child or places child in confinement for 2 or more hours

Severity 55 = Caregiver confines child for extended periods (more than 8 hours)

*Modified Barnett, Manly, Cicchetti Coding Scheme 1993

Arrest Types

| General Arrest Description | Specific Descriptions |
|--------------------------------|--|
| Abortion | General Abortion, includes selling drugs to abort |
| Arson, Malicious | Arson 1 st and 2 nd degree, reckless burning 1 st and 2 nd degree, criminal mischief 1 st through 3 rd degree |
| Assault | Assault 1 st through 4 th degrees, reckless endangerment 1 st and 2 nd degree, coercion, malicious harassment, custodial assault, interference with the reporting of domestic violence |
| Burglary and Trespassing | Trespass – general, Burglary 1 st and 2 nd degree, burglary residential, having/making burglary tools, criminal trespass 1 st and 2 nd degree |
| Criminal Attempt | Attempted murder, rape, auto theft, robbery, kidnap, child molestation, and theft |
| Criminal Mistreatment | Child Abuse and Criminal Mistreatment 2 nd degree |
| Drug Offenses | Drug offense general, illegal possession of controlled substance, manufacture/deliver/traffic controlled substance |
| Fireworks Violation | Fireworks violation |
| Fraud | Fraud-general, forgery, criminal impersonation, property fraud, forgery-identification, welfare theft/fraud |
| Gambling | Gambling |
| Harassment | Harassment, violations of protection order, talking, telephone harassment |
| Hit and Run | Duty in striking unattended property-hit and run, duty in case of injury or death-hit and run attended |
| Homicide | Murder 1 st and 2 nd degrees |
| Interference with Official | Interference with courts, perjury |
| Kidnap | Kidnap 1 st and 2 nd degree, unlawful imprisonment |
| Liquor Violations | Minor in possession/purchasing alcohol, liquor law violations-no minor involved |
| Obstruction of Government | Obstruction of government-general, custody violation, military desertion, obstructing a law enforcement officer, resisting arrest, render criminal assistance 1 st degree, escape 1 st through 3 rd degree, possess/introduce contraband in corrections facility, bail jumping, making false/misleading statement to public servant, intimidate public servant, harm police dog |
| Other | General other, boating violations, hunting/fishing violations, public health/fire codes, animal cruelty |
| Principals of Liability | culpability to commit a crime, complicity |
| Prostitution/Indecent Exposure | Prostitution/Indecent exposure |

Appendix III

| | |
|--------------------|---|
| Public Disturbance | Riot, failure to disperse, disorderly conduct, false reporting-emergency, public nuisance |
| Sex Offenses | Rape 1 st through 3 rd degree, Rape of child 1 st through 3 rd degree, Incest, child molestation, communicate with a minor for immoral purposes, indecent liberties, registered sex offender, sexual exploitation of children, sexual assault |
| Theft and Robbery | Theft-general, theft 1 st through 3 rd degree, unlawful issuance of bank checks, motor vehicle theft, theft of rental/lease property, possession of stolen property 1 st through 3 rd degree, Robbery 1 st and 2 nd degree, theft of services, theft of credit card, theft of a firearm, embezzlement |
| Traffic Violations | All traffic and license, driving under the influence, driving under the influence under 21, vehicular homicide, vehicular assault |
| Weapons violations | General and explosives |

Violent Offenses

| General Description | Specific Descriptions |
|--------------------------|---|
| Criminal Attempt | Attempted murder, rape, robbery, kidnap |
| Homicide | Attempted homicide, homicide, murder 1 st and 2 nd degree |
| Assault | Assault 1 st through 4 th degree, reckless endangerment 1 st and 2 nd degree, coercion, malicious harassment (hate crimes), custodial assault, interference with the reporting of domestic violence |
| Kidnap | Kidnap 1 st degree |
| Criminal Mistreatment | Child abuse |
| Sex Offenses | Rape 1 st through 3 rd degree, rape of child 1 st through 3 rd degree, sexual assault |
| Burglary and Trespassing | Burglary 1 st degree |
| Theft and Robbery | Robbery 1 st and 2 nd degree |
| Traffic Violations | Vehicular homicide |

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