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Traumatic Stress Symptoms in Women Exposed to Community and Partner Violence

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Prior research documents increased trauma symptoms associated with exposure to violence, primarily by examining types of violence separately. This study extends prior research by examining traumatic stress symptoms associated with two types of violence exposure, community violence and partner violence. A sample of 90 low-income African American women from an urban area completed measures assessing exposure to community violence, partner violence, and trauma symptoms. Exposure to community violence and partner violence were associated with increased reporting of trauma symptoms. Participants who experienced high levels of exposure to both types of violence reported more trauma symptoms than women who were exposed to only one type of violence or neither type of violence. The results suggest that the accumulation of exposures to violence is linked with greater distress. Thus, interventions with women exposed to violence should assess violence exposure in multiple domains and attend to the implications of multiple exposures to violence.

Keywords: *community violence; partner violence; trauma symptoms; women*

Studies consistently indicate that violence in the United States is a public health problem of significant magnitude (Hill & Madhere, 1996; Martinez & Richters, 1993; Scarpa, 2001). In response, research has attempted to uncover the complex nature of violence exposure and has done so primarily by focusing on specific categories of violence exposure. Two categories of violence

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that have received considerable attention are community violence and partner violence. Negative psychological outcomes have been associated with exposure to each of these types of violence (Overstreet & Braun, 2000; Pynoos & Nader, 1990; Stein & Kennedy, 2001), with trauma symptoms and diagnosable posttraumatic stress disorder (PTSD) commonly noted as negative consequences of exposure to both types of violence (Hague & Wilson, 2000; Rosenthal, 2000; Saunders, 1994).

Surveys of community violence indicate that minority children and parents living in inner-city, low-income environments are at high risk for exposure (Farrell & Bruce, 1997; Overstreet & Braun, 2000). Partner violence literature reports that women are the primary victims (Huang & Gunn, 2001). Moreover, studies of women who are low income indicate heightened levels of risk for partner abuse (Vogel & Marshall, 2001). Thus, women who are economically disadvantaged and living in high-crime neighborhoods appear at greatest risk for exposure to community and partner violence. These examinations of community and partner violence provide an essential conceptual foundation. However, the reality for some individuals, especially those living in urban environments, is an increased risk of exposure to multiple forms of violence (Dennis, Key, Kirk, & Smith, 1995). Few studies have focused on the cumulative impact of different types of violence exposure (Malik, Sorenson, & Aneshensel, 1997; O'Keefe, 1997), and even fewer have addressed this issue in adult populations (see Green et al., 2000, for an exception). The lack of research in this area has resulted in a limited understanding of the outcomes associated with exposure to multiple forms violence. Examining community violence and partner violence individually, as well as in combination, will provide the necessary foundation for clarifying the impact of multiple exposures.

Community Violence

To date, the majority of research on community violence has focused on populations of children and adolescents, primarily those living in high-crime neighborhoods (Gladstein, Rusonis, & Heald, 1992; Mazza & Reynolds, 1999; Pynoos & Nader, 1990). Pioneers in this area, Martinez and Richters (1993) examined a sample of 6- to 10-year-old children exposed to community violence as victims or witnesses and found high rates of psychological

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distress manifested by depression, anxiety, and sleep problems. Similarly, other studies with children document heightened levels of emotional and behavioral problems associated with community violence (Cooley, Turner, & Beidel, 1995; Fitzpatrick, 1993). Studies conducted with adolescents also report high exposure rates (Rosenthal, 2000; Sanders-Phillips, 1997) and indicate that adolescents also suffer from psychological distress associated with exposure to community violence (Overstreet, 2000). This research suggests that community violence exposure may be experienced as a traumatic event and serves as a risk factor for problems in psychological functioning among youth.

The vulnerability of youth during critical developmental stages justifies the need for examination of community violence exposure in children and adolescents. However, adults also are victims and witnesses of community violence (Overstreet & Braun, 2000; Scarpa, 2003). The current paucity of literature on this age group creates a disparity in understanding the implications of community violence exposure in adults. Scarpa and colleagues (Scarpa, 2001; Scarpa et al., 2002; Scarpa, Fikretoglu, & Luscher, 2000) examined the impact of community violence in young adults, specifically college students. These studies consisted of predominantly White females whom the authors described as a sample at low risk for violence exposure. Scarpa (2001) found prevalence rates as high as 82% for victimization by community violence and 96% for witnessing community violence, findings consistent with those reported for some high-risk youth samples (e.g., Gladstein et al., 1992; Martinez & Richters, 1993). Further investigations are necessary to assess adult populations that are at higher risk for exposure (e.g., populations who are low income and urban) to better understand rates of exposure and whether the impact of community violence for adults is experienced as a traumatic experience.

Trauma symptoms in populations exposed to community violence. Trauma symptoms and diagnosable PTSD have been documented as responses to community violence. Garbarino and colleagues (Garbarino, Kostelny, & Dubrow, 1991) found that children from inner-city, violent communities experienced some of the same symptoms as children living in war-torn areas. These symptoms included sleep disturbances, startle reactions, hypervigilant behaviors, and feelings of vulnerability. Another study found that 29% of a sample of adolescents in a high-violence community exhibited clinical symptoms of PTSD (Berton & Stabb, 1996). These symptoms of stress may persist into adulthood (Wallen, 1993); however, little research has been conducted on adult exposure to community violence and trauma symptoms. The limited research on adults exposed to violence suggests that age does not nec-

essarily decrease the likelihood of developing PTSD in response to violence. Scarpa and colleagues (2002) reported increased PTSD symptoms in young adults with high levels of community violence exposure. This provides clear evidence that violence exposure and trauma symptoms are relevant issues in an adult sample. Further, research with adult samples living with community violence is needed to determine whether findings generalize to a broader population.

Partner Violence

In contrast to community violence, partner violence has been extensively studied in adult populations, specifically women. Unfortunately, the precise number of women battered each year by their partners is unknown because of the common misperception of partner violence as a private matter, the failure of victims to report abuse, and the fear that the judicial system may dismiss the abuse as inconsequential (Locke, 1999). Nonetheless, partner abuse is highly prevalent (American Medical Association, 1992). Similar to the research on community violence, partner violence is often experienced as a traumatic event and studies indicate that as a result of victimization from any of the forms of battering (e.g., physical, verbal, psychological), individuals become vulnerable to developing PTSD or trauma symptoms (Kemp & Green, 1995; Wyatt, Axelrod, Chin, Carmona, & Loeb, 2000).

Trauma symptoms in populations exposed to partner violence. Depression, anxiety, self-doubt, and confusion are common difficulties experienced by women who have been battered (Hague & Wilson, 2000; Sackett & Saunders, 1995). Saunders (1994) assessed women who had obtained help at domestic violence programs (DVP) and those who obtained help at other types of programs (NDVP). The majority of women, 60% of the women in the DVP group and 62% in the NDVP group, met the criteria for diagnosis of PTSD (Saunders, 1994). In another study, researchers found diagnosable PTSD in 55% of their sample recruited from a shelter and a counseling center for women who were battered using the PTSD Symptom Checklist (Astin, Lawrence, & Foy, 1993). Unfortunately, even higher rates of diagnosable PTSD and trauma symptoms have been found in women who were abused (Vogel & Marshall, 2001). For example, Kemp and Green (1995) reported that 81% of the women in their sample who were physically abused and almost 63% of women who were verbally abused met criteria for PTSD. PTSD symptoms such as a sense of foreshortened future, intrusive images of the trauma, and hypervigilance attenuate the women's perceptions of alternatives and magnify the hopelessness of the situations. Although research has

identified linkages between partner violence and trauma symptoms, a necessary step is to consider the impact of additional stressors that may also impair adaptive functioning.

Exposure to Multiple Forms of Violence

Considerable research documents that exposure to multiple stressors, or an accumulation of stress, is associated with increased maladjustment, relative to the adjustment problems associated with single or fewer exposures (Turner & Lloyd, 1995). For example, McCauley and colleagues (1997) found that women who had experienced multiple types of abuse (e.g., childhood sexual abuse, adult sexual abuse, physical abuse) reported more psychological and physical distress than women exposed to only a single type of abuse. Similarly, Follette and colleagues (Follette, Polusny, Bechtle, & Naugle, 1996) observed that trauma symptoms increased in a linear fashion according to how many types of abuse women had experienced. Green and colleagues (2000) found that college women with multiple exposures to interpersonal violence were at significantly higher risk for current symptom distress than women with fewer exposures. We are aware of only one study that has examined exposure to multiple forms of violence, including community and partner violence. Malik and colleagues (1997) found that being exposed to violence in one context appeared to have a carry-over effect to violence in another context. Specifically, exposure to family violence was related to exposure to community violence and dating violence. Additionally, community violence exposure was associated with perpetration of dating violence and community violence (Malik et al., 1997). Taken together, these studies suggest that cumulative exposure to violence is associated with increased risk for maladjustment, including psychological distress.

The purpose of the current study was to examine trauma symptoms in a sample of women from the inner city exposed to community and partner violence. Prior research has focused primarily on assessing exposure to one form of violence; however, the available literature indicates that exposure to violence tends to occur in more than one domain (Dennis et al., 1995; McGruder & Davidson, 2000). The current study extends prior work by examining the individual and joint effects of community and partner violence. Two competing hypotheses were tested to elucidate the nature of the combined effect of community and partner violence:

Hypothesis 1: An additive model in which exposure to community violence and exposure to partner violence would show independent main effects on trauma symptoms.

Hypothesis 2: A moderated model in which the negative effects of exposure to one type of violence would only manifest under conditions of risk—that is, high exposure to the other type of violence (e.g., high levels of community violence exposure exacerbates the trauma symptoms associated with high levels of partner violence exposure).

METHOD

Participants

Participants were recruited through referrals from social services, flyers, and postings. Flyers were displayed in public housing units in areas plagued with high levels of criminal offenses as indicated by the Metropolitan police reports (Metropolitan Police Department, 1999). Flyers were also displayed in domestic (partner) violence shelters and disseminated at the District of Columbia District Courts Domestic Violence Program. To determine eligibility for participation in the study, women were first screened for use of alcohol and drugs using the Simple Screening Instrument for Alcohol and Other Drugs (Winters & Zenilman, 1994). A score above three served as an exclusion criterion from the comparison group. Women also were ineligible for the study if (a) they had a history of major psychiatric illness or (b) severe brain injury.

The sample consisted of 90 African American women currently residing in the Washington, D.C., metropolitan area. These women served as a comparison group of nonalcoholics in a larger study (Alcohol Aggression and African American Women) on alcohol, aggression, and exposure to family, community, and partner violence. Participants' ages ranged from 18 to 65 years (M = 36.43, SD = 11.38). The majority of the sample was single (68.9%). The highest level of education attained was high school graduation for approximately one half of the sample (54.4%), and nearly two thirds had annual incomes less than US$15,000 (63.3%).

Measures

The Interview on Exposure to Interpersonal and Sexual Violence (Hill, 1991) is a 31-item self-report measure used to assess the frequency of witnessing interpersonal violence in the community and at home, in adulthood. For the purpose of the current study, only those questions pertaining to community violence were utilized. A time frame of occurrences in the past 3 years was imposed to determine violence that the participant (a) was aware of occurring in the community, (b) witnessed in the community, and (c) was a

victim of in the community. Participants indicated (yes or no) their experience with each form of violence (e.g., shooting, stabbing, physical assault) in the three categories. Reliability analysis of the measure for the current sample indicated a moderately high alpha coefficient of .67. A composite score was computed by summing the number of events experienced to indicate overall experience with community violence.

The Abusive Behavior Observation Checklist (ABOC; Dutton, 1992) is an assessment of physical, verbal, sexual, and psychological abuse. The ABOC appraises an individual's experience with abusive and controlling behaviors. For the purpose of the current study, only eight questions under the Physical Abuse subscale were utilized, and participants indicated their experience with abuse with their most recent partner. The eight questions, rated on a 4-point Likert-type scale (0 = 0, 1 = 1 to 3, 2 = 4 to 10, 3 = 11 to 49, 4 = above 49), correspond with the severe violence questions on the widely recognized and utilized Conflict Tactics Scale (CTS; Straus, 1979); the item "threw and smashed something" was excluded. Reliability analysis of the ABOC for the current sample indicated a high alpha coefficient of .93.

The Trauma Symptom Inventory (TSI; Briere, 1995) is a 100-item self-report questionnaire developed to assess posttraumatic stress symptoms and other psychological sequelae of traumatic events. Each symptom item is rated according to its frequency of occurrence over the past 6 months, using a 4-point Likert-type scale ranging from 0 (*never*) to 3 (*often*). The TSI contains three validity scales and 10 clinical scales, and scores can be aggregated into several symptom clusters. Internal consistency for the TSI clinical scales ranged from .74 to .91 (mean alpha = .86). A posttraumatic stress score was computed by summing the subscales for dysphoric mood (anxious arousal, depression, anger and/or irritability) and traumatic stress (intrusive experience, defensive avoidance, dissociation).

Procedure

Following the telephone screening, eligible participants participated in face-to-face interviews after written informed consent was obtained. A 2-hour interview session was conducted by a trained graduate research assistant at a community center near the participant's residence. Participants received monetary compensation for participating. Methods and measures for the current study were approved by the Howard University Institutional Review Board.

TABLE 1: Means, Standard Deviations, and Intercorrelations Among Study Variables

	Community Violence (n = *90)*	*Partner Violence* (n = *90)*	*Trauma Symptoms* (n = *88)*
Community violence		.32**	.43**
Partner violence			.56**
M (*SD*)	4.90 (3.08)	5.70 (6.47)	59.90 (27.20)

NOTE: Coefficients reflect partial correlations with age.
*$p < .05$. **$p < .01$.

RESULTS

Descriptive Statistics and Intercorrelations

Means, standard deviations, and interccorrelations of all variables are presented in Table 1. The cumulative index of community violence was generally normally distributed and indicated that the majority (93.3%) of the participants had experienced at least one form of community violence. Although awareness of violence was more common than witnessing violent incidents, 59% of women reported witnessing some form of violence in their neighborhoods. Two-thirds of the sample reported exposure to partner violence. The means for the individual subscales, which make up the trauma symptoms index ranged from 8.12 to 11.16. Trauma symptoms on these subscales as reported by the current sample were higher than rates reported by the normative sample (range 5.46 to 8.31) for the TSI. Intercorrelations revealed that community violence was significantly positively associated with partner violence ($r = .32$, $p < .01$), and significantly positively associated with trauma symptoms ($r = .43$, $p < .001$). Partner violence and trauma symptoms were also significantly positively correlated ($r = .56$, $p < .001$).

Because of participants' wide age range, additional analyses were performed to assess whether associations among the variables were partially because of participants' age. Concerns for age serving as a confounding variable were addressed through partial correlations between age and each of the other study variables that indicated that; relationships between violence exposure (community and partner violence) and trauma symptoms remained significant (all $p < .05$) and changed minimally after controlling for age.

TABLE 2: Hierarchical Regression of Violence Variables on Trauma Symptoms

Variable	b	SE b	β	ΔR^2
Step 1				
Partner violence	2.21	.381	.56**	.31**
Step 2				
Partner violence	1.85	.384	.47**	
Community violence	2.55	.874	.28*	.07*
Step 1				
Community violence	3.90	.942	.43**	.19**
Step 2				
Community violence	2.55	.874	.28*	
Partner Violence	1.85	.384	.47**	.19**

NOTE: $n = 88$ for regression analyses.
*$p < .01$. **$p < .001$.

Unique Association of Trauma Symptoms With Community Violence and Partner Violence

A series of hierarchical regressions was conducted to examine the unique contribution of each type of violence to trauma symptoms after controlling for the other type of violence. In addition, these analyses allowed for an assessment of the additive effects of each type of violence. To examine the unique association between community violence and trauma symptoms, community violence was regressed on trauma symptoms after partner violence had been entered into the regression equation. The reverse was done to evaluate whether partner violence made a unique contribution to trauma symptoms after controlling for community violence. Evidence of an additive model would be supported if community violence and partner violence were significant in the final regression. Results are presented in Table 2. As noted in Table 2 and the preceding correlations, partner violence accounted for a significant amount of variance in trauma symptoms ($R^2 = .31, p < .001$). After accounting for partner violence, community violence produced a significant increment in variance in trauma symptoms ($\Delta R^2 = .07, p < .01$). A similar pattern emerged in the regression examining the unique association between partner violence and trauma symptoms. Specifically, community violence accounted for a significant amount of variance in trauma symptoms ($R^2 = .19$, $p < .001$). After accounting for community violence, partner violence produced a significant increment in variance in trauma symptoms ($\Delta R^2 = .19, p <$ .001). When community violence and partner violence were in the regression, each remained significant, consistent with an additive model.

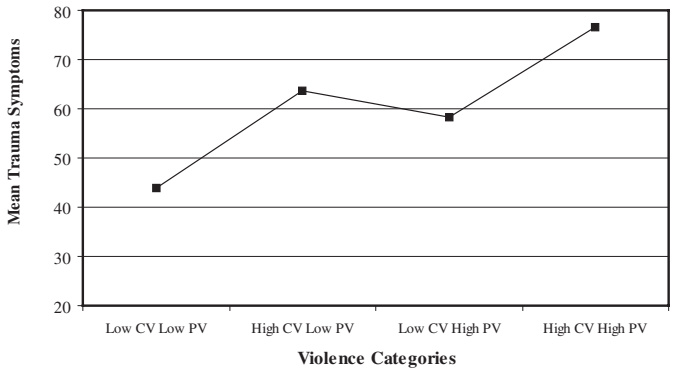

Figure 1: Mean Comparison of Trauma Symptoms by Violence Category
NOTE: CV = community violence; PV = partner violence

Testing the Multiplicative Association Between Community Violence and Partner Violence

To examine whether community violence and partner violence had a multiplicative effect on trauma symptoms, a hierarchical regression was conducted to examine the interaction between community and partner violence on trauma symptoms. The main effects of community violence and partner violence were entered on the first step, and the interaction term was entered on the second step. The main effects were centered prior to entry into the regression model and the interaction term was computed from these centered variables. The interaction between community violence and partner violence failed to produce a significant increment in variance after accounting for the main effects ($\Delta R^2 = .01, p > .05$); in the final model, only community violence and partner violence were significantly associated with trauma symptoms, consistent with the additive model presented in the previous analyses.

To further explicate the additive model, high and low categories of community violence (CV) and partner violence (PV) were created utilizing a median split on each variable. A new variable was created that categorized the participants into exclusive categories of violence exposure: (a) low community violence, low partner violence (n = 27); (b) low community violence, high partner violence (n = 27); (c) high community violence, low partner violence (n = 11); and (d) high community violence, high partner violence (n = 25).

A one-way ANOVA was conducted with trauma symptoms as the criterion and the categorized violence exposure variable as the independent variable, $F(3, 85) = 7.27, p < .001$. One planned comparison test was performed

to examine whether participants in the group high on community violence and high partner violence endorsed significantly more trauma symptoms compared to those in the other three groups (i.e., high exposure on only one of the violence variables or low exposure on both forms). Consistent with prediction, the mean level of trauma symptoms of participants who were high on both types of violence (M = 76.55) was significantly greater than the means for those participants with only high exposure on one type of violence or low exposure on both forms of violence (high community violence only M = 63.56; high partner violence only M = 58.18; low community violence and low partner violence M = 44.00; t = 2.25, $p < .05$). The means are graphically presented in Figure 1.

DISCUSSION

The current study examined associations between trauma symptoms and exposure to community and partner violence. Although prior research has suggested that multiple types of violence co-occur (Malik et al., 1997; McGruder & Davidson, 2000; O'Keefe, 1997), the combined impact of community and partner violence on trauma symptoms has not yet been empirically examined in adult women. In the current investigation, increased exposure to community violence or partner violence was related to increased reporting of trauma symptoms. Furthermore, evidence for an additive model was found; specifically, women who experienced elevated exposure to both forms of violence reported significantly more trauma symptoms than women experiencing only elevated exposure to one type of violence and women experiencing low exposure to both forms of violence. Awareness that accumulated violence exposure in different contexts may differentially affect women's symptoms of trauma, and potentially other psychological outcomes, has important implications for clinical practice and highlights the need to assess more than one domain of violence exposure.

Relationship Between Violence and Trauma Symptoms

Community violence. The majority of work examining the effects of community violence exposure has focused on children and adolescents characterized as inner city, minority, and of low socioeconomic status (Fitzpatrick, 1993; Martinez & Richters, 1993; Overstreet & Braun, 2000). The literature on adults exposed to community violence is significantly underdeveloped in comparison, with the exception of a few recent studies conducted with college-age students (Scarpa, 2001, 2003; Scarpa et al., 2002). Scarpa and

colleagues (2001, Scarpa et al., 2002) found that among White female college-age students, community violence victimization and witnessing were associated with heightened depression, aggression, PTSD symptomatology, and interpersonal problems. These negative correlates of community violence exposure also have been identified in younger samples of diverse ethnic backgrounds for males and females, and suggest that the deleterious effects of community violence exposure may supercede demographic differences such as race, gender, and age.

The current study is among the first to examine community violence in an African American and predominantly low-income adult community sample and, therefore, makes a significant contribution to the existing knowledge base of community violence exposure among adults. In addition, given the similarity in demographics in this sample and much of the existing literature conducted on youth, the results suggest that it may be appropriate to generalize across age groups with this pattern of demographic characteristics. Specifically, elevated trauma symptoms were associated with exposure to community violence. These findings are consistent with the literature conducted with children and adolescents who were low income and minority exposed to community violence (Breslau, David, Andreski, & Peterson, 1991; Giaconia et al., 1995) and suggest that an acute stress reaction to violence exposure (e.g., crying, tremors, withdrawal) can also be present as a consequence of exposure in adults. Moreover, in the current study, the association between community violence and trauma symptoms persisted even after accounting for partner violence, highlighting the strength of the association. Although similarity in the current findings and prior research with younger samples suggest generalizability across age groups, it is important to acknowledge differences in the manifestation of symptoms in children, adolescents, and adults.

Partner violence. Research on partner violence has been studied extensively in populations of women who have been victimized in the context of intimate relationships (Kemp & Green, 1991; Wyatt et al., 2000). Although previous studies often have utilized samples recruited from domestic violence programs, shelters and treatment centers (e.g., Austin, Lawrence, & Foy, 1993; Saunders, 1994), this study was conducted with a community sample and therefore may be more generalizable to other community samples. Consistent with prior research, the current findings suggest that physical abuse is often highly related to posttraumatic stress (Kemp & Green, 1991). For example, in a previous study of women who were battered, 81% of those who were physically abused met criteria for diagnosable PTSD (Kemp & Green, 1995). It has been proposed that African American female victims

of partner abuse are more likely to suffer from depression, stress, alcohol abuse, and decreased self-esteem (Huang & Gunn, 2001). In addition, many agree that low socioeconomic status also serves as a significant contributor to vulnerability to partner abuse (Dennis et al., 1995; Raj, Silverman, Wingood, & DiClemente, 1999; Wyatt et al., 2000). By focusing on African American women who were low income, the research base on exposure to partner violence as it relates to trauma symptoms was broadened. In addition, the finding that partner violence was significantly associated with trauma symptoms, even after controlling for community violence, highlights the salience and impact of this form of violence as distinct source of distress.

Multiple Exposures to Violence

In general, prior research suggests that multiple exposure to traumatic events is associated with increased symptoms of distress (O'Keefe, 1997), depressive symptomatology, and psychiatric disorders (Turner & Lloyd, 1995). The current research illustrates the appropriateness of addressing exposure to multiple forms of trauma from a cumulative stress perspective. The general trends found in other studies were demonstrated in the current research. Specifically, consistent with Follette and colleagues (1996), support for an additive model was found; women with high exposure to community and partner violence reported significantly more trauma symptoms than women with high exposure to only one form of violence. Although each type of violence was associated with trauma symptoms, the compounded impact of high exposure to both forms of violence significantly increased women's report of trauma symptoms. Women in the unfortunate position of living in communities plagued with violence coupled with being a victim of partner abuse are at increased risk of trauma symptoms that may impair their functioning. This highlights the need to assess how being exposed to violence in one context may have carry-over effects to victimization and possible perpetration in other violent contexts (Malik et al., 1997). Further research is necessary to validate whether an additive model is the most appropriate model to employ when addressing multiple exposures to violence, especially as it pertains to other forms of violence (e.g., family violence).

Clinical Implications

The mental health implications of heightened trauma symptoms cannot be understated. One of the most outstanding findings in the current research was the presence of trauma symptoms reported by this community-based sample, who generally were not receiving treatment for their symptomatology as

indicated by the participants' self-report during the assessment. Moreover, the women were not interviewed following any specific traumatic experience, which suggests the possibility of long-term experience with trauma symptoms. Because traumatic experiences and resulting trauma symptoms affect several aspects of psychosocial functioning, including depression, suicidal ideation (Turner & Lloyd, 1995), self-esteem (Anguilar & Nightingale, 1994), and social interactions (Green et al., 2000), understanding the implications of trauma symptoms is relevant for conceptualizing how women exposed to violence manage as mothers, wives, and employees. In addition, the current findings suggest the need for prevention and intervention programs that address multiple sources of violence, especially for women who are poor and in urban settings.

Limitations

The results from the current study must be considered in the context of its limitations. Although associations between violence and trauma symptoms were observed, the cross-sectional design of the study limits the ability to infer causality. Prospective studies are, therefore, necessary. In terms of design, recruitment of women from domestic violence programs and domestic violence shelters proved to be a significant challenge. Previously, authors have found that women who sought help in agencies reported experience with more severe forms of violence (Astin et al., 1993; Kemp & Green, 1991). Experiencing the most intense forms of violence likely affects a woman's willingness to participate in projects that may force her to reexperience past trauma. However, many of the women recruited from high-crime neighborhoods reported being victims of partner violence. Regarding measurement, the current study did not use exact overlapping time frames for exposure to community and partner violence, and the assessment of violence exposure did not follow a particular traumatic event. Nonetheless, the association between participants' reported exposure to community and partner violence, and the presence of traumatic symptoms suggest that short- and long-term effects of violence are relevant issues.

Future Research

The results of the current study provide several directions for future research. This research focused on a community-based sample of women living in an urban environment. Additional research is needed to determine the degree to which these findings generalize to other populations, especially those of different demographic backgrounds. Future research should include

individuals exposed to a wider range of violence to assess the association between other forms of violence and trauma symptoms. In addition, future studies should include time frames for each exposure to violence and experiences with trauma symptoms. For example, the time span between the violent event and assessment of trauma may have implications for the strength of association between violence exposure and distress. Results from the current study emphasize that women have multiple exposures to violence and highlight the need for additional studies addressing multiple exposures to violence, including research on women treated in shelters, and those who unfortunately never receive treatment.

REFERENCES

American Medical Association. (1992). *Diagnostic and treatment guidelines on domestic violence* (Pamphlet No. AA 22-92-406 20M). Chicago: Author.

Anguilar, R., & Nightingale, N. (1994). The impact of specific battering experiences on self-esteem of abused women. *Journal of Family Violence*, *9*, 35-45.

Astin, M., Lawrence, K., & Foy, D. (1993). Posttraumatic stress disorder among battered women: Risk and resiliency factors. *Violence and Victims*, *8*, 17-28.

Berton, M., & Stabb, S. (1996). Exposure to violence and post-traumatic stress disorder in urban adolescents. *Adolescence*, *31*, 489-498.

Breslau, N., David, G., Andreski, P., & Peterson, E. (1991). Traumatic events and posttraumatic stress disorder in an urban population of young adults. *Archives of General Psychiatry*, *48*, 216-222.

Briere, J. (1995). *Trauma Symptom Inventory professional manual*. Odessa, FL: Psychological Assessment Resources.

Cooley, M., Turner, S., & Beidel, D. (1995). The emotional impact of children's exposure to community violence: A preliminary study. *Journal of the American Academy of Child and Adolescent Psychiatry*, *34*, 1362-1368.

Dennis, R., Key, L., Kirk, A., & Smith, A. (1995). Addressing domestic violence in the African American community. *Journal of Health Care for the Poor and Underserved*, *6*, 284-293.

Dutton, M. A. (1992). *Empowering and healing the battered woman*. New York: Springer.

Farrell, F., & Bruce, S. (1997). Impact of exposure to community violence on violent behavior and emotional distress among urban adolescents. *Journal of Clinical Child Psychology*, *26*, 2-14.

Fitzpatrick, K. M. (1993). Exposure to violence and presence of depression among low-income African American youth. *Journal of Consulting and Clinical Psychology*, *61*, 528-531.

Follette, V., Polusny, M., Bechtle, A., & Naugle, A. (1996). Cumulative trauma: The impact of child sexual abuse, adult sexual assault, and spouse abuse. *Journal of Traumatic Stress*, *9*, 25-35.

Garbarino, J., Kostelny, K., & Dubrow, N. (1991). What children can tell us about living in danger. *American Psychologist*, *46*, 376-383.

Giaconia, R., Reinherz, H., Silverman, A., Pakiz, B., Frost, A., & Cohen, E. (1995). Trauma and posttraumatic stress disorder in a community population of older adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, *34*, 1369-1380.

Gladstein, J., Rusonis, S., & Heald, F. (1992). A comparison of inner-city and upper-middle class youths' exposure to violence. *Journal of Adolescent Health*, *13*, 275-280.

Green, B., Goodman, L., Krupnick, J., Corcoran, C., Petty, R., Stockton, P., et al. (2000). Outcomes of single versus multiple trauma exposure in a screening sample. *Journal of Traumatic Stress*, *13*, 271-286.

Hague, G., & Wilson, C. (2000). The silenced pain: Domestic violence 1945-1970. *Family Violence*, *9*, 157-170.

Hill, H. (1991). *Interview on exposure to interpersonal and sexual violence*. Unpublished manuscript, Howard University. Washington, DC.

Hill, H., & Madhere, S. (1996). Exposure to community violence and African American children: A multidimensional model of risks and resources. *Developmental Psychology*, *24*, 26-43.

Huang, C., & Gunn, T. (2001). An examination of domestic violence in an African American community in North Carolina: Causes and consequences. *Journal of Black Studies*, *31*, 790-811.

Kemp, A., & Green, B. (1991). Posttraumatic stress disorder (PTSD) in battered women: A shelter sample. *Journal of Traumatic Stress*, *4*, 137-147.

Kemp, A., & Green, B. (1995). Incidence and correlates of posttraumatic stress disorder in battered women. *Journal of Interpersonal Violence*, *10*, 43-56.

Locke, L. (1999). Attitudes toward domestic violence: Race and gender issues. *Sex Roles: A Journal of Research*, *5*, 645-661.

Malik, S., Sorenson, S., & Aneshensel, C. (1997). Community and dating violence among adolescents: Perpetration and victimization. *Journal of Adolescent Health*, *21*, 291-302.

Martinez, P., & Richters, J. (1993). The NIMH Community Violence Project: II. Children's distress symptoms associated with violence exposure. *Psychiatry*, *56*, 22-35.

Mazza, J., & Reynolds, W. (1999). Exposure to violence in young inner-city adolescents: Relationships with suicidal ideation, depression, and PTSD symptomatology. *Journal of Abnormal Child Psychology*, *27*, 203-214.

McCauley, J., Kern, D., Kolodner, K., Dill, L., Schroeder, A., DeChant, H., et al. (1997). Clinical characteristics of women with a history of childhood abuse: Unhealed wounds. *Journal of the American Medical Association*, *277*, 1362-1368.

McGruder, A., & Davidson, E. (2000). Interpersonal violence and posttraumatic symptomatology. *Journal of Interpersonal Violence*, *15*, 205-222.

Metropolitan Police Department. (1999). *Office of Evaluation and Planning city-wide crime reports*. Washington, DC: Author.

O'Keefe, M. (1997). Adolescents' exposure to community and school violence: Prevalence and behavioral correlates. *Journal of Adolescent Health*, *20*, 368-376.

Overstreet, S. (2000). Exposure to community violence: Defining the problem and understanding the consequences. *Journal of Child and Family Studies*, *9*, 7-25.

Overstreet, S., & Braun, S. (2000). Exposure to community violence and post-traumatic stress symptoms: Mediating factors. *American Journal of Orthopsychiatry*, *70*, 263-272.

Pynoos, R., & Nader, K. (1990). Children's exposure to violence and traumatic death. *Psychiatric Annals*, *20*, 334-344.

Raj, A., Silverman, J., Wingood, G., & DiClemente, R. (1999). Prevalence and correlates of relationship abuse among a community-based sample of low-income African American women. *Violence Against Women*, *5*, 272-291.

Rosenthal, B. (2000). Exposure to community violence in adolescence: Trauma symptoms. *Adolescence*, *35*, 272-284.

Sackett, L., & Saunders, D. (1995). The impact of different forms of psychological abuse on battered women. *Violence and Victims*, *14*, 105-117.

Saunders, D. (1994). Posttraumatic stress symptom profiles of battered women: A comparison of survivors in two settings. *Violence and Victims*, *9*, 31-44.
Sanders-Phillips, K. (1997). Assaultive violence in the community. *Journal of Adolescent Health*, *21*, 356-365.
Scarpa, A. (2001). Community violence exposure in a young adult sample: Lifetime prevalence and socioemotional effects. *Journal of Interpersonal Violence*, *16*, 36-53.
Scarpa, A. (2003). Community violence exposure in young adults. *Trauma, Violence, & Abuse*, *4*, 210-227.
Scarpa, A., Fikretoglu, D., Bowser, F., Hurley, J., Pappert, C., et al. (2002). Community violence exposure in university sample. *Journal of Interpersonal Violence*, *17*, 253-272.
Scarpa, A., Fikretoglu, D., & Luscher, K. (2000). Community violence exposure in a young adult sample: II. Psychophysiology and aggressive behavior. *Journal of Community Psychology*, *28*, 417-425.
Stein, M., & Kennedy, C. (2001). Major depressive and post-traumatic stress disorder comorbidity in female victims of intimate partner violence. *Journal of Affective Disorders*, *66*, 133-138.
Straus, M. (1979). Measuring intrafamily conflict and violence: The Conflict Tactics (CT) Scales. *Journal of Marriage and the Family*, *41*, 75-88.
Turner, R., & Lloyd, D. (1995). Lifetime traumas and mental health: The significant of cumulative adversity. *Journal of Health and Social Behavior, 36*, 360-376.
Vogel, L., & Marshall, L. (2001). PTSD symptoms and partner abuse: Low income women at risk. *Journal of Traumatic Stress*, *14*, 569-584.
Wallen, J. (1993). Protecting the mental health of children in dangerous neighborhoods. *Children Today*, *22*, 24-27.
Winter, K., & Zenilman, J. (1994). *Simple screening instrument for outreach for alcohol and other drug abuse and infectious diseases* (No. 9-18). Maryland Department of Health and Human Services.
Wyatt, G., Axelrod, J., Chin, D., Carmona, J., & Loeb, B. (2000). Examining patterns of vulnerability to domestic violence among African American women. *Violence Against Women*, *6*, 495-514.

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