The Relationship between Mothers' Community Violence Exposure and Depression

Community violence exposure (CVE) is defined as the intentional threat or use of force to physically harm, injure, or kill another person or persons that occurs in the environment but outside the home (Aisenberg, Ayón, & Orozco-Figueroa, 2008). CVE is often divided into victimization, witnessing, and hearing about violence in one's community (Fowler, Tompsett, Braciszewski, Jacques-Tiura, & Baltes, 2009). It is a prevalent problem with detrimental impacts for those who are exposed. Research has explored the impacts of CVE, focusing primarily on children. Evidence suggests that CVE can impact children directly (e.g., Buka, Stichick, Birdthistle, & Earls, 2001; Gorman-Smith & Tolan, 2003; Lynch, 2003), as well as indirectly through the family (e.g., Linares et al., 2001; O'Neil et al., 2001; Spano et al., 2009). For instance, mothers exposed to CV may be more likely to experience depression (Linares et al., 2001). In turn, maternal depression is associated with negative child outcomes (e.g., Beck, 1999; Knitzer, Theberge, & Johnson, 2008) and may also exacerbate the negative impact of neighborhood violence on children (Boyd et al., 2008). However, little research carefully examines the relationship between mothers' CVE and depression. Using two waves of data from the Fragile Families and Child Wellbeing Study, this study examines whether depression at time two is predicted by previous (time one only), recent (time two only), or chronic (times one and two) exposure among mothers who were not depressed at time one. For a more clear understanding of the relationship, only witnessing CVE will be used. Developing a better understanding of mothers' CVE and depression will aid in the development of more refined models concerning the impact of CVE on mothers and their children.

Community Violence Exposure and Depression among Women

Though a substantial and growing body of literature exists pertaining to the impact of CVE among children and adolescents, little research has examined the impact of CVE on older age groups. Among the extant research, findings are mixed. The literature particularly suffers from small sample size, lack of representative samples, and a greater need for specificity of the type and occurrence of CVE.

Linares et al. (2001) examined the impact of CVE on three to six year-old children's internalizing and externalizing behavior problems and whether this relationship was mediated by maternal distress. The sample consisted of 160 mother-child dyads. Participants were primarily low- to moderate-socioeconomic status, of African descent (72%), and lived in high-crime urban areas. CVE was assessed using mothers' perceptions of the frequency of violent crimes in their neighborhoods in the previous year, a measure of social disorder and mothers' reported fear of crime. Maternal distress was assessed using the depression and anxiety subscales of the Brief Symptom Inventory (Derogatis & Melisaratos, 1983). Using structural equation modeling, CVE was found to be significantly and positively associated with maternal distress, which in turn impacted children's behavior problems.

Aisenberg et al. (2001) explored the effects of CVE upon Latina mothers and their preschool children. The sample consisted of 31 mother-child dyads recruited from Head Start. CVE was assessed using the 58-item Self-Assessment of Exposure to Community Violence (Aisenberg,1998). A high proportion of the sample had been exposed to community violence during their lifetime (77%) and over the past year (36%). Results indicated that mothers' CVE did not correlate with their depression scores. However, this study had a small sample size and

may not have had adequate power to detect a relationship between mothers' CVE and depression.

Brown, Hill, and Lambert (2005) sought to determine the relationship between traumatic stress symptoms and women's exposure to community and intimate partner violence. The sample consisted of 90 low-income African American women residing in an urban community. Community violence was assessed using witnessing, hearing about, and victimization during the past three years. Traumatic stress was assessed using the dysphoric mood and traumatic stress subscales of the Trauma Symptom Inventory (Briere, 1995). Most (93%) had experienced at least one form of CVE, with 59% reporting witnessing violence. Significant relationships existed between CVE and trauma symptoms. Hierarchical regression analyses indicated that CVE accounted for a significant proportion of variance in trauma symptoms, even after accounting for partner violence. Though this study assessed traumatic symptoms, rather than depression, traumatic symptoms scores were derived in part from dysphoric mood scores.

Clark et al. (2008) examined the mental health impacts of witnessing community violence for urban women. The researchers analyzed data from a longitudinal cohort of 386 mother-child dyads. The sample was primarily Latina and non-Hispanic White. Results indicated that 66% of participants had witnessed violence (i.e., saw someone kicked, stabbed, or punched; heard gunshots; saw someone attacked with a knife; saw someone shot) at least once in their lives. Nineteen percent witnessed violence within the past year. Adjusting for intimate partner violence and demographic characteristics, logistic regression analyses indicated that witnessing community violence was associated with increased odds of experiencing high levels of depressive symptoms compared to no exposure to violence in the full sample. When the sample was stratified by race (non-Hispanic White and Latina), CVE was only associated with higher odds of depression for white women. Witnessing violence in locations other than one's community (compared to no exposure to violence) was not associated with higher odds of depression in the full sample; however, when stratified by race, violence exposure in other areas was associated with increased odds of depression for Latina women only. This is one of the only studies to attempt to parse out the relationship between CVE and depression. A strength of this study is that it focused on the impact of one type of violence – witnessing. Limitations of this study were a cross-sectional design, small sample size, and a non-representative sample.

Theoretical Orientation

The present study is conceptualized using the Stress and Coping Theory (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). Stress and Coping Theory focuses on individual differences in people's responses to a variety of demands or stressors that they encounter in life. The model emphasizes relationships between persons and their environments, instead of focusing on the person or environment in isolation. Within the theoretical model, stress is defined as "a relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and as endangering his or her well-being" (Folkman, 1984, p. 840). The person makes evaluations of the meaning of an event in the context of a specific environment and circumstances, as well as the adequacy of their resources to cope. Following from this, we hypothesize that those who are exposed to CVE will be more likely to experience depression, and those who have undergone repeated exposure to community violence will be more likely to experience depression than those experiencing it over shorter periods. Repeated exposure may exacerbate one's negative appraisal of the situation (i.e., the negative

event is likely to continue) and diminish one's psychological resources for coping over time, producing greater distress.

Purpose

The present study contributes to the literature by studying the association between the change in witnessing CVE and the change in depression over time using a large, representative sample. We hypothesize that those who are exposed to CVE will be more likely to experience depression and the more time points exposed, the stronger the depressive response. Further elucidation of this relationship is necessary for a more accurate and nuanced understanding of the ways in which women and their children are impacted by CVE.

Methods

The proposed study will be a secondary analysis of data from the Fragile Families and Child Wellbeing Study. A three-stage sampling process was used to obtain a nationally representative longitudinal study of nonmarital births in 20 large US cities. Approximately 4,700 mothers were included in the study; 3,600 unmarried and 1,000 married. This study includes only the mothers who were unmarried at the time of data collection. City weights that make the data representative of nonmarital births in the sampled cities. Additional waves of data were collected at one, three, five, and nine years after baseline assessment. Details of the original research methodology and sampling procedures are provided by Reichman, Teitler, Garfinkel, and McLanahan (2001). Data for the present study will be drawn primarily from waves four and five, when the children were five and nine years of age, respectively. To get a more clear depiction of change in depression status associated with CVE, only women who were not depressed at wave four will be included in the sample.

Measures

Independent variable: CVE. Maternal community violence exposure will be assessed using a subset of items from the "My Exposure To Violence" questionnaire (Buka, Selner-Ohagan, Kindlon, & Earls, 1996, see Selner-Ohagan, et al., 1998). Respondents were asked questions pertaining to violence they witnessed carried out by people other than their family and friends, no matter who the victim might have been, excluding violence in TV or in movies. The questions included, "In the past year, about how many times did you see someone else get hit, slapped, punched, or beaten up by someone?;" "In the past year, about how many times did you see someone else get attacked by someone with a weapon like a knife or bat?;" and "In the past year, about how many times did you see someone else get shot at by someone?" response options included 0=never, 1=once, 2=two to three, 8=four to ten, 10=more than ten. CVE scores from waves four and five will be dichotomized into exposed and not exposed and will then be used to construct four categories: never exposed, exposed at time one only, exposed at time two only, and exposed at both times.

Dependent Variable: Maternal depression. Maternal depressive symptoms in the sample will be assessed using the Major Depression Episode (MDE) subscale of the Composite International Diagnostic Interview – Short Form (CIDI-SF; Kessler et al., 1998). The wave four assessment will be used. The measure was constructed based on criteria for Major Depression found in the Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition (DSM-IV; APA, 1994). Reliability and validity of the instrument have been previously established (Kessler & Walters, 1998).

The CIDI-SF uses a subset of questions to determine the probability that the respondent would be diagnosed with depression if given the full interview. Respondents are asked whether they experienced two weeks of either depression or the inability to enjoy pleasurable things during the past year. If the respondents responded affirmatively and indicated that symptoms occurred almost every day and lasted for at least half of the day, they were asked additional questions concerning loss of interest, tiredness, change in weight, trouble sleeping, trouble concentrating, feeling worthless, and thoughts about death (Kessler et al., 1998). For the purposes of this study, a categorical variable indicating whether or not the participant met the criteria for depression will be used.

Analyses

Binary logistic regression will be used to assess whether increased odds of depression are associated with previous (time one only), recent (time two only), or chronic (times one and two) exposure among mothers who were not depressed at time one. Analyses will control for race, maternal education, income-to-poverty ratio, and other relevant variables such as change in relationship with romantic partner and residential stability.

Preliminary Results

For preliminary analysis, 1,995 participants are included in the analytic sample. Among the sample, 41% are not exposed at either time, 24% are exposed at time one only, 10% are exposed at time two only, and 25% are exposed at both times. Twelve percent are White, non-Hispanic; 55% are Black, non-Hispanic, 31% are Hispanic, and 2% are classified as other race. Twenty-seven percent of the sample has less than a high school education, 27% has a high school education or equivalent, 38% has some college or technical training, and 7% has a college or graduate degree. The mean poverty-to-income ratio is 1.40 (SD=10.92); a poverty income ratio below 1 indicates income below the Federal Poverty Level.

Preliminary analyses were run controlling for race, maternal education, and income-to-poverty ratio using SAS 9.3. Fisher's scoring method, the default method in SAS, was used as the iterative method of estimating the regression parameters. The dependent variable, maternal depression at time two, was coded as 1 = diagnosed as depressed and 0 = not diagnosed as depressed. The model was run to represent 1s, rather than 0s. As shown in Table 1, preliminary analysis indicate that those who are exposed at time one only and those who are exposed at both times are more likely to experience depression. The overall model is significant at the .001 level according to the model χ^2. Final analysis will account for missing data using multiple imputation and will add other relevant variables to the model.

Table 1

Logistic Regression Analysis for Variables Predicting Mother's Depression at Time Two (N = 1,995)

Predictor	*B*	*SE B*	e^B	Wald
Intercept	-1.57**	0.54	–	8.50
Exposed Time One Only	1.03***	0.32	1.73	10.23
Exposed Time Two Only	0.70	0.32	0.82	1.35
Exposed Both Times	0.73*	0.36	1.23	4.13
Black	-0.46	0.48	-0.99	0.89
Hispanic	-0.70	0.49	-1.40	2.02
Other Race	0.48	0.91	0.60	0.28
High School	-0.98**	0.38	-1.91	6.75
Some College or Technical Training	-0.52	0.31	-1.09	2.80
College or Graduate School	-2.25***	0.57	-2.48	15.50
Income-to-Poverty Ratio	0.01	0.12	0.09	0.14
χ^2		5198.36		
Df		10		
% experiencing depression by Time 2		13.4		

Note: e^B = exponentiated *B*. Depression diagnosis is 1 for *yes* and 0 for *no*. In results, 1s are modeled, rather than 0s. Reference categories included never exposed to violence, White race, and less than highschool degree.

*$p < .05$. **$p < .01$. ***$p < .001$.

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