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Witnessing versus Experiencing Direct Violence in Childhood as Correlates of Adulthood PTSD

Madhur Kulkarni, M.S.¹, Sandra Graham-Bermann, Ph.D.¹, Sheila A.M. Rauch, Ph.D.^{2,3}, and Julia Seng, Ph.D., C.N.M., F.A.A.N.^{4,5}

¹Department of Psychology, University of Michigan, Ann Arbor, 530 Church Street, Ann Arbor, MI 48109-1043

²Psychologist, Research Service, VA Ann Arbor Healthcare System, Ann Arbor, MI

³Department of Psychiatry, University of Michigan Medical School, Ann Arbor

⁴Institute for Research on Women and Gender, University of Michigan, Ann Arbor

⁵Department of Obstetrics and Gynecology, University of Michigan, Ann Arbor

Abstract

Research has established that childhood violence exposure plays a considerable role in the development of deleterious outcomes in childhood and adulthood. However, important gaps remain in understanding the complex relationships among early violence exposure, adulthood trauma exposure, and PTSD. This study investigates whether two specific types of childhood violence exposure (witnessing domestic violence and experiencing child abuse) are uniquely associated with PTSD while controlling for additional trauma experience. In a community sample of pregnant women, this study found that childhood abuse only and combined exposure to abuse and witnessing abuse correlated to current and lifetime PTSD diagnoses, but witnessing alone did not. Additionally, adult non-violence trauma histories accounted for more variance in PTSD than did any early violence exposure type.

Keywords

Posttraumatic stress disorder; violence exposure

The estimated prevalence rates for direct child abuse and witnessing intimate partner violence (IPV) in childhood highlight the need to be better informed about the impact of this trauma exposure. For example, in the United States, 3.5 million children were referred to state agencies for maltreatment in the year 2005; of those investigated, an estimated 899,000 children were determined to have been subject to physical abuse, sexual abuse, emotional abuse, and neglect (U.S. Department of Health & Human Services, 2005). Additionally, it is estimated that 15 million children witnessed IPV in the past year (McDonald, Jouriles, Ramisetty-Mikler, Caetano, & Green, 2007). Further, multiple studies have found that there

are high co-occurrence rates of spousal abuse and physical child abuse (e.g., Henning, Leitenberg, Coffey, Bennett, & Jankowski, 1997). Studies that examined simultaneous child abuse and IPV exposure found that this co-occurrence ranged from 20% to 100% (e.g., Appel & Holden, 1998; Holden, 2003) due to differences in types of samples studied (e.g., clinical versus shelter populations). In recent years, investigators have attempted to study each form of childhood violence exposure in isolation (e.g., Higgins & McCabe, 2000, 2001) to evaluate their corresponding short-term and long-term outcomes. Though there is extant literature on the effects of direct abuse and witnessing IPV in childhood, there remain important gaps in research on the effects of these particular exposures in adulthood. The relative impact of experiencing direct abuse or witnessing IPV in childhood has not been well-quantified in research on adults, and few studies have controlled for adult trauma exposure (e.g., Gill, Page, Sharps, and Campbell, 2008; Nishith, Mechanic, & Resick, 2000).

Given the traumatic nature of experiencing abuse and witnessing IPV (e.g., Straus, 1992), one correlate that has captured the interest of researchers is the development of posttraumatic stress disorder (PTSD). PTSD is characterized by symptoms of re-experiencing trauma, avoidance of reminders, numbing of emotional responsiveness, and hyperarousal symptoms (American Psychiatric Association, 1994). An emergent literature has evidenced the relationship between direct child abuse and the subsequent development of PTSD in adulthood (e.g., Brewin, Andrews, & Valentine, 2000; Hetzel & McCanne, 2005). Widom (1999) found that approximately one-third of adults who were victims of direct abuse (physical abuse, sexual abuse, or neglect) met the criteria for PTSD in their lifetime, or “lifetime PTSD.” In a study on college women, Feerick and Haugaard (1999) found that direct experiences of abuse accounted for an additional nine percent of variance in the prediction of self-reported PTSD symptoms, even after controlling for potential confounds (e.g., demographic variables and the presence of adult maltreatment exposure). A smaller research body has documented the adverse posttraumatic psychiatric sequelae of childhood witnessing of IPV in adulthood. Thus far, the empirical literature suggests that adults who witnessed IPV in childhood are at increased risk when compared to non-witnesses for developing PTSD symptoms (e.g., Feerick & Haugaard, 1999, Maker, Kemmelmeier, & Peterson 1998). Research examining the presence of co-occurring childhood abuse and witnessing IPV found that these adult survivors had worse mental health outcomes than those associated with single forms of childhood violence exposure (for a full review, see Higgins & McCabe, 2001).

While the research thus far on adult survivors of childhood violence exposure has been informative, this literature is small and suffers from a few empirical gaps. First, the majority of studies that have examined PTSD in adult survivors of childhood violence have neglected to sufficiently assess for two important confounds: adulthood trauma exposure and other childhood trauma exposure (e.g., Henning et al., 1997). Adult trauma exposure has been found to be associated with quite similar negative outcomes (i.e., the development of PTSD symptoms and other psychiatric distress) as evidenced by the extant rape-survivor, combat veteran, refugee, and disaster literatures (e.g., Johnson & Thompson, 2008; Katz, Pellegrino, Pandya, Ng, & DeLisi, 2002; Lenox & Gannon, 1983). Given the evidence that adult trauma exposure affects the presence and expression of PTSD, it is unclear whether these emotional and psychiatric outcomes are due to childhood violence exposure, and/or adult trauma

exposure. The failure to control for adult trauma exposure is especially problematic given that prior research has repeatedly found that childhood abuse survivors and IPV witnesses are at increased risk for revictimization in adulthood (e.g., Gill, Page, Sharps, and Campbell, 2008), and thus are at increased risk for continued trauma exposure (for a review, see Stith et al., 2000). Similarly, failing to control for other non-abuse childhood trauma exposure (e.g., pediatric traffic injury, serious illness, or natural disaster) is problematic because it prevents researchers from controlling for a type of life experience that is known to have an important impact on PTSD outcomes (e.g., deVries, Kassam-Adams, & Cnaan, et al., 1999).

Second, the field is still unclear about the specific effects of various types of childhood violence exposure on adult PTSD. Attempts to isolate their unique contributions have had mixed results. Research has found that women who witnessed IPV in childhood experience more trauma-related symptoms (Feerick & Haugaard, 1999; Maker et al., 1998). However, after controlling for childhood physical and sexual abuse, some researchers found that the relationship between childhood IPV exposure and trauma symptoms was no longer significant (Maker et al., 1998). More research is needed to better understand the potential differences between these types of early violence exposure on specific adult PTSD outcomes, such as lifetime and current PTSD caseness and the number of PTSD symptoms.

Finally, there is a paucity of research based on diverse community samples that compare adult survivors of childhood maltreatment and witnessing IPV on PTSD outcomes. Prior research has primarily relied on samples of college students (e.g., Davies, DiLillo, & Martinez, 2004; Feerick & Haugaard, 1999) and psychiatric clinical samples (e.g., Roth, Newman, Pelcovitz, Van der Kolk, & Mandel, 1997). Very few studies have utilized community samples to delineate the differential impact of witnessing IPV and child abuse on the various aspects of PTSD in adults (e.g., Henning et al., 1997; Higgins & McCabe, 2000). This has left the field with many unanswered questions about the differential impact of these various types of trauma exposure on adult survivors of childhood violence exposure in a community setting.

Present Study

We attempt to address these gaps in the literature in the present study through a secondary analysis examining PTSD among four groups of pregnant women in a community sample: witnesses of intimate partner violence in childhood (Witnesses group), survivors who experienced child abuse (Abused group), survivors of child abuse who also witnessed IPV (Combined group), and a comparison group that did not experience either type of childhood violence exposure. This study examined the difference between direct exposure to violence (i.e., child abuse) and indirect exposure (e.g., witnessing IPV), and its additive effects on risk for PTSD, taking other lifetime non-abuse potential trauma exposures and adult abuse exposures into account. The main research questions and hypotheses investigated in the present study are the following. After controlling for adult interpersonal violence, the sum of other (non-abuse) trauma exposures across the lifespan, and demographic variables, this study examines the extent to which group membership is related to PTSD-related outcome variables (i.e., lifetime and current PTSD diagnoses, number of PTSD symptoms, and PTSD distress severity). It was hypothesized that when comparing individuals based on witnessing,

experiencing or combined exposure, the four groups will differ in PTSD distress severity. It was hypothesized that individuals from the combined group would be the most symptomatic and have the highest incidence of life-time PTSD relative to the other groups. It was hypothesized that the ECA group will suffer more current distress than the WIPV group (as found in prior child research), and that the comparison group will have the least distress.

Method

The present study is a secondary analysis utilizing data collected as part of a larger investigation, the Stress, Trauma, Anxiety, and the Childbearing Year Project (STACY; NIHR01-NR008767). STACY is a prospective, multiple-cohort study that examines the relationship between PTSD and adverse childbearing outcomes from early pregnancy through the postpartum period. Data presented here are from the first wave of the data collection between the years 2005 and 2008.

Participants

Participants were pregnant women sampled from three academic medical centers located in a small university city and in the center of a major metropolitan area. In order to be eligible to participate in the study, women were required to be 18 years or older, able to speak English without an interpreter, expecting their first child, and entering prenatal care at less than 27 completed weeks of gestation. Participants were invited to participate in a study of “stressful life events that happen to women, emotions, and pregnancy” by nurses conducting the initial intake and health history interviews with all new prenatal patients.

Procedure

Telephone survey method was used to collect the data. After potential participants were invited to participate in the study, the nurse gave interested women an initial information document (written at a 7th grade language level) and faxed their contact information to the survey research company. An initial verbal informed-consent discussion took place at the onset of the phone call, and a standardized survey was administered. The computer assisted telephone interview system structured the interview and recorded the data simultaneously. Participants were sent a \$20 check by mail for their participation in the study. Ten percent of interviews were audited for interaction quality and accuracy of data entry across the life of the study. The primary goal of the interview was to assess trauma history and PTSD, and to assign participants to cohorts for longitudinal follow-up: PTSD-positive, partial PTSD, trauma-positive but PTSD-negative, and never exposed. At the conclusion of the interview, all respondents received a mailing, which included an incentive payment and other materials depending on their participation in the later phases. Detailed information about recruitment and completion rates are published elsewhere (Seng, Low, Sperlich, Ronis, & Liberzon in press).

Measures

Four measures provide the data for this analysis. The *Life Stressor Checklist – Revised* (LSC-R; Wolfe & Kimerling, 1997) assesses lifetime exposure to 30 potentially traumatic events specific to women’s experiences (e.g., miscarriages, sexual assaults, muggings). The LSC is

one of the five instruments most frequently used in research to measure trauma exposures, with high sensitivity to trauma among women (Cusack, Falsetti, & de Arellano, 2002). For the purposes of this study, one item was excluded because it does not apply to this sample (it involves giving up a child or losing it to death; the women in our sample were having their first child). Age of the exposure was ascertained in relation to the women's worst and second worst traumatic events.

The *Abuse Assessment Screen (AAS)* (McFarlane, Parker, Soeken, & Bullock, 1992) is a domestic violence screening tool designed for use with pregnant women. The AAS meets the quality criteria for trauma measures, uses behaviorally specific wording and non-legal language. While there are limitations in the ability to assess if validity and reliability of this instrument parallel those of other trauma instruments, this measure was found to have good test-retest reliability and criterion-related validity (Beck et al., 2002).

The *National Women's Study PTSD Module (NWS-PTSD)* (Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993) is a version of the Diagnostic Interview Schedule (DIS) that was modified for use in the largest epidemiological study of PTSD specific to women that was conducted via the National Crime Victim Center (Resnick et al., 1993). It is designed as a structured telephone diagnostic interview to be administered by lay interviewers. The NWS-PTSD measures all 17 symptoms of PTSD for lifetime and current occurrence with follow-up items to assess greater than one-month duration of symptoms, distress, and impairment in relation to school, occupational, and family role functioning. It yields a dichotomous diagnosis and continuous symptom count. For the present study, Cronbach's alpha was calculated for symptom criteria B ($\alpha=0.74$), C ($\alpha=0.76$), and D ($\alpha=0.67$), and the entire scale ($\alpha=0.88$).

The *Pregnancy Risk Assessment Monitoring System (PRAMS)* (Beck et al., 2002) is an epidemiological surveillance research instrument created by the CDC to collect perinatal data routinely across the U.S. This study utilized the items that assess for sociodemographic factors (i.e., education, employment status, ethnicity, income, relationship status, and living situation).

Data Reduction and Analytic Strategy

Childhood violence exposure—Participants were divided into four groups (Witness, Abused, Combined, and Comparison groups) based on responses to the LSC items related to violence exposure (i.e., child abuse and witnessing IPV). Those in the Witness group endorsed the item asking the participant if she witnessed domestic violence before the age of 16. In the Abused group, participants endorsed one or all of the following items as having occurred prior to age 16: emotional abuse, physical neglect, physical abuse, contact-only childhood sexual abuse, or childhood sexual abuse involving penetration. In the Combined group, individuals endorsed the domestic violence witness item and at least one of the direct abuse items.

Adulthood trauma exposure—For the purposes of this study, we additionally generated two variables from data collected by the LSC. First, a lifetime non-abuse potential trauma exposure score was calculated by adding the number of types of other traumatic events (e.g.,

accidents and disasters) that individually or cumulatively could account for outcomes. Second, an adulthood abuse trauma score was calculated by adding the number of types of adult abuse events (e.g. battering, contact sexual abuse, and penetrative sexual abuse experienced at or after 16 years of age).

Sociodemographics—Differences in descriptive characteristics (education, employment status, ethnicity, income, relationship status, living situation, weeks of pregnancy, comorbid major depression, and generalized anxiety disorder) were compared utilizing analysis of variance for continuous variables and chi-squared tests for dichotomous variables. A cumulative index of socio-demographic risk was generated by the parent study to be used across studies as a proxy for additive risk for PTSD. This index adds the total number of the following five items that were endorsed: younger age (being pregnant as a teenager), African-American ethnicity, income less than \$15,000, high school education or less, and living in a high crime area. The index score thus ranges between zero and five.

Statistical analyses—Potential multi-collinearity was assessed by conducting collinearity diagnostics on the interval-level PTSD variables with linear regression models examining tolerance. The resulting values indicated that no variables needed to be excluded for multi-collinearity. All statistical analyses were accomplished using SPSS 17.0. The threshold for significance was set at $p < .05$ (two-tailed). This study examined if childhood victimization group membership was related to lifetime and current PTSD caseness adjusting for lifetime non-abuse potential trauma exposure, adult abuse exposure, and taking cumulative sociodemographic risk into account. Blocked entry, step-wise logistic regression analyses were conducted to assess our predictor and covariate variables as correlates to lifetime and current PTSD in the following order: cumulative sociodemographic risk, childhood violence exposure groups, lifetime non-abuse potential trauma exposure, and finally adult abuse trauma exposure.

Results

Descriptive Statistics for Entire Sample

Table 1 presents the descriptive statistics for this sample. The original sample consisted of 1,581 pregnant women from southeast Michigan. The mean age of participants was 26 years. Participants declared identities of Latina (4.2%), Middle Eastern (2.3%), Asian (7.2%), African American (44.9%), European American (45.9%), American Indian/Alaskan Native (.4%), and Native Hawaiian/Pacific Islander (1.5%). Approximately 23% ($n=357$) had an average household annual income of less than \$15,000, and 46.2% ($n=731$) had a high school education or less. Approximately 60% of participants ($n=949$) were currently in a partner relationship. Thus, on the cumulative sociodemographic risk measure, the average score was 1.84.

Trauma-related Variables for Entire Sample

Among the 1,581 participants, 20.6% ($n=325$) reported witnessing IPV, 7.7% ($n=122$) reported experiencing child abuse, 13.6% ($n=215$) reported both witnessing IPV and experiencing child abuse, and 58.1% ($n=919$) reported experiencing none of the previously

mentioned childhood traumatic events. Participants reported an average of 3.5 types of non-abuse lifetime traumatic events and 0.22 types of adult abuse-related traumatic events. Approximately 7.9% (n=125) met criteria for a current PTSD diagnosis, 20.2% (n=319) met criteria for a lifetime PTSD diagnosis.

Comparing Childhood Violence Exposure Groups

Sociodemographics—Table 1 presents comparisons between the childhood violence exposure groups across demographic variables. Participants in the Witnessed and Combined groups were at significantly greater sociodemographic risk: they were younger, had lower income, were less educated, and were less likely to currently be in a partnered relationship when compared to those in the Abused and Comparison groups. Thus, witnessing alone was associated with sociodemographic risk, but abuse alone was not. There were also significant ethnic differences between groups (see Table 1). Women in the Witnessed and Combined groups were significantly more likely to be African American and Native Hawaiian/Pacific Islander, while Abused and Comparison groups were significantly more likely to be European American. There were no significant differences between groups in the number of participants who were Latina or Middle Eastern.

Exposure to other trauma—We also compared the groups on rates of other traumatic events reported. Adult abuse traumatic events (e.g., rape, inter-partner violence, and assault after the age of 16) and non-abuse potential trauma events (e.g., natural disaster or car accidents at any time in the participant's life) were surveyed (Table 2).

Adult abuse trauma—The three childhood violence exposure groups reported significantly more adulthood abuse trauma exposure than the Comparison group. The Combined group endorsed significantly more adulthood abuse trauma than the Witness group, but did not significantly differ from the Abused group. There were no significant differences between the Abused and Witness groups on exposure to adulthood abuse trauma. However, overall the rates of adulthood abuse trauma were very low so the differences may not be meaningful.

Lifetime non-abuse potential trauma—The three childhood violence exposure groups had significantly more lifetime non-abuse potential trauma exposure than the Comparison group. The Combined group had significantly more lifetime non-abuse potential trauma exposure than the Abused and Witnesses groups; the Abused and Witnesses groups were statistically indistinguishable.

Relationship between Childhood Violence Exposure and PTSD Caseness

To examine the contribution of childhood violence exposure and lifetime and current PTSD in this sample, bivariate and multiple regression analyses were conducted. The bivariate analyses indicated that all the proposed main predictors except for the Witnesses group were significantly related to the PTSD outcomes.

Blocked entry, step-wise logistic regression analyses were employed to ascertain if specific childhood violence exposure groups were more strongly associated with lifetime and current

PTSD diagnoses, while taking into account cumulative sociodemographic risk, lifetime non-abuse potential trauma, and adulthood abuse trauma. Table 3 presents the final model after the last step. All predictors were significantly related to the lifetime PTSD diagnosis except witnessing and cumulative sociodemographic risk. In contrast, all predictors except witnessing were found to be significantly associated with a current PTSD diagnosis.

Discussion

Previous research on childhood victimization documented that childhood violence exposure was related to multiple deleterious outcomes in adulthood (e.g., Shonk & Cicchetti, 2001). The present study has expanded those findings, showing that specific forms of childhood violence exposure predict PTSD outcomes in a community sample of pregnant women. The rates of PTSD found in the present study are higher than rates than the rates found in previous samples of women among the general population, but consistent with the rates found among pregnant women. For a more comprehensive discussion of this sample's prevalence rates, see in Seng et al., 2009. Overall, childhood violence exposure was related to both current and lifetime PTSD caseness, as seen in prior research. However, specific forms of childhood violence exposure varied in influence on PTSD. Women exposed to both direct and indirect forms of violence exposure (the Combined group) had the highest incidence of current and life-time PTSD relative to the other groups. The results discussed above also show that the Abused group suffered more current and lifetime PTSD than the Witness group, and that the Comparison group reported the least distress. Additionally, witnessing alone was not predictive of PTSD diagnoses, but abuse alone was predictive of both lifetime and current PTSD. As expected, the combined exposures were more predictive than abuse alone.

There are multiple possible explanations for these findings. Perhaps direct victimization (abuse only) was a sufficient cause of PTSD, whereas indirect exposure to violence (witnessing) was not. However, once exposed to abuse, other exposures and stressors appear to have an additive effect. Still, it is unclear whether it is the direct victimization in childhood that is most influential in the presence of PTSD symptoms or if it is in fact the total amount of direct violence exposures over the lifespan, given the fact that those with only direct victimization in childhood (the abuse only group) are more likely to have more overall direct violence exposure.

These findings may also suggest that there is either an interaction between abuse only and witnessing, or that witnessing is a proxy for other factors; perhaps witnessing may only exert a synergistic influence when direct victimization (abuse only) occurs, but not when only indirect violence (witnessing) occurs. Perhaps the injury to one's self and the threat to one's life are more powerful than witnessing a loved one injured or threatened. Witnessing was strongly associated with cumulative sociodemographic risk and more lifetime non-abuse potential trauma. Our analyses suggest that, for those whose only early violence exposure is witnessing, cumulative sociodemographic risk and lifetime non-abuse potential trauma are more important risk factors for PTSD.

However, for those who experience abuse alone, all three factors and adulthood abuse trauma contribute to increased risk for PTSD. This may imply that witnessing and direct experiences of violence appear to differentially affect risk for developing or maintaining PTSD. In our sample, witnessing did not appear to reach such a threshold when it was the only intrafamilial violence exposure. Still, it contributed in an additive manner analogous to a kindling model in which each additional exposure (i.e., witnessing) adds to risk and severity. Our study's finding that witnessing did not independently and significantly predict PTSD contradicts previous research (e.g., Feerick & Haugaard, 1999, Maker et al., 1998). These earlier studies were not conducted with community samples and did not factor in other types of violence exposure, such as adulthood assault histories.

Finally, the finding that cumulative lifetime non-abuse potential trauma is the strongest predictor of both lifetime and current PTSD, was unanticipated. This finding is inconsistent with previous findings that suggest that violence and abuse are linked to worse outcomes than other types of trauma (e.g., Gill et al., 2008). Perhaps this finding can be explained by these events' potential temporal recency; potentially these events were more memorable due to their proximity to the interview and this was a result of a reporting bias, or perhaps those events that were most recent were most closely related to symptom expression.

Based on a closer, *posthoc* examination of the frequencies of lifetime non-abuse potential trauma, there appeared to be a dose-response relationship, and when the findings did not follow the trend, the Abused group was the group that was usually the one out of alignment. This may suggest that when lifetime non-abuse potential trauma events are related to violence and abuse, the Abused group follows the general dose-response pattern. However, it appears that when the lifetime non-abuse potential trauma events are related to cumulative sociodemographic risk (e.g., family member jailed), the Abused group may be buffered and do better than the general trend.

This study does have notable limitations. First, the sample was comprised of pregnant women and may not be generalizable to all women or across genders. Second, the measures of violence exposure did not specify the exact nature or severity of the violence exposure. Third, the protocol did not include items more specific to determining protective factors, thus the parent study does not contribute strongly to understanding why some individuals who experienced various forms of trauma exposure were resilient, while others were not. Finally, this study relies on epidemiologic self-report and retrospective data, and therefore may not be as accurate as face-to-face research assessments with clinical diagnostic measures would be.

However, there also are important strengths. First, we were able to model two important confounds: adulthood trauma exposure and other childhood trauma exposure. Second, the sample size was adequate to include a large number of participants in each of the childhood violence exposure groups, strengthening inference about the specific effects of these categories of childhood violence exposure on adult PTSD. Third, these data fill a gap in our understanding of risk for PTSD conveyed by these indirect and direct childhood violence exposures by studying a large community sample, rather than a shelter or patient sample. It also focuses on women, who are at greater risk of PTSD than men.

Further research is warranted. From these survey data, we were not able to learn what distinguishes those who witness IPV as their only intrafamilial violence from those who were directly abused, nor were we able to learn why witnessing IPV appears, in some models, to convey some resilience. Qualitative studies with adult women who witnessed IPV might advance a theory of resilience for girls in this situation. Future research should extend this analysis to study men so that patterns to determine whether gender influences the models. Potential contributors to safety from direct abuse and to resilience from the sequelae of witnessing IPV should be included in future studies. Examples of such factors might include supportive extended family members, parents who escape the violence, parents who are treated, and mental health treatment for the child soon after the exposure(s). Finally, due to this paper's narrow focus on examining the differential influence of various forms of violence exposure on PTSD caseness, this paper did not examine the roles that these forms of violence exposure play in the presence and expression of other psychiatric disorders, such as depressive or anxiety disorders. Future research may extend the present findings to examine how these types of violence exposures influence the expression of disorders previously found to be linked to trauma exposure, such as major depressive disorder.

There also are clinical implications. Based on these results, comprehensive assessment of trauma and potential trauma across the lifespan is encouraged. History-taking that uses a framework eliciting additive experiences may be more informative than focusing on one specific event. These data particularly point to the contribution of non-abuse, but also to multiple lifetime exposures in the development and persistence of PTSD among childhood victims of violence.

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Table 1
 Comparisons Between Childhood Violence Exposure Groups on Demographic Variables (N = 1,581)

Variable	Overall Sample (N = 1,581)		Witness (n = 325)		Abused (n = 122)		Combined (n = 215)		Comparison (n =919)	
	M(SD) or N(%)	M(SD) or N(%)	M(SD) or N(%)	M(SD) or N(%)	M(SD) or N(%)	M(SD) or N(%)	M(SD) or N(%)	M(SD) or N(%)	M(SD) or N(%)	F (df _w , df _b) or χ^2 (df)
Demographics										
Cumulative sociodemographic risk	1.84(.184)	2.58(1.75)	1.74(1.82)	2.45(1.90)	1.45(1.76)	42.26(4993,18, 3) ****				
Age (years)	26.00(5.89)	24.39 (5.82)	26.05(5.97)	24.89(5.94)	26.84(5.73)	17.43(1576, 3) ****				
Education (< h.s.)	731(46.24%)	199 (61.23%)	58(47.54%)	126(58.60%)	348 (37.87%)	68.60 (3) ****				
Income (< \$15,000)	357 (22.58%)	102(31.38%)	23 (18.85%)	75(34.88%)	157(17.08%)	94.44(12) ****				
Not Partnered	632(39.97%)	172(52.92%)	46(37.7%)	109(50.70%)	305(33.19%)	50.91(3) ****				
Ethnicity										
African American	709(44.85%)	215(66.15%)	48(39.34%)	123(57.21%)	323(35.15%)	110.91(6) ****				
American Indian/Alaska Native	7(.44%)	2(.62%)	0(0%)	1(.47%)	4(.44%)	1.55(6)				
Asian	113(7.15%)	12(3.69%)	11(9.02%)	13(6.05%)	77(8.38%)	9.71(6)				
European American	725(45.86%)	87(26.77%)	61(50%)	73(33.95%)	504(54.84%)	91.18(6) ****				
Latina	67(4.24%)	16(4.92%)	4(3.28%)	9(4.19%)	38(4.13%)	2.34(6)				
Middle Eastern	36(2.28%)	5(1.54%)	3(2.46%)	6(2.79%)	22(2.39%)	2.60(6)				
Native American/Pacific Islander	23(1.45%)	8(2.46%)	0(0%)	10(4.65%)	5(.54%)	25.56(6) ****				

Note. Cumulative sociodemographic risk is a cumulative measure generated by summing the total number of the following items that were endorsed: teen pregnancy, African-American ethnicity, income less than \$15,000, high school education or less, and living in the center of Detroit. Each group represents all those reporting that racial or ethnic identity, and the χ^2 tests for differences between that identity and all others.

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

Table 2
 Comparisons Between Childhood Violence Exposure Groups on Trauma Exposure and Psychiatric Distress (N = 1,581)

Variable	Overall Sample (N = 1581)		Witness (n = 325)		Abused (n = 122)		Combined (n = 215)		Comparison (n = 919)		F (df _w , df _b), χ^2 (df)
	M(SD) or N(%)	M(SD) or N(%)	M(SD) or N(%)	M(SD) or N(%)	M(SD) or N(%)	M(SD) or N(%)	M(SD) or N(%)	M(SD) or N(%)	M(SD) or N(%)		
Non-CV Trauma											
LNAPT	3.51(2.44)	4.26(2.18)	4.25(2.39)	5.45(3.05)	2.69(1.95)	42.18(1577,3)	***				
AAT	0.22(.54)	0.27(.58)	0.31(.66)	0.54(.80)	0.11(.38)	113.66(1577,3)	***				
Psychiatric Caseness											
MDD	194(12.27%)	42(12.92%)	23(18.85%)	48(22.33%)	81(8.81%)	35.43(3)	***				
GAD	69(4.36%)	11(3.38%)	10(8.20%)	19(8.84%)	29(3.16%)	18.56(3)	***				
Current PTSD	125(7.91%)	22(6.77%)	17(13.93%)	54(25.12%)	32(3.48%)	118.83(3)	***				
Lifetime PTSD	319(20.18%)	64(19.69%)	45(36.89%)	106(49.30%)	104(11.32%)	179.23(3)	***				

Note. CV= Childhood Violence Exposure; LNAPT=Lifetime Non-abuse Potential Trauma Exposure; AAT=Adulthood Abuse Trauma Exposure; GAD=Generalized Anxiety Disorder; MDD=Major Depressive Disorder. Each group represents all those reporting that racial or ethnic identity, and the χ^2 tests for differences between that identity and all others.

* $p < 0.05$
 ** $p < 0.01$
 *** $p < 0.001$

Table 3

Logistic Regression Analyses Predicting PTSD Caseness (N = 1,581)

Variables	Current PTSD			Lifetime PTSD		
	OR	Nagelkerke's R ²	Chi-square	OR	Nagelkerke's R ²	Chi-square
Step 1		0.10	68.79(1)***		0.02	15.21(1)***
Disadvantage	1.54***			1.14***		
Step 2		0.20	143.33(4)***		0.15	163.14(4)***
Disadvantage	1.47***			1.07		
WIPV	1.37			1.79**		
ECA	4.24***			4.51***		
Combined	6.98***			7.17***		
Step 3		0.26	181.68(5)***		0.28	310.93(5)***
Disadvantage	1.41***			0.96		
WIPV	1.00			1.14		
ECA	2.96**			2.96***		
Combined	3.65***			3.58***		
LNAPT	1.28***			1.45***		
Step 4		0.27	193.88(6)***		0.30	333.62(6)***
Disadvantage	1.44***			0.97		
WIPV	0.92			1.07		
ECA	2.66**			2.76***		
Combined	3.09***			3.09***		
LNAPT	1.25***			1.42***		
AAT	1.66***			1.74***		

Note. The child victimization variables (Witnessed IPV, Experienced Child Abuse, and Combined Exposure) are a series of dummy variables to represent individuals with the described trauma exposure compared to all others, including the non-exposed comparison group. ECA= Experienced Child Abuse; WIPV=Witnessed IPV LNAPT=Lifetime Non-abuse Potential Trauma Exposure; AAT=Adulthood Abuse Trauma Exposure.

* p < 0.05

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 $p < 0.0001$

 $p < 0.01$
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