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Child neglect: Definition and identification of youth's experiences in official reports of maltreatment

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Abstract

Objective—The purpose of this study was to describe the nature of neglect in child welfare clients, to describe these experiences, to examine its typologies, and to understand how different types of neglect co-occurred with each other and with other types of maltreatment.

Methods—Case record abstraction was conducted on the child welfare case records of an urban, ethnically-diverse sample of youths (n = 303) identified as maltreated by a very large public child welfare agency. We utilized the Maltreatment Case Record Abstraction Instrument (MCRAI) which was based on the work of Barnett, Manly, and Cicchetti (1993) as modified by English and LONGSCAN (1997). Thirteen items of parental behavior deemed neglectful were coded and organized into 5 subtypes of neglect (*care neglect, environmental neglect, medical neglect, educational neglect, supervisory neglect*)

Results—Neglect was present in 71.0% of the sample as compared to the 41.0% classified as neglected by CPS records. Neglect was accompanied by other types of maltreatment in 95% of the cases. Children who were neglected had more reports of maltreatment and experienced a greater number of different types of maltreatment than those who were maltreated, but not neglected. The most common type of neglect was supervisory neglect (72.5%) followed by environmental neglect (61.6%). With the exception of medical neglect, all types of neglect were significantly correlated with each other.

Conclusions—The abstraction resulted in rich data showing that under a one-word label of neglect, the nature of neglect that the youngsters actually experienced was quite diverse and heterogeneous in its phenomenology. Furthermore, neglect is pervasive for children in the child welfare system and official classifications underestimate its occurrence. Neglect does not happen in isolation; children who are reported as neglected are likely to experience other forms of maltreatment.

Practice implications—Official classifications should not be used in determining interventions for children and families. Interventions for neglected youngsters should be individualized to address the complexity of children's experiences.

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Introduction

Child neglect is the most common type of maltreatment in the United States. Recent data indicate that of the over 794,000 substantiated victims of child maltreatment in 2007, 59.0% of them were victims of neglect (US Department of Health and Human Services, Administration on Children, Youth and Families, 2009). In spite of neglect being the most common type of maltreatment, much less is known about it than other types of maltreatment. Research has been weighted toward the study of sexual abuse with physical abuse having a smaller but growing representation (Mayer, Lavergne, Tourigny, & Wright, 2007; McSherry, 2007).

There are many reasons for this "neglect of neglect" as it has often been called (Dubowitz, 2007; Wolock, & Horowitz, 1984) but among them are the consistent difficulties related to definition. Research has often relied on the legal definition of neglect which may vary by jurisdiction. The Child Abuse Prevention and Treatment Act as amended by the Keeping Children and Families Safe Act of 2003 defines child abuse and neglect as "at a minimum, any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation or an act or failure to act which presents an imminent risk of serious harm" (US Department of Health and Human Services, 2003). Only sexual abuse and "withholding of medically indicated treatment" are defined in the statute leaving the definition of neglect (as well as physical abuse and emotional abuse) up to the individual states. In California, the site of the current study, neglect is defined by the failure of a parent or caretaker to provide for a child's needs. The results of the failure are what determine the designation of neglect. A case is considered general neglect if no physical injury results and severe neglect when the child's health is endangered (Legislative Analysts Office, 1996). In contrast, the neighboring state of Arizona considers caretaking omissions as neglect only when it causes substantial risk of harm to the child (US Department of Health and Human Services, 2007). Thus a parent could be identified as having neglected her child in California while not meeting the Arizona definition. Medical neglect and educational neglect are specified in most states, although the exact definition differs. Abandonment of a child is an explicit category in some states while in others it is categorized under neglect (US Department of Health and Human Services, 2007). Similarly, the age that a child may be left alone varies by jurisdictions meaning that a parent's actions could be defined by one state as lack of supervision but not in another. Thus the official definitions do not tell us much about a child's actual experience.

Also complicating the issue of neglect is that unlike physical and sexual abuse where overt acts are *committed* against a child, neglect is most often the *omission* of caretaking behavior that a child needs for healthy development. There is less societal agreement on whether these caretaking omissions rise to the level of severity that would require child welfare authorities to intrude in the life of a family. In addition, cultural expectations help determine expectations of appropriate parenting leading to different definitions of what is neglectful behavior (Eliot & Urquiza, 2006). The high correlation between poverty and neglect adds another complication which many believe implicates society as well as parents in the maltreatment of children (Drake & Pandey, 1996; Polansky et al., 1985).

If researchers and practitioners are to understand the consequences of neglect on children's development, there will need to be much more specificity about the concept of neglect and the different experiences that constitute neglect. Very dissimilar experiences are categorized as neglect. For example, if a mother leaves a child home alone while she is working to earn enough money to adequately feed her children, she will be guilty of neglect, just as a mother who lives in a dirty rat infested home without sufficient food for the children. Clearly, the two experiences are very different and likely to have very different outcomes for the child.

Experts in the field of child maltreatment have tried to deal with this problem by developing categories of neglect that group children's experiences into broader subtypes. Dubowitz, Pitts, and Black (2004) suggested three subtypes of neglect: physical, psychological, and environmental. Slack, Holl, Altenberned, McDaniel, and Stevens (2003) also postulate three subtypes of neglect: physical, mental health, and cognitive, however their subtypes are somewhat different than Dubowitz's. Emotional, cognitive, supervision, and physical neglect are the subtypes proposed by Kaufman Kantor and her colleagues (2004). Knutson, DeGarmo, and Reid (2004) articulated denial of care neglect and supervisory neglect noting that medical neglect was often categorized under denial of care neglect and educational neglect, which they classified under supervisory neglect, was seldom the focus of CPS investigations. Later, they expanded what they now called care neglect to include what others have called environmental neglect (Knutson, DeGarmo, Koeppl, & Reid, 2005). Erickson and Egeland (2002) propose 5 types: physical neglect, emotional neglect, medical neglect, mental health neglect, and educational neglect. While there are similarities among the subtypes, there is still not consensus on what these subtypes should be. Some have included the subtypes of mental health neglect, psychological neglect, and emotional neglect under psychological maltreatment or emotional abuse (Brassard, Donovan, & Glaser, 2002, Trickett, Mennen, Kim, & Sang, 2009).

A number of researchers have tried to deal with these issues by more clearly explicating categories of maltreatment by gathering data about children's reports from official records and developing categories based on those reports. One of the most important of these is Barnett, Manly, and Cicchetti's (1993) work that categorized maltreatment reports by subtype, severity, and developmental period. The Longitudinal Studies of Child Abuse and Neglect (LONGSCAN) research team modified this system in their work to include more specificity about subtype and severity (English & LONGSCAN, 1997, English, Thompson, Graham, & Briggs, 2005). The types in their definition schema are physical abuse, sexual abuse, physical neglect, emotional maltreatment, and moral/legal/educational maltreatment. Under neglect, they included failure to provide (i.e., food, clothing, shelter, medical care) and lack of supervision (i.e., inadequate supervision, failing to ensure that a child is engaged in safe activities). The purpose of this paper was to use the Barnett, Manly, and Cicchetti (1993) system as modified by English and LONGSCAN, (1997) as well as the Knutson, DeGarmo, Koeppl, and Reid (2005) schema to describe the nature of the reports of neglect in a sample of urban maltreated children. Specifically our questions were:

- 1. What percentage of this sample is classified as neglected at the time of referral to our study? Are males and females and members of different ethnic groups equally likely to be neglected?
- 2. When the full case records of these youth are examined, what percentage of this sample is identified as neglected? Are males and females and members of different ethnic groups equally likely to be neglected?
- **3.** In this sample, what is the nature of these neglectful experiences? What is the frequency of occurrence of the different subtypes? What are the relationships among the subtypes? What is the co-occurrence of the different subtypes of neglect with other types of maltreatment (e.g., physical, sexual, emotional abuse)?

Method

Participants

The subjects of this study participated in a National Institute of Child Health and Development (NICHD) funded longitudinal study of the effects of maltreatment on adolescent development. Procedures for subject recruitment were approved by the Los Angeles County Department of Children and Family Services (DCFS), the Juvenile Court of Los Angeles County, and the

Institutional Review Board of the University of Southern California. Each month, DCFS developed lists of newly opened cases that met the recruitment criteria: (1) a new substantiated referral (i.e., report of maltreatment) to DCFS in the preceding month for any type of maltreatment; (2) child age 9 to 12 years; (3) child identified as Latino, African-American or Caucasian (non-Latino); (4) child residing at the time of the referral to DCFS in one of 10 zip codes in urban Los Angeles County areas. The zip code restriction was done to ensure that children had similar neighborhood experiences. The zip codes were chosen using census tract information on ethnic diversity and urban character and DCFS statistics on rates of maltreatment (for children of different ethnicities). A letter was sent to the caretaker of each child on the list describing the study and enclosing a postcard indicating their willingness or unwillingness to participate. Unless a returned postcard indicated unwillingness to participate, the potential volunteer received a phone call approximately 10 days following mailing of the letter. In this call the person was either thanked for volunteering—if they had returned the postcard indicating that—or again invited to participate. In all, 77% of the families sent the letter agreed to participate. A final sample of 303 maltreated children was the sample for this study (Table 1). There were 136 sibling cases in the sample and 167 non sibling cases. The sibling cases were comprised of 64 sibling groups, 56 had 2 siblings and 8 had 3 siblings.

The caretakers and their children came to the project office where they took part in an interview process that included measures of functioning on multiple levels (a more complete description of the protocol can be found in two previous studies [Gordis, Granger, Susman, & Trickett, 2006; Mennen & Trickett, 2007]). Consent for the study (assent for children) included permission to access DCFS case records. Both children and caretakers were reimbursed for their time.

Maltreatment case records abstraction system (MCRAI)

We developed a data base to enter the large amount of information available in each record using SPSS Data Entry Builder 3.0, the Maltreatment Case Record Abstraction Instrument (MCRAI). The decisions about the kinds of information to enter into the system were made in consultation with consultants from DCFS and experts in child maltreatment, and built on the work of Barnett, Manly, and Cicchetti (1993) and the LONGSCAN Modified Maltreatment Classification System (English et al., 1997). The goal was to create a system that could include a large amount of very specific data about a child's experiences as contained in official records in order to be able to categorize the maltreatment experience in a way that would begin to quantify it (a copy of the instrument is available from the authors).

The MCRAI is comprised of four major forms of child maltreatment (i.e., physical, sexual, emotional abuse and neglect). It was constructed based on maltreatment acts inflicted on a child rather than the child's injury. For example, *neglect* involved failure to provide basic necessities (e.g., food, clothing, shelter, hygiene, medical care, education) and lack of supervision (e.g., left child alone, left child alone with inappropriate substitute care). Operational definitions of *emotional abuse* included spurning (e.g., child is blamed for adult problems, verbal abuse), terrorizing (e.g., parent threatens suicide, child subjected to extreme negativity or hostility), isolating (e.g., parent interferes with other relationships, child is confined or isolated), and exploiting/corrupting (e.g., child is forced to assume inappropriate responsibility, child involved in illegal activity).

In addition to the four forms of maltreatment, following the original CPS categorization of maltreatment, two more categories were included in the MCRAI. Caretaker incapacity is specific to the caregiver's situation such as the caretaker's absence (e.g., incarceration, hospitalization, whereabouts unknown) and/or caretaker's inability to provide adequate care for the child (e.g., mental illness, physical illness, substance abuse). Substantial risk is the designation that applies to a situation in which no clear current allegations exist for the child,

The MCRAI included the original DCFS categorization of each report of maltreatment, the type of reporting party, and the disposition. In addition, the MCRAI was constructed so that following entry of the official data, a data field with each type of maltreatment was listed that incorporated specific information about each. This information included the perpetrator's relationship to the child, age of child at onset of abuse, frequency, duration, and other specifics of the abuse (e.g., whether hospitalization occurred, whether marks were left). Also entered in the data base were all the Child Protection Services (CPS) allegations of maltreatment and the investigation status (i.e., whether or not the allegations were confirmed). Unsubstantiated cases of maltreatment have been noted as differing little from substantiated cases thus including this information adds to the accuracy of the description of the child's experiences (Drake, 1996; Hussey et al., 2005). Information about the parents' functioning in relation to substance abuse, domestic violence, mental and physical health was also part of the system. The detailed information could be entered for each category that was relevant for each specific report of maltreatment. A new record was created for each new report of maltreatment that included all the relevant data for that particular report. This process allows a much fuller description of the material contained in the records and thus a fuller description of the child's experience.

Procedures for abstracting child maltreatment case records

The study used two retired DCFS supervisors to access the agency's records. They reviewed records, obtained copies of the investigation documents on each report of maltreatment (e.g., emergency referral information, screener narrative, investigation narrative, contact sheets, etc.), court reports, placement history, and provided a summary of the child's case.

Two of the authors (KK & JS) supervised, trained, and checked the record abstraction process performed by social work masters students and psychology undergraduate students. Training consisted of an initial 2-hour extensive orientation and close supervision of the first 4-5 case abstractions until the abstractor achieved at least 90% inter-rater agreement with the authors. With 1 report as a unit of data entry, a new record was created for each new report of maltreatment for a child. The record reviews included the report of maltreatment that led the child to be identified as a potential participant of the study as well as prior reports of maltreatment for the 4 years before study entry. If there were multiple types of maltreatment indicated in the case records, the abstractors were trained to enter the details of each type of maltreatment in the corresponding section of each type, but not to infer across types of maltreatment. They were instructed to enter the parents' functioning in relation to substance abuse, domestic violence, mental, and physical health. Although there were siblings in the study, the unit of analysis was an individual child. We made the decision to use the child as the unit of analysis rather than the family both because we were interested in describing the experiences of children as individuals and CPS records are kept by the child rather than the family. The abstractors were trained to be alert to the fact that siblings' maltreatment experiences are quite different from each other. We compared the agreement of siblings as to type of maltreatment. As expected, the agreement was low with Kappa (κ) statistics for physical abuse, sexual abuse, emotional abuse, neglect, caretaker incapacity, and at risk sibling, .45, . 35, .49, .69, .69, .44. The correlation (Spearman r) between maltreatment types for siblings was physical abuse r=.47, sexual abuse r=.35, emotional abuse r=.50, neglect r=.69, caretaker incapacity r=.70, at risk sibling r=.44.

Abstracted data were checked by individual case reviews as well as data matching with the case summary that the DCFS consultants provided. In cases of inconsistencies, original DCFS case records were re-checked and, if necessary, group decisions were made among the authors and the entries modified. During the data collection process, 80 reports were chosen at random

to test inter-rater agreement. Specifically, a total of 5 abstractors participated in the reliability analyses. The same report was entered twice by 2 different abstractors. The 5 abstractors were paired in a way that maximized the chance to get paired with each other reviewer. Inter-rater reliability was examined for the indications of each type of maltreatment as well as the 13 specific questions about the children's neglect experiences. This yielded good *Kappa* (κ) statistics: .82, .82 .79, and .75 for physical, sexual, emotional abuse, and neglect, respectively. The agreement of each question item was slightly lower. For 13 neglect items, the mean *Kappa* (κ) was .84 and ranged from .55 to 1.0.

Results

The demographic characteristics of children who were neglected and the co-occurrence of neglect with other types of maltreatment by DCFS versus MCRAI classifications and neglected versus non-neglected under MCRAI classification are presented in Table 2; characteristics of the caregivers are reported at the family level. The MCRAI record abstraction revealed that 71.0% (n=215) of the sample experienced some form of neglect. This is in sharp contrast to 41.0% (n=124) according to DCFS classification (p<.001).

The proportions of males and females and ethnicities were similar in the 124 DCFS and 215 MCRAI cases of neglect. However, we did find that ethnicity was significantly associated with neglect status (neglected *vs.* non-neglected) as indicated by the MCRAI system (p<.05). Of 215 MCRAI neglect cases, 31.6% were Latinos. In contrast, out of 90 MCRAI non-neglect cases, 43.2% were Latinos. Neglected children were more likely to be placed in alternative care than other maltreated children (p<.05).

We found major differences between the rates of co-occurrence of maltreatment in MCRAI classifications and DCFS classifications. When classified by DCFS as neglected, there was little co-occurrence with other types of maltreatment according to the DCFS codes. The average number of different types of allegation was 1.1 (sd=.4) out of possible range of 0 (i.e., no allegation) to 6 (i.e., six allegations including physical, sexual, emotional abuse, neglect, caretaker incapacity, and substantial risk). Under DCFS classifications, 90.3% of the cases were pure neglect (i.e., defined as the cases having only a neglect allegation) and one case had neglect co-occurring with substantial risk. The lower co-occurrence rate may be related to the DCFS practice tending to identify a single type of maltreatment for each report. However, when looking at the MCRAI classifications, we found high rates of co-occurrence with neglect and other types of maltreatment. This ranged from a high of 60.9% with emotional abuse to a low of 20.5% with sexual abuse. The mean number of different types of allegations was 3.3 (sd=1.3) out of a possible range of 0 to 6. Under MCRAI classifications, only 5.0% were pure neglect cases and 15.2% were neglect co-occurring with caretaker incapacity and/or substantial risk. The MCRAI classifications were all significantly different from DCFS classification (p<. 001).

With regard to the rate of co-occurrence with other types of maltreatment, the differences between MCRAI neglect and MCRAI non-neglect cases were noted in allegations of emotional abuse and caretaker incapacity. The higher rates of emotional abuse and caretaker incapacity were found among MCRAI neglect cases than MCRAI non-neglect cases (60.9% vs. 45.5% for emotional abuse, p<.05; 55.3% vs. 36.4% for caretaker incapacity, p<.01). In addition, neglected children had more reports of maltreatment (m=4.2, sd=2.8) than non neglected children (m=2.6, sd=1.8) (p<.001) and suffered more different types of maltreatment (m=3.3, sd=1.3 for neglect group vs. m=1.2, sd=1.0 for non-neglect group, p<.001).

We classified the MCRAI items into five different categories of neglect using the Barnett, Manly, and Cicchetti (1993) modified by English and LONGSCAN (1997) and the Knutson

and his colleagues (2005) categories as a guideline but added medical neglect as a separate category, which was incorporated into care neglect in their classification system. Our categories are care neglect, environmental neglect, medical neglect, educational neglect, and supervisory neglect. Table 3 presents these MCRAI categories, the subcategories making up the categories, the items constituting those subcategories, and examples from the children's case records of their experiences under each item.

As shown in Table 3, the first subcategory of neglect is care neglect with examples including not having enough food at home, having children wear dirty clothing, or not bathing children. The most frequently reported categories of neglect were supervisory neglect (72.5%) followed by environmental neglect (61.6%). Some conditions of environmental neglect were homelessness, unsanitary home (e.g., having roaches, fleas, or rats at home, and having filthy clothing or dirty dishes piled up), or unsafe environment such as having children locked in the house when there is a gas leak. Medical neglect (23.2%) was the least common subtype with examples ranging from not treating bad rashes to not taking the child to a doctor when she complained of vaginal pain after being sexually abused by her stepfather. Educational neglect (30.8%) included a child who had a black eye because of physical abuse by the parent and the parent prohibited the child from going to school for 3 days. Other examples are keeping a child home to take care of the parent who is physically ill and not registering a child for school because of parent's drug use. Examples of supervisory neglect included parents leaving the child unsupervised overnight, passing out from drug use thereby leaving the child unattended, and leaving the child alone with inappropriate substitute care such as someone who is very ill, sexually abusive, or a drug dealer.

Relationships between care neglect, environmental neglect, medical neglect, educational neglect, and supervisory neglect are presented in the matrix of intercorrelations shown in Table 4. In general, the level of correspondence among the categories was modest (.16 to .51). Care neglect was positively associated with environmental neglect (r=.51, p<.001), medical neglect (r=.18, p<.01), and educational neglect (r=.44, p<.001). Also, educational neglect was related to environmental neglect (r=.35, p<.001), medical neglect (r=.16, p<.05) and supervisory neglect (r=.16, p<.05).

Table 5 summarizes the findings on demographics of the 5 categories of neglect as well as their co-occurrence with other types of maltreatment. Significance tests between each category could not be done because the 5 categories were not mutually exclusive. In all the categories except medical neglect, reports among males were slightly more frequent compared to females. Overall, there were more children who were living at home with their biological parents than those who were living in out of home placement. In the case of educational neglect, however, more children were living with their relatives (46%) than living with their biological parents (34.9%). The mean age of onset ranged from 7.2 to 7.6. Almost all cases in each subtype of neglect were involved with biological parents (ranged from 96.1% to 100% of the cases). The most common type of maltreatment that co-occurred with the 5 subtypes of neglect was emotional abuse followed by caretaker incapacity and substantial risk. For example, 76.9% of the children who experienced educational neglect and 68.5% of those who experienced care neglect also experienced emotional abuse. The average total number of neglect reports ranged from 2.8 (*sd*=1.8) for supervisory neglect to 3.1 (*sd*=1.8) for medical neglect.

Discussion

This study supports the pervasiveness of neglect in child welfare samples. In this sample, 71.0% (n=215) of the sample was classified as neglected when case records were carefully reviewed. This is significantly higher than the 41.0% that DCFS had classified as neglected. This differential is likely due to the usual practice of classifying a child with only 1 kind of

maltreatment which may be the type that brought the child to the attention of the authorities or the one that is easiest to substantiate. Clearly this practice obscures the pervasiveness of neglect in the sample and is likely to be true in many other samples where a child is classified by only 1 maltreatment type. Latinos were underrepresented in neglected children in comparison to their representation among non neglected children.

What is also clear is that neglect is often part of a pervasive pattern of maltreatment and that this fact is essentially obscured when using official classifications. Only 5.0% of the neglected children experienced neglect without another type of maltreatment being present when records were carefully examined. In addition, neglected children had more reports of maltreatment than children who were maltreated but not neglected (m=4.2, sd=2.8 vs. m=2.6, sd=1.8) and neglected children also suffered from more different types of maltreatment than those who were not victims of neglect (m = 3.3, sd = 1.3 vs.m = 2.1, sd = 1.0). This is supported by other work that has found that the majority of maltreated children suffer multiple types of maltreatment (Higgins & McCabe, 2001; McGee, Wolfe, & Olson, 2001) and that children who are neglected have more reports to child protection than other maltreated children (Mater, Lavergne, Tourigny, & Wright, 2007). The highest rate of co-occurrence of neglect was with emotional abuse (defined as spurning, terrorizing, isolating, and/or corrupting) with nearly two thirds of the children who were neglected also suffering from emotional abuse. Emotional abuse is a kind of maltreatment that is often less a focus in child welfare, but nonetheless, a pervasive experience for those served by the child welfare system (Trickett, Mennen, Kim, & Sang, 2009), and in this sample particularly for those who are neglected. There were also high rates (55.3%) of co-occurrence with caretaker incapacity (defined as caretaker's absence and/or inability to provide adequate care for the child). The co-occurrence with caretaker incapacity is understandable because parents who are physically or mentally ill or disabled by drug abuse are not likely to be able to meet children's needs and thus engage in neglectful behavior. An almost equal co-occurrence with substantial risk (defined as a situation where no clear current allegations exist for the child, but places the child at risk for abuse and/or neglect) is buttressed by the research that has found that maltreatment is seldom isolated to one child (Hamilton-Giachritsis, & Browne, 2006; Hines, Kantor, & Holt, 2006; Jean-Gilles, & Crittenden, 1990). Again, the classification of a child as substantial risk rather than as neglected is often related to the child welfare system's practice of focusing on the child about whom a maltreatment report is made rather than all the children in a family who may be maltreated. Nearly half of the neglected children were also victims of physical abuse and about 21% were also sexually abused, both lending additional credence to neglect as part of a spectrum of maltreatment for children in the child welfare system. Neglect needs to be understood not as an isolated event for children but as part of the total amalgam of maltreatment that children experience.

Not only did neglect tend to occur with other types of maltreatment but different types of neglect often occur together, but in specific relationships. The most common type of neglect was supervisory neglect with over 70% of neglected children having this type of neglect. It had a small correlation with medical and educational neglect, but approximately half of the supervisory neglect cases co-occurred with all other types of maltreatment with the exception of sexual abuse. Co-occurrence rate with sexual abuse was 21.5% while that with emotional abuse was 65.4%. It appears that parents whose lack of monitoring and attending to their children is serious enough to bring them to the attention of child welfare authorities are likely to actively abuse their children as well. It is possible that supervisory neglect is less a problem of omission of appropriate parenting behaviors but more a part of a picture of punitive and abusive parenting as Knutson and his colleagues (2005) suggest.

The next most frequent type of neglect in our sample was environmental neglect occurring in almost two thirds of the neglected sample. Environmental neglect was significantly correlated with care neglect and educational neglect. Approximately half of the environmental neglect

cases co-occurred with all other types of maltreatment with the exception of sexual abuse. More than two thirds of children who suffered from environmental neglect also suffered from emotional abuse and more than 60% also suffered from caretaker incapacity. More than half were classified as substantial risk and nearly half suffered from physical abuse. These findings indicate that neglect that comes to the attention of CPS is not simply a problem of poverty but part of a more general pattern of inadequate and sometimes punitive parenting.

Medical neglect is only weakly correlated with other types of neglect. We speculate that the lower correlations of medical neglect with other subtypes may be due to the particular characteristics of medical neglect requiring certain medical conditions of the children. That is, oftentimes the children's medical conditions are prerequisite to the reports of medical neglect. Not every child in the system has such needs. Only 22.8% of children were victims of medical neglect. They were also victims of all other types of maltreatment at high rates.

We are suggesting a typology of neglect that includes five types of neglect: care neglect, environmental neglect, educational neglect, medical neglect, and supervisory neglect. Care neglect occurs when a parent fails to provide the child's basic needs such as adequate food in terms of quantity and quality, adequate clothing that is clean, fits the child's body size, and is weather-appropriate, and adequate hygiene or sanitation by having the child clean and wellgroomed. For example, if a child is often found asking the neighbor for food, only has a shortsleeved shirt on without a coat in cold weather, smells of urine or feces, or has lice in hair, a report of care neglect is made. Medical neglect concerns failure to provide appropriate medical care when a child is in need of a medical assessment or treatment for an injury, illness, or disability. Educational neglect involves a parent who fails to send the child to school or prevents the child from receiving appropriate education. Environmental neglect is suspected when a serious health and safety hazard is present in a child's physical surroundings or the home is not adequate in size or cleanliness. For example, if the home is infested with insects or vermin, a child is living in a car, the home is filled with trash or animal feces, or a child has access to hazardous materials or situation such as illegal drugs or broken windows and the parent is not taking appropriate action to fix the problem, the child is considered to be environmentally neglected. Lastly, *supervisory neglect* concerns a situation where a parent leaves a child alone or with inappropriate substitute care. If, for instance, a child is left unattended while a parent goes on a trip or to work or a child is left in the care of a sex offender, the parent's lack of supervision is placing the child at risk of injury or harm.

Our system is quite similar to Knutson and his colleagues' (2005), but we have categorized environmental neglect as a separate category rather than a subcategory of care neglect and have postulated medical and educational neglect as separate categories. While there was a high correlation between care and environmental neglect, there were differences in the two experiences for children and we opted to keep them separate to capture a clearer picture of what actually happens to children who are neglected. The case could certainly be made to combine the two as Knutson and his colleagues (2005) chose to do. We categorized medical neglect as a separate category because of its particular characteristics requiring preconditions of children's medical needs. Educational neglect was a separate category because of its prominence in reports by CPS workers. Additionally it is the only type of neglect in which children were less likely to be living with biological parents. We do not have a category of emotional neglect or mental health neglect as others have postulated as we did not find this described in the CPS records. Workers tended to note the amount of time that parents spend with children rather than the kinds of behaviors that might be categorized as emotional neglect (e.g., failing to comfort or talk to a child) and so in our system, this would fall under the category of supervisory neglect or care neglect. If a parent refused to get mental health treatment for a child, then this would be considered medical neglect in our system.

Our system is likely to differ from other systems because we gathered data from CPS records and thus it reflects what the department and its workers deem relevant. They may miss many behaviors that are harmful to children but do not, in workers' judgments, compromise their safety, and thus, are not a focus of an investigation. Our system allows us to capture and categorize the kinds of behaviors that workers see as dangerous to children and to help better conceptualize the experience of neglect and its relationship to other types of maltreatment experienced in child welfare samples. Clearly, future studies need to examine the suggested conceptual typologies through factor analytic approaches and investigate whether the typology accurately and parsimoniously represents the intercorrelations among the parenting behaviors deemed neglectful. More theoretical discussions and empirical investigations of the construct of neglect are necessary in order to better understand it and the ways to help children experiencing neglect.

This analysis adds to the evidence that using CPS maltreatment type designations in research is not advised. Our finding that most children suffer multiple types of maltreatment supports the idea that subtypes of maltreatment are not discrete entities and the effects of maltreatment cannot be effectively studied by considering them as such (Sullivan & Knutson, 1998; Sullivan & Knutson, 2000).

Limitations

There are a number of limitations to our findings that must be noted. This is a study of maltreatment reported to CPS and as such, is not a definitive study of children's actual experiences as it has been well documented that even in children known to CPS, much of their maltreatment is not detected (Shaffer, Huston, & Egeland, 2008). In addition, our sample only included children ages 9-12 and thus can not be expanded to other age groups. Different age children are likely to be at risk for different types of maltreatment. This is particularly true of neglect as developmental needs for very young children are different from those who are older. The definition of supervisory neglect is particularly noteworthy as law and policy differ among jurisdictions on what kind of supervision children of different ages must have. It should be noted, that many of these children had earlier reports of maltreatment that had occurred before the maltreatment incident that brought them into the study. Another limitation relates to the lack of randomness of the study. We studied only those who agreed to participate and it is possible that those who were not in the study might have cases that are very different from those who participated. Related is our use of siblings in the study. While we made this choice in order to describe individual children's experiences and siblings are common in child protections cases, it might have biased our analysis. Additionally, the lack of emotional neglect in our data is a limitation. Because we relied on official reports of maltreatment, we did not find such incidents described and thus can not elucidate that experience in this sample.

Practice implications

A number of practice implications arise from the data. The most important of these is that official Child Protective agency classifications of children's experience can not be used to guide interventions. Neglect is not an isolated experience for children and is likely to occur with other types of maltreatment that child welfare researchers have traditionally thought of as both physically and psychologically harmful. Thus interventions for neglected children and their parents must be individualized based on their unique experiences. For example a program geared to help parents learn how to meet children's basic needs designed for neglectful families would likely be unsuccessful at addressing the emotionally abusive behaviors that are often a part of the maltreating environment. An intervention to improve cognitive functioning of a neglected child would be insufficient to deal with the trauma that resulted from the physical abuse that the child suffered along with neglect. Related is the need to develop interventions that are more comprehensive in their focus and address issues of neglect. Child clinicians/

researchers have developed evidenced based interventions for children who are victims of sexual abuse and physical abuse, but little has been done to address the emotional consequences of neglect. Given the pervasiveness of neglect in samples of maltreated children, the same attention must be given to effective interventions for neglect.

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References

- Barnett, D.; Manly, JT.; Cicchetti, D. Defining child maltreatment: The interface between policy and research. In: Cicchetti, D.; Toth, SL., editors. Advances in applied developmental psychology: Child abuse, child development and social policy. Ablex Publishing Corp; Norwood, NJ: 1993. p. 7-73.
- Brassard, MR.; Donovan, KL. Defining psychological maltreatment. In: Freerick, MM.; Knutson, JF.; Trickett, PK.; Flanzer, SM., editors. Child abuse and neglect: Definitions, classifications, & a framework for research. Paul H. Brookers Publishing Co., Inc; Baltimore, MD: 2006. p. 151-197.
- Drake B. Unraveling "unsubstantiated". Child Maltreatment 1996;1(3):261-271.
- Drake B, Pandey S. Understanding the relationship between neighborhood poverty and specific types of child maltreatment. Child Abuse & Neglect 1996;20:1003–1018. [PubMed: 8958452]
- Dubowitz H. Understanding and addressing the "neglect of neglect:" Digging into the molehill. Child Abuse & Neglect 2007;31:603–606. [PubMed: 17543384]
- Dubowitz H, Pitts SC, Black M. Measurement of three major subtypes of child neglect. Child Maltreatment 2004;9(4):344–356. [PubMed: 15538034]
- Elliott K, Urquiza A. Ethnicity, culture, and child maltreatment. Journal of Social Issues 2006;62:787–809.
- English DJ, Thompson R, Graham JC, Briggs E. Toward a definition of neglect in young children. Child Maltreatment 2005;10:190–206. [PubMed: 15798012]
- English, DJ.; the LONGSCAN Investigators. Modified Maltreatment Classification System (MMCS). 1997. Retrieved from http://www.iprc.unc.edu/longscan/
- Erickson, MF.; Egeland, B. Child neglect. In: Myers, JEB.; Berliner, L.; Briere, J.; Hendriz, CT.; Jenny, C.; Reid, TA., editors. The APSAC handbook on child maltreatment. 2nd Ed.. Sage Publications; Thousand Oaks, CA.: 2002.
- Gordis EB, Granger DA, Susman EJ, Trickett PK. Asymmetry between salivary cortisol and alphaamylase reactivity to stress: Relation to Aggressive Behavior in Adolescents. Psychoneuroendocrinology 2006;31(8):976–987. [PubMed: 16879926]
- Hamilton-Giachritsis CE, Browne KD. A retrospective study of risk to siblings in abusing families. Journal of Family Psychology. Special Issue: Sibling Relationship Contributions to Individual and Family Well-Being 2005;19(4):619–624.
- Higgins DJ, McCabe MP. Multiple forms of child abuse and neglect: Adult retrospective reports. Child Abuse & Neglect (6):547–578.
- Hines DA, Kantor GK, Holt MK. Similarities in siblings' experiences of neglectful parenting behaviors. Child Abuse & Neglect 2006;30:619–637. [PubMed: 16781772]
- Hussey JM, Marshall JM, English DJ, Knight ED, Lau AS, Dubowitz H, Kotch JB. Defining maltreatment according to substantiation: Distinction without a difference? Child Abuse & Neglect 2005;29:479– 492. [PubMed: 15970321]
- Jean-Gilles M, Crittenden PM. Maltreating families: A look at siblings. Family Relations 1990;39:323– 329.
- Kaufman Kantor G, Holt MK, Mebert C, Straus MA, Drach KM, Ricci LR, MacAllum C, Brown W. Development and psychometric properties of the Child Self-Report Multidimensional Neglectful Behavior Scale (MNBS-CR). Child Maltreatment 2004;9(4):409–429. [PubMed: 15538039]

- Knutson JF, DeGarmo D, Koeppl G, Reid JB. Care neglect, supervisory neglect, and harsh parenting in the development of children's aggression: A replication and extension. Child Maltreatment 2005;10:92–107. [PubMed: 15798006]
- Knutson JF, DeGarmo DS, Reid JB. Social disadvantage and neglectful parenting as precursors to the development of antisocial and aggressive child behavior: Testing a theoretical model. Aggressive Behavior 2004;30:187–205.
- Legislative Analysts Office. Child abuse and neglect in California. 1996. Retrieved February 1, 2008, from http://www.lao.ca.gov/1996/010596child _abuse/cw11096toc.html
- Mayer M, Lavergne C, Tourigny M, Wright J. Characteristics differentiating neglected children from other reported children. Journal of Family Violence 2007;31:607–614.
- Mennen FE, Trickett P. Mental health services to urban minority children. Children and Youth Services Review 2007;29:1220–1234.
- McGee R, Wolfe D, Olson J. Multiple maltreatment, attribution of blame, and adjustment among adolescents. Development and Psychopathology 2001;13:827–846. [PubMed: 11771910]
- McSherry D. Commentary: Understanding and addressing the "neglect of neglect": Why are we making a mole-hill out of a mountain? Child Abuse & Neglect 2007;31:607–614. [PubMed: 17602743]
- Polansky NA. Determinants of loneliness among neglectful and other low-income mothers. Journal of Social Service Research 1985;8(3):1–15.
- Shaffer A, Huston L, Egeland B. Identification of child maltreatment using prospective and self-report methodologies: A comparison of maltreatment incidence and relation to later psychopathology. Child Abuse & Neglect 2008;32:682–692. [PubMed: 18638626]
- Slack KS, Holl J, Altenbernd L, McDaniel M, Stevens AB. Improving the measurement of child neglect for survey research: Issues and recommendations. Child Maltreatment 2003;8(2):98–111. [PubMed: 12735712]
- Sullivan PM, Knutson JF. The association between child maltreatment and disabilities in a hospital-based pediatric sample. Child Abuse & Neglect 1998;22(4):271–288. [PubMed: 9589179]
- Sullivan PM, Knutson JF. Maltreatment and disabilities: A population-based epidemiological study. Child Abuse & Neglect 2000;24:1257–1274. [PubMed: 11075694]
- Trickett PT, Mennen FE, Kim K, Sang J. Emotional abuse in a sample of multiply-maltreated, urban young adolescents: Issues of definition and identification. Child Abuse & Neglect 2009;33:27–35. [PubMed: 19178945]
- Wolock I, Horowitz B. Child maltreatment as a social problem: The neglect of neglect. American Journal of Orthopsychiatry 1984;54
- US Department of Health and Human Services. The Child Abuse and Prevention Treatment Including Adoption Opportunities and the Abandoned Infants Assistance Act as amended by the Keeping Children and Families Safe Act of 2003. Administration for Children and Families, Administration of Children Youth and Families, Children's Bureau, Office of Child Abuse and Neglect. 2003
- Department of Health and Human Services, Administration on Children, Youth and Families. Child mltreatment 2007. US Government Printing Office; Washington, DC: 2009. http://www.acf.hhs.gov/programs/cb/laws_policies/cblaws/capta03/US

Table 1

Demographic Information on the Study Participants (n=303)

Characteristics	п	%
Age at study entry	m=10.8 (sd=1.2)
Parent's education*	m=12.1 (sd=3.9)
Gender		
Male	152	50.2
Female	151	49.8
Ethnicity		
Black	123	40.6
White	35	11.6
Latino	106	35.0
Bi-racial	39	12.9
Placement		
Remain w/ bio parent	164	54.1
Relative placement	74	24.4
Foster care (non-kin)	64	21.1
Adoptive home	1	.3

Note.

* Parent's education has a possible range from "0" (none) to "17" (professional degree). *Median value* of parent's education was 13, which indicates high school diploma.

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Table 2

Demographic Characteristics and Co-occurrence Status of Neglect Cases by DCFS Classification and by MCRAI Classification

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	Ă	DCFS		MC	MCRAI			
	A: N (n=	A: Neglect (n=124)	B: N (n:	B: Neglect (n=215)	C: Non (n=	C: Non-Neglect (n=88)	Sig.	Sig. Test
Characteristics	u	%	u	%	u	%	A 1/2. B	B vs. C
Age at study entry	m=10.7	m=10.7 (sd=1.2)	m=10.9	m=10.9 (sd=1.2)	<i>m</i> =10.8	m=10.8 (sd=1.1)		
Parent's education ¹)	<i>m</i> =12.0	m=12.0 (sd=3.8)	m=12.3	m=12.3 (sd=3.7)	<i>m</i> =11.6	m=11.6 (sd=4.4)		
Gender								
Male	63	50.8	111	51.6	41	46.6		
Female	61	49.2	104	48.4	47	53.4		
Ethnicity								
Black	55	44.4	87	40.5	36	40.9		
White	15	12.1	32	14.9	3	3.4		
Latino	38	30.6	68	31.6	38	43.2		*
Bi-racial	16	12.9	28	13.0	11	12.5		
$Placement^{I})$								
Remain w/ bio parent	47	50.0	LL	48.4	42	60.0		*
Relative placement	23	24.5	47	28.9	13	18.6		
Foster care (non-kin)	24	25.5	35	22.0	15	21.4		
Adoptive home	0	0.0	1	9.	0	0.0		
Co-occurrence with								
Physical abuse	7	5.6	107	49.8	45	51.1	* * *	
Sexual abuse	0	0.0	44	20.5	16	18.2	* * *	
Emotional abuse	7	5.6	131	60.9	40	45.5	* *	*
Caretaker incapacity	0	0.0	119	55.3	32	36.4	* * *	* *
Substantial risk	1	ι.	104	48.4	51	58.0	* * *	
Total number of neglect only cases								
Pure neglect ²)								
Neglect + CI and/or SR^3)	112	90.3	15	5.0	z	N/A	* * *	N/A
	1	×;	46	15.2	Z	N/A	* * *	N/A

	A: Negle (n=124)	A: Neglect (n=124)	B: N((n=)	B: Neglect (n=215)	C: Non-Neglect (n=88)	Neglect 38)	Sig.	Sig. Test
Characteristics	u	%	u	%	u	%	A <i>vs.</i> B	B vs. C
Total number of reports	Ż	N/A	<i>m</i> =4.2 (m=4.2 (sd=2.8)	m=2.6 (sd=1.8)	(d=1.8)	N/A	* * *
Total number of different types of allegation ⁴)	m=1.1	m=1.1 (sd=.4)	m=3.3 (m=3.3 (sd=1.3)	m=2.1 (sd=1.0)	d=1.0)	* * *	* * *
Note.								
$^{1/2}$ In order to minimize the possible confounding of the impact of sibling cases, unit of analyses for caretaker characteristics and placement was family. $n(A) = 94$, $n(B) = 159$, $n(C) = 70$. $^{2/2}$ Cases having only neglect allegation.	founding	of the imp	act of sibl	ing cases,	unit of ana	lyses for	caretaker (characteristic
$^{(3)}$ Cases having neglect allegation, plus caretaker incapacity and/or substantial risk.	caretaker	incapacity	' and/or su	ıbstantial r	isk.			
4) Maximum possible number of allegations is six, including physical, sexual, emotional abuse, neglect, as well as caretaker incapacity and substantial risk.	ions is six	i, including	g physical.	, sexual, ei	motional al	buse, negl	ect, as we	ll as caretake
$\tau_{p<08}$								
* p<05								
** <i>p</i> <01								
*** <i>p</i> <001.								

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Table 3

Categorizing Neglect Experiences Using the Framework of Knutson, DeGarmo, Koeppl, & Reid (2005) (n=215)

Knutson, et al. (2005)	MCRAI Categories	MCRAI Subcategories	MCRAI Items	Case Examples	u	%
		Failure to provide food	Child does not have adequate food to meet their needs	 There is no food at home. Child often reports being hungry and/or asks neighbors for food. Child is not fed for two days. 	91	42.4
			Food is not nutritionally adequate	Only beer or rotting meat in the fridge.Child is only fed chips.	30	14.0
			Child does not have adequate clothing to meet needs	 Child wears inappropriate clothing for the cold weather. Child is often seen without shoes on. Child fails to wear a school uniform. 	37	17.2
	Care neglect	Failure to provide clothing	Child does not have clothing which is appropriate size	Child wears too large clothing as if it belonged to someone else.Too big shoes	6	4.2
Care neglect			Child's clothing is not clean	 Child wears dirty, stained, and/or torn clothing. Child wears filthy, muddy shoes. Child wears a soiled school uniform, smelling of urine. 	49	22.8
		Failure to provide hygiene	Child is not clean and well- groomed	 Parent does not bathe child or brush his teeth. Child smells like urine. Child has nits and severe lice in hair. 	63	29.3
			Child's physical surroundings are not safe and hygienic	 Home smells of urine, feces, or chemicals There are roaches, spiders, fleas, or rats. There are matches, lighters, and a burnt mattress on the floor. 	72	33.5
	Environmental neglect	Failure to provide shelter	Home is of inadequate size for number of family members	 Too many people live in the home (e.g., 18 people living in one apartment, 8 people sharing one bedroom, etc.) Family is homeless and lives in a car. Family lives in a motel, a garage, or trailer park. 	52	24.2

Knutson, et al. (2005)	MCRAI Categories	MCRAI Subcategories	MCRAI Items	Case Examples		u	%
			Home is of inadequate cleanliness	 There are trash, animal feces, and/or decomposed food all over the floor. Mattress and blanket are soiled with urine. Filthy clothing and dirty dishes are piled up everywhere. 	omposed food all over the floor. e. up everywhere.	78	36.3
			Conditions are not safe with dangerous situations apparent	 Child has to crawl in through a boarded window to get into residence. Stove has a gas leak and children are locked in the house. Home is unsafe with a roof falling in. 	vindow to get into residence. ked in the house.	11	33.1
	Medical neglect	Failure to provide medical care	Child does not receive medical care needed	 Parent does not take child to a doctor when the child sexually abused by stepfather. Child has bad rashes but parent does not treat them. 	Parent does not take child to a doctor when the child complains of vaginal pain after being sexually abused by stepfather. Child has bad rashes but parent does not treat them.	49	22.8
	Educational neglect	Educational maltreatment	Parent fails to send child to school	 When child has a black eye from physical abuse by parent, parent prohibits the going to school for three days. Parent keeps child home to take care of the parent who is physically ill. Child is not registered to attend school for months because of parent's drug use. Parent does not give child a ride to school. 	When child has a black eye from physical abuse by parent, parent prohibits the child from going to school for three days. Parent keeps child home to take care of the parent who is physically ill. Child is not registered to attend school for months because of parent's drug use. Parent does not give child a ride to school.	65	30.3
Supervisory neglect		1 مامہ 1	Parent left child alone	 Child is left unsupervised overnight. Mother and grandparents passed out from drug use w Child is left alone in a van while parent goes to work. 	Child is left unsupervised overnight. Mother and grandparents passed out from drug use while children were left unattended. Child is left alone in a van while parent goes to work.	123	57.2
	neglect	Lack of supervision	Parent left child alone with inappropriate substitute care	 Child is left with his grandmother who has sight and hearing loss. Child is left with a relative who is physically and/or sexually abusive. Child is left with a drug dealer. 	as sight and hearing loss. ally and/or sexually abusive.	95	44.2

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Frequencies and Correlations among the Subtypes of Neglect under the MCRAI (n=215)

	1	7	e	4	u	‰ u
1. Care Neglect					111	111 52.6
2. Environmental Neglect .51***	.51***				130	61.6
3. Medical Neglect	.18**	.04			49	23.2
4. Educational Neglect	.44**	.35*** .16*	.16*		65	30.8
5. Supervisory Neglect	.07	.14*	.01	.01 .16* 153 72.5	153	72.5

Table 5

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Demographic Information and Co-occurrences with Other Forms of Maltreatment by Five Subtypes of Neglect

	U Sei	Care Neglect (n=111)	Enviro Neg (n=	Environmental Neglect (n=130)	Ϋ́́Ξ	Medical Neglect (n=49)	Edu N	Educational Neglect (n=65)	Super Neg (n=	Supervisory Neglect (n=153)
	u	%	u	%	u	%	u	%	u	%
[5.1] Demographics Age at study entry	m= m=	<i>m</i> =10.8 (<i>sd</i> =1.2)	m= (sd=	m=10.8 (sd=1.2)	m: (SC	m=10.9 (sd=1.1)	m (Sc	m=10.9 (sd=1.1)	m=m	m=10.9 (sd=1.2)
Gender										
Male	59	53.2	70	53.8	23	46.9	35	53.8	81	52.9
Female	52	46.8	60	46.2	26	53.1	30	47.6	72	47.1
Ethnicity										
Black	48	36.9	48	36.9	15	30.6	24	36.9	60	39.2
White	21	18.9	22	16.9	6	18.4	12	18.5	28	18.3
Latino	36	32.4	43	33.1	20	40.8	22	33.8	45	29.4
Bi-racial	13	11.7	17	13.1	5	10.2	٢	10.8	20	13.1
Placement ¹⁾										
Remain w/ bio parent	33	42.5	40	43.0	15	48.4	16	32.7	51	48.6
Relative placement	28	35.0	32	34.4	Ξ	35.5	23	46.9	33	31.4
Foster care (non-kin)	18	2.5	20	21.5	5	16.1	6	18.4	21	20.0
Adoptive home	0	0.0	1	1.1	0	0.0	-	. 2.0	0	0.0
Caretaker education*1)	m= (sd=	<i>m</i> =12.7 (<i>sd</i> =3.4)	m= (sd=	<i>m</i> =12.1 (<i>sd</i> =3.8)	m: (SC	m=12.4 (sd=4.3)	m (Sc	m=12.3 (sd=3.6)	m= (sd=	<i>m</i> =12.3 (<i>sd</i> =3.6)
[5.2] Neglect details Age of onset of neglect	=m	m=7.2 (sd=2.7)	=m=	m=7.6 (sd=2.7)	и ш	m=7.6 (sd=2.7)	и (Sc	m=7.2 (sd=3.1)	=m	m=7.7 (sd=2.7)
Total # of neglect perpetrator ¹⁾										
One	47	58.8	54	58.1	16	51.6	29	59.2	60	57.1
Two or more	33	41.3	39	41.9	15	48.4	20	40.8	45	42.9
Identity of neglect perpetrator ¹⁾										
Bio parent	79	98.8	88	94.6	31	100.0	49	100.0	100	95.2
Other parental figure	8	10.0	12	12.9	2	16.1	4	18.2	16	15.2
Others	16	20.0	22	23.7	4	12.9	8	16.3	21	20.0
Co-occurrence with										

	ËŇ	Neglect (n=111)	Neg (n=	Neglect (n=130)	ž 5	Neglect (n=49)	ΖΞ	Neglect (n=65)	Neglect (n=153)	Neglect (n=153)
	u	%	u	%	2	%	u	%	u	%
Physical abuse	99	54.1	65	48.4	31	53.3	39	60.0	81	52.9
Sexual abuse	22	19.8	23	17.5	14	28.6	11	16.9	33	21.6
Emotional abuse	76	68.5	86	68.3	34	69.4	50	76.9	100	65.4
Caretaker incapacity	65	58.6	LL	61.1	30	61.2	40	61.5	84	54.9
Substantial risk	61	55.0	67	55.6	22	55.1	36	55.4	74	48.4
Total # of neglect report	m (sd	m=3.2 (sd=1.9)	=m	m=2.9 (sd=1.9)	m (56	m=3.1 (sd=1.8)	n (Se	m=3.5 (sd=2.1)	=m	m=2.8 (sd=1.8)

⁷Caretaker education has a possible range from "0" (none) to "17" (professional degree). *Median value* of parent's education was 13 across 5 subtypes, which indicates high school diploma. 1) In order to minimize the possible confounding of the impact of sibling cases, unit of analyses for caretaker and perpetrator characteristics as well as placement was family. n(Care Neglect) = 80, n(Environmental Neglect) = 93, n(Medical Neglect) = 31, n(Educational Neglect) = 49, n(Supervisory Neglect) = 105.