Caregiver Self-Reports and Reporting of Their Preschoolers' Trauma Exposure: Discordance Across Assessment Methods

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Abstract

Nearly half of preschool-aged children from low-income families in the United States have been exposed to potentially traumatic events (PTEs), yet few are identified or receive trauma-focused mental health care. Given the critical need to accurately and efficiently identify PTE-exposed individuals, the current study examined discordant caregiver self-reporting of PTE exposure and caregiver reporting of child PTE exposure across two assessment methods: checklist and interview. Research has demonstrated significant cross-method discrepancies among adults reporting stressful life experiences, but examinations of caregiver reporting for their young children have not been conducted. Further, given their possible impact on reporting patterns, caregiver and child characteristics were examined in relation to discordant caregiver reporting by trauma type. Participants were 64 low-income, racially and ethnically diverse caregivers and their preschool-aged children from a Northeastern US city. Caregivers reported self and child PTE exposure via checklist and semi-structured interview. Cross-method discordance for caregiver and child exposure by trauma type ranged from 10.9% to 46.9% (Cohen's kappa =.06-.70). Caregiver race and education were associated with discordant reporting, as were caregiver and child psychopathology. Lower levels of caregiver psychopathology were associated with discordant caregiver reporting of their own exposure, whereas higher levels were associated with discordant caregiver reporting of child exposure. Discordant caregiver reporting of PTE exposure varies by assessment format and trauma type and is differentially related to caregiver demographics and caregiver and child psychopathology. Associations between assessment methods, individual

characteristics, and reporting should be considered when assessing PTE exposure to support service engagement and targeted treatment.

Keywords

children; trauma assessment; adverse childhood experiences

In the United States, more than one in four children have been exposed to potentially traumatic events (PTEs) by preschool age, though this rate jumps to nearly one in two among young children who live in poverty (Briggs-Gowan, Ford, Fraleigh, McCarthy, & Carter, 2010). Poverty status is not only associated with an increased likelihood of exposure to PTEs (Briggs-Gowan, Ford, et al., 2010), but also exposure to a greater total number of PTEs. Bush and Eisenhower (2014) found that children from low-income families experienced an average exposure frequency of two PTEs by the age of 5, though that number rose to approximately five PTEs among clinically referred children aged 3–6 (Hagan, Sulik, & Lieberman, 2015). This is especially troubling given the dose-response effect of frequent exposure on increasingly adverse outcomes (Pine, Costello, & Masten, 2005), such as internalizing, externalizing, and posttraumatic stress symptoms (Hagan et al., 2015; Margolin, Vickerman, Oliver, & Gordis, 2010; Turner, Finkelhor, & Ormrod, 2006). Moreover, children from low-income families are two to three times more likely to develop psychopathology as compared to more socioeconomically advantaged peers (Reiss, 2013); this income-related risk is observed internationally across both high and low income countries (Kessler et al., 2010).

Taken together, poverty status is associated with increased vulnerability to mental health problems as well as increased exposure to violence and other PTEs. However, despite the well-established links between PTE exposure, socioeconomic risk, and adverse outcomes, most children in need of mental health services do not receive them. Kataoka, Zhang, and Wells (2002) estimated that in the U.S., only 2–3% of preschool-aged children received mental health services in the previous year. This rate may be even lower among low-income families who face a variety of barriers to seeking mental health care, including a lack of transportation, health insurance, and access to adequate preventative care services (Galea & Vlahov, 2005). Further, inadequate availability or low levels of use of mental health care services for children and adolescents is an issue that affects youth not only in the United States but around the world, particularly in low- and middle-income countries, despite the fact that rates of disorder are generally comparable worldwide (Malhotra & Padhy, 2015). For instance, a large-scale study of children in the Republic of Korea found that only 1.9% of children aged 8–13 utilized mental health services (Cho, Kim, Kim, & Shin, 2009). Recent data suggests that the median number of visits to mental health outpatient facilities for children and adolescents was 164 per 100,000 (.002%; World Health Organization, 2018), despite the fact that the worldwide prevalence of youth mental disorder is approximately 20% (World Health Organization, 2005). Thus, there is a critical, global need to appropriately identify children who are in need of mental health services and target efforts to improve engagement and provision of specialized services in order to reduce the public health costs of mental disorder across the lifespan.

Given the breadth of adverse outcomes associated with PTE exposure in early childhood as well as the barriers to mental health care faced by low-income families, it is of critical importance that children who are exposed to PTEs and are exhibiting problem behavior are identified and receive mental health intervention and prevention programming early in life. However, identifying or quantifying exposure in young children is a complex task. For example, individuals who experienced the PTE would conceivably be the most accurate source for reporting exposure, but this is not necessarily the case in early childhood. Although developmentally appropriate measures for assessing PTE exposure via child report exist, young children, particularly those with a limited vocabulary, may still have trouble fully understanding the assessment. For example, Shahinfar, Fox, and Leavitt (2000) assessed violence exposure via child report using the *Violence Exposure Scale for Children - Preschool Version* (Fox & Leavitt, 1995), during which children are presented with pictures of a cartoon child who is either directly experiencing or witnessing violent events; children are verbally told what is happening in each picture and subsequently asked if they have ever experienced what happened to the cartoon character. Despite the measure's developmentally sensitive approach, Shahinfar and colleagues found that only 47% of children between the ages of 3.5 and 4.5 clearly understood the violence exposure interview.

Stover and Berkowitz (2005) acknowledged that assessment of child trauma exposure and posttraumatic symptoms is especially difficult between age 2, when children can recognize and use pretend play to convey their experiences, and age 6, when children are able to report quantifiable information such as frequency of exposure or intensity of emotion. Indeed, Allen, Rapee, and Sandberg (2012) found that children younger than 12 were less reliable in their reports of negative life events than older children and adolescents. Thus, relying on child reports may not result in a full picture of trauma exposure. To appropriately assess trauma in young children, the use of multiple informants, including the child and his or her caregiver, as well as multiple methods including clinical observations to assess trauma exposure and posttraumatic symptomology has been suggested (Stover & Berkowitz, 2005). However, such comprehensive practices are often impractical given the limited time, training, and staffing resources available to service providers, particularly in under-resourced settings both within the United States and abroad. Further, caregiver and child reports of child trauma exposure are often discordant, as evidenced by data from the United States, whether assessed by checklist (e.g., Howard, Cross, Li, & Huang, 1999) or interview (e.g., Ceballo, Dahl, Aretakis, & Ramirez, 2001), as well as internationally via a linguistically and culturally validated checklist (Guru Rajan et al., 2015). However, there is not a consensus or best practice guideline for integrating conflicting multi-source data about children's exposure or posttraumatic symptomatology, particularly among young children who may have greater difficulty reporting their own exposure.

Given these limitations, self-report checklists – or, for young children, caregiver-report checklists – outpace clinical interviews as the most common choice for assessing stressful life events (Monroe, 2008). Though time- and resource-efficient, checklist reporting can be complicated by a host of factors, including that unsupervised or unassisted completion of a closed-ended checklist relies solely on the reporter's interpretation of each item's meaning and whether he or she perceives his or her experiences to apply (McQuaid et al., 1992). Conversely, interview-based methods may alleviate issues related to misinterpretation of

items as well as scaffold the individual's recollection of events, but two drawbacks persist. First, individuals may prefer the privacy of checklist reporting for PTEs that are especially sensitive in nature, which may limit reporting of such experiences via interview. Further, interview methods are time-consuming and require resources such as specialized training or administration time that may be unavailable or impractical for community-based health care providers. Thus, both checklists and interviews have distinct advantages and disadvantages that may affect their ability to identify exposed individuals (Duggal et al., 2000).

In addition to the comparative utility of checklists and interviews, researchers have long debated whether individuals consistently report stressful life events across the two methods, and studies in adult populations have generally indicated that there are in fact substantial differences in the information obtained across methods. For example, McQuaid et al. (1992) found that the number of stressful life events reported by adults via self-report checklist accounted for only 16% of the variance in events reported via interview. Cross-method reporting may be even more discordant when assessing stressful life events experienced by others, such as one's own children. In their examination of cross-method concordance for reporting events that happened to a loved one (i.e., spouse or partner, close relative, or close friend), Lewinsohn, Rodhe and Gau (2003) found that the average frequency of cross-method agreement across 32 life events was 19.74% (range = 0% to 69%). Of note, a limited number of studies have found acceptable concordance of reporting across methods, though many were conducted among samples that may have been more acutely aware of or affected by stressful life events (e.g., psychiatric inpatients; Oei & Zwart, 1986).

Moreover, research has predominantly examined cross-method concordant reporting of stressful life events rather than potentially traumatic events per se. One exception was a validation of the Traumatic Life Events Questionnaire (Kubany et al., 2000), which was completed by an undergraduate sample prior to undergoing the structured Traumatic Life Events Interview (Kubany, 1995). Although the authors found variability in the number of events reported by type across methods, there were no significant cross-method differences in the proportions of participants who reported their own trauma exposure. Although this study provided support for concordant reporting trauma exposure across checklist and interview formats, research has not yet examined cross-method concordance in a sample of caregivers reporting on the experiences of their young children. The need for quality measures of these exposures is particularly acute among low-income mothers whose children are at increased risk of exposure as well as negative mental health outcomes.

In addition to the methodological considerations of trauma assessment, reliance on caregiver report for child trauma exposure may be further limited by parental factors such as a lack of awareness of child exposure (Ceballo et al., 2001). Individual caregiver and child characteristics may also contribute to reporting patterns, including discordant reporting across methods. For example, researchers have examined whether the presence of maternal psychopathology may affect reporting of children's experiences. Some have found that maternal depression or anxiety was associated with over-reporting of child internalizing symptoms (Frick, Silverthorn, & Evans, 1994; Kroes, Veerman, & De Bruyn, 2003) and externalizing symptoms (Briggs-Gowan, Carter, & Schwab-Stone, 1996), as well as adolescent stress (Daryanani et al., 2015). Conversely, others have shown that maternal

depression was associated with more accurate reporting of child conduct problems (Querido, Eyberg, & Boggs, 2001). Briggs-Gowan et al. (1996) posited that mothers who are depressed may possess a "heightened awareness" of similar symptoms in their children, making them more accurate reporters. Given these equivocal findings, it is unclear whether the presence of maternal psychopathology results in over-reporting or more accurate reporting of child symptoms. Further, questions remain as to whether maternal or child psychopathology affects the reporting of trauma exposure specifically.

The goal of the present study is to examine discordant caregiver reporting of their own exposure to potentially traumatic events as well as caregiver reporting of their child's exposure to potentially traumatic events across two methods—closed-ended checklist and semi-structured interview—in order to discern whether caregivers consistently identify themselves and their children as exposed to various types of trauma. Data was collected from low-income, racially and ethnically diverse caregivers. In addition to examining overall PTE exposure for both caregiver and child, exposure types were also classified as non-interpersonal events or interpersonal violent events in accordance with the literature (Briggs-Gowan, Ford, et al., 2010). Moreover, within interpersonal violent events, exposure was further categorized as direct (i.e., personal victimization), indirect (i.e., witnessing), or sexual, given that the nature of exposure to violent events may differentially relate to child outcomes (Pine et al., 2005). Discordant caregiver reporting was assessed for caregiver and child PTE exposure on available events. We hypothesized that there would be low concordance in caregiver reporting of self and child PTE exposure across methods and that discordance would be related to individual characteristics, such as caregiver and child psychopathology.

Methods

Participants

Participants were 64 caregiver-child dyads from a major Northeastern city in the United States. All families were low-income (100–185% of federal poverty guidelines) and qualified to receive services from Women Infants and Children (WIC) and Head Start programs. Caregivers were predominantly biological mothers (n = 59, 92.2%), but the sample included one foster mother, two fathers, one grandmother, and one great-grandmother. Findings did not vary when the sample was restricted to biological mothers only, so the entire sample was retained for analyses. Caregivers were racially and ethnically diverse (50.0% Black, 17.2% Hispanic, 17.2% White, 10.9% multiracial or multiethnic, and 4.7% other or missing). Most caregivers were unmarried (62.5%) and had at least a high school education (93.3%). Children were preschool-aged (i.e., 3–5 years old; M = 3.83), and gender was almost equally distributed (53.1% female).

Procedure

Caregivers and children were screened at WIC and Head Start programs as part of a larger study (see Gray, Forbes, Briggs-Gowan, & Carter, 2015). Screener surveys included sociodemographic information as well as a caregiver-report measure of caregiver and child exposure to potentially traumatic events (Life Events Checklist; Gray, Litz, Hsu, &

Lombardo, 2004). Caregivers who were not able to complete interviews in English or children with a diagnosis of global developmental delay were excluded from further participation in the study. Participants were intentionally sampled across a range of PTE exposure reports on the screener checklist. Caregivers who endorsed child exposure to violence-related PTEs were oversampled for the purposes of the larger study. Specifically, all caregivers who reported child violence exposure on the screener were invited to participate, and caregivers who reported no or non-violent child PTE exposure but who were group-matched to exposed children on child age and sex as well as caregiver bilingual status and education also were invited to participate. Caregivers and children then completed a two- to three-hour visit, which included a caregiver interview conducted by non-Hispanic, predominantly White graduate research assistants in clinical or counseling psychology that assessed caregiver and child PTE exposure (Preschool Age Psychiatric Assessment [PAPA] PTSD module; Egger et al., 2006). Caregivers were given a $50 gift card for their participation, and children were given a book and a toy. All procedures were approved by the University of Massachusetts Boston Institutional Review Board.

Measures

Sociodemographic information.—Caregivers completed a screener survey that included caregiver and child age, as well as caregiver relationship to child, education, and marital status.

Exposure to potentially traumatic events.—Caregiver and child PTE exposure was assessed via caregiver report. During the screening process, caregivers completed a modified version of the Life Events Checklist (LEC; Gray, Litz, Hsu, & Lombardo, 2004), a 20-item self-report measure that assessed both direct and indirect (i.e., witnessing the event happening to someone else) PTE exposure for both caregiver and child. The checklist includes exposure to interpersonal violent events (e.g., physical attack or threats, community violence) and non-interpersonal events (e.g., natural disaster, life-threatening illness or injury). The LEC has been used previously to assess child PTE exposure via both caregiver report (for children   6 years old) and child report (for children   11 years old) in five low- and middle-income countries (Whetten et al., 2011) and has exhibited moderate test-retest reliability and good convergent validity with the Traumatic Life Events Questionnaire, a well-established trauma assessment checklist (Gray et al., 2004).

At the in-person visit, caregivers completed the PTSD module of a semi-structured diagnostic interview for caregivers of two- to five-year-old children, the Preschool Age Psychiatric Assessment (PAPA; Egger et al., 2006), which assessed child exposure to 21 potentially traumatic events. The module was modified for this study to include an assessment of caregivers' exposure to violence, followed by further probes of the extent to which the child had heard about or was present for events that were experienced by the caregiver. The PAPA PTSD module exhibited substantial test-retest diagnostic reliability among a diverse sample (Egger et al., 2006).

Caregiver psychopathology.—The Brief Symptom Inventory (BSI; Derogatis, 1993) is a 53-item self-report measure of psychological distress. Caregivers rate their responses to

items assessing problematic or concerning feelings experienced during the past week on a five-point Likert scale (*Not at all* to *Extremely*). In the present study, internal reliability for the BSI was excellent ($\alpha = .97$). The sum of responses was divided by the number of items to generate the Global Severity Index, or the mean distress score. The BSI was positively skewed and leptokurtic, so logarithmic transformation was applied for analyses.

Caregivers also completed the Posttraumatic Stress Disorder Checklist – Civilian version (PCL-C; Weathers, Huska, & Keane, 1991), a 17-item self-report measure of stress responses according to DSM-IV criteria (American Psychiatric Association, 1994) experienced by the caregiver during the past month. Items are endorsed on a five-point Likert scale (*Not at all* to *Extremely*), and the measure exhibited excellent internal reliability in the present study ($\alpha = .94$).

Child psychopathology.—Caregivers completed the PTSD module of the Preschool-Aged Psychiatric Assessment (PAPA; Egger et al., 2006) to assess posttraumatic stress in their children. In addition to the trauma exposure screening discussed above, the PTSD module also includes developmentally-specified detailed probes about PTSD symptomatology, including five symptoms that are not part of DSM-IV criteria but are common among children, as well as a functional impairment section, used to make a categorical diagnosis of PTSD. DSM-IV alternate criteria for preschoolers were used (Scheeringa, Zeanah, Myers, & Putnam, 2003), as data was collected prior to the release of DSM-5. PTSD symptomatology was queried only if the caregiver endorsed both child exposure to a potentially traumatic event and a significant change in child functioning after the event. Six children (9.4%) met criteria for posttraumatic stress disorder.

Child behavior problems.—Caregivers completed the Child Behavior Checklist 1.5–5 (CBCL; Achenbach & Rescorla, 2000), a 99-item checklist that assesses child internalizing and externalizing behavior during the past six months on a three-point Likert scale (*Not true* to *Very/Often true*). Sum scores were used for internalizing, externalizing, and overall behavior; internal reliability was good to excellent in the current study ($\alpha = .88$, .90, and .94, respectively).

Preliminary Analyses and Analytic Approach

To examine discordant caregiver reporting of self and child PTE exposure between the self-report checklist and interview, individual items on the checklist (LEC) and the interview-based measure (PAPA) were first categorized into exposure types for both caregiver and child. Interpersonal violence exposure consisted of three exposure groups: direct violence exposure (e.g., *experiencing* physical attack or threats, community violence), indirect violence exposure (e.g., *witnessing* physical attack or threats, community violence), and sexual violence exposure. Of note, no caregivers reported child sexual violence exposure on the screener; due to insufficient variability in reporting via checklist, we could not generate a statistical comparison of cross-method caregiver reports for child sexual violence. However, findings for caregiver sexual violence exposure are reported, as there was sufficient variability to allow cross-method comparison. Moreover, child exposure but not caregiver exposure for two additional trauma types was assessed across methods: non-interpersonal

PTE (e.g., natural disaster, life-threatening illness) and sudden or unexpected death of a loved one. Thus, discordant cross-method reporting for child exposure alone was examined for these categories. Finally, discordant caregiver reporting for overall PTE exposure was examined for both caregiver and child, which included all of the items in the aforementioned categories.

In order to assess the frequency and quality of reporting across measures, three categories of discordance or concordance were initially generated for each exposure type: caregiver endorsed on the checklist but not during the interview (discordant), caregiver endorsed during the interview but not on the checklist (discordant), and caregiver endorsed consistently across measures (concordant; see Table 1). Cohen's kappa statistics were also generated to control for chance when examining cross-method reporting. The following kappa classifications were used: $<.00 =$ "poor;" .00-.20 = "slight;" .21-.40 = "fair;" .41-.60 = "moderate;" .61-.80 = "substantial;" and .81–1.00 = "almost perfect" (Landis & Koch, 1977).

After examining individual patterns of cross-method discordance by trauma type as described above, the two discordance classifications (i.e., endorsed on checklist, not interview; endorsed on interview, not checklist) were collapsed to create a dichotomous discordance variable (i.e., concordant cross-method reporting = 0; discordant cross-method reporting, regardless of direction = 1), which was used to examine discordant reporting in relation to caregiver and child characteristics. Correlations were first conducted to examine relations between caregiver and child characteristics and cross-method caregiver discordance for both self and child PTE exposure. Neither child sex or internalizing behaviors nor caregiver age or marital status were related to discordant reporting for any exposure types; thus, they were excluded from further analyses. Next, t-tests were conducted to examine discordant reporting in relation to categorical data (i.e., child and caregiver demographics, child meeting criteria for PTSD), and chi-square analyses examined discordant reporting in relation to continuous data (i.e., caregiver symptoms of distress or posttraumatic stress, child behavior problems; see Table 2). Levene's test was used to evaluate the homogeneity of variance assumption. When violated, t-tests with equal variances not assumed and adjusted degrees of freedom were reported. Effect sizes were calculated using Cramér's V for categorical variables and Cohen's d for continuous variables (Cohen, 1988).

Finally, data were examined for missingness prior to analyses. Fifteen participants (23.4%) were missing up to two items on the CBCL. For these participants, mean of completed items in the scale was multiplied by the total number of items in the scale. Additionally, one participant was missing 34 items on the CBCL and was therefore excluded from analyses examining discordant reporting in relation to child behavioral problems; however, given that no other data was missing from this participant, this participant was included in all other analyses.

Results

Caregiver self-reports of PTE exposure: Checklist versus interview

Discordant caregiver reporting of their own PTE exposure ranged from 12.5% for sexual violence to 46.9% for indirect violence (see Table 1). Kappa statistics ranged from .06 (*slight agreement*) for indirect violence to .70 (*substantial agreement*) for sexual violence. However, with the exception of sexual violence, kappa statistics were less than .40, which indicates that concordant reporting across methods of caregivers' own PTE exposure was generally slight to fair. Caregivers generally reported higher frequencies of their own PTE exposure via interview than checklist, with two exceptions: caregiver overall PTE exposure and caregiver direct violence exposure were both reported more frequently on the checklist than in interviews.

Caregiver report of child PTE exposure: Checklist versus interview

Discordant caregiver reporting of child PTE exposure ranged from 10.9% for direct violence exposure to 45.3% for non-interpersonal PTE exposure (see Table 1). Kappa statistics ranged from .09 (*slight agreement*) for non-interpersonal PTE exposure to .36 (*fair agreement*) for sudden loss of a loved one. Caregivers generally reported higher frequencies of child PTE exposure via interview than checklist, with one exception: child direct violence exposure was reported more frequently via checklist than interview.

Characteristics related to discordant reporting

Caregiver demographics were associated with discordant cross-method reporting of both caregiver and child PTE exposure. Caregiver race, dichotomized as White (17.2%) or non-White (82.8%) due to small cell sizes, was associated with caregiver indirect PTE exposure, such that non-White caregivers were more likely to discordantly report on their own indirect PTE exposure across methods than White caregivers, $\chi^2 = (1, N = 64) = 4.39$, $p = .036$. Further, lower caregiver education, $\chi^2 = (3, N = 60) = 8.51$, $p = .037$, was associated with discordant caregiver reporting of child sudden loss of a loved one.

As expected, caregiver psychopathology was also related to discordant reporting, although differential patterns emerged between caregiver reporting of their own exposure and caregiver reporting of their child's exposure. Specifically, lower caregiver posttraumatic stress symptoms were associated with discordant reporting of caregiver overall PTE exposure, $t(56.82) = 2.96$, $p = .005$. Similarly, lower caregiver distress was associated with discordant reporting of caregiver overall PTE exposure, $t(59.97) = 2.96$, $p = .004$, as well as caregiver interpersonal violence exposure, $t(61.05) = 3.10$, p = .003. However, higher caregiver posttraumatic stress symptoms, $t(13.08) = -2.29$, $p = .039$, and higher caregiver psychological distress, $t(13.01) = -2.47$, $p = .028$, were associated with discordant reporting of child sudden loss of a loved one. Taken together, lower caregiver psychopathology was associated with discordant caregiver reporting of one's own PTE exposure (i.e., overall PTE, interpersonal violence), whereas higher caregiver psychopathology was associated with discordant caregiver reporting of child exposure (i.e., sudden loss of a loved one).

Finally, child psychopathology and behavior problems, assessed via caregiver report, were also associated with discordant caregiver reporting of caregiver and child exposure. Child meeting criteria for posttraumatic stress disorder was associated with discordant reporting of child sudden loss of a loved one, although Fisher's exact test indicated that this finding was marginal, $\chi^2 = (1, N = 64) = 4.24$, $p = .039$, Fisher's exact test $p = .074$. Further, lower levels of overall child behavior problems were associated with discordant reporting of caregiver overall PTE exposure, $t(59.73) = 3.08$, $p = .003$, and interpersonal violence exposure, $t(60.97) = 3.27$, $p = .002$. Similarly, lower levels of child externalizing behavior were associated with discordant reporting of caregiver overall PTE exposure, $t(53.22) = 2.64$, $p = .011$, and interpersonal violence exposure, $t(61) = 2.38$, $p = .020$.

Discussion

The goal of the present study was to expand upon the extant literature on assessment of trauma exposure in young children. We examined discordant cross-method (i.e., self-report checklist versus semi-structured interview) reporting by caregivers of both their own exposure as well as their child's exposure to potentially traumatic events (PTEs) in a sample of low-income, racially and ethnically diverse caregivers and their preschool-aged children from a major Northeastern city in the United States. Overall, findings suggest that caregivers' reporting of their own and their child's PTE exposure varies considerably across assessment format, and a range of caregiver and child characteristics were associated with these discrepancies. Clinicians and researchers assessing PTE exposure among caregivers and young children from low-income families should be aware that assessment format yields distinct information regarding exposure.

The frequency of discordant reporting between checklist and interview formats for caregiver and child PTE exposure varied from 10.9% to 46.9% across exposure types (Cohen's kappa = .06-.70). These findings indicate that cross-method discordance is not uniform but rather varies across exposure types. Further, with the exception of caregiver sexual violence, Cohen's kappa statistics were below .40, which indicates that cross-method concordance was generally slight to fair for caregiver reporting of both caregiver and child PTE exposure.

The frequency of reporting caregiver and child indirect violence exposure as well as child non-interpersonal PTE exposure (e.g., natural disaster, life-threatening illness or injury) and sudden loss of a loved one was greater via interview, which suggests that recollection or recognition of some types of PTE exposure may require more scaffolding than is offered by self-report. Conversely, caregivers reported greater frequencies of direct violence exposure for both themselves and their children via checklist. We posit that caregivers may feel uncomfortable disclosing or discussing more severe or salient PTE exposure via interview, thus preferring the less intrusive, more private method of self-report. Oei & Zwart (1986) similarly suggested that life events that are particularly sensitive to the individual, such as marital problems or illness, were endorsed more frequently by self-report checklist than by interview.

Taken together, the equivocal directions of discordance in cross-method reporting suggest that neither checklist nor interview assessment methods are superior to one another for

identifying trauma exposure. Rather, they each have utility depending on the type of PTE exposure being assessed. Duggal et al. (2000) similarly found that checklist and interview measures each have unique utility depending on the purpose of the assessment. Thus, assessments that use both checklist and interview methods, though time-consuming, may provide the most robust picture of PTE exposure for caregivers and their young children.

The present study also examined associations between caregiver and child characteristics and discordant cross-method reporting. Caregivers who identified as non-White were more likely to discordantly report their own indirect PTE exposure (i.e., witnessing violence) across methods; specifically, 51.9% of non-White caregivers reported their own indirect PTE exposure discordantly, whereas only 18.2% of White caregivers reported this exposure discordantly. It should be noted, however, that research assistants who conducted interviews in the present study were predominantly White and non-Hispanic, which may have affected reporting of trauma exposure by racially or ethnically diverse caregivers (Brand, Ruiz, & Padilla, 1974). However, additional research is needed to examine the effect of interviewer-interviewee racial or ethnic mismatch on reporting of PTE exposure. For instance, as Elliot & Urquiza (2006) have noted with regard to reporting child maltreatment in particular, from an ecological perspective, there are many factors often confounded with race and ethnicity that may affect reporting, including cultural perceptions of potentially traumatic events, socioeconomic status, and neighborhood composition. However, it remains unclear whether there are racial or ethnic differences in reporting of other types of violent and non-violent PTE exposure, as well as how those differences may manifest across different types of assessment methodologies. Thus, future research should examine racial or ethnic incongruence during assessment in order to elucidate its potential impact on reporting of trauma exposure and other sensitive issues salient to mental and public health.

Caregiver psychopathology was a particularly salient characteristic associated with discordant reporting of both caregiver and child PTE exposure, albeit in different directions. Lower caregiver psychological distress and posttraumatic stress symptoms were associated with discordant caregiver reporting of their own PTE exposure (i.e., overall PTE, interpersonal violence), whereas higher caregiver psychological distress and posttraumatic stress symptoms were associated with discordant caregiver reporting of child exposure (i.e., sudden loss of a love one). These patterns may indicate that among caregivers struggling with higher distress or posttraumatic stress, their own trauma exposures may be more salient, yielding more consistent reporting of their own experiences across methods. Conversely, higher distress or posttraumatic stress may also impair caregivers' ability to "see" their child's experience and report consistently about their child's exposure. Although maternal psychopathology has been studied in relation to child symptomatology, this is the first examination of its relation to caregiver reporting of self and child trauma exposure. Thus, further research is needed to unpack these associations and examine causality and directionality.

Contrary to expectations, child behavior problems were related to discordant caregiver reporting of caregiver but not child exposure. Specifically, lower levels of child overall problem behavior and externalizing behavior were associated with discordant reporting for caregiver overall PTE and interpersonal violence exposure. Again, we posit that these

patterns of discrepant reporting may be related to decreased salience of the caregiver's exposure given the lack of potential child-related stressors in the caregiver's environment (i.e., low levels of child behavioral problems). However, due to the cross-sectional nature of the present study, causal connections between child factors and discordant reporting cannot be made. In fact, it is possible that associations in extant literature, many of which were also cross-sectional in nature, may be indicative of increased reporting in the presence of psychopathology. Nonetheless, these findings indicate that discordance in cross-method reporting of PTE exposure may be related to the constructs that researchers and clinicians are most interested in understanding in these contexts: psychopathology and behavioral outcomes in both the child and caregiver.

Although the present study demonstrated that caregivers may discordantly report their own PTE exposure as well as their child's PTE exposure across assessment methods and trauma types, it is not without limitations. First, administration of assessment measures was not counterbalanced, which could have led to greater reporting via interview due to retrieval cueing from the previously administered checklist. However, given that three exposure types (caregiver overall PTE exposure, caregiver direct violence exposure, and child direct violence exposure) were reported more often via checklist, we believe that the lack of counterbalancing did not have a substantive effect on reporting frequencies across methods. Further, trauma types were coded and categorized using content analysis, as the self-report checklist did not directly correspond to the semi-structured interview. Thus, findings may be limited by the lack of strict agreement in the content or wording of individual exposure items across measures. However, although this lack of identical wording across measures may be viewed as a limitation, it is also reflective of real world practice, in which clinicians use a range of different assessment methods to assess trauma exposure. The fact that different methods here yielded different "cases" as having been exposed to trauma therefore likely maps onto clinical practice, in which choice of assessment method may result in different children or caregivers being identified as trauma-exposed. Finally, in our examination of the unique impacts of individual caregiver and child characteristics on discordant caregiver reporting for various types of trauma, we employed multiple comparisons, which may have increased the likelihood of Type I error. Thus, while these data suggest potential avenues for future exploration, replication in larger samples with more well-powered designs is needed.

In the present study, we observed significant discrepancies in caregiver reports of caregiver and child PTE exposure between self-report checklists and semi-structured interviews in a sample of low-income, racially and ethnically diverse caregivers and their preschool-aged children in a major Northeastern city in the United States. Given the nature of the non-representative, high-risk sample, the specific patterns observed in these data are not generalizable; however, the larger point – that issues of measurement as well as individual characteristics impact the assessment of trauma exposure – is significant and worthy of continued exploration across samples and settings. In these data, the direction of discrepancy varied across exposure types, suggesting that, contrary to most extant literature (see Monroe, 2008), assessments conducted via interview are not necessarily superior to checklist methods. Rather, interview and checklist methods may each have unique advantages and yield distinct information related to a range of additional characteristics of the trauma, the caregiver, and the child. Researchers and clinicians may benefit from recognizing the

potential differences in reports of PTE exposure across methods and working towards reconciling the information in order to obtain a valid assessment of trauma exposure. This need is especially critical among low-income, racially and ethnically diverse families who not only encounter greater experiences of trauma but also face a number of barriers to service engagement and consequently are far less likely to receive timely, high-quality mental health interventions. Given the critical need to accurately and efficiently assess trauma exposure among vulnerable populations, further research is warranted to identify optimal ways of assessing trauma in caregivers and young children to support service engagement and increase positive outcomes following exposure.

Acknowledgments

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Table 1

Frequencies of Caregiver-Reported Cross-Method Endorsement, Discordance, and Agreement for Caregiver and Child PTE Exposure by Type

Category	Checklist, Not Interview		Interview, Not Checklist		Discordance	Kappa
	N	%	N	%		
Caregiver						
Any PTE exposure	11	17.2%	8	12.5%	29.7%	.16
All interpersonal violence	9	14.1%	12	18.8%	32.8%	.18
Sexual violence	2	3.1%	6	9.4%	12.5%	.70
Direct violence	17	26.6%	6	9.4%	35.9%	.30
Indirect violence	9	14.1%	21	32.8%	46.9%	.06
Child						
Any PTE exposure	3	4.7%	21	32.8%	37.5%	.30
All interpersonal violence	4	6.3%	17	26.6%	32.8%	.34
Direct violence	7	10.9%	0	0.0%	10.9%	.20
Indirect violence	3	4.7%	18	28.1%	32.8%	.33
Non-interpersonal	1	1.6%	28	43.8%	45.3%	.09
Grief (Sudden loss)	2	3.1%	10	15.6%	18.8%	.36

Table 2

Caregiver and Child Characteristics in Relation to Discordant Caregiver Reporting of Caregiver and Child PTE Exposure by Type

PTE Category	Characteristic Associated with Discordant Reporting	Test	Effect Size
Caregiver			
Any PTE exposure	Lower caregiver PTS symptoms	$t(56.82) = 2.96^{**}$	.72
	Lower caregiver distress	$t(59.97) = 2.96^{**}$	.70
	Lower child problem behavior	$t(59.73) = 3.08^{**}$	.74
	Lower child externalizing behavior	$t(53.22) = 2.64^{*}$	.66
All interpersonal violence	Lower caregiver distress	$t(61.05) = 3.10^{**}$	.72
	Lower child problem behavior	$t(60.97) = 3.27^{**}$	.78
	Lower child externalizing behavior	$t(61) = 2.38^{*}$	.69
Indirect violence	Non-White race (caregiver)	$\chi^2 = (1, N = 64) = 4.39^{*}$	.26
Child			
Grief (Sudden loss)	Lower caregiver education	$\chi^2 = (3, N = 60) = 8.51^{*}$	.37
	Higher caregiver PTS symptoms	$t(13.08) = -2.29^{*}$	.83
	Higher caregiver distress	$t(13.01) = -2.47^{*}$	.90
	Child meets PTSD criteria	$\chi^2 = (1, N = 64) = 4.24^{\dagger}$	.26

** $p < .01$

* $p < .05$

† Fisher's Exact Test $p < .10$

Note. Effect sizes were calculated and interpreted according to Cohen (1988). Effect sizes for chi square tests were calculated using Cramér's V. For $df = 1$, effect sizes were interpreted as follows: 0.10–0.29 = "small;" 0.30–0.49 = "medium;" 0.50 = "large." For $df = 3$, effect sizes were interpreted as follows: 0.06–0.16 = "small;" 0.17–0.28 = "medium;" 0.29 = "large." Effects size for t-tests were calculated using Cohen's d and interpreted as follows: 0.20–0.49 = "small;" 0.50–0.79 = "medium;" 0.80 = "large."