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The Whole Picture: Child Maltreatment Experiences of Youths who were Physically Abused

Kristopher I. Stevens, PhD,

Pacific Clinics, 902 South Myrtle Ave, Monrovia, CA, 91016

Janet U. Schneiderman, PhD, RN,

School of Social Work, University of Southern California, 669 West 34th Street, Los Angeles, CA, 90089, juschnei@usc.edu

Sonya Negriff, PhD,

School of Social Work, University of Southern California, 1150 S. Olive Street, Suite 360, Room S, Los Angeles, CA, 90089, negriff@usc.edu

Andrea Brinkmann, MSW, and

School of Social Work, University of Southern California, 669 West 34th Street, Los Angeles, CA 90089-0411, andrea.brinkmann@usc.edu

Penelope K. Trickett, PhD

School of Social Work, University of Southern California, 669 West 34th Street, Los Angeles, CA, 90089, pennyt@usc.edu

Child physical abuse is one of the most frequent forms of child maltreatment, second only to neglect (U.S. Department of Health and Human Services [USDHHS], 2013). Physical abuse may receive more attention from caseworkers than other types of maltreatment because it can leave visible evidence on the child (DePanfilis, 2006). Although physical abuse may bring the child to the attention of child protective services (CPS), simply classifying a child as physically abused may omit important information about the child's history of maltreatment. Children's individual experiences of physical abuse, including rates of co-occurrence with other types of maltreatment and history of reports to CPS, are not well understood. Delineating the complexity of child physical abuse experiences will help to identify patterns that may aid intervention and prevention efforts for those at highest risk of deleterious outcomes. Reviewing historical CPS case reports can provide a better picture of a child's maltreatment experience than using a single report. Therefore, we examined the case reports of a sample of maltreated children in Los Angeles County to identify how those with physical abuse differed from maltreated children without physical abuse and to

Corresponding Author kstevens@pacificclinics.org.

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understand individual patterns of maltreatment experiences across childhood and early adolescence.

Child physical abuse is defined by the federal government as “non-accidental physical injury (ranging from minor bruises to severe fractures or death) as a result of punching, beating, kicking, biting, shaking, throwing, stabbing, choking, hitting (with a hand, stick, strap, or other object), burning, or otherwise harming a child, that is inflicted by a parent, caregiver, or other person who has responsibility for the child” (Child Welfare Information Gateway, 2013, p. 3). A nonaccidental injury is considered abuse regardless of intention to harm. Los Angeles County Department of Children and Family Services (DCFS) specifically defines child physical abuse as “nonaccidental bodily injury that has been or is being inflicted on the child” and includes “willful cruelty or unjustifiable punishment of a child” and “corporal punishment or injury” (Los Angeles County Department of Children and Family Services [LACDCFS], n.d.). Among substantiated cases of maltreatment in 2012, physical abuse occurred 18.3% of the time, compared to 78.3% for neglect (USDHHS, 2013). In 2012 in the United States, there were 124,544 reports of confirmed child physical abuse (USDHHS, 2013). In 2013 in Los Angeles County, there were 38,945 reports of physical abuse (LACDCFS, 2013). Alarming, this number has grown from 22,547 in 2002 (LACDCFS, 2002) in spite of the fact that the population of children 0–17 years of age in Los Angeles County decreased by 13% over that time (Kids Count Data Center, 2014). In 2002, at the time of the current study's data collection, 11 of every 1,000 children had a substantiated case of physical abuse in Los Angeles County (Kids Count Data Center, 2014). The state of California had a similar rate of 12 of 1,000 (Kids Count Data Center, 2014). Physical abuse can result in child fatalities, one of the most tragic consequences of child maltreatment (Jonson-Reid, Chance, & Drake, 2007). Of the children who died from maltreatment in 2012, almost 50% were victims of physical abuse alone or in combination with another type of maltreatment (USDHHS, 2013).

Prior studies have found that although boys are more likely than girls to experience physical abuse (Sobsey, Randall, & Parrila, 1997; Thompson, Kingree, & Desai, 2004), girls experience more detrimental consequences such as an increased risk of physical and mental health problems in adulthood (Thompson et al., 2004). Negative psychological consequences of physical abuse include internalizing behaviors such as suicidal behavior and depression (Brown, Cohen, Johnson, & Smailes, 1999) and externalizing problems (Dodge, Pettit, Bates, & Valente, 1995; Kaplan et al., 1998). Severe physical abuse is associated with more aggression in school-aged children (Manly, Kim, Rogosch, & Cicchetti, 2001) and is strongly related to violence, particularly among girls (Hubbard & Pratt, 2002). Another negative outcome of physical abuse concerns living placement changes. Research has demonstrated that physically abused youth are more likely than youth with exposure to other forms of maltreatment to have multiple placement changes (Barth, Lloyd, Green, James, Leslie, & Landsverk, 2007; Connell, Vanderploeg, Flaspohler, Katz, Saunders, & Tebes, 2006; Leathers, 2006) which may be both a result of as well as subsequent catalyst of mental health and behavior problems (James, 2004; Newton, Litrownik, & Landsverk, 2000).

Physical abuse often does not occur in isolation, and children frequently experience multiple types of maltreatment (Clemmons, Walsh, DiLillo, & Messman-Moore, 2007). Children initially identified as experiencing a particular type of maltreatment by CPS are often found to suffer from other forms of maltreatment after a review of current and past case records (Negriff, Schneiderman, Smith, Schreyer, & Trickett, 2014; Trickett, Mennen, Kim, & Sang, 2009). Evidence has indicated high rates of co-occurrence, with some research suggesting that less than 5% of reported maltreatment happens in isolation (Ney, Fung, & Wickett, 1994). One study found that 89% of physically abused children also experience some form of psychological abuse (Claussen & Crittenden, 1991), whereas other studies found co-occurrence rates of 13.6% or higher for sexual and physical abuse (Hobbs & Wynne, 1990; Negriff et al., 2014). In another sample of maltreated women, 11.2% reported both emotional and physical abuse as children (Moeller, Bachmann, & Moeller, 1993). In addition, many children experience more than two types of maltreatment (Moeller et al., 1993), which is likely to be more detrimental than experiencing just one type of maltreatment. A combination of physical abuse, physical neglect, and verbal abuse was associated with the most negative outcomes, such as diminished enjoyment of life and hope for the future, compared with other types of co-occurrence (Ney et al., 1994). Physically abused children are 1.59 times more likely to have lifetime major depressive disorder compared to nonmaltreated children, but multitype maltreated children are 1.75 times more likely to have major depressive disorder compared to nonmaltreated children (Widom, DuMont, & Czaja, 2007). Accurately assessing and incorporating the spectrum of maltreatment experiences for physically abused youths will help to identify patterns that may aid intervention and prevention efforts targeting those at highest risk of deleterious outcomes.

Current Study

The purpose of the current study was to describe the maltreatment experiences of a sample of urban youths identified as physically abused using the Maltreatment Case Record Abstraction Instrument (MCRAI; reference withheld for blinded review). The MCRAI is a comprehensive tool for abstracting data on youths' maltreatment history from CPS records to allow the categorization of youths' maltreatment experiences in quantifiable terms (see Methods section for a detailed description). Such abstraction techniques allow for a richer and more accurate assessment of youths' maltreatment experiences than relying on single reports provided by CPS agencies (Barnett, Manly, & Cicchetti, 1993; English & LONGSCAN Investigators, 1997). This study examined: (1) characteristics (e.g., demographics and co-occurrence with other types of maltreatment) of MCRAI-identified physically abused youths versus youths identified as physically abused by DCFS in the index report when they entered the study; (2) characteristics (e.g., demographics, number of maltreatment reports, number of maltreatment types, placement history) of MCRAI-identified physically abused youths versus MCRAI-identified maltreated youths without physical abuse for the total sample and by gender; (3) perpetrators of MCRAI-identified physical abuse for all reports and by child gender; and (4) individual variability in maltreatment experiences of MCRAI-identified physically abused youths by gender using lifeline plots. The current study examined gender differences in characteristics of youth and

variability of maltreatment experiences based on evidence that boys have more reports to and involvement with CPS for physical abuse than girls (Sobsey et al., 1997; Thompson et al., 2004).

Methods

Participants

The study participants were part of a longitudinal study of the effects of maltreatment on youths' development. The parent study began in 2002 and is currently in its fifth wave of data collection. Assessments occurred on average every 2.4 years. Participants were recruited from DCFS referrals with the following criteria: (1) a new substantiated maltreatment referral to DCFS in the preceding month for any type of maltreatment; (2) youth between 9 to 12 years of age; (3) youth identified as Latino, Black, or White (non-Latino); and (4) youth residing at the time of referral to DCFS in one of 10 zip codes in urban Los Angeles County which were selected because they had high rates of reported maltreatment (according to DCFS) and ethnic diversity (according to census data). Each caregiver of a referred youth received a letter describing the study, which included a postage-paid return postcard indicating willingness or unwillingness to participate. If no postcard was received indicating unwillingness to participate, the caregiver was telephoned. Of the 394 caregivers who received the letter, 303 (76.9%) agreed to participate. Additionally, a comparison sample comprised of 151 youths drawn from the same 10 zip codes was included in the parent study; these youth were not included in the current study. Participant recruitment procedures were approved by the university's institutional review board, DCFS, and the juvenile court.

Procedures

Assent was obtained from each youth and consent was provided by caregivers prior to participation in the first study assessment. During the study protocol, caregivers provided demographic information for themselves and the youth and described the placement type (for a more complete description of the study protocol, see reference withheld for blinded review). Both the youth and caregiver were paid for their participation according to the National Institutes of Health's standard compensation rate for healthy volunteers.

DCFS Maltreatment Label

When a youth recruited from DCFS was enrolled in the study (between 2002 and 2005), DCFS provided researchers with the maltreatment type assigned to the youth based on the allegation of maltreatment that initiated their recruitment into the study (see Appendix for LADCFS definitions of maltreatment types). This DCFS identification was not based on prior case records nor was it the final disposition of the case after the investigation was concluded. All youths who were identified as experiencing physical abuse when they entered the study were included in the DCFS index report group (Table 1).

Development and Use of the MCRAI

Computerized case records were obtained to determine the various types of maltreatment experienced by participants. Five previous years of case records were available for

abstraction from the DCFS system, although for some youths the index report was more proximal to their study entry. The MCRAI, a comprehensive database using SPSS Data Entry Builder 3.0, was developed for the present study to collect the information in the case records. The MCRAI is based on the Maltreatment Classification System (MCS; Barnett et al., 1993) and the LONGSCAN Modified Maltreatment Classification System (MMCS; English & LONGSCAN Investigators, 1997). The MCRAI was designed to include specific data on a youth's experience as detailed in official records to allow the categorization of maltreatment experiences in quantifiable terms (a copy of the MCRAI is available upon request). The MCRAI descriptions differ from the MCS and the MMCS in that the MCRAI describes the details of the youth's experiences and the MCS and MMCS use the youth's experiences to categorize the severity of the maltreatment. For example, in the MMCS, the severity of physical abuse is categorized on a 1 to 6 scale, with coding severity is based on the part of the youth's body that was assaulted and the method of assault (e.g., burns, hitting). To code assault to the face and neck, for example, 1 is used when the physically abusive act does not leave a mark on the youth, 2 and 3 are used when the act leaves marks on the youth, 4 is used when medical attention is required, 5 is used when hospitalization of more than 24 hours is needed, and 6 is used when the abusive act causes permanent disability or fatality.

The MCRAI codes four major forms of maltreatment (i.e. physical abuse, sexual abuse, emotional abuse, and neglect) and is based on maltreatment acts experienced by the youth rather than youth outcomes from the maltreatment acts, e.g. a youth's injury. Furthermore, along with the four forms of maltreatment, three more categories were included in MCRAI. One category included caretaker incapacity (e.g., due to hospitalization, unknown whereabouts, incarceration) and another category included caretaker's inability to provide adequate care for the youth (e.g., due to caregiver's mental illness, substance use, or physical illness). The substantial risk designation was also included, because it applied to instances in which no clear allegation of maltreatment existed for the youth but circumstances put the youth at risk of maltreatment (e.g. a sibling was abused or neglected). For this analysis, we combined caretaker incapacity, caretaker inability to provide adequate care for the youth, and substantial risk designation into a single risk category. The categories were combined because they do not necessarily represent the occurrence of child maltreatment but the risk that maltreatment could or might have occurred.

The database for the MCRAI included the original DCFS categorization of each report of maltreatment, all DCFS allegations of maltreatment, and the investigation status (i.e., whether or not the allegations were confirmed). A new record was created for each new report of maltreatment that included relevant data for that particular report. Unsubstantiated cases of maltreatment have been found to differ little from substantiated cases; thus all maltreatment allegations were included to more accurately reflect the youth's experience (Drake, 1996; Hussey et al., 2005).

Procedures for abstracting child maltreatment case records—Two retired DCFS supervisors reviewed the agency records that were available for the 5 previous years from the index report that preceded the youth's enrollment into the parent study (i.e., including emergency referral information, screener descriptions, investigation narratives, and contact

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Results

DCFS versus MCRAI Classification of Physical Abuse

Through the MCRAI process, 156 youths were identified as physically abused, whereas only 61 were identified as physically abused by the DCFS index report. All 61 youths identified as physically abused in the DCFS index report were also identified as physically abused by the MCRAI. The demographics and placement characteristics of the youths classified as physically abused by the MCRAI versus the DCFS index report were not significantly different. Most youths were boys and were living with their biological parent. There were significant differences between the DCFS and MCRAI in the frequencies of other types of maltreatment that co-occurred with physical abuse. Of the 156 youths identified by the MCRAI as physically abused, 96.8% also experienced other types of maltreatment. The identification of physical abuse by DCFS in the index report showed little co-occurrence with other forms of maltreatment; only 37.7% were reported to have experienced other types of maltreatment (see Table 1).

Characteristics of MCRAI-Identified Physically Abused and MCRAI-Identified Non-Physically Maltreated Youths

MCRAI-identified physically abused boys ($n = 89$; 57%) and girls ($n = 67$; 43%) were not significantly different in terms of average age of entry into the study, demographics, and living arrangements. Results indicated that 55.8% ($n = 87$) of the MCRAI-identified youth experienced physical abuse on the index DCFS report that initiated their enrollment in the study. The demographics and placement characteristics of the 156 MCRAI-identified physically abused youths were not significantly different from those of the 143 MCRAI-identified nonphysically maltreated youths (see Table 2).

The MCRAI-identified physically abused youths had a total of 699 reports to DCFS. The number of reports per youth ranged from 1–14, with a mean of 4.48. For boys, the mean was 4.58 reports, whereas for girls, the average was 4.34 reports. There was no significant difference by gender in mean number of reports. Of the 156 youths with MCRAI-identified physical abuse, only 16 (10.3%) had one report to DCFS, 29 (18.6%) had two reports, and 110 (71.1%) had more than three reports. Not all of the reports included an occurrence of physical abuse; only 291 (of 699) of the reports included physical abuse (41.6%). The 143 MCRAI-identified nonphysically maltreated youth had 391 reports that ranged from 1–10 per youth, with a mean of 2.73. MCRAI-identified physically abused youths were significantly different from MCRAI-identified nonphysically maltreated youths in the mean number of reports ($t(297) = -6.22, p < .001$). Additionally, there were significant differences in the mean number of reports for MCRAI-identified physically abused versus MCRAI-identified nonphysically maltreated boys ($t(147) = 5.48, p < .001$) and girls ($t(148) = 3.38, p < .001$).

Each report could include 1–5 instances of maltreatment; based on co-occurrence of multiple specific types of maltreatment (i.e., physical abuse, emotional abuse, sexual abuse, neglect, and risk). In all, 1,058 instances of maltreatment were experienced by the physically abused youths, ranging from 1–23 instances per youth. The mean number of instances of

maltreatment for the full sample of MCRAI-identified physically abused youths was 6.81; analyses revealed no statistically significant differences by gender. The 143 MCRAI-identified nonphysically maltreated youths had 521 instances of maltreatment, with a mean of 3.64 and range per youth of 1–16. MCRAI-identified physically abused youths were significantly different than MCRAI-identified nonphysically maltreated youths in the mean number of instances of maltreatment ($t(297) = -7.62, p < .001$). We also found significant differences in the mean number of instances for MCRAI-identified physically abused versus the MCRAI-identified nonphysically maltreated boys ($t(147) = 6.32, p < .001$) and girls ($t(148) = 4.53, p < .001$).

The mean age at first available report for the MCRAI-identified physically abused sample was 7.33 years old, with no significant gender differences. The average length of time from first available report to entry into the study was 3.55 years (range = 0.22–7.15 years) for MCRAI-identified physically abused youths, with no significant gender differences. Additionally, there were no significant differences between the MCRAI-identified physically abused and MCRAI-identified nonphysically maltreated samples in terms of mean age at first available report and the average length of time from first available report to entry into study. The mean age of youths at the onset of physical abuse (i.e., first available report that indicated physical abuse) was 8.09 years of age, with no significant gender differences.

The MCRAI-identified physically abused sample had a mean of 2.15 placement changes per youths (e.g., foster care to kinship care, foster care to biological parent) and ranged from 0 to 14. The MCRAI-identified nonphysically maltreated sample had a mean of 2.34 placement changes per youth that ranged from 0 to 15. There was no significant difference between the MCRAI-identified physically abused sample and the MCRAI-identified nonphysically maltreated sample in mean number of placement changes. There was also no significant difference between MCRAI-identified physically abused boys and girls in terms of the mean number of placement changes per youth.

Perpetrators of Physical Abuse by Report

Four categories were created to describe perpetrators of MCRAI-identified physical abuse: (1) biological parent, (2) parental figure (e.g., stepparent, foster parent, live-in boyfriend), (3) other relative (e.g., sibling, aunt or uncle, grandparent), and (4) other nonrelative (e.g., neighbor, family friend). Forty reports (13.7%) indicated more than one perpetrator per incident (e.g., biological mother and biological father, biological mother and stepfather). Additionally, of the 70 youths who had more than one DCFS report that included an incident of MCRAI-identified physical abuse, 48 (30.8%) were physically abused by a new perpetrator on a subsequent report (e.g., biological mother in first report, step-father in second). Biological parents were the majority of perpetrators of MCRAI-identified physical abuse (involved in 223 of the 291 reports; 76.6%), and biological mothers were more often the perpetrator than biological fathers (57.1% vs. 24.0%, respectively). There were no significant differences between boys and girls across the perpetrator categories. Comparisons were not made with the MCRAI-identified nonphysically maltreated sample due to a lack of clarity in how the perpetrators were identified and labeled in the reports.

(especially for neglect and emotional abuse; see Table 3). In nonphysical forms of maltreatment (except sexual abuse), it is often difficult to clearly identify who perpetrated the abuse or neglect.

Lifelines Plots of Maltreatment Experiences of MCRAI-identified Physically Abused Youth

To capture the complexity of maltreatment experiences for the MCRAI-identified physically abused sample, we present a descriptive account of the number of reports and the types of maltreatment at each report in a developmental context. The resulting lifeline plots depicted in Figures 1 and 2 (for boys and girls, respectively) represent the lifeline of each participant from the time of their first available report. In these plots, the ages of the participants are arrayed horizontally on the *x*-axis and participants are arrayed on the *y*-axis in descending order by number of reports. Reports and the type of maltreatment involved in that report are mapped on each timeline. By way of example, the first participant in Figure 1 entered the study at 9.84 years old. The first report was available at 4.02 years of age. The youth had 12 reports made to DCFS between the first available report and entry into the study. In these 12 reports, the participant experienced 23 instances of maltreatment across the reports (eight included physical abuse, three included sexual abuse, six included emotional abuse, four included neglect, and two included risk). In contrast to the first participant, the last participant in Figure 1 entered the study at 9.54 years old. The first report was available at 9.37 years of age. The youth had only one report to DCFS prior to entry into the study and experienced three types of maltreatment (physical abuse, emotional abuse, and risk).

Discussion

This descriptive study of 156 MCRAI-identified physically abused youths illustrates the wide range of physical abuse experiences in a group of inner-city youths. The label of physical abuse assigned by DCFS when the youths entered this longitudinal study identified only 39% of the youths who had a history of physical abuse. By examining maltreatment data from past case records, 95 additional youths who experienced physical abuse at some point in their lives were identified. Additionally, 97% of the youths with MCRAI-identified physical abuse had other co-occurring maltreatment identified, whereas far fewer of the DCFS-identified physically abused youths had been categorized as having other co-occurring types of maltreatment in that single report. This demonstrates that obtaining maltreatment information from a single report vastly underestimates the prevalence of physical abuse and the co-occurrence of other maltreatment types. Our findings are consistent with other research showing that examining case records rather than a single report provides a more complete picture of the complexity of maltreatment experiences among physically abused youths (Barnett et al., 1993; Runyan et al., 2005).

The results of the current study indicated that MCRAI-identified physically abused youths had significantly more reports to the DCFS and more instances of maltreatment, yet similar a number of placement changes compared to MCRAI-identified nonphysically abused maltreated youths. Studies have shown that youths exposed to multiple maltreatment experiences are at risk of repeated referrals to protective services (Bae, Solomon, & Gelles, 2007). Physical abuse perpetrated in the family has characteristics in common with other

types of maltreatment, such as low income levels, single-parent households, low parental educational attainment, domestic violence, and parental substance use or mental health problems (Gilbert et al., 2009), which increase the risk of repeated maltreatment. Unfortunately, the current data showed that youths with physical abuse in their maltreatment history are at higher risk of multiple maltreatment experiences and prolonged involvement with the child welfare system. The lack of differences in placement changes between MCRAI-identified youth with physical abuse and MCRAI-identified maltreated youth without physical abuse in this study differs from previous studies that found that physically abused youths are more likely than youths with other types of maltreatment to be removed from the home and more likely to have multiple changes in placement while in the foster care system (Barth et al., 2007; Connell et al., 2006; Leathers, 2006).

The distribution of boys and girls (57% to 43%, respectively) in this sample is similar to national statistics (USDHHS, 2013) that indicate boys are more likely to be physically abused than girls. MCRAI-identified physically abused youths did not differ by gender in terms of the mean number of reports made and the mean number of maltreatment types indicated in those reports. This is contrary to national statistics, which have indicated that more girls are involved in CPS than boys (USDHHS, 2013). The absence of significant gender differences mirrors the lack of consensus regarding gender differences in associations between physical abuse and psychological problems (Moylan et al., 2010).

In this study, the majority of MCRAI-identified physical abuse was perpetrated by biological parents, similar to national statistics indicating that more than 80% of perpetrators of all child abuse and neglect are parents (USDHHS, 2013). These results are similar to a study in which youths who self-reported physical abuse identified that 69% of perpetrators were biological parents (Tyler & Cauce, 2002). The present study found that biological mothers comprised the majority of perpetrators, whereas in national studies of parent-to-child physical aggression and youth self-reported physical abuse, no differences in gender of the parental perpetrators were noted (Black, Heyman, & Smith Slep, 2001; Tyler & Cauce, 2002). The geographic areas in Los Angeles where the families who participated in this study lived have the highest rates of single parenthood in the city (Los Angeles Times, 2014). Mothers of the MCRAI-identified physically abused youths in this study may have been more likely to perpetrate abuse due to the added stress of being the primary or possibly the only caregiver in the home.

The lifeline plots proved to be a powerful and compelling tool to graphically illustrate the amount of individual variability in the maltreatment experiences of the physically abused youths involved in the current study. Other studies have used this approach to describe the risk factors that a sample of sexually abused women faced during a longitudinal study (Noll, Trickett, Harris, & Putnam, 2009). Examination of the plots for the current sample indicated that the MCRAI-identified physically abused youths had a great deal of individual variability in their maltreatment histories and child welfare experiences. Whereas some youths had a few DCFS reports, the majority of youths dealt with multiple incidents of maltreatment during an extended period of time. It is possible that many of these lifelines are incomplete; that is, many instances were not captured because they did not come to the attention of DCFS or they occurred outside of the reports that were available. The lifeline

plots illustrate the frequent CPS experiences of physically abused youth; this is disheartening given evidence that an increased number of CPS reports is associated with a higher probability of being killed as a result of physical abuse or neglect (U.S. Government Accountability Office, 2011). Many of the youths in this study may have not been adequately protected from further incidents of maltreatment through their involvement with CPS.

Limitations

Several limitations of this study should be noted. First, the current study only made use of official DCFS reports of maltreatment and as a result was not a comprehensive exploration of the youths' maltreatment history. We were unable to include youths' self-reports of maltreatment experiences and thus we were unable to evaluate how CPS records reflect a child's perception of their maltreatment. Second, the current study reviewed five years of case records prior to the maltreatment allegation that brought the youths into the study; there may have been physical abuse experiences prior to the reviewed case records or subsequently after enrollment in the study. Consequently youths who composed both the MCRAI-identified nonphysically maltreated sample and those in the comparison sample could have had a report made to DCFS that included physical abuse which was not available in the cases reviewed. Third, youths were sampled from Los Angeles County zip codes that had high rates of reported maltreatment and ethnic diversity. They might not be representative of all youths involved with LACDCFS. The extensive histories with DCFS could be an artifact of living in these catchment areas. Fourth, only records from one county were examined; it is possible that youths in the study had additional maltreatment allegations during the time period that were not included or available for this descriptive review. Fifth, case records were reviewed for the 303 youths whose caregivers agreed to participate in the study. The experiences of the 23% of youths whose caregivers declined to participate could have been different. Sixth, the current study focused on youths between the ages of 9 and 12 years (at study entry). The maltreatment experiences of younger children and older adolescents may be different than this age group. Finally, the data abstracted from the official DCFS records did not allow us to clearly examine the placement changes that the youths may have experienced as a result of the incidents of maltreatment because we could not match up the date of the placement changes with those of the maltreatment reports.

Conclusions

Overall, the results of this analysis highlighted the significant individual variability in the physical abuse experiences of youths in the current study. Our retrospective CPS case review allowed us to account for all types and incidents of maltreatment reported to DCFS. Not accounting for other forms of maltreatment could lead to inflated and erroneous relationships between physical abuse and developmental outcomes (Finkelhor, Ormrod, & Turner, 2007, 2009). Future research should focus on incorporating youths' self-report of their maltreatment with official records. This could lead to a more accurate picture of youths' experiences and a better understanding of how maltreatment experiences impact developmental processes. Additionally, linking placement changes to reports could enrich understanding of youths' experiences. Furthermore, examining and describing the characteristics of the maltreatment that physically abused youths have experienced may lead

to the identification of subgroups of youths who may exhibit resilience to these adverse early life experiences. Future research is needed to examine whether there are differential outcomes related to physical abuse and concomitant types of maltreatment and cumulative incidents of maltreatment. The lifelines also underscored the importance of identifying whether early patterns of maltreatment predict future maltreatment. Analytical techniques such as survival analysis could be used to examine how incidents or patterns of incidents might predict further incidents. This information could help direct-service providers and policy makers make better-informed decisions regarding youths involved in or at risk for involvement in CPS. For example, CPS agencies might consider providing more preventive services to families with a child with a physical abuse report to CPS (based on the findings in this study that children with a physical abuse allegation were more likely to have more CPS reports and incidents of maltreatment than children with CPS reports that did not include physical abuse). It is important for practitioners, researchers, and child welfare advocates to be cognizant of the complexity of physical abuse, especially when it comes to designing and implementing effective, efficacious, and efficient treatment programs and child welfare policy.

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Appendix

Type of maltreatment	LACDCFS Definition
Physical abuse	A physical injury which is inflicted by other than accidental means on a child by a caretaker or other individual living at same residence of child. Physical abuse includes cruelty, unjustifiable punishment, or corporal punishment/injury to a child.
Neglect ^a	The failure of a parent(s)/guardian(s) or caretaker(s) to provide the care and protection necessary for the child's healthy growth and development. Neglect occurs when children are physically or psychologically endangered. The term includes both severe and general neglect. General neglect is negligent failure of a person having the care or custody of a child to provide adequate food, clothing, shelter, or supervision where no physical injury to the child has occurred. Severe neglect is the negligent failure of a person having the care or custody of a child to protect the child from severe malnutrition or medically diagnosed nonorganic failure to thrive. Severe neglect also means those situations of neglect where any person having the care or custody of a child willfully causes or allows the child to be placed in a situation where his/her person or health is endangered. This includes, but is not limited to, intentional failure to provide necessary medical care, adequate food, clothing or shelter. Severe neglect also includes drug-exposed infants.
Sexual abuse	The victimization of a child by sexual activities. These activities include, but are not limited to, molestation, indecent exposure, fondling, rape, and incest.
Emotional abuse	The nonphysical mistreatment, the results of which may be characterized by disturbed behavior on the part of the child such as severe withdrawal, regression, bizarre behavior, hyperactivity or dangerous acting-out behavior. Such disturbed behavior is not deemed, in and of itself, to be evidence of emotional abuse. Emotional abuse includes willfully causing or permitting any child to suffer, inflicting mental suffering, or endangering a child's emotional well-being.
Sibling at-risk	The child's sibling has been abused or neglected and there is a substantial risk that the child will be abused or neglected, as defined in those subdivisions. The court shall consider the circumstances surrounding the abuse or neglect of the sibling, the age and gender of each

Type of maltreatment	LACDCFS Definition
	child, the nature of the abuse or neglect of the sibling, the mental condition of the parent or guardian, and any other factors the court considers probative in determining whether there is a substantial risk to the child.
Substantial risk	It is applicable to situations in which no clear, current allegations exist for the child, but the child appears to need preventative services based upon the family's history and the level of risk to the child. This allegation is used when a child is likely to be a victim of abuse, but no direct reports of specific abuse exist. The child may be at risk for physical, emotional, sexual abuse or neglect, general or severe.
Caretaker incapacity	The absence of caretaker due to hospitalization, incarceration, or death; incapacity of caretaker to provide adequate care for the child due to physical or emotional illness, disabling condition, or compulsive use of alcohol or narcotics.

Note: LACDCFS = Los Angeles County Department of Child and Family Services. These definitions were provided by LACDCFS (2009).

^a In the current study, no delineation was made between general neglect and severe neglect.

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Note. ○ = physical abuse, ► = sexual abuse, ■ = neglect, ◆ = emotional abuse, × = risk, | = entry into study. The end of each lifeline, on the rightmost side, contains a summary of the number of reports over the individual incidents of types of maltreatment identified for all the youth's reports.

Figure 1.

Lifelines of the maltreatment experiences of MCRAI-identified physically abused boys ($n = 89$)

Note. ○ = physical abuse, △ = sexual abuse, □ = neglect, ◆ = emotional abuse, × = risk, | = entry into study. The end of each lifeline, on the rightmost side, contains a summary of the number of reports over the individual incidents of types of maltreatment identified for all the youth's reports.

Figure 2.

Lifelines of the maltreatment experiences of MCRAI-identified physically abused girls ($n = 67$)

Table 1

Comparison of DCFS Index Report of Maltreatment to MCRAI Classification

Variable	DCFS Initial Report <i>n</i> = 61	MCRAI <i>n</i> = 156	<i>p</i>
Age at study entry, <i>M</i> (<i>SD</i>)	10.78 (1.23)	10.89 (1.21)	
Gender, <i>n</i> (%)			
Male	35 (57.4)	89 (57.1)	
Female	26 (42.6)	67 (42.9)	
Race and ethnicity, <i>n</i> (%)			
Black	27 (44.3)	59 (37.8)	
White	8 (13.1)	21 (13.5)	
Latino	21 (34.4)	59 (37.8)	
Biracial	5 (8.2)	17 (10.9)	
Living arrangement at study entry, <i>n</i> (%)			
Biological parent	34 (55.7)	82 (52.6)	
Relative	18 (29.5)	48 (30.8)	
Nonrelative	9 (14.8)	25 (16.0)	
Adoptive	0 (0.0)	1 (0.6)	
Co-occurring maltreatment type, <i>n</i> (%)			
Sexual abuse	3 (4.9)	35 (24.4)	*
Emotional abuse	12 (19.7)	104 (66.7)	*
Neglect	16 (26.2)	122 (78.2)	*
Risk ^a	5 (8.2)	118 (75.6)	*
Only physical abuse, <i>n</i> (%)	38 (62.3)	5 (3.2)	*

Note. Differences between groups were examined using *t*-tests and chi-square tests. DCFS = Department of Children and Family Services; MCRAI = Maltreatment Case Record Abstraction Instrument.

* *p* < .001

^a Risk combines instances of caretaker incapacity, substantial risk, and sibling risk.

Demographic and Maltreatment Experiences of MCRAI Identified Physically Abused and Nonphysically Maltreated Samples

Table 2

Variable	Physical Abuse			No Physical Abuse		
	Full <i>n</i> = 156	Boys <i>n</i> = 89	Girls <i>n</i> = 67	Full <i>n</i> = 143 ^a	Boys <i>n</i> = 60	Girls <i>n</i> = 83
Race and ethnicity, <i>n</i> (%)						
Black	59 (37.8)	32 (36.0)	27 (40.3)	62 (43.4)	32 (53.3)	30 (36.1)
White	21 (13.5)	14 (15.7)	7 (10.4)	21 (14.7)	6 (10.0)	8 (9.6)
Latino	59 (37.8)	32 (36.0)	27 (40.3)	59 (41.3)	15 (25.0)	32 (38.6)
Biracial	17 (10.9)	11 (12.3)	6 (9.0)	17 (11.9)	7 (11.7)	13 (15.7)
Living arrangement at study entry, <i>n</i> (%)						
Biological parent	82 (52.6)	44 (49.4)	38 (56.6)	73 (51.0)	31 (51.7)	42 (50.6)
Relative	48 (30.8)	18 (20.2)	22 (32.8)	40 (28.0)	21 (35.0)	19 (22.9)
Nonrelative	25 (16.0)	26 (29.2)	7 (10.4)	30 (21.0)	8 (13.3)	22 (26.5)
Adoptive	1 (0.6)	1 (1.2)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Age at study entry, <i>M</i> (<i>SD</i>)	10.89 (1.21)	10.94 (1.22)	10.81 (1.20)	10.87 (1.04)	10.90 (1.14)	10.84 (0.98)
Reports	699	408	291	391	142	249
Range	1–14	1–12	1–14	1–10	1–7	1–10
<i>M</i> (<i>SD</i>)	4.48 (2.79)	4.58 (2.88)	4.34 (2.66)	2.73 (1.95)	2.37 (1.48)	3.00 (2.21)
Maltreatment incidents ^b	1,058	610	448	521	183	338
Range	1–23	1–23	1–18	1–16	1–9	1–16
<i>M</i> (<i>SD</i>)	6.78 (4.31)	6.85 (4.52)	6.69 (4.04)	3.64 (2.64)	3.05 (1.83)	4.07 (3.03)
Age at first report, <i>M</i> (<i>SD</i>)	7.33 (2.34)	7.43 (2.40)	7.21 (2.26)	7.62 (2.77)	7.24 (3.00)	7.89 (2.58)
Years from first report to study entry, <i>M</i> (<i>SD</i>)	3.55 (1.98)	3.51 (1.94)	3.60 (2.07)	3.24 (2.69)	3.66 (2.99)	2.94 (2.41)
Placement changes	336	210	126	335	130	205
Range	0–14	0–14	0–8	0–15	0–15	0–13
<i>M</i> (<i>SD</i>)	2.15 (2.41)	2.35 (2.55)	1.88 (2.19)	2.34 (2.58)	2.17 (2.63)	2.47 (2.56)

Note. Differences between groups were examined using *t*-tests and chi-square tests. Figures in bold are statistically significantly different across comparable groups (comparable groups included: full physically abused sample versus full non-physically maltreated sample; physically abused boys versus non-physically maltreated boys; and physically abused girls versus non-physically maltreated girls) at $p < .001$. MCRAI = Maltreatment Case Record Abstraction Instrument.

^aFour cases classified as neglect were excluded because the incidents occurred outside of Los Angeles County and information could not be abstracted from case records.

^bEach report could include 1–5 types of maltreatment (i.e., physical abuse, emotional abuse, sexual abuse, neglect, and risk).

Table 3

Perpetrators of Physical Abuse for Total Reports and by Gender

Perpetrator	Total reports <i>n</i> (%)	Boys <i>n</i> (%)	Girls <i>n</i> (%)
Biological parent	223 (76.63)	143 (81.71)	80 (68.97)
Mother	168 (57.73)	101 (57.71)	64 (55.17)
Father	58 (19.93)	42 (24.00)	16 (13.79)
Parental figure	67 (23.02)	34 (19.43)	33 (28.45)
Stepparent	21 (7.22)	8 (4.57)	13 (11.21)
Adoptive parent	1 (0.34)	1 (0.57)	0 (0.00)
Foster parent	16 (5.50)	6 (3.43)	10 (8.62)
Live-in partner	23 (7.90)	15 (8.57)	8 (6.90)
Non-live-in partner	6 (2.06)	4 (2.29)	2 (1.72)
Other relative	21 (7.22)	13 (7.43)	8 (6.90)
Sibling	8 (2.75)	7 (4.00)	1 (0.86)
Other ^a	13 (4.47)	6 (3.43)	7 (6.03)
Nonrelative	15 (5.15)	9 (5.14)	6 (5.17)

Note. Overlap in perpetrator categories is due to instances that involved multiple perpetrators (40 of 291 reports, or 13.7%). Differences between groups were examined using chi-square tests.

^aOther category included grandparents, aunts, uncles and cousins.