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Rates of neglect in a national sample: Child and family characteristics and psychological impact

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Abstract

Background: Childhood neglect is an understudied form of childhood maltreatment despite being the most commonly reported to authorities.

Objective: This study provides national estimates of neglect subtypes, demographic variations in exposure to neglect subtypes, and examines the psychological impact. Participants and Setting: Pooled data from two representative U.S. samples from the National Surveys of Children's Exposure to Violence (NatSCEV) survey conducted in 2011 and 2014, representing the experiences of children and youth aged 1 month to 17 years (N = 8503).

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Contributors' statements

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Sherry Hamby: Dr. Hamby conceptualized and designed the study, designed the data collection instruments, drafted the initial manuscript, and approved the final manuscript as submitted.

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Heather Turner: Dr. Turner conceptualized and designed the study, designed the data collection instruments, coordinated the data collection, reviewed and revised the manuscript, and approved the final manuscript as submitted.

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Methods: Telephone surveys were used to obtain sociodemographic characteristics, six measures of past year and lifetime exposure to neglect, and assessments of trauma symptoms, suicidal ideation, alcohol use, and illicit drug use.

Results: More than 1 in 17 U.S. children (6.07%) experienced some form of neglect in the past year, and more than 1 in 7 (15.14%) experienced neglect at some point in their lives. Supervisory neglect, due to parental incapacitation or parental absence, was most common. Families with two biological parents had lower rates (4.29% in the past year) than other household configurations (range from 7.95% to 14.10%; $p < .05$). All types of neglect were associated with increased trauma symptoms and suicidal ideation (for 10–17 year olds), and several were associated with increased risk of underage alcohol and illicit drug use.

Conclusion: More attention needs to be paid to the impact of supervisory neglect. These results underscore the importance of prevention strategies that provide the supports necessary to build safe, stable, and nurturing relationships and environments that help children thrive.

Keywords

Neglect; Supervisory neglect; Maltreatment; Psychological impact

1. Introduction

Child neglect, the omission of needed caregiving behaviors, is the most common form of maltreatment reported to authorities (U.S. Department of Health & Human Services, 2018), and is associated with at least as much harm as other forms of child abuse (Gilbert et al., 2009; Stoltenborgh, Bakermans-Kranenburg, & van IJzendoorn, 2013). Adverse impacts include substance abuse (Hussey, Chang, & Kotch, 2006), post-traumatic stress disorder (Widom, 1999), suicide risk (Behr Gomes Jardim et al., 2018), violent behavior (McGuigan, Luchette, & Atterholt, 2018), and developmental delays (Hildyard & Wolfe, 2002). Yet, neglect remains a less studied and understood form of maltreatment (Mennen, Kim, Sang, & Trickett, 2010; Stoltenborgh et al., 2013). Comprehensive epidemiology about this exposure has lagged behind other pediatric health threats including other forms of child victimization, with limitations including imprecise definitions and measures, unspecified referent periods, limited community and nationally representative samples, and narrow age ranges (Stoltenborgh et al., 2013; Stoltenborgh, Bakermans-Kranenburg, Alink, & IJzendoorn, 2015). While definitions, like those included in the Center for Disease Control's Uniform Definitions of Child Maltreatment (Leeb, Paulozzi, Melanson, Simon, & Arias, 2008), exist and include neglect, they are not often utilized in data collection endeavors. These and other limitations may explain lower survey rates for neglect compared to survey rates of physical or sexual abuse (Stoltenborgh et al., 2015), even though neglect is far more common in child protection reports (U.S. Department of Health & Human Services, 2018).

One area of research that is particularly lacking is attention to different types of neglect. Although several classifications have been proposed (Knutson, DeGarmo, & Reid, 2004; Knutson, DeGarmo, Koeppl, & Reid, 2005; Mennen et al., 2010), we know little about the relative incidence of key types of neglect in community samples, such as physical (neglect of basic needs such as food and hygiene) versus supervisory neglect (failure to provide

adequate adult monitoring) (Hussey et al., 2006; Knutson et al., 2004, 2005). We know even less about sociodemographic variations in exposure to different types of neglect and much of what is known is drawn from administrative data which reflects those most likely to be reported but which may not be an accurate indicator of the incidence of neglect. The limited research using community samples to examine the incidence of neglect and sociodemographic variations has relied on retrospective reports of neglect (Hussey et al., 2006), drawn from limited geographic regions (Cohen, Menon, Shorey, Le, & Temple, 2017; Maguire-Jack & Font, 2017; Yang & Maguire-Jack, 2016), and measures neglect types using a single question (Hussey et al., 2006).

Past research has estimated the overall rate of this major public health problem (Finkelhor, Turner, Ormrod, & Hamby, 2009; Finkelhor, Turner, Shattuck, & Hamby, 2013), with our prior research finding a past year rate of 1.5% and a lifetime rate of 3.6% in a similar national sampling frame of children and youth (Finkelhor et al., 2009). A recent meta-analysis reported a very wide range of rates, from under 2% to over 50%, including youth and adult retrospective samples (Stoltenborgh et al., 2013). The average prevalence for physical neglect in that meta-analysis was 16.1%. Some of the studies included in that meta-analysis used very broad definitions (such as ever feeling unloved), and few investigated the mental health/psychological impact during childhood. We know little about the childhood psychological impact associated with specific forms of neglect with just a few exceptions (Cohen et al., 2017; Hildyard & Wolfe, 2002) and none to our knowledge using a nationally representative sample.

We aimed to advance epidemiology in this area by delineating rates for multiple types of neglect in a very large nationally representative data base that pools data from two community samples that cover the entire age range of childhood, assess different subtypes of neglect, explore sociodemographic differences in vulnerability, and examine the psychological impact through assessment of trauma symptoms, suicidal ideation, underage alcohol use, and illicit drug use. This large sample provides a unique opportunity to examine subtypes of neglect with low base rates in survey research. Better information on subtypes can guide future screening and surveillance, and can better inform prevention and intervention efforts.

2. Methods

The data for this study is an aggregation of two representative U.S. samples from the National Surveys of Children’s Exposure to Violence (NatSCEV), which were carried out in 2011 and 2014, and included five indicators of neglect. The NatSCEV surveys were telephone surveys about a range of abuse, crime, and victimization experiences. The two samples yielded a dataset representing the experiences of 8503 children and youth aged 1 month to 17 years. The two samples were pooled in order to increase statistical power and allow for an examination of each type of neglect in addition to a combined neglect composite. Since trauma symptoms are reported on children ages 2 and older, we have restricted the sample to children ages 2–17 years old (N = 7852).

The procedure for the NatSCEV survey included a short interview with an adult caregiver in each selected household to obtain family demographic information. One child was randomly selected (the child with the most recent birthday) from all eligible children living in a household. Children ages 10–17 years old were interviewed directly about their experiences, while information about the experiences of children 0–9 years was obtained through interviews with a caregiver who "is most familiar with the child's daily routine and experiences." Details of the methodology are provided elsewhere (Finkelhor, Turner, Shattuck, & Hamby, 2015; Finkelhor et al., 2009, 2013). One advantage of this methodology is that it includes youth who are homeschooled, attend private school, or have dropped out of school. The pooled sample was 51.75% male. Most youth identified as non-Latino White/European-American (71.67%), 12.05% identified as Latino (any race), 10.28% identified as non-Latino African-American, 2.54% Asian American, 0.89% American Indian, 0.39% Pacific Islander, and 1.79% identified as multiracial. Their average age was 9.36 years (SD 5.16).

2.1. Sampling

For each year of data collection, a sampling frame was constructed using 4 sources: (1) an address-based sample of households from which cell phone and residential numbers could be dialed, (2) a prescreened sample of households with children from recent national random-digit-dialed surveys, (3) a listed landline sample (with a known child in the household based on commercial lists), and (4) cell phone numbers drawn from a targeted random-digit-dialed sample frame. This multi-step frame construction helped to assure representativeness of the sample and recruit households with children, paying special attention to include cell phone-only households.

2.2. Measures

2.2.1. Neglect—In each survey, information on youth's lifetime and past year exposure to violence was collected using the Juvenile Victimization Questionnaire, (Finkelhor, Hamby, Ormrod, & Turner, 2005; Finkelhor, Ormrod, Turner, & Hamby, 2005; Hamby, Finkelhor, Ormrod, & Turner, 2004) which contains questions on more than 40 types of offenses against youth, including six dichotomous (yes/no) questions on neglect, three in the domain of physical neglect and three in the domain of supervisory neglect. The physical neglect questions included one item on care neglect, ("When someone is neglected, it means that the grown-ups in their life didn't take care of them the way they should. They might not get them enough food, take them to the doctor when they are sick, or make sure they have a safe place to stay. At any time in (your child's/your) life, were you neglected?"). Two other physical neglect items assessed home hygiene neglect, one on personal hygiene neglect ("Was there a time in (your child's/your) life when your parents did not care if you were clean, wore clean clothes, or brushed your teeth and hair?) and one on environmental neglect ("Was there a time in (your child's/your) life when you lived in a home that was broken down, unsafe, or unhealthy. For example, it had broken stairs, toilets or sinks that didn't work, trash piled up, and things like that?"). Due to very low base rates even in this large sample, the two hygiene neglect items were combined into a composite score of home hygiene neglect in all analyses. In the supervisory neglect domain, three items assessed the following: neglect from parental incapacitation ("Was there a time in your life that (your

child/you) often had to look after yourself because a parent drank too much alcohol, took drugs, or wouldn't get out of bed?"); neglect from parental absence ("Was there a time in (your child's/your) life when you often had to go looking for a parent because the parent left (your child/you) alone, or with brothers and sisters, and (your child/you) didn't know where the parent was?"); and neglect from inappropriate people in home ("Was there a time in your life when (your child's/your) parents often have had people over at the house who (your child/you)were afraid to be around?"). When a type of neglect was reported by a respondent, a series of follow-up questions gathered additional information, including whether it occurred in the past year. A positive response to any of these items was scored as a one on the "any neglect" composite. Results with cell frequencies under 10 were not reported (VanEenwyk & Macdonald, 2012).

2.2.2. Demographic characteristics—Demographic data, including sex, age, race/ethnicity, family structure (single parent, two parent, parent with step-parent, and other, such as living with grandparent, foster parent, or older sibling), and household socioeconomic status (SES, a standardized composite of household income and parent education), were collected using caregiver reports (regardless of child age).

2.2.3. Other forms of maltreatment—Using the JVQ, we also included a control variable for exposure to any other form of maltreatment (yes/no) including physical abuse (any attempted or completed assault by adult caregiver), sexual abuse (any sexual assault or attempt by an adult caregiver), and emotional abuse (felt scared or really bad because parent or caregiver called him/her name, said mean things to him/her, or said they didn't want him/her) perpetrated by a caregiver. These were measured using 10 items from the JVQ and then combined into a single composite measure.

2.2.4. Outcomes of interest—For all children and youth (ages 2–17) trauma symptoms in the last 30 days were based on a short form of the Trauma Symptom Checklist (Briere, 1989). Trauma symptoms among children ages 2–9 were measured through caregiver proxy reports on 25 items. A sample item is: "In the last month, how often (has your child) [Acted sad or depressed] would you say never, sometimes, often, or very often." Youth trauma symptoms (10–17) were measured through self-reports to 28 trauma items. A sample item is: "In the last month, how often have you been [Feeling sad or unhappy] would you say never, sometimes, often, or very often." The items were summed and then standardized (z-scores) to be comparable across children 2–9 and 10–17 years old. These measures have demonstrated good reliability and validity in prior studies (Briere et al., 2001). Three outcomes were assessed for youth ages 10–17 years only: underage alcohol and illegal drug use were measured using questions on use of alcohol or non-prescribed drugs in past year and suicidal ideation was assessed by asking youth if they had experienced "wanting to kill yourself" in the past 30 days (sometimes, often, very often = 1).

2.3. Data analysis

Sample weights for all responses were applied to adjust for differential probability of selection due to: a) study design, b) demographic variations in non-response, and c) variations within household eligibility. These weights were developed separately for each

NatSCEV study year. Chi-square tests were used to determine if there were significant differences in rates of neglect by family and child characteristics. Weighted least squares models were used to examine the relationship between neglect subtypes and trauma symptoms. To examine risk of alcohol use, drug use, and suicide ideation, risk ratios were calculated from the results of weighted logistic regression models using the Zhang and Yu (1998) method.

3. Results

Table 1 presents nationally representative U.S. rates for five different subtypes of neglect and an overall rate, for past year and for lifetime. More than 1 in 17 children (6.07%) experienced some form of neglect in the past year, and more than 1 in 7 experienced neglect at some point in their life (15.14%). Types of supervisory neglect (neglect due to parental incapacitation and neglect due to parental absence) were the most common specific types of neglect. The total composite rate for any form of neglect was more than 2.5 times higher than the rate for any specific type (for both past year and lifetime).

We examined differences in rates of neglect by family structure and SES (Table 1) as well as child demographics including age, race/ethnicity, and sex (Table 2). Family structure was associated with the overall neglect composite and each subtype examined. For past year prevalence, two-parent families generally had lower rates of neglect than single parent or other household structures, and lower rates than parent-with-stepparent for most subtypes. Single-parent and step-parent families were generally of intermediate risk, and other household configurations were highest risk. For the lifetime composite rate of neglect, families with two biological parents had much lower rates (9.81%) than all other family structures. Single parent and step-parent households were statistically similar for the lifetime total neglect composite (19.80% and 23.70%, respectively), and other living arrangements were the highest (40.78%).

Regarding SES, families with lower SES had higher rates of some types of lifetime and past year neglect, including care neglect due to inadequate food or medical provision. Families with lower SES also had higher rates of lifetime neglect in the inadequate supervision domain, including due to parental incapacitation or inappropriate adults in the home. However, patterns of significance also varied. For past year incidence, neglect from parental incapacitation was higher in medium-SES families than high-SES families. Neglect from parental absence was higher in families with medium or high SES than in families with low SES for past year incidence. For the neglect composite, lifetime rates were higher for families with low and medium-SES than families with high-SES, but SES was not significantly associated with the past-year neglect composite.

Age differences were observed for several different types of neglect (Table 2). Lower rates were observed for children ages 2–5 years old than older youth (note that for lifetime rates this is partly due to longer exposure periods). Past year rates of neglect from parental incapacitation and from parental absence were much higher for youth ages 10–13 and 14–17 years (3.34% and 2.99%; 3.44% and 2.99%, respectively) compared to children ages 2–5 (0.84% and 0.61%) and children ages 6–9 years (1.56% and 0.34%). In many states, laws

and regulations permit leaving children aged 10 and older home alone, and it is possible that some of these reports were from children who are uncomfortable being home alone. It is also possible rates are underestimated among children ages 2–9 years old as we use proxy reports for children under 10 years old.

There were relatively few differences by race/ethnicity. For specific types of neglect, past year and lifetime parental incapacitation was higher in White/European American families than Latino families, contributing to an overall composite neglect rate that was also significantly higher for White/European American families than Latino families. Black/African American families and those with other racial identities reported rates between these groups.

We observed few sex differences, with the exception that females had a higher lifetime rate of care neglect than males.

3.1. Neglect and trauma symptoms

All forms of lifetime neglect were significantly associated with increased trauma symptoms (Table 3) for all children (ages 2–17 years old). Among older children (10–17 years old), all forms of neglect in the past year were predictive of increased trauma symptoms, even after controlling for other types of maltreatment. Among younger children, ages 2–9 year old, all types of lifetime neglect were significantly associated with heightened trauma symptoms; however, once we controlled for exposure to any other form of maltreatment, only care neglect, inappropriate adults in the home, and the neglect composite remained significant. Past year care neglect, parental absence, and the neglect composite predicted higher trauma symptoms among young children (ages 2–9) even after controlling for other forms of child maltreatment.

3.2. Neglect and underage alcohol and illicit drug use

For pre-teen and adolescent youth (ages 10–17 years), those with a lifetime history of neglect had a risk of underage alcohol use that was two to three times higher than the risk among non-neglected youth (Table 4). (As noted in Methods, these questions were only asked of youth aged 10 to 17 years old.) Adjusted odds ratios (controlling for demographics and adjusted to better approximate the true relative risk) ranged from 2.26 to 2.82. This relationship remained statistically significant for all types of neglect even after controlling for exposure to other forms of maltreatment. The patterns for illicit drug use also generally showed elevated risk for most forms of neglect and the overall composite, but care neglect, hygiene neglect, parental incapacitation were not significantly associated with youth drug use after controlling for exposure to other types of maltreatment. The (past year) neglect composite was associated with a two- to three-fold increase in odds of alcohol and illicit drug use prior to controlling for other types of abuse, but there was variability in results for individual forms of neglect, perhaps due to small cell sizes.

3.3. Neglect and suicidal ideation

Every form of neglect, lifetime and past year, was associated with suicidal ideation among youth aged 10–17 years prior to controlling for other forms of maltreatment. After

controlling for other forms of maltreatment, the lifetime measures of home hygiene neglect and the neglect composite remained significant predictors of suicide ideation. Three of the five past year neglect types and the composite remained significant predictors of suicide ideation. Notably, past year home hygiene neglect was associated with a more than tenfold increase in the risk of suicidal ideation (adjusted OR = 11.08) and a nearly sevenfold increase after accounting for the impact of other forms of maltreatment (adjusted OR = 6.71). Youth who had experienced neglect from inappropriate adults in the home also had a notably high risk of suicidal ideation compared to other youth (OR = 5.67 before controlling for other maltreatment; OR = 2.85 after controlling for other maltreatment).

4. Discussion

Neglect is a very common adversity affecting more than 1 in 7 U.S. children at some point in their lives, with a past year incidence exceeding 1 in 17. These high rates are due to the combined prevalence of several different forms of neglect, including multiple types of supervisory and physical neglect. Further, all types of neglect (lifetime), including the more common supervisory neglect, were associated with adverse psychological impact even in this young sample, including elevated trauma symptoms, suicidal ideation, and underage alcohol use. All types of neglect with the exception of parental incapacitation were also associated with illicit drug use.

The rates in these data are more than three times higher than those produced by a prior single screener in our previous research (Finkelhor et al., 2009). Using a relatively brief set of items that have each been shown to assess a form of neglect associated with significant psychological impacts, this rate is similar to that identified in a recent meta-analysis that included many studies relying on much longer or broader instruments (Stoltenborgh et al., 2013). This study provides recent nationally representative U.S. survey data that extricates physical and supervisory neglect into more specific subtypes. The findings indicate that a focus on assessing care and home hygiene neglect, which is common in many studies (Stoltenborgh et al., 2013), may be missing important forms of neglect and that a failure to provide adequate adult monitoring is an even more widespread problem.

Demographic analyses indicate that all children are potentially vulnerable to neglect. Neglect is present in all socioeconomic classes, especially when supervisory neglect due to parental addiction and poor monitoring are included. Children from lower SES families were at higher risk for some forms of neglect across the lifespan, perhaps because financial resources and supports help parents provide the things we know children need to survive and thrive, such as adequate food and medical care (Fortson, Klevens, Merrick, Gilbert, & Alexander, 2016; Jonson-Reid, Drake, & Zhou, 2013; U.S. Department of Health & Human Services, 2018). Recent research suggests that in order to fully understand the relationship between neglect and SES, researchers also need to consider community level SES and other factors (Maguire-Jack & Font, 2017). White/European American families had higher rates than Latinos and slightly higher rates than those of other races/ethnicities, largely due to higher rates of parental incapacitation, a form of supervisory neglect that may not be well captured in official reports. The single biggest protective factor against neglect suggested by these data is living in a two-parent family, which is consistent with findings using

administrative data on family structure from the Fourth National Incidence Study (Sedlak et al., 2010). While these results show the protective effect of two parent households in general, it is important to acknowledge that this is not true of all two biological parent households, including those characterized by violence and conflict.

Some of the age patterns suggest that pre-teen and even older adolescent children, who can be legally left alone in the U.S., may experience being left alone at that age as an adversity (Hussey et al., 2006). More developmentally-informed research on the markers of readiness to stay alone could benefit children (i.e. more specific guidance provided to parents ensuring that children know where they are, when they will be home, and how to contact them).

We had been interested in whether the psychological impact varied across different forms of neglect, but we found that, for the most part, the negative consequences were similar for all forms of neglect. Consistent with past research on adverse health consequences, neglected youth reported more trauma symptoms and more underage alcohol use for all forms of neglect (Hussey et al., 2006). Unlike some past research (Brown, Cohen, Johnson, & Smailes, 1999), we found elevated suicidal ideation for all forms of neglect. Neglected youth also reported higher rates of illicit drug use, although statistical significance differed by type of neglect (perhaps due to relatively low base rates for drug use).

4.1. Limitations

The limitations of the study are chiefly that it relies on single-informant self (or proxy)-report in a cross-sectional design. Although this allowed us to identify cases not known to authorities in a very large sample, future research should confirm these findings with other methodologies including longitudinal assessments of long-term impacts of neglect. Also, proxy (i.e., caregiver) reports were used to obtain information on children under the age of 10 in this study, which could underestimate the actual exposure of neglect for younger children. However, in a paper examining this issue across all forms of maltreatment, the authors found no evidence across report types indicating caregivers were withholding disclosures of maltreatment (Finkelhor, Vanderminden, Turner, Hamby, & Shattuck, 2014).

4.2. Recommendations

We conclude that more attention needs to be paid to the impact of supervisory neglect and the many adverse health consequences of poor parental monitoring, which could be due at least in part to families working multiple jobs that require them to be away from home. In the future, screening for neglect in health care and other first responder settings could be more complete by including a range of forms of neglect to capture components of both supervisory and physical neglect. The questions used here provide brief indicators that can be used in many settings and compared to these national norms. This information could help identify families that could benefit from evidence-based prevention supports to help them build safe, stable, nurturing relationships and environments to prevent child abuse and neglect and assure that all children reach their full potential (Fortson et al., 2016).

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Table 1

Weighted rates of exposure to neglect by family demographics [95% Cl] (N = 7852).

	Physical Neglect				Supervisory Neglect						Neglect Composite	
	Care neglect		Home Hygiene		Parental incapacitation		Parental absence		Inappropriate adults in home			
	PY	LT	PY	LT	PY	LT	PY	LT	PY	LT	PY	LT
Rates	1.00	4.23	1.53	5.29	2.19	5.60	1.88	5.40	1.59	4.52	6.07	15.14
Family Structure												
	[.7,1.4]	[3.5,5.1]	[1.1,2.1]	[4.4,6.3]	[1.6,3.0]	[4.6,6.8]	[1.5,2.4]	[4.6,6.4]	[1.2,2.2]	[3.8,5.4]	[5.2,7.1]	[13.7,16.8]
Two biological	**.19**^{a}	**1.34**^{a}	**.91**^{a}	**3.09**^{a}	**1.35**^{a}	**2.66**^{a}	**1.59**^{a}	**3.80**^{a}	**.94**^{a}	**2.22**^{a}	**4.29**^{a}	**9.81**^{a}
	[.14]	**[1.0,1.9]**	**[.6,1.5]**	**[2.2,4.4]**	**[.7,2.5]**	**[1.7,4.1]**	**[1.2,2.2]**	**[3.0,4.9]**	**[.6,1.6]**	**[1.6,3.1]**	**[3.3,5.6]**	**[8.2,11.7]**
Parent and Step	**1.42**^{b}	**8.16**^{b}	-	**5.70**^{b}	2 7i^{ab}	**9.12**^{b}	**3.00**^{ab}	**7.88**^{b}	**2.68**^{b}	**6.89**^{b}	**8.29**^{bc}	**23.70**^{b}
	[.6,3.3]	**[5.1,12.9]**	-	**[3.5,9.2]**	**[1.4,5.3]**	**[5.0,16.0]**	**[1.5,5.9]**	**[5.0,12.3]**	**[1.2,3.8]**	**[4.3,10.9]**	**[5.4,12.5]**	**[17.5,31.3]**
Single	**1.97**^{b}	**6.01**^{b}	**2.23**^{a}	**6.66**^{b}	**3.58**^{b}	**8.72**^{b}	**1.08**^{ab}	**6.59**^{b}	**2.10**^{b}	**6.58**^{b}	**7.95**^{b}	**19.80**^{b}
	[1.2,3.3]	**[4.4,8.2]**	**[1.1,4.2]**	**[4.9,9.1]**	**[2.4,5.4]**	**[6.5,11.6]**	**[1.1,2.9]**	**[4.7,9.2]**	**[1.2,3.8]**	**[4.7,9.1]**	**[6.0,10.4]**	**[16.6,23.4]**
Other	**5.22**^{c}	**23.83**^{c}	**6.94**^{b}	**25.48**^{c}	**4.28**^{b}	**19.04**^{c}	**3.84**^{b}	**14.53**^{c}	**4.83**^{b}	**17.96**^{c}	**14.10**^{c}	**40.78**^{c}
SES	**[2.7,10.0]**	**[17.4,31.8]**	**[4.0,11.9]**	**[18.6,33.8]**	**[2.3,7.8]**	**[13.7,25.8]**	**[1.9,7.8]**	**[9.9,20.8]**	**[2.4,9.5]**	**[12.5,25.1]**	**[9.5,20.4]**	**[32.5,49.6]**
Low	**2.05**^{a}	**5.73**^{b}	1.88	**7.01**^{b}	**1.90**^{ab}	**7.28**^{b}	**.90**^{a}	4.91	**2.67**^{b}	**6.66**^{b}	**6.8**^{b}	**16.31**^{b}
	[1.2,3.4]	**[4.2,7.8]**	[1.1,3.3]	**[5.3,9.2]**	**[1.2,3.0]**	**[5.3,9.9]**	**[.5,1.6]**	[3.3,7.2]	**[1.7,4.1]**	**[4.9,9.1]**	**[5.2,9.0]**	**[13.4,19.7]**
Med	**.73**^{b}	**3.98**^{ab}	1.49	**4.88**^{ab}	**2.67**^{b}	**5.60**^{b}	**2.27**^{b}	5.53	**1.27**^{a}	**4.03**^{a}	**6.26**^{ab}	**15.74**^{b}
	[.5,1.2]	**[3.1,5.1]**	[1.0,2.4]	**[3.7,6.4]**	**[1.8,4.0]**	**[4.2,7.4]**	**[1.7,3.0]**	[4.4,6.9]	**[.8,2.1]**	**[3.2,5.1]**	**[5.0,7.8]**	**[13.7,18.0]**
High	-	**2.41**^{a}	1.00	**3.69**^{a}	**.90**^{a}	**2.46**^{a}	**2.20**^{b}	5.82	**.80**^{a}	**2.43**^{a}	**3.85**^{a}	**10.63**^{a}
	-	**[1.4,4.06]**	[.5,1.9]	**[2.4,5.7]**	**[.5,1.7]**	**[1.6,3.8]**	**[1.3,3.7]**	[4.2,8.0]	**[.3,2.0]**	**[1.5,4.0]**	**[2.7,5.5]**	**[8.4,13.3]**

Notes: Dashes indicate that estimates are based on cells with fewer than 10 responses; these figures are not reported.

PY indicates past year, LT indicates lifetime.

Cells in bold are significant at $p < .05$.

[a]Different superscripts indicate significantly different rates from other cells ($p < 0.05$). Significant differences were identified using survey weighted logistic regression posthoc test for pairwise comparisons.

[b]Different superscripts indicate significantly different rates from other cells ($p < 0.05$). Significant differences were identified using survey weighted logistic regression posthoc test for pairwise comparisons.

[c]Different superscripts indicate significantly different rates from other cells ($p < 0.05$). Significant differences were identified using survey weighted logistic regression posthoc test for pairwise comparisons.

Table 2

Weighted rates of exposure to neglect by child demographics [95% Cl] (N= 7852).

	Physical Neglect				Supervisory Neglect						Neglect Composite	
	Care neglect		Home Hygiene		Parental incapacitation		Parental absence		Inappropriate adults in home			
	PY	LT	PY	LT	PY	LT	PY	LT	PY	LT	PY	LT
Age (in years) 2–5	1.45	**4.26**^{b}	1.76	**3.60**^{a}	**.84**^{a}	**1.87**^{a}	**.61**^{a}	**1.30**^{a}	1.30	**2.79**^{a}	**4.42**^{a}	**7.89**^{a}
	[.8,2.6]	**[3.0,6.1]**	[.9,3.4]	**[2.4,5.5]**	**[.4,1.8]**	**[1.1,3.2]**	**[.3,1.5]**	**[.7,2.4]**	[.7,2.5]	**[1.8,4.2]**	**[3.0,6.5]**	**[6.0,10.32]**
6–9	1.06	**6.42**^{b}	1.77	**6.20**^{b}	**1.56**^{ab}	**3.85**^{b}	**.34**^{a}	**1.90**^{a}	-	**2.28**^{a}	**2.95**^{a}	**10.30**^{a}
	[.6,2.0]	**[4.8,8.5]**	[.9,3.5]	**[4.5,8.6]**	**[.7,3.3]**	**[2.5,5.8]**	**[.2,1.5]**	**[1.03,3.5]**	-	**[1.3,4.1]**	**[1.8,4.7]**	**[8.1,13.0]**
10–13	-	**1.88**^{a}	1.16	**5.19**^{ab}	**3.34**^{b}	**8.14**^{c}	**3.44**^{b}	**7.57**^{b}	2.50	**6.69**^{b}	**8.63**^{b}	**21.01**^{b}
	-	**[1.1,3.2]**	[.7,1.8]	**[3.3,8.0]**	**[1.8,3.3]**	**[5.3,12.2]**	**[2.4,4.9]**	**[5.7,10.0]**	[1.5,4.1]	**[4.9,9.1]**	**[6.4,11.6]**	**[17.2,25.4]**
14–17	1.17	**4.46**^{b}	1.44	**6.22**^{b}	**2.99**^{b}	**8.35**^{c}	**2.99**^{b}	**10.32**^{b}	1.70	**6.09**^{b}	**7.97**^{b}	**20.87**^{b}
	[.6,2.2]	**[3.2,6.3]**	[.8,2.7]	**[4.7,8.3]**	**[2.1,4.3]**	**[6.5,10.7]**	**[2.1,4.2]**	**[8.2,13.0]**	[1.0,2.8]	**[4.5,8.2]**	**[5.0,6.8]**	**[17.9,24.2]**
Race/ethnicity White	1.19	4.52	1.95	**6.22**^{b}	**2.76**^{b}	**6.84**^{b}	2.18	6.29	1.62	4.83	**7.41**^{b}	**17.51**^{b}
	[.8,1.8]	[3.6,5.7]	[1.3,2.9]	**[4.9,7.9]**	**[1.9,4.1]**	**[5.3,8.8]**	[1.6,2.9]	[5.1,7.7]	[1.1,2.5]	[3.8,6.1]	**[6.1,9.0]**	**[15.4,19.9]**
Black	-	3.83	-	**4.03**^{ab}	**1.98**^{ab}	**4.02**^{a}	1.64	3.94	2.18	4.28	**5.63**^{b}	**12.69**^{a}
	-	[2.4,6.0]	-	**[2.7,6.0]**	**[1.0,3.9]**	**[2.6,6.2]**	[.8,3.4]	[2.5,6.1]	[1.1,4.3]	[2.7,6.8]	**[3.8,8.4]**	**[9.8,16.3]**
Other or multiracial	1.45	6.71	1.72	**5.91**^{ab}	**1.62**^{ab}	**5.66**^{ab}	1.34	4.03	-	5.08	**4.56**^{ab}	**14.27**^{ab}
	[.7,3.1]	[4.0,11.1]	[.8,3.9]	**[3.4,10.1]**	**[.8,3.3]**	**[3.3,9.6]**	[.6,2.8]	[2.4,6.6]	-	[2.89.1]	**[2.7,7.5]**	**[10.3,19.4]**
Latino, any race	.52	2.71	.59	**3.35**^{a}	**1.0**^{a}	**3.27**^{a}	1.48	4.63	1.20	3.59	**3.23**^{a}	**10.69**^{a}
	[.2,1.3]	[1.6,4.5]	[.3,1.1]	**[2.2,5.1]**	**[.5,2.0]**	**[2.1,5.1]**	[.9,2.5]	[2.8,7.6]	[.7,2.2]	[2.3,5.5]	**[2.3,4.6]**	**[8.0,14.2]**
Child sex Male	.82	**3.33**^{a}	1.85	5.36	2.26	4.74	2.03	5.65	1.69	4.52	6.68	15.89
	[.5,1.3]	**[2.6,4.3]**	[1.2,2.8]	[4.2,6.8]	[1.4,3.6]	[3.5,6.5]	[1.5,2.8]	[4.4,7.2]	[1.1,2.6]	[3.5,5.8]	[5.3,8.4]	[13.8,18.3]
Female	1.18	**5.17**^{b}	1.19	5.21	2.12	6.50	1.72	5.15	1.47	4.52	5.242	14.34
	[.7,1.9]	**[4.0,6.6]**	[.7,2.0]	[4.0,6.8]	[1.5,3.1]	[5.0,8.5]	[1.2,2.4]	[4.1,6.5]	[1.0,2.4]	[3.5,5.9]	[4.4,6.7]	[12.4,16.6]

Notes: Dashes indicate that estimates are based on cells with fewer than 10; these figures are not reported. PY indicates past year, LT indicates lifetime.

The “Other or multiracial” category includes non-Latino Asian, American Indian/Alaska Native, Pacific Islander participants, and those reporting more than one race, all of which are present in numbers too small in the dataset to break out in more specific categories.

Cells in bold are significant at $p < .05$.

[a] Different superscripts indicate significantly different rates from other cells ($p < 0.05$). Significant differences were identified using survey weighted logistic regression posthoc test for pairwise comparisons.

[b] Different superscripts indicate significantly different rates from other cells ($p < 0.05$). Significant differences were identified using survey weighted logistic regression posthoc test for pairwise comparisons.

[c] Different superscripts indicate significantly different rates from other cells ($p < 0.05$). Significant differences were identified using survey weighted logistic regression posthoc test for pairwise comparisons.

Table 3

Weighted regression coefficients predicting trauma symptoms (past 30 days composite).

	Ages 2–9				Ages 10–17			
	No adjustment for other maltreatment		Adjusted for other maltreatment		No adjustment for other maltreatment		Adjusted for other maltreatment	
	Coef	SE	Coef	SE	Coef	SE	Coef	SE
Lifetime (neglect								
Care neglect	.67***	.17	.34*	.16	.97***	.21	.37**	.17
Hygiene	.67***	.17	.28	.17	1.12***	.13	.71***	.12
Parental incapacitation	.61**	.21	.15	.23	1.03***	.17	.72***	.17
Parental absence	.87**	.28	.44	.32	.84***	.10	.47***	.11
Inappropriate adults in home	1.00**	.31	.59*	.30	1.01***	.12	.63***	.10
Neglect Composite	.66***	.13	.35**	.13	.89***	.08	.59***	.09
Past Year (neglect) Care neglect	1.28***	.34	.99**	.30	1.60***	.35	.98**	.34
Hygiene	.50	.28	.24	.28	1.21***	.26	.74**	.22
Parental incapacitation	.84*	.38	.47	.41	.72**	.26	.50*	.20
Parental absence	1.90***	.50	1.61***	.35	.70***	.14	.34*	.14
Inappropriate adults in home	.63	.51	.31	.54	1.16***	.17	.74***	.14
Neglect Composite	.74***	.21	.51*	.20	.83***	.13	.52***	.11

Note: All regression coefficients are adjusted for gender, SES, family structure and race/ethnicity.

* indicates p< .05.

** indicates p <.01

*** indicates p< .001.

Table 4

Weighted Odds Ratios [95%CI] predicting substance use (past year) and suicide ideation (past 30 days) among youth ages.10–17.

	Drank Alcohol		Used Illicit Drugs		Suicide Ideation	
	No adjustment for other maltreatment	**Adjusted for other maltreatment**	**No adjustment for other maltreatment**	**Adjusted for other maltreatment**	**No adjustment for other maltreatment**	**Adjusted for other maltreatment**
Lifetime (neglect)						
Care neglect	2.82 ** [1.5,4.6]	2.26 * [1.1,4.0]	3.27 * [1.0,9.9]	1.96 [.6,6.6]	3.18 ** [1.3,7.0]	1.66 [0.7,4.0]
Hygiene	2.82 *** [1.8,4.2]	2.31 ** [1.4,3.6]	2.89 * [1.0,7.7]	1.78 [0.6,4.9]	5.09 *** [2.6,9.1]	2.73 * [1.3,5.5]
Parental incapacitation	2.39 *** [1.5,3.5]	2.16 ** [1.2,3.1]	2.23 [0.8,5.8]	1.65 [0.7,4.1]	2.72 ** [1.4,5.1]	1.55 [0.8,3.1]
Parental absence	2.44 ** [1.4,4.0]	1.99 * [1.1,3.3]	4.38 *** [1.9,9.5]	2.80 * [1.2,6.3]	3.13 *** [1.8,5.4]	1.54 [0.8,2.8]
Inappropriate adults in home	2.26 ** [1.4,3.4]	1.79 * [1.1,2.8]	4.59 ** [1.9,10.4]	3.01 * [1.3,7.0]	3.73 *** [2.0,6.4]	1.85 [0.9,3.6]
Neglect Composite	2.67 *** [1.9,3.7]	2.31 *** [1.6,3.2]	3.22 ** [1.6,6.4]	2.16 * [1.2,4.0]	4.32 *** [2.7,6.8]	2.29 ** [1.3,3.9]
Past Year (neglect)						
Care neglect	1.39 [.4,3.8]	.95 [0.3,3.0]	4.01 [0.9,15.4]	2.15 [0.5,9.2]	4.69 * [1.3,12.6]	2.07 [0.5,6.9]
Hygiene	3.38 * [1.4,6.2]	2.69 * [1.1,5.2]	1.24 [0.3,4.8]	0.74 [0.2,3.0]	11.08 *** [4.3,19.6]	6.71 ** [2.2,15.1]
Parental incapacitation	2.75 *** [1.6,4.3]	2.34 ** [1.3,3.9]	2.51 [0.6,9.1]	1.83 [0.5,6.0]	3.97 *** [1.9,7.6]	2.69 * [1.3,5.4]
Parental absence	1.59 [0.8,2.8]	1.21 [0.6,2.3]	3.53 [1.0,11.9]	2.24 [0.6,7.8]	3.76 *** [1.9,7.1]	1.96 [.9,4.0]
Inappropriate adults in home	1.34 [.5,3.1]	.94 [0.3,2.4]	6.85 ** [2.0,11.9]	4.05 * [1.2,12.5]	5.67 *** [2.7,10.4]	2.85 * [1.3,6.0]
Neglect Composite	2.00 ** [1.3,3.0]	1.58 [1.0,2.5]	2.76 * [1.1,6.6]	1.80 [0.8,4.2]	4.52 *** [2.6,7.5]	2.55 ** [1.4,4.5]

Note: All Odds Ratios are adjusted for age, gender, SES, race/ethnicity, and family structure and converted to risk ratios using the conversion method recommended by Zhang and Yu (1998).

* indicates p< .05.

** indicates p <.01

*** indicates p< .001.