

The Impact of Additional Traumatic Events on Trauma Symptoms and PTSD in Preschool-Aged
Children Exposed to Intimate Partner Violence (IPV)

by

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Abstract

Children exposed to intimate partner violence (IPV) are at an increased risk for developing posttraumatic stress disorder (PTSD) and suffering from trauma symptoms. Children who witness IPV are often exposed to additional traumatic events during their lives, yet little is known about their impact on children's levels of trauma. This study aims to identify and assess the impact of these additional traumatic events on preschool-aged children. Mothers of 102 preschool-aged children ages 4-6 were interviewed in a Midwest city. The proposed DSM-V criteria for PTSD diagnosis is evaluated and compared to the current DSM-IV measure. Results demonstrate that preschool-aged children exposed to IPV and additional traumatic events have higher rates of re-experiencing, avoidance and physiological symptoms. Additionally, preschool-aged children exposed to IPV and additional traumatic events experience higher rates of internalizing and externalizing behaviors. These results suggest that these additional traumatic events must be taken into account when evaluating and treating children exposed to IPV.

The Impact of Additional Traumatic Events on Trauma Symptoms and PTSD in Preschool-Aged Children Exposed to Intimate Partner Violence

It is estimated that approximately 10% to 20% of children in the United States witness intimate partner violence (IPV) every year, which is approximately 15.5 million youth, or 29.4% of all American children living in dual-parent homes (McDonald, Jouriles, Ramisetty-Mikler, Caetano, & Green 2006). These children who witness IPV have been found to have problems with behavioral, emotional, social and cognitive functioning (Graham-Bermann, Gruber, Girz, & Howell, 2009). Additionally, several studies have indicated that 30% to 60% of the children who are witnessing domestic violence are also suffering from child neglect, physical abuse or sexual abuse (Edleson, 1999). Yet when assessing the impact of IPV on children's functioning on trauma symptoms and PTSD, to our knowledge, no studies have taken into account the impact of additional traumatic events on children who witness IPV. Thus this current study focuses on the effects of multiple traumas on preschool-aged children exposed to IPV.

Types of Trauma Exposure

Researchers have shown that children suffer from many traumatic events throughout their lifetimes (Dong et al., 2004; Finkelhor, Turner, Ormrod, & Hamby, 2009; Graham-Bermann et al., 2008; Luthra et al., 2009; Saunders, 2003). In one study, mothers and teachers reported that preschool-aged children have experienced a death of someone they knew, loss of a family member, high conflict divorce, family violence, death of a pet, and involvement in an accident (Graham-Bermann et al., 2008). Another study found that school-age children who were either victims of a violent crime, exposed to traumatic news, witnessed IPV or experienced physical or sexual abuse all showed symptoms of traumatic stress. This study additionally found that children who had experienced at least one traumatic event had been exposed to an average of at

least three other traumatic events at some point during their lives (Luthra et al., 2009). The most common victimizations suffered by children ages 2-5 included assaults by a sibling and witnessing family assault (Finkelhor, Turner, Ormond, & Hamby, 2009). Finkelhor, Ormrod, & Turner (2009) assessed a large number of children ages 2-17 and found that children ages 2-6 encountered an average of two victimizations within the last year. Despite these findings, many studies focus on only one specific traumatic event, such as sexual abuse, child abuse or witnessing IPV.

Impact of Traumatic Exposure

The impact of traumatic events, specifically IPV, on school-aged children has been extensively studied. It has been reported that children who witness traumatic events are more likely to suffer from health problems such as asthma, allergies, cold and flu, and gastrointestinal problems (Graham-Bermann & Seng, 2004). Trauma-exposed school-aged children reported having more intrusive and unwanted remembering of the traumatic events, as well as attention and thought difficulties. The researchers also found that these traumatizing events may be even more detrimental in preschool-aged children who have a greater need for stability and predictability in their lives (Graham-Bermann & Levendosky, 1998). These findings are supported by later studies as well (Finkelhor, Ormrod, & Turner 2009; Rossman, 2002). Exposure to traumatic events has been shown to have a long-term impact on children. Researchers have demonstrated that children exposed to IPV have poorer educational attainment, depression, psychiatric distress and trauma symptoms later in life. Additionally, these children are often slower at accomplishing development tasks and have difficulty recalling and utilizing new information (Rossman, 2002).

However, until recently, relatively few studies investigated the impact of IPV and other traumatic events on preschool-aged children. This is an essential age group, as preschool-aged children are more likely to be present in the home when such traumas occur (Fantuzzo & Fusco, 2007). Rossman (2002) reviewed previous research and concluded that younger children exposed to IPV have trouble expressing emotions, are more aggressive, and have less secure attachments than children without IPV exposure. Graham-Bermann et al. (2008) interviewed mothers to determine the types of traumatic events to which preschool-aged children are exposed and the corresponding symptoms that emerge thereafter. The most common symptoms reported were talking about the event, becoming clingy, increased incidence of nightmares, recurring thoughts about the traumatic event, crying and developing new fears after the event. Because this study asked the mother to identify the worst incident to which the child had been exposed, it failed to account for the cumulative effect, if any, of all of the trauma endured during the child's life. Thus, in order to more thoroughly evaluate their distress, it is critical to study this cumulative effect of traumatic life events.

Impact of IPV Exposure on Trauma Symptoms

IPV exposure has been found to impact preschool-aged children's verbal ability. Graham-Bermann et al. (2009) found that children exposed to IPV have significantly lower verbal ability than the national population. These issues extend beyond verbal ability. Preschool-aged children exposed to IPV with a diagnosis of posttraumatic stress disorder, PTSD, have been found to have an attention bias towards angry faces instead of happy or neutral faces when compared to children exposed to IPV without such a diagnosis (Swartz, Graham-Bermann, Mogg, Bradley, & Monk, 2009). Yet once again, it is unknown if these children were exposed to

any additional traumatic events and, in cases where there are additional traumatic events, what impact they had on the child's PTSD diagnosis.

Results from other studies concerning the impact of IPV on preschool-aged children have been similar. One study that looked specifically at children who had been exposed to IPV within the last year found that the most frequently reported trauma symptoms were that the children would talk about the event, have increased separation anxiety, and become extremely upset when something triggers a memory of the event. The researchers noted that the study included three children who reported child abuse (Levendosky, Huth-Brooks, Semel, & Shapiro, 2002). However, the additional traumatic event was not controlled for in the results. This may confound the findings, as there is no way to tell if their trauma symptoms were a cause, or augmented by, the child abuse.

Association Between PTSD and IPV Exposure

In addition to the aforementioned trauma symptoms, strong correlations have been found between a diagnosis of PTSD and IPV exposure (Graham-Bermann et al., 1998; Graham-Bermann et al., 2008; Levendosky et al., 2002; Luthra et al., 2009; Rossman, 2002; Swartz et al., 2009). There are three main categories of symptoms utilized to obtain a PTSD diagnosis, which are re-experiencing the traumatic event, physiological arousal, and emotional numbing/avoidance (American Psychiatric Association, 2000). There also must be the presence of either functional impairment or emotional distress for at least one month (Scheeringa, 2006). All of these symptoms must have occurred because of a direct result of a specific traumatizing event (Graham-Bermann et al., 1998).

However, current DSM-IV criteria were initially created for war veterans and subsequently for adults. Thus they may not be developmentally appropriate for children,

especially younger ones. Scheeringa et al. (2001) developed a new measure to better assess traumatic stress symptoms in younger children so as to be more developmentally considerate. The new measure, which is based on the DSM-IV criteria, added traumatic symptoms unique to children such as “loss of previously acquired developmental skills” and “new fears”. Other criteria were reworded to be more appropriate, such as altering “diminished interest in significant activities” to “constriction of play”. This has been found to be significantly more effective at diagnosing more cases of children’s PTSD, as there was an almost 25% increase in the amount of children diagnosed with PTSD when utilizing Scheeringa’s measure and criteria compared to the DSM-IV criteria (Levendosky et al., 2002). As these criteria are also being proposed to be included in the DSM-V, this current study utilized the scoring systems of both the DSM-IV and the proposed DSM-V to assess PTSD in preschool-age children.

Studies have shown that preschool and school-aged children show significantly less avoidance symptoms than either arousal or re-experiencing symptoms (Graham-Bermann et al., 1998; Graham-Bermann et al., 2006; Levendosky et al., 2002). Scheeringa (2001) notes these findings and believes that of the seven potential avoidance symptoms, children should only be required to present one instead of the currently required seven to obtain a diagnosis of PTSD. He believes that children may have trouble expressing avoidance because of developmental reasons, as young children are still developing their cognitive and verbal skills.

A recent study assessed whether school-aged children exposed to IPV have varying levels of trauma symptoms and diagnoses of PTSD by considering children’s age, gender, race and ethnicity, and mother’s maternal health, income and social support. They found that 25% of the children met diagnostic criteria for PTSD, with 76% meeting the criteria for the symptom of traumatic re-experiencing. Contributors to these differences were found amongst ethnicity; rates

of PTSD varied for Caucasians and ethnic minority groups, with a rate of 33% for the former and 17% for the latter. Additionally, African American children's levels of traumatic stress varied by income levels, a variable that was not a significant contributor for Caucasians (Graham-Bermann, De Voe, Mattis, Lynch, & Thomas, 2006). However, none of these results controlled for the impact on the children's exposure to additional traumatic events. Further, the reported rates of PTSD may be low, as the mothers may not be able to adequately report on their children's internalizing traumatic symptoms.

Research Hypotheses

The goal of the study is to examine the impact of additional traumatic events on children who have been exposed to IPV. We hypothesize that children who have been exposed to IPV and additional traumatic events will experience more trauma symptoms and have higher rates of PTSD diagnosis using both DSM-IV diagnosis guidelines and Scheeringa's proposed developmentally appropriate criteria. Given previous findings of differences in ethnicity for school-aged children exposed to IPV, we hypothesize that fewer children in ethnic minority groups will have a PTSD diagnosis than children who are Caucasian (Graham-Bermann et al., 2006). As age, gender, mother's income and mother's level of education have not been found to result in significant differences in previous studies, we hypothesize that there will not be any differences between children in each of these groups. Additionally, since internalizing and externalizing symptoms are often present in children following IPV exposure, we posit that children with exposure to additional traumatic events will have higher internalizing and externalizing scores (Graham-Bermann et al., 1998; Levendosky et al., 2002).

Method

Participants

The sample was comprised of 102 children ages 4-7 ($M = 4.99$, $SD = .85$). Most of the children were European American (41%). Thirty six percent of the participants were African American, 5% were Hispanic American and 18% were biracial. There was a relatively even divide amongst the sexes, as 53% of the participants were boys. Over half of the mothers interviewed had completed some college or vocational school ($M = 3.61$, $SD = 1.10$). Mother's income was low overall, but it ranged from zero to \$9,000 a month ($M = \$1,369.54$, $SD = \$1,413.89$).

Mothers throughout a Midwest state community were recruited by distributing flyers and brochures to low-income housing units, churches, mental health agencies and local supermarkets, sending announcements home to all parents in preschool newsletters, putting advertisements in local newspapers and on websites, and with assistance from the State Department of Social Services. These recruitment methods gave the study the rare advantage of including not only women from battered women's shelters but also women from throughout the community.

Included on the advertisements and flyers was a toll-free telephone number where women could call to receive information about the study. They were then screened to determine whether they qualify for a study of the effects of an intervention program for young children and their mothers exposed to IPV (Graham-Bermann, 2007). Screening questions included if they had a child between the ages of 4 to 6 years old who was in their custody, if they had experienced any physical intimate partner violence within the last two years and if their children were able to participate in a peer-group intervention. In this sample, no mothers had issues with custody of their children and none indicated their children had any problem participating in a group intervention program.

Once it was determined that they qualified for the study, callers were informed that they would be interviewed for about an hour and a half and again five weeks later. From here they were split randomly into two groups; one participated in the intervention after the first interview and the other participated after the second interview. They were informed that for their time, they would be paid \$25 per interview and their children would receive a small gift with a monetary value of approximately \$4. If they were interested in continuing, the women set up an interview at the time and location of their choice. The interviews primarily occurred at the research laboratory of the principle investigator of the intervention evaluation study and at a shelter for abused women and their children. Mothers also opted to hold the interview within their own homes, as long as circumstances permitted; for example, as long as she was not living with the abusive partner. If needed, transportation was provided to the women and children for each interview and for all of the group intervention sessions.

Measures

Demographics. Background information including age, ethnicity, level of education, monthly income and current relationship status was obtained utilizing a demographics questionnaire.

Family Violence. In order to ascertain information concerning family violence, the Revised Conflict Tactics Scale was administered (CTS2; Straus, 1979; Straus, Hamby, Bone-McCoy, & Sugarman, 1996). Although the CTS-2 is an instrument comprised of 78 items that measures the severity of psychological, physical and sexual violence across dating, cohabitation and marital relationships, only 39 of these items were selected for this study. The other items concerning the partner's violence towards the mother were not included. Utilizing a seven-point Likert scale ranging from "never occurred" to "occurred more than twenty times", mothers were

asked to indicate how often their partner had employed each of the indicated violence tactics on them within the last year. The scale itself is broken down into five sub-categories for scoring purposes. Categories include Assault (e.g., “My partner slammed me against a wall”), Psychological Aggression (e.g., “My partner called me fat or ugly”), Negotiation (e.g., “My partner agreed to try a solution I suggested”), Injury (e.g., “You had a broken bone from a fight with your partner”), and Sexual Coercion (e.g., “My partner used force to make me have sex”). This scale has been found to have strong internal consistency amongst variables as well as good reliability, as the alpha coefficients range from .79 to .95. The CTS-2 also has good construct and discriminant validity (Straus et al., 1996). For this present study, the CTS-R Total Scale was found to be reliable ($\alpha=.81$).

Child Adjustment. The Child Behavior Checklist, or CBCL, was administered to the mothers (CBCL; Achenback, & Edlebrook, 1993). The scale consists of two subscales: internalizing behaviors, which include anxiety/depression, somatic complaints and withdrawal, and externalizing behaviors, which include aggression and delinquency. Child’s behavior is assessed on a three-point scale, ranging from 0 (not true), 1 (somewhat true) to 2 (very true or often true). The reliability of the total measure was .96 and for this study, Cronbach’s alpha was .97.

Posttraumatic Stress. The Posttraumatic Stress Diagnostic Scale, or PDS, is a measure comprised of 49 items that, together, allow for a diagnosis of Posttraumatic Stress Disorder, or PTSD (PTSD; Foa, 1995). The first thirteen questions on the PDS scale were the items that were utilized for this specific study. Mothers were asked whether or not they, their preschool- aged child or both had experienced or witnessed an assortment of stressful, traumatic events during

some point in their lives, such as being in a serious accident, fire or explosion, or having a life-threatening illness.

Scheeringa et al. (2001) created a 31-item questionnaire designed specifically for assessing posttraumatic stress in children. Based on the DSM-IV PTSD assessment for adults, The Posttraumatic Stress Disorder Semi-Structured Interview and Observational Record for Infants and Young Children (Scheeringa et al., 2001) is more developmentally appropriate and is based on mother's accounts of their children's trauma symptoms. Mothers had to first establish that their child witnessed a traumatic event. In any case where the mother indicated that a symptom was present in her child, she was asked to cite a specific example of such. A team of trained clinicians later evaluated these answers. In order to obtain a PTSD diagnosis, in accordance with this developmentally appropriate measure, children had to possess at least one re-experiencing symptom (e.g. being upset when reminded about the event), at least one avoidance symptom (e.g. unable to remember certain parts of the trauma) and at least two physiological arousal symptoms (e.g. increased irritability). These symptoms must have occurred for at least one month since the traumatic event. The total PTSD scale in the present study was found to be reliable ($\alpha=.81$).

Results

In order for a child to obtain a diagnosis of PTSD, mothers must report that the traumatic symptoms have been present for at least one month. In this sample of 102 children, 71 participants (72%) had symptoms present for at least one month. As displayed in Table 1, based on the current DSM-IV criteria, of the 71 children who had symptoms present for at least one month, 17% qualified for a PTSD diagnosis. Based on Scheeringa's proposed DSM-V criteria, 48% of the preschool-aged children qualified for a PTSD diagnosis.

Of the 102 children, 51, or 51.5% of the sample had never experienced an additional traumatic event beyond exposure to IPV. Thirty-two (32.3%) had experienced one additional traumatic event. Ten (10.1%) had experienced two additional traumatic events and 6 (6.1%) had experienced three additional traumatic events. As displayed in Figure 1, the most commonly reported traumatic events were non-sexual assault by a family member or someone you know (e.g. mugged, attacked, shot), serious accident, fire or explosion and “other” traumatic events such as witnessing another person being raped, accidental burning, emergency room visit, or invasive medical procedures.

It was hypothesized that children exposed to additional traumatic events would be more likely to qualify for a diagnosis of PTSD. Chi Square analyses were computed to test this hypothesis using both DSM-IV and proposed DSM-V criteria. No significant difference was found in the rates of PTSD diagnosis rates for children who had and had not witnessed additional traumatic events. According to DSM-IV guidelines, 7% of children with exposure to IPV-only qualify for a diagnosis of PTSD compared to 22.5% of children with exposure to additional traumatic events, indicating a trend, $\chi^2(1)=5.05, p=.081$.

Similarly, using the proposed DSM-V criteria, 34.5% of children with exposure to IPV-only qualified for a diagnosis of PTSD compared to 55% of children who had been exposed to additional traumatic events, once again showing a trend, $\chi^2(1)=2.85, p=.092$. These figures indicates that children exposed to additional traumatic events are almost twice as likely to receive a diagnosis of PTSD when compared to children who have been exposed to IPV-only. However, exposure to IPV is enough to qualify for such a diagnosis.

Chi Square analyses were also computed comparing the presence of the trauma symptoms (re-experiencing, avoidance, arousal) in those exposed to IPV-only and those exposed

to additional traumatic events. Most of the children exposed to IPV-only still had re-experiencing symptoms (72.5%) but the numbers were significantly less than that for children exposed to additional traumatic events (89.5%), $\chi^2(1)=4.63, p=.031$. Utilizing the DSM-IV criteria, 4% of children exposed to IPV-only experienced three or more avoidance symptoms compared to 19% of children exposed to additional traumatic events, $\chi^2(1)=5.35, p=.021$.

Utilizing Scheeringa's proposed PTSD guidelines, 39% of children exposed to IPV-only experienced avoidance symptoms, compared to 62.5% of children exposed to additional traumatic events, $\chi^2(1)=5.36, p=.021$. Lastly, 43% of children exposed to IPV-only experienced physiological arousal, compared to 81% of children exposed to additional traumatic events, $\chi^2(1)=15.18, p=.000$. Taken altogether, consistent with the hypothesis, these results demonstrate that exposure to additional traumatic events significantly increased the overall number of trauma symptoms for children exposed to IPV-only.

It was hypothesized that no significant differences would be found between boys and girls in the exposure to additional traumatic events. However, a chi square analysis revealed that boys were two times as likely to be exposed to such traumatic events, $\chi^2(1)=7.47, p=.006$. No significant differences were found in PTSD diagnosis rates for boys and girls for either the DSM-IV criteria or the proposed DSM-V criteria. Additionally, there were no differences between these groups based on age, mother's education or mother's income.

There was a significant difference in PTSD diagnosis rates among different ethnicities. Utilizing DSM-IV criteria, of those children who have been experiencing symptoms for longer than one month, African Americans were not likely to qualify for a diagnosis (3%), European Americans were slightly more likely to qualify for a diagnosis (12%) and Hispanic Americans were highly likely to qualify for a PTSD diagnosis (60%), $\chi^2(4)=13.28, p=.004$. Contrastingly,

no significant differences were found across ethnicities when the proposed DSM-V criteria were utilized.

In order to test the hypothesis that children exposed to IPV plus additional traumatic events would have higher numbers of internalizing and externalizing behaviors, a paired samples t-test was used. As indicated in Table 2, children exposed to additional traumatic events were more likely to have internalizing behavior symptoms, $M=12.46$, $SD=10.93$; $t(91) = -2.93$, $p = .004$, and externalizing behavior symptoms, $M=20.10$, $SD=11.59$; $t(86) = -2.63$, $p = .01$, than were the IPV-only children. Additionally, those with higher scores of internalizing behaviors were significantly more likely than those with lower scores to qualify for a PTSD diagnosis using DSM-IV criteria, $t(63) = -3.61$, $p = .001$, as well as when using Scheeringa's proposed criteria, $t(28) = -3.14$, $p = .003$. No significant differences were found between children with higher scores of externalizing behaviors and qualification for a PTSD diagnosis.

Discussion

This study aimed to assess if preschool-aged children exposed to traumatic events in addition to witnessing IPV have higher PTSD diagnosis rates, express more trauma symptoms and have more behavioral problems than preschool-aged children who are exposed only to IPV. In this sample alone, 48.5% of the children had been exposed to at least one additional traumatic event. Although almost half of the children in this sample had additional traumatic exposure, many other studies fail to take these events into account (Graham-Bermann et al., 2008; Levendosky et al., 2002; Rossman, 2002; Swartz et al., 2009). The results from this study indicate that exposure to traumatic events in addition to IPV significantly impacts the overall functioning of many preschool-aged children. Consistent with our hypotheses, children with such exposure have more internalizing and externalizing behavioral problems. Moreover, children with

higher internalizing scores were more likely to obtain a diagnosis of PTSD than those with lower internalizing scores for both the DSM-IV criteria and Scheeringa's proposed criteria. This was expected due to both the nature of traumatic distress and because these results have been found in other studies as well (Graham-Bermann et al, 1998; Levendosky et al., 2002).

These children also expressed more trauma symptoms. Compared to the 72.5% of children with exposure only to IPV, 89.5% of children with exposure to additional traumatic events suffered from re-experiencing symptoms. While 39% of the children in the sample exposed to IPV experienced avoidance symptoms, the number increased to 62.5% for those exposed to additional traumas. The trauma symptom most impacted by the presence of additional traumatic events was physiological arousal, as children who had been exposed to such events were almost twice as likely to experience arousal symptoms when compared to those who had only been exposed to IPV.

Results concerning qualification for a PTSD diagnosis were more complex. Using Scheeringa's guidelines led to an increase of 31% more diagnoses for those children whose symptoms lasted for at least one month, which is consistent with previous findings (Levendosky et al., 2002; Scheeringa et al., 2001). These results are critical; some children may currently be suffering from PTSD without obtaining a diagnosis and therefore may not be receiving adequate treatment. Rather than relying on a checklist of behaviors, as is the case with measures for older children, this new measure appears to give more information when a clinician does the interview with the mother and then clinicians decide whether a description of a behavior qualifies as a symptom.

The other notable difference found in this study between Scheeringa's proposed measure for PTSD diagnosis and the current DSM-IV standards was that using DSM-IV standards

resulted in significant differences in rates of PTSD diagnosis amongst ethnicities, and no such significant differences were found when using Scheeringa's measure. Perhaps these current measures are not culturally sensitive enough to trauma expression for minority children. As the main difference between Scheeringa's PTSD measure and the current DSM-IV standards is the number of avoidance symptoms that children express, a future study might focus on expression of avoidance symptoms across ethnic backgrounds as a means of exploring this discrepancy.

Hispanic Americans in both cases were highly likely to qualify for a PTSD diagnosis and European Americans were slightly likely to qualify. Consistent with previous research, African Americans were not likely to qualify for a PTSD diagnosis (Graham-Bermann et al., 2006). This may be an avenue for further study so as to determine whether these discrepancies are the result of African American children being less traumatized, more resilient or if their mothers describe their trauma in other ways. Boys were twice as likely to have exposure to additional traumatic events. No other demographic differences, such as differences in age or mother's education level were found.

Limitations

Although these findings are significant, several limitations should be noted. As previously mentioned, all data collected was based on mothers' reports of their children's functioning. For example, the CTS evaluated only the mother's reports of IPV exposure and not that of her partner. Researchers are still debating the reliability of mother's reports for several reasons. For example, there may be a social desirability effect in that mothers may have underreported the trauma symptoms their children were expressing to the interviewers. Mothers may also be unable to accurately report all of the internal symptoms from which their children are suffering (Graham-Bermann et al., 1998; Graham-Bermann et al., 2004; Levendosky et al.,

2002; Scheeringa et al., 2001). Nevertheless, if there are issues with the accuracy of mothers' reports, they are likely resulting in mothers underreporting these problems. Therefore, in reality, the PTSD diagnosis rates may be higher, not lower, than the rates reported in this study.

Another limitation of this study concerns the composition of the sample. The mothers and children were mostly low-income families from a Midwest city, which may impact the generalizability of the results. However, income was not found to be a factor in children's exposure to additional traumatic events or in PTSD diagnosis rates. The study is also not nationally representative in terms of ethnicity; it would have been beneficial to have more Hispanic and Latino families as well as other ethnic groups such as Asian families. Lastly, the age range does not include younger children such as three year olds.

Clinical Implications

This study gives evidence of the fact that exposure to other traumatic events in addition to IPV impacts the behavioral and mental functioning of preschool-aged children. However, many research studies fail to account for the impact of these traumatic events when evaluating children exposed to IPV. Future studies on preschool-aged children exposed IPV should consider these findings when reporting results to ensure that behavioral symptoms found are not augmented by these additional traumas.

It is essential that therapists and intervention programs consider the impact of these additional traumatic events when screening preschool-aged children. This will allow for more effective treatment of these children, as therapists will be better able to address all of the issues contributing to their PTSD and trauma symptoms.

PDS was utilized to evaluate exposure to additional traumatic events. However, this measure only includes eleven types of additional traumatic events, and it includes one "other"

category for anything else. Exposure to an event in the “other” category had been qualified by 24.5% of the mothers, indicating that the eleven listed measures on the PDS are not comprehensive enough to include all of the traumatic events to which children are potentially exposed. Thus in order to better assess the impact of additional traumatic events, it may be helpful for subsequent studies to use a measure with a more comprehensive list of potential life traumas. Doing so may increase the understanding of trauma expression and increased traumatic exposure. In any case, it is evident that exposure to additional traumatic events has an impact on the behavior and functioning of preschool-aged children exposed to IPV.

It appears that preschool-aged children who have been exposed to IPV are also being exposed to additional traumatic events. These events are increasing the amount of trauma they are experiencing and the number of trauma symptoms they are expressing. These children are suffering from more behavior problems than those who are exposed to IPV alone. The rates of PTSD amongst preschool-aged children may be higher than what is being reported, as current DSM-IV guidelines may not be developmentally appropriate and mothers may be underreporting symptoms. The proposed DSM-V criteria would therefore give clinicians a greater opportunity to capture a larger number of children who experience traumatic stress following exposure to IPV and additional traumas in their young lives. In any case, it is imperative that future researchers and therapists ask questions about exposure to potential additional traumatic events so as to improve the efficacy of the evaluation and treatment of preschool-aged children exposed to IPV.

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Table 1

Trauma Symptoms and Diagnosis of Children with Symptoms Lasting Over One Month (N=71)

	<u>DSM-IV Criteria</u>		<u>Potential DSM-V Criteria</u>	
	n	%	n	%
PTSD Re-Experiencing	65	91.5%	65	91.5%
PTSD Avoidance	12	16.9%	44	62%
PTSD Arousal	54	76.1%	54	76.1%
Diagnosis	12	16.9%	34	48%

Table 2

Internalizing and Externalizing Behaviors and Exposure to IPV-Only or IPV Plus Additional Traumatic Events (N=102)

	<u>IPV-Only</u>		<u>Additional Traumatic Events</u>		
	M	SD	M	SD	<i>t</i>
Internalizing	6.939	7.016	12.455	10.930	-2.925**
Eternalizing	13.851	10.677	20.098	11.591	-2.631**

*Note. * $p < .05$, ** $p < .01$*

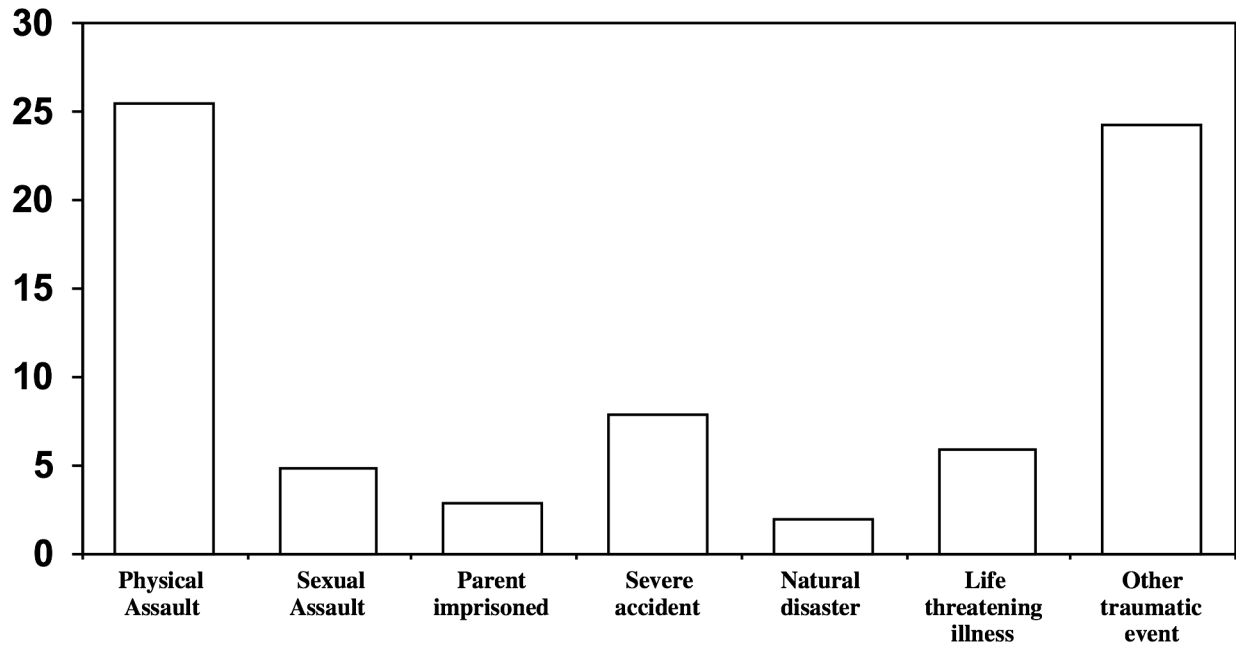


Figure 1. Percentage of Additional Traumatic Events to Which Children are Exposed