

# Challenges in Determining Child Maltreatment Fatalities: What Do We Really Know?

The challenges associated with determining causes of fatal child maltreatment have been documented by multiple professional fields and by the US government. This study explored these challenges, as well as the relative lethality of determinations of general neglect, medical neglect and physical abuse. Existing sources of information were used for this study: (1) data from the US National Child Abuse and Neglect Data System (NCANDS) data set extracted from annual *Child Maltreatment* reports published by the US Department of Health and Human Services; and (2) information published in recent state-level child death review team (CDRT) reports. Results from the NCANDS data set indicated that more children died from general neglect ( $\bar{x} = 70.9\%$ ) than abuse ( $\bar{x} = 44.8\%$ ) or medical neglect ( $\bar{x} = 8.2\%$ ). Children who experienced medical neglect died at the highest rate (6.82 per 1000 medical neglect victims), making it the most lethal, followed by physical abuse and general neglect. The findings from CDRT reports were inconsistent, with some states indicating that more children died from abuse than neglect, which is in direct contrast to national statistics. The inconsistent and confusing use of language and constructs from CDRTs has important implications for multiple child-serving fields. © 2020 John Wiley & Sons, Ltd.

## KEY PRACTITIONER MESSAGES:

- Professional child-serving fields struggle with making accurate determinations of abuse or neglect-related fatalities.
- Most child maltreatment fatalities are related to neglect. In terms of lethality, medical neglect appears to be most lethal, followed by physical abuse, and then general neglect.
- US-state CDRT reports are not consistent in their use of terms and confuse constructs such as 'neglect' and 'accident'. This makes it challenging to use their reviews as reliable sources of information.
- We recommend the adoption of consistency in the use and understanding of terms related to child maltreatment deaths, at a minimum across all jurisdictions in the USA, if not across all nations.

KEY WORDS: child maltreatment fatalities; child abuse; child neglect

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**'The focus of this paper will be to use two sources of data to explore the differences in information regarding how children die from abuse or neglect'**

## Introduction

In 2016, 1750 children or 2.36 per 100 000 children in the USA died from abuse or neglect (US Department of Health & Human Services, 2018a). A growing body of literature has identified child, family and household characteristics that place children at risk of experiencing a maltreatment death (Anderson *et al.*, 1983; Douglas, 2015; Graham *et al.*, 2010; Schnitzer and Ewigman, 2008; Stiffman *et al.*, 2002; Yampolskaya *et al.*, 2009). Additional research has examined child maltreatment fatalities (CMFs) through different social science theories (Douglas, 2015) and has also examined the use of social services to prevent CMFs (Chance and Scannapieco, 2002; Douglas, 2013; Douglas and Mohn, 2014). There is a modest level of research concerning the differences between abuse versus neglect-related deaths (Damashek *et al.*, 2013; Douglas, 2014), which is important because abuse and neglect can result from different sets of risk factors (Stith *et al.*, 2009). Despite this, there is not a uniform understanding regarding the causes of children's deaths, especially among child welfare workers (Douglas, 2012; Douglas and Gushwa, 2020a, 2020b). The focus of this paper will be to use two sources of data to explore the differences in information regarding how children die from abuse or neglect.

### *Child Maltreatment Fatalities*

A CMF is defined as the 'death of a child as a result of abuse and neglect, because either an injury resulting from the abuse and neglect was the cause of death, or abuse and neglect were contributing factors to the cause of death' (US Department of Health & Human Services, 2018a, p. 102). The Child Abuse Prevention and Treatment Act (Child Abuse Prevention and Treatment Act of 2010, 42 US Code Chapter 67, Pub. L. No. P.L. 111–320) provides a broad definition of child abuse and neglect as:

'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.' (§5102(2))

Specific types of CMFs that are addressed in this paper are: medical neglect, general neglect and physical abuse. The federal government defines medical neglect as:

'a type of maltreatment caused by failure of the caregiver to provide for the appropriate health care of the child although financially able to do so, or offered financial or other resources to do so.' (US Department of Health & Human Services, 2018a, p. 105)

Rejection of medical treatment could be due to a variety of reasons, the most common of which is religious beliefs (Swan, 1997). General neglect is defined as the 'failure by the caregiver to provide needed, age-appropriate care although financially able to do so, or offered financial or other means to do so' (US Department of Health & Human Services, 2018a, p. 106). General neglect encompasses CMFs that include neglect as a primary and/or contributing factor to the cause of death. Physical abuse is defined as 'physical acts that caused or could have caused physical injury to a child' (US

Department of Health & Human Services, 2018a, p. 107). Cases of abuse typically involve, but are not limited to, physical assaults, abusive head trauma, intentional suffocation and stabbings or shootings.

The federal government's annual *Child Maltreatment* report (US Department of Health & Human Services, 2018a) indicated that, in 2016, 5.7 per cent of CMF victims experienced medical neglect, 80.3 per cent experienced general neglect and 44.2 per cent experienced physical abuse; this adds up to more than 100 per cent because victims can experience both abuse and neglect.

### ***Abuse versus Neglect-related Deaths***

Most of the literature on fatal child maltreatment treats CMFs as a single construct (Douglas, 2016a), when in fact research on non-fatal maltreatment shows that abuse and neglect emerge from different child and family risk factors (Stith *et al.*, 2009). The small body of research in this area confirms the differences in risk factors in the realm of maltreatment deaths as well. For example, a study of maltreatment deaths in Oklahoma showed that victims of neglect-related deaths, as opposed to abuse-related deaths, are more likely to live in homes with more individuals, with more children, and to have parents who are older than abuse-related victims (Damashek *et al.*, 2013). These children are also more likely to have families who have been involved with child protective services and to have perpetrators who are biologically related to them. In terms of services, we found in previous research that neglecting families were more likely to have had a full risk assessment conducted on them, as compared with abusing families; they were also more likely to have received psychotherapy or counselling services (Douglas, 2014). In terms of prevention, previous research using the National Child Abuse and Neglect Data System (NCANDS) data set showed that more standard social services helped to prevent fatalities among abuse victims, as compared to neglect victims (Douglas, 2016b).

### ***Discrepancies in how Children Die***

The discrepancies concerning how children die have been the subject of congressional briefings and academic papers (Committee on Ways and Means, 2011; Jenny and Isaac, 2006). However, there is a lack of empirical evidence concerning this problem, which at a minimum involves the fields of child welfare, public health and forensic science. Previous research shows that child welfare professionals generally have low levels of knowledge concerning how children die. For example, two national-based studies of this professional group showed that 55–60 per cent of workers indicate that more children die from physical abuse, in comparison to neglect (Douglas, 2012; Douglas and Gushwa, 2020b). Furthermore, we often receive feedback from frontline workers that 'official statistics' do not match the on-the-ground experiences of those in the field that more children die from abuse than neglect. Finally, there is a lack of literature that explores whether a finding of abuse or neglect from a child maltreatment investigation is more lethal for a child. Such literature is an important piece of information that could help inform how child-serving professionals work with families of abuse versus neglect. As

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such, the purpose of this study is to address some of these gaps in knowledge and discrepancies in the field.

### The Current Paper

In this paper, we explore two sources of data to assess the discrepancies in information concerning whether more children die from abuse or neglect. These sources are: (1) a national database of child welfare records; and (2) state-level information that comes from professional review boards and that most often has a public health focus. We address the following questions:

- 1 What do different sources of information indicate regarding whether more children die from abuse or neglect?
- 2 Is abuse or neglect more lethal to children?

### Methods

#### Data

Data for this study came from two existing sources: (1) the NCANDS data set as presented in annual *Child Maltreatment* reports published by the US Department of Health & Human Services; and (2) state-level child death review team (CDRT) reports. The NCANDS data set contains information about children and their families who were the subject of a child maltreatment report and any subsequent services received in a given year. This information is presented to the federal government and then summarised annually in a public report (US Department of Health & Human Services, 2018b). The NCANDS data set is the most reliable source of information concerning children and families who intersect with state child welfare services in the USA. The NCANDS data set consists of state-specific data of all investigated reports of child maltreatment (National Data Archive on Child Abuse and Neglect, 2018). It is the only annual, federally sponsored data collection system of victims, perpetrators, maltreatment type, services and the child welfare workforce. States report on a voluntary basis only, but state participation rates are very high. Data are collected at the state level and turned over to the federal government for cleaning, consistency, consolidation, reporting out and for preparation for public-use data sets. State determinations of maltreatment and definitions remain true to each state throughout this process of consolidation.

Information about the prevalence rates related to abuse versus neglect for CMFs was gathered from public reports of state CDRTs. These are teams that analyse the deaths of children in their state with an eye toward prevention and intervention (Douglas and McCarthy, 2011; Webster *et al.*, 2003). These teams publish annual or near-annual reviews of the cases that they reviewed and their state's child death data.

#### Procedures

We used information from eight years' worth of NCANDS data extracted from annual *Child Maltreatment* reports, 2009–16 (US Department of Health &

**'Data for this study came from two existing sources: ... annual *Child Maltreatment* reports... and state-level child death review team reports'**

Human Services, 2018b), to examine the prevalence of abuse versus neglect among fatality victims. Chapters three and four of the report present information on all child maltreatment victims and victims of CMF, respectively. The number of total victims in the areas of medical neglect, 'general' neglect and physical abuse were recorded from the annual *Child Maltreatment* reports. We did not make these determinations, we simply gathered information from the national reports published by the federal government. Next, we recorded the percentage and number of cases of CMF victims in these same maltreatment categories, after which, we calculated the number of children per 1000 maltreated children who died from each different type of abuse and/or neglect. In other words, we compared the number of children who died from each type of maltreatment with the number of children who were substantiated for each type of maltreatment, in order to establish death rates. To be clear, we aggregated existing information, conducted basic descriptive analyses and presented information about CMFs in a way that has not been presented before. This information was briefly presented in another publication (Douglas, 2016a), but is updated with current data for the present paper.

Reports from CDRTs were collected from either the website for the National Center for Fatality Review and Prevention or the website for each state's CDRT for the years 2006–16; the latter reports were originally collected for a different but related study (Douglas *et al.*, 2017). Only three states (Oregon, Virginia and Washington) did not have a report published in this timeframe. Each report was examined for content regarding CMFs. Because we were exploring the prevalence rates of abuse versus neglect CMFs, we only included reports that: (a) had a section on CMFs; (b) accounted for *all* CMFs in the state to be able to make legitimate comparisons regarding prevalence rates; and (c) had a clear distinction between abuse and neglect as the cause of deaths. As a result, 24 states were excluded because they did not have a section on maltreatment, 23 states did not account for all CMFs and 31 states did not distinguish between abuse and neglect. These categories were not necessarily mutually exclusive and there was overlap between some. Further, none of the states distinguished between general neglect and medical neglect. The reports were not always clear, and we contacted several state CDRTs to confirm whether or not the reports covered all deaths in a state. In doing so, sometimes states referred us to their most updated report. Only four states met the criteria previously outlined: Arizona (Arizona Child Fatality Review Program, 2017), Nevada (Nevada Child and Family Services, 2015), New Mexico (New Mexico Child Death Review, 2012) and Oklahoma (Oklahoma Child Death Review Board, 2014).

## Results

### *Relative Rates of Abuse versus Neglect among CMF Victims using the NCANDS Data Set*

Table 1 displays the percentage of children who died from abuse and/or neglect between 2009 and 2016, along with the rates per 1000 maltreated children. The results show that across the eight-year period 8.2 per cent of CMF victims

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**Table 1.** Rates of fatal child maltreatment by maltreatment type, 2009–16<sup>a</sup>

Year	Total CMFs	Medical neglect			General neglect			Physical abuse		
		Total medical neglect <i>n</i>	CMF medical neglect <i>n</i>	CMF medical neglect: % of total CMFs	Total general neglect <i>n</i>	CMF general neglect <i>n</i>	CMF general neglect: % of total CMFs	Total physical abuse <i>n</i>	CMF physical abuse <i>n</i>	CMF physical abuse: % of total CMFs
2009	1955	16 837	132	9.8	543 035	896	66.7	123 599	602	44.8
2010	1917	16 209	109	8.6	538 557	860	68.1	121 380	569	45.1
2011	1258	15 074	96	7.6	531 413	895	71.1	118 825	602	47.9
2012	1315	15 705	117	8.9	531 241	919	69.9	124 544	582	44.3
2013	1217	15 450	105	8.6	539 576	869	71.4	122 159	569	46.8
2014	1226	15 645	109	8.9	526 744	886	72.3	119 517	506	41.3
2015	1327	15 169	97	7.3	514 500	968	72.9	117 772	583	43.9
2016	1447	14 028	82	5.7	502 615	1079	74.6	122 067	639	44.2
Mean	1458	15 514	106	8.2	528 460	922	70.9	121 233	582	44.8
CMF rate per 1000 <sup>b</sup>		Medical neglect		6.82	General neglect		1.74	Physical abuse		4.80

<sup>a</sup>Data source: Annual US Department of Health & Human Services, NCANDS, *Child Maltreatment* reports.

<sup>b</sup>CMF rate per 1000 children substantiated for maltreatment.

CMF = Child maltreatment fatalities.

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sustained medical neglect, 70.9 per cent sustained general neglect and 44.8 per cent sustained physical abuse prior to their death. Again, this adds to more than 100 per cent because children can experience multiple forms of maltreatment and because this is how the information is reported in the annual *Child Maltreatment* reports.

With regard to the death rate per 1000 maltreated children, again, comparing the number of children who died from each type of maltreatment with the number of children who were substantiated for each type of maltreatment and then multiplying by 1000, we found that those who sustained medical neglect died at the highest rate in comparison to any other maltreatment group, with 6.82 children dying per 1000 who were substantiated for medical neglect. Children who sustained physical abuse had the second highest rate of deaths; 4.80 children died for every 1000 who sustained physical abuse. The lowest CMF rate is for general neglect with a rate of 1.74 per 1000 general neglect victims.

#### ***Relative Rates of Abuse versus Neglect among CMF Victims using State CDRT Reports***

Table 2 displays the results from our analysis of CDRT reports, with regard to the types of maltreatment suffered in fatality cases.

#### ***Arizona (2017)***

The 2017 CDRT report for Arizona indicated that 783 children (birth to 17 years) died in 2016. It was further noted that the CDRTs reviewed the death of every child in the state. The teams determined that:

‘Physical abuse such as blunt force trauma, or use of firearm weapon caused or accounted for 32 per cent of maltreatment deaths (*n* = 26) among children. Child neglect caused or accounted for 80 per cent of the maltreatment deaths (*n* = 66).’ (Arizona Child Fatality Review Program, 2017, p. 39)



## Challenges in Determining Child Maltreatment Deaths

**Table 2.** Relative rates of abuse versus neglect among CMF victims using state CDRT reports

State	CMFs year	Number of children who died	Age	Number of cases reviewed	Cause of death
Arizona <sup>a</sup>	2017	783	Birth – 17 years	783	Physical abuse (32%, <i>n</i> = 26) Child neglect (80%, <i>n</i> = 66)
Nevada <sup>b</sup>	2015	259	Birth – 17 years	Unknown	Abuse ( <i>n</i> = 8) Homicides ( <i>n</i> = 6) Undetermined ( <i>n</i> = 2) Neglect ( <i>n</i> = 7) Accidents ( <i>n</i> = 4) Homicides ( <i>n</i> = 1) Suicide ( <i>n</i> = 1) Undetermined ( <i>n</i> = 1)
New Mexico <sup>c</sup>	2009–12	855	Birth – 17 years	Unknown	Physical abuse ( <i>n</i> = 23) Neglect ( <i>n</i> = 1)
Oklahoma <sup>d</sup>	2005–14	Unknown	Unknown	297	Abuse (21.7%, <i>n</i> = 13) Neglect (75%, <i>n</i> = 45) Abuse and neglect (3.3%, <i>n</i> = 2)

<sup>a</sup>Data retrieved from the Arizona Child Fatality Review Program (2017). The percentage values given for Arizona add to more than 100 per cent because children can experience multiple forms of maltreatment.

<sup>b</sup>Data retrieved from the Nevada Child and Family Services (2015).

<sup>c</sup>Data retrieved from the New Mexico Child Death Review (2012).

<sup>d</sup>Data retrieved from the Oklahoma Child Death Review Board (2014).

CDRT = Child death review team; CMF(s) = child maltreatment fatality(ies).

### *Nevada (2015)*

The multidisciplinary reviews of child fatalities in Nevada in 2015 indicated that there was a total of 259 child and adolescent (birth to 17 years) deaths in the state:

‘Of the 8 deaths caused by abuse, 6 were homicides and 2 were undetermined deaths involving possible shaken baby syndrome. Of the 7 deaths caused by neglect, 2 were accidents involving asphyxia, 1 was accident involving heat exposure, 1 was accident involving drowning, 1 was a homicide resulting from blunt force injuries, 1 was suicide resulting from a gunshot wound, and 1 was undetermined.’ (Nevada Child and Family Services, 2015, p. 49)

### *New Mexico (2012)*

The 2012 New Mexico report provided numbers of child fatalities among children from birth to 17 years between 2009 and 2012. During this period a total of 855 children died, of whom ‘twenty-three children were victims of physical abuse and one of neglect’ (New Mexico Child Death Review, 2012, p. 7).

### *Oklahoma (2014)*

The 2014 CDRT report provided numbers of child fatalities among children in Oklahoma from 2005 to 2014. The state teams reviewed 297 cases of child deaths between 2005 and 2014, including ‘60 cases where it was determined that child maltreatment (abuse or neglect) caused or contributed to the death. Thirteen (21.7%) cases were ruled abuse, 45 (75%) cases were ruled neglect, and two (3.3%) were ruled both’ (Oklahoma Child Death Review Board, 2014, p. 19).

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**‘More children die from all forms of neglect than physical abuse, but... physical abuse is more lethal than general neglect’**

### *Summary*

Two states, Arizona and Oklahoma, reported higher rates of neglect than physical abuse among their CMF victims. Nevada reported almost similar rates for abuse versus neglect victims, and New Mexico reported much higher rates of physical abuse among CMF victims. Additionally, one aspect that emerged from this analysis was the inconsistent use of language, terms and definitions. The Nevada report mentioned earlier that cases of neglect were co-mingled with cases of accidents. The report from New Mexico (New Mexico Child Death Review, 2012) indicated that 23 children were victims of physical abuse and one was a victim of neglect. Given the findings from other sources presented in this paper, it is difficult to find the conclusion that only one child died from neglect in New Mexico as a credible statement. That said, it should be noted that it is more consistent with one report from England 2011–14 (Sidebotham *et al.*, 2016). In that report, neglect was found to be the direct cause of death in just six (3%) of 197 CMFs; however, on a broader level, neglect was noted as a possible contributory factor in 52 per cent of CMFs. Also, Alaska's report (which we ultimately did not use because it did not meet our screening criteria) stated:

‘Among the 184 deaths reviewed, the committee found that 64 (35%) were associated or probably associated with at least one type of maltreatment. Of these, 23 had more than one type of maltreatment. Abuse contributed or probably contributed to 17 deaths, neglect to 28, and negligence to 50.’ (Alaska Department of Health and Social Services, 2014, p. 8)

In this instance, the Alaska CDRT has introduced another category - negligence - that is separate from neglect.

### **Discussion**

The purpose of this study was to examine how children die from maltreatment using two established and historically credible sources of information. The findings indicate that more children die from all forms of neglect than physical abuse, but that physical abuse is more lethal than general neglect, with medical neglect being the most lethal. Perhaps the most important finding is that there are significant inconsistencies in the terms that are used between state CDRTs to describe maltreatment deaths.

Official statistics from the US Department of Health & Human Services — using data from close to a decade — show that more children experienced neglect prior to their death than physical abuse. Between 2009 and 2016, an average number of 1028 children died from all forms of neglect and an average of 582 children died from abuse annually. Thus, almost twice as many children died from neglect than abuse. Moreover, even though there are fluctuations in the number and rate of children who die, the portion of victims experiencing abuse versus neglect has not changed substantially. This finding was confirmed by a study of children who died from abuse or neglect in Oklahoma, with more dying from neglect than abuse (Damashek *et al.*, 2013).

The high rates of children dying from neglect reflect the fact that more children experience neglect than abuse (US Department of Health & Human Services, 2018a); thus, there is simply more opportunity to die from it.



However, the raw numbers mask the fact that both physical abuse and medical neglect are more lethal than general neglect. The results of this set of analyses showed that physical abuse is 2.8 times more lethal than general neglect, and that medical neglect is 3.9 times more lethal than general neglect.

The information presented from CDRTs was incomplete and inconsistent, and included findings that in the face of other information are questionable. For example, in Nevada, the CDRT reported on cases of neglect, but then characterised the circumstances of those deaths as ‘accidents’. Neglect and accident are separate constructs and having to differentiate between them is central to the daily responsibilities of many child-serving professionals (Davidson-Arad *et al.*, 2010). Alaska categorised neglect deaths from negligence, which is still under the umbrella of maltreatment. It is part of the constellation of placing a child in substantial risk or physical or emotional harm (Crume *et al.*, 2002). It is possible that these states, and potentially others, are using a stricter definition of neglect that would directly result in a child's death. The difference may reflect whether a state considers a death to be related to neglect or the direct cause of neglect. Nevertheless, the examples that we uncovered in this examination likely demonstrate just some of the discrepancies in how deaths related to abuse or neglect are confused and/or confounded.

The definitions, terms and identified causes of children's deaths have been a source of confusion and inconsistency in multiple professions for several decades (American Academy of Pediatrics Committee on Child Abuse and Neglect, 2001; Brown and Tyson, 2014; Damashek *et al.*, 2014; Ewigman *et al.*, 1993; Herman-Giddens *et al.*, 1999; Hymel and Committee on Child Abuse and Neglect-American Academy of Pediatrics, 2006; Klevens and Leeb, 2010; Palusci and Covington, 2014; Schnitzer *et al.*, 2011; Sidebotham, 2013). For example, when a parent unintentionally leaves a young child in a car for several hours and the child dies, is this an accident or neglect? Most discussions pertaining to this distinction today, however, concern children's sleeping environment (Weber *et al.*, 2012). A number of terms have been used to discuss these tragedies including sudden infant death syndrome (SIDS), sudden unexplained infant death, and accidental suffocation and strangulation in bed – just to name some of the most common terms (Eunice Kennedy Shriver National Institute of Child Health and Human Development, n.d.). In all of these instances, a health, forensic or child welfare professional has to determine the cause of the child's death. When different terms are used or confused, it makes it difficult to track changes over time and in determining when surviving children are at risk. A recent, exploratory study documented that some child welfare workers described instances of SIDS as maltreatment deaths (Douglas and Gushwa, 2020a), when in fact, SIDS is a diagnosis of exclusion and is used when no other cause can be determined (National Institute of Health & Human Development, n.d.; Centers for Disease Control & Prevention, 2018).

There have been several responses to this problem. As noted in the Introduction, the confusion in terminology has been the subject of US congressional briefings (Committee on Ways and Means, 2011). The inconsistent use of terms was mentioned in the report of the US Commission to End Child Abuse and Neglect Fatalities (2016) and also was part of a recent federal bill that addressed developing uniform measures, standards and

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definitions, and requiring states to use these in their reports and determinations of CMFs (Child Welfare Oversight and Accountability Act of 2017, S. 1964, US Senate). Thus, this definitional problem is well known within multiple fields, even if solutions have yet to be implemented. The set of analyses that are presented in this paper provides some of the missing empirical evidence concerning the extent of the discrepancies. Additionally, the results of this paper further highlight gaps in knowledge concerning how various child-serving fields approach and work with families who present with risk for various types of maltreatment.

### Limitations

This study is not without limitations. First, we used aggregate-level data collected from annual *Child Maltreatment* reports. We did not use individual-level NCANDS data to conduct the analyses. Had we done that, we might have encountered a higher degree of variance and, thus, more accuracy. That said, since we only conducted descriptive statistics, and not multivariate analyses, the magnitude of the difference is likely to be very small. We also only considered one type of maltreatment at a time, when the literature has shown that children can experience multiple forms of maltreatment (Vachon *et al.*, 2015). Future researchers may want to examine the relative risk of children who experience both abuse and neglect in comparison with those who only experience one type of maltreatment. The findings of the study are limited by the small number of states ( $n = 4$ ) with CDRT reports that met the inclusion criteria. Also, the states that met the inclusion criteria were representative of both single (i.e. Arizona and Nevada) and multiple years (i.e. New Mexico and Oklahoma) which may have also impacted the findings of this study since the timeframes and the number of years were not identical. That said, since we were not counting the number of deaths, but rather looking to compare the rates of abuse versus neglect, the inconsistency in the number of years explored is not drastically concerning. The determination of neglect is such a wide-ranging catch-all for at-risk children and families who struggle with multiple challenges that it is not surprising that more children die from this form of maltreatment. However, it may also not be a very meaningful statement, given the varying circumstances that it involves. Despite these limitations, this is the first-known study to examine the causes of fatal child maltreatment and the lethality of abuse versus neglect using multiple data sources. Also, this study used information from a national data set (NCANDS), thereby contributing to the generalisability of the findings.

### Implications for Practitioners and Policymakers

The findings of this study conclusively point to the need for training and uniformity in definitions. Child-serving professionals could benefit from understanding the high proportion of children who die from neglect. That said, the fact that medical neglect and physical abuse are more lethal than general neglect provides potentially useful information for professionals working with

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families who are at risk of, or experiencing, maltreatment. The results suggest that legitimate reports of medical neglect should be prioritised.

The other main finding of this study emphasises the need for uniformity in a number of domains. First, with regard to definitions concerning causes of death among children, in the areas of abuse, neglect, negligence and accidents. These terms are used interchangeably, which makes it difficult to determine the best service plans for families and also in determining whether surviving children might be at risk. Second, as noted elsewhere, we recommend more uniformity between CDRTs, in terms of their approaches and reporting outputs (Douglas, 2016a). A lack of uniform definitions and approaches makes it nearly impossible to understand the scope of maltreatment deaths, the size of the interventions that are warranted and the effectiveness of our efforts over time. These changes will be difficult to implement without guidance, training and enforcement from the federal government.

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