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## How does Violence Exposure Affect the Psychological Health and Parenting of Young African American Mothers?

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### Abstract

Urban, minority, adolescent mothers are particularly vulnerable to violence exposure, which may increase their children's developmental risk through maternal depression and negative parenting. The current study tests a conceptual model of the effects of community and contextual violence exposure on the mental health and parenting of young, African American mothers living in Washington DC. A path analysis revealed significant direct effects of witnessed and experienced violence on mothers' depressive symptoms and general aggression. Experiences of discrimination were also associated with increased depressive symptoms. Moreover, there were significant indirect effects of mothers' violence exposure on disciplinary practices through depression and aggression. These findings highlight the range of violence young African American mothers are exposed to and how these experiences affect their mental health, particularly depressive symptoms, and thus disciplinary practices.

### Keywords

adolescent parenting; community violence; ethnic discrimination; depression; aggression; discipline; mothers; African-American; USA

## INTRODUCTION

Exposure to community violence has been consistently associated with emotional distress and antisocial behavior among urban youths (Buka, Stichich, Birdthistle, & Earls, 2001; Howard, Feigelman, Li, Cross, & Rachuba, 2002; Osofsky, 1999; Scarpa, 2003). Adolescent mothers living in low-income, urban neighborhoods are particularly vulnerable to community and interpersonal violence. These young mothers tend to be poor and disproportionately African American or Latina (Ventura, Abma, Mosher, & Henshaw, 2008), which mirrors the profiles of youth for whom violence exposure is most frequent and prevalent (Kennedy, 2006; Margolin

& Gordis, 2000; Martinez & Richters, 1993; Scarpa, 2003) and of women who report the highest rates of childhood maltreatment (Browne & Bassuk, 1997; Herrenkohl, Herrenkohl, Egolf, & Russo, 1998) and/or victimization by intimate partners (Covington, Justason, & Wright, 2001; Kenney, Reinholtz, & Angelini, 1997). Indeed, a large portion of girls who become adolescent mothers are victims of physical violence at some point in their lives (Leiderman & Almo, 2001). Because of the potential for transmitting the negative sequelae of violence to their children, who are already at heightened risk for poor developmental outcomes (Borkowski et al., 2007; Coley & Chase-Lansdale, 1998; Koverola et al., 2005; Morrel, Dubowitz, Kerr, & Black, 2003; Pogarsky, Thornberry, & Lizotte, 2006; Thompson, 2007), it is particularly important to consider the psychological and behavioral consequences of violence exposure for adolescents who are also mothers.

### **The Problem of Violence for Urban, African American Youth**

There is increasing evidence that urban, low-income, African American communities face multiple adverse circumstances including high levels of violence (Cohen et al., 1982; Sanders-Phillips, 1996). Violence victimization and perpetration is notably higher for minority youth compared to their European-American peers (Surgeon General, 2000). In a national probability sample of 4,023 adolescents age 12 to 17 years, African Americans and Latinos reported significantly higher rates of witnessing violence at each income level relative to their European American counterparts (Crouch, Hanson, Saunders, Kilpatrick, & Resnick, 2000). School violence (robberies and assaults in high schools), aggravated assaults, and the use of illegal drugs, which is associated with high rates of violence, are also higher in low-income communities of color (Bell, 1987; Freeman, Macros, & Poznanski, 1993; Noguera, 2000; Sheley, McGee, & Wright, 1992). In short, low-income adolescents of color are likely to experience violence as a consistent feature of their daily lives (Bell, 1987; Dubrow & Garbarino, 1989; Freeman et al., 1993; Lorion & Salzam, 1993; Pynoos & Eth, 1984).

There is substantial evidence suggesting that among urban, African American youth, exposure to community violence is related to increased aggressive behavior and psychological distress. Interestingly, despite the overall higher rate of community violence exposure among males, adolescent girls seem even more likely than boys to experience psychological distress (e.g., posttraumatic stress, anxiety, depression) as a result of violence exposure (Buka et al., 2001; Cooley-Quille, Boyd, Frantz, & Walsh, 2001; Foster, Kupermine, & Price, 2004).

When comparing groups of high school students from a parochial school in a high-crime, inner city neighborhood, Cooley-Quille and colleagues (2001) found that adolescents who experienced relatively high violence exposure endorsed more fears, had higher trait anxiety, and reported more internalizing problems than those who experienced low violence exposure. This pattern was attributed to the difference in girls' internalizing problems between violence-exposure groups, whereas no significant differences emerged in boys' distress related to violence exposure. Ruchkin and colleagues (2007) examined the potential link between violence exposure and mental health in a sample of inner-city students during the transition from middle to high school. They found that post-traumatic stress symptoms mediated the association between both witnessed and directly experienced community violence and youths' subsequent distress (e.g., depression, anxiety). Also, the association between earlier post-traumatic stress and later depression was stronger for girls than boys, for whom post-traumatic stress was more likely to predict aggression (Ruchkin et al., 2007). Contrary to these findings of gender differences in adolescents, in a study of elementary school-age children living in violent neighborhoods, Guerra and colleagues (2003) reported that, although boys' were consistently rated higher on aggression, the associations between violence exposure, aggressive cognitions, and behavior were similar for girls and boys. Witnessing community

violence contributed to stronger beliefs that aggression is normative, which in turn predicted youths' aggressive behavior (Guerra, Huesmann, & Spindler, 2003).

### **Violence Exposure in Young Mothers**

Despite consistent findings on the relationship between violence exposure and psychological distress in adolescent girls, little research examines these associations among adolescent mothers, an especially vulnerable group (Kennedy, 2006). There is evidence that violence exposure, particularly interpersonal violence, may be remarkably common in young pregnant women (Gazmararian et al., 1995; Gessner & Perham-Hester, 1998; Parker, McFarlane, Soeken, Torres, & Campbell, 1993). Although results are influenced by the method of assessment, between 5 and 38% of all pregnant adolescents experience interpersonal violence either during pregnancy or the year afterwards (Berenson, San Miguel, & Wilkinson, 1992; Covington, Justason, & Wright, 2001; Curry, Perrin, & Wall, 1998; Harrykissoon, Rickert, & Wiemann, 2002; McFarlane, Parker, Soeken, & Bullock, 1992; Renker, 1999). In one study of women four months postpartum, those who gave birth when younger than 18 years old were two to three times more likely to report episodes of interpersonal violence than older mothers (Gessner & Perham-Hester, 1998). Similarly, a study conducted among African American, Latino, and White mothers 12 to 18 years of age at the time of delivery revealed that one in eight had been physically assaulted by the father of her baby during the preceding year, and 40% of these also experienced violence from a family member or other relative (Wiemann, Agurcia, Berenson, Volk, & Rickert, 2000). Other studies have described samples of minority adolescent mothers in which reports of physical and/or sexual abuse histories range from 29% (Quinlivan & Evans, 2001) to 33% (Stevens-Simon & Reichert, 1994) and even 44% (Esparza & Desperat, 1996). One study, addressing the effects of cumulative "victimization experiences" among comparatively high-risk mothers of young children, found that 55.6% had experienced some form of victimization either as children/adolescents (13.8%), adults (15.5%), or both (26.3%; Dubowitz et al., 2001). From the few existing studies on violence exposure that include young mothers, it seems that their violence exposure rates are high and comparable to rates among low-income, urban youth generally (Horowitz, Weine, & Jekel, 1995; Lipschitz, Rasmusson, Anyan, Cromwell, & Southwick, 2000).

Despite the disconcerting rates of violence exposure experienced by adolescent mothers, there are no known studies focused exclusively on the sequelae of violence within this group. Such research seems especially important given the consistent association found between violence exposure and psychological distress (Buka et al., 2001; Cooley-Quille et al., 2001; Foster et al., 2004; Guerra et al., 2003; Ruchkin et al., 2007), including depression and aggression, which have been linked to harsh parenting in adolescent mothers (Dukewich, Borkowski, & Whitman, 1996; Johnson & Flake, 2007; Marchand & Hock, 1998; Rhule, McMahon, & Spieker, 2004). The theory of intergenerational transmission of trauma purports that parents with a history of trauma "pass on" the negative emotional and behavioral sequelae either through children's direct exposure to parental distress or through parents' detached, harsh or even abusive behavior towards the child (Schwerdtfeger & Nelson Goff, 2007). Thus, violence exposure may have significant consequences not only for adolescent mothers, but also for their children. In light of potential implications for multiple generations, this paper aims to address gaps in the literature by empirically testing processes by which violence exposure may affect young, African American mothers' psychological health and parenting behavior.

### **A Conceptual Model of Maternal Violence Exposure**

Drawing on the body of research summarized above, we developed and tested the maternal component of our conceptual model that includes direct and indirect effects of multiple levels of violence exposure on the psychological health and parenting behavior of young, African American mothers (Figure 1). Based on the theory of intergenerational transmission of trauma,

we hypothesized indirect associations between young mothers' violence exposure and their parenting behavior, explained in part by their psychological health. In particular, we expected positive associations among young mothers' violence exposure, general aggression, symptoms of depression and harsh disciplinary practices (Morrel et al., 2003;Thompson, 2007), and negative associations with the quality of stimulation provided to their children at home (Taylor, Roberts, & Jacobson, 1997). This conceptual model includes both directly experienced and witnessed episodes of community violence, which have been shown to uniquely affect adolescent girls' distress and aggressive behavior (Guerra et al., 2003;Howard et al., 2002).

**An expanded conceptualization of violence exposure**—Our model also incorporates an additional, and largely unexplored chronic environmental stressor – ethnic discrimination, which can be considered “contextual violence” as it occurs on many different levels (i.e., institutional, interpersonal; Jones, 2000). Racism and ethnic discrimination remain an intractable and inescapable fact of life for ethnic minorities in the U.S. (Franklin & Boyd-Franklin, 2000; Utsey, Ponterotto, & Reynolds, 2000; Williams & Williams-Morris, 2000). The study of relationships between exposure to discrimination and health is a relatively new field of investigation (Clark, Anderson, Clark, & Williams, 1999; Krieger, 2003; Williams, Neighbors, & Jackson, 2003). Yet, as a potentially chronic, albeit low-level source of social stress, experiences of ethnic discrimination may negatively influence young, African American mothers' psychological health (Brody et al., 2006; Simons et al., 2004; Williams et al., 2003; Williams & Williams-Morris, 2000) and parenting (Brody et al., 2008). For example, Brody and colleagues (2008) found that African American mothers' reports of discrimination were associated with subsequent increases in depressive symptoms, which in turn predicted decreases in competence-promoting parenting. These findings lend support to the Racial Inequality and Social Integration Model (Messner & Golden, 1992; Peterson & Krivo, 1993), which asserts that community violence and ethnic discrimination contribute to minority youths' perceptions of social inequality and, subsequently, their psychological distress (e.g., depression) and increased risk behavior (e.g., aggression).

Consistent with an ecological approach (Cicchetti & Lynch, 1993), we assert that ethnic discrimination is a distal contextual force that affects the lives of young African-American mothers and imposes another important source of violence in their daily lives (Sanders-Phillips, 2009). We do not intend to imply that a dramatic and life-threatening experience of physical violence is qualitatively or quantitatively equivalent to the daily experiences related to secondary social status. Rather, as suggested by the conceptual model above, we aim to better understand how this broader continuum of factors relevant to violence exposure influences the psychological functioning and parenting of young, African-American mothers.

In sum, our model guides the following research question: how does violence exposure, on multiple levels, directly affect young, urban, African American mothers' psychological health and thus indirectly affect their parenting? Our investigation of this model builds on previous research by focusing on a vulnerable population of urban, minority, adolescent mothers and by considering the effects of multiple forms of violence exposure.

## METHODS

We tested our conceptual model using data collected between March 2005 and August 2007 as part of a cross-sectional investigation of violence exposure among African American mothers living in Washington, DC. The mothers were adolescents when their children were born, and their children were preschool-age at the time of data collection.

## Participants

Eligibility criteria for participation in the study included: mother is 18-24 years old, self-identifies as African American and non-immigrant, and has legal and physical custody of child; child is 3-5 years old and is free of serious, chronic health problems. Participants were recruited from 42 community-based programs serving a general population of mothers and children. It was necessary to screen a large number of women ( $n \approx 3,850$ ) to recruit a sample of interested ( $n=2,349$ ; 61%) and eligible ( $n=262$ ; 7%) mothers. The majority (97%) of eligible mothers agreed to participate, but 22 (8%) failed to attend their scheduled appointments and did not reschedule.

The final analytic sample consisted of 230 young African American mothers who provided written informed consent and completed a structured, in-person interview. Participants were, on average, 22 years old ( $SD = 1.50$ ) at the time of data collection, and 13-20 years old at their child's birth ( $M = 17.81$ ,  $SD = 1.58$ ). Most (69%,  $n=138$ ) had at least a high school education. Approximately one third ( $n=86$ ) were attending school, and 43% ( $n=98$ ) were employed. The majority (61%,  $n=140$ ) of young mothers lived with their own mother and/or grandmother, and 40 (17%) lived alone with their children. Most (76%,  $n=175$ ) mothers were no longer romantically involved with their target child's biological father; 19 (8%) were romantically involved but not living with the father; and 30 (13%) were cohabiting with or married to their child's father. The largest portion of young mothers (34%,  $n=77$ ) reported annual household incomes in the \$0-5,000 range, and only 22% ( $n=49$ ) reported annual household incomes greater than \$30,000. On average, the target children of these young mothers were 50.3 months old ( $SD = 10.59$ ), and approximately half (49%,  $n=113$ ) were male.

## Procedure

Structured interviews were scheduled at a time and place (usually the participant's home) convenient to participants and were conducted in English by trained research assistants. Interviewers read aloud the informed consent form and interview instruments to ensure participants' comprehension regardless of literacy. Interviews typically lasted 1.5-2 hours, and upon completion mothers were given a \$50 gift certificate redeemable at a local retail store. The Institutional Review Board at Children's National Medical Center approved all of the study procedures and measures.

## Measures

Mothers completed the Survey of Exposure to Community Violence: Self Report Version which was developed in a low-income, ethnic minority sample (Richters & Martinez, 1990). Participants responded to 27 items asking how frequently they had directly experienced (e.g., hit or slapped, sexually assaulted) or witnessed (e.g., heard gunfire while in home, seen others attacked/stabbed) various types of violence on a 5-point scale from 0 (never) to 4 (many times) in their lifetimes. Subscale composite scores were created by summing responses across items, with higher scores indicating more exposure to violence. Cronbach's alpha was .74 for *experienced violence* (10 items) and .86 for *witnessed violence* (17 items).

The General Ethnic Identity Scale (Landrine, Klonoff, Corral, Fernandez, & Roesch, 2006) was employed to measure the frequency with which participants experienced 17 specific discriminatory events (e.g., "how often have you been treated unfairly by strangers because of your race/ethnic group", "how often have you been accused or suspected of doing something wrong because of your race/ethnic group") and the extent to which the events were distressing. Participants responded to items about the frequency of discriminatory events using a 6-point scale from 0 (never) to 5 (almost all the time) and to items about the stressfulness of events on a 6-point Likert-scale from 1 (not at all stressful) to 6 (extremely stressful). An *ethnic discrimination* composite score was created by summing participants' responses to the



frequency items with higher scores indicating greater exposure to ethnic discrimination. Cronbach's alpha for this sample was .87.

The Center for Epidemiologic Studies Depression Inventory (CES-D; Radloff, 1977) was used to measure mothers' symptoms of depression (e.g., 'I could not get "going"') during the past week. This 20-item self-report version was designed to detect major or clinical depression in adolescents and adults and covers a range of depressive symptoms including interpersonal behaviors, withdrawal, and somatization. Participants reported the frequency with which they experienced each symptom on a 4-point scale from 0 (rarely or none of the time) to 3 (most or all of the time). A total *depressive symptoms* score was created by summing responses across the 20 items with higher scores indicating more frequent experiences of depressive symptoms. Cronbach's alpha for the current sample was .86.

The Aggression Questionnaire Short Form (AQ; Buss & Warren, 2000) was used to measure participants' self-perceived levels of general aggression and anger and their ability to restrain themselves from committing destructive acts. The AQ Short is comprised of 15 items representing six subscales. Participants responded to items using a 5-point Likert scale from 1 (not at all like me) to 5 (completely like me), and subscale composite scores were computed by summing item-responses and converting them to t-scores. Based on the authors' norming data, which included African American participants, the AQ subscales show adequate reliability: physical aggression (e.g., 'I may hit someone if he/she provokes me'),  $\alpha = .80$ ; verbal aggression (e.g., 'My friends say I argue a lot'),  $\alpha = .74$ ; anger (e.g., 'At times I get very angry for no good reason'),  $\alpha = .63$ ; hostility (e.g., 'At times I feel I have gotten a raw deal out of life'),  $\alpha = .72$ ; indirect aggression (e.g., 'If I'm angry enough, I may mess up someone's work'),  $\alpha = .62$ ; and total aggression,  $\alpha = .90$ . To reduce the number of variables in the final regression models, only scores for *total aggression*, which has the highest internal reliability, were included in our analyses.

The Parent Practices Interview (Webster-Stratton, 1998), adapted from the Oregon Social Learning Center Discipline Questionnaire and revised to be age-appropriate for preschoolers, was used to measure parents' self-reported disciplinary actions and views of raising children. Mothers reported how frequently they use various parenting behaviors in response to their child's misbehavior on a 7-point scale from 1 (never) to 7 (always), and they indicated the likelihood they would utilize various disciplinary strategies if their child were to misbehave in hypothetical ways using a 7-point Likert scale from 1 (not at all likely) to 7 (extremely likely). Subscale scores were computed by averaging responses across items, with higher scores indicating greater use, or likelihood to use, types of discipline. For the present study we focus on harsh discipline, which has been identified as a mediator of the association between maternal violence exposure and child behavior (Morrel et al., 2003). The *harsh discipline* subscale consists of 14 items (e.g., 'how often do you slap or hit your child when he/she misbehaves', 'how often do you show anger when you discipline your child'), and Cronbach's alpha was .67.

The Home Observation for Measuring the Environment (HOME) Inventory (Caldwell & Bradley, 1984) was conducted by trained observers and used to measure opportunities for stimulation and support available to children in their home environments. The early childhood version of the HOME was designed for use with children 3-6 years old and is appropriate for use across racial and ethnic groups (Bradley, Corwyn, & Whiteside-Mansell, 1996). It consists of 55 binary items clustered into 8 subscales: learning materials, language stimulation, physical environment, parental responsiveness, learning stimulation, modeling of social maturity, variety in experiences, and acceptance of child. As per the instrument manual (Caldwell & Bradley, 1984), overall composite scores for *home quality* were computed by replacing missing

item values (typically missing because child was unavailable for observation) with the subscale mean and then summing across all items. Cronbach's alpha for the full scale score was .83.

In our analyses, we control for maternal demographic characteristics that have been linked to psychological health and parenting among adolescent mothers (Luster, 1998; Reis, 1989). *Mother's age* in years was computed by subtracting the interview date from the mother's date of birth and rounding to the nearest year. *Mother's education* was measured by asking participants the highest grade or level of school they had completed with response categories ranging from 1 (never attended school) to 4 (some college or Bachelor's degree). Participants also reported their annual *household income* from all sources on a 7-point ordinal scale from 1 (\$5,000 or less) to 7 (\$50,000 or greater).

### Analytic Strategy

We examined the associative pathways between violence exposure and young African American mothers' psychological health and parenting by conducting path analysis using MPlus 5.0 statistical software. To account for commonalities among the endogenous variables representing psychological health and parenting, correlations between depressive symptoms and aggression and between harsh discipline and home quality were estimated in the model. To explore the potential process by which violence exposure affects young mothers' parenting, we specified all possible indirect effects in the model. Model fit was estimated with maximum likelihood estimation using the sample covariance matrix. According to generally applied heuristics (i.e., 10 cases per variable) there was sufficient statistical power to test the proposed model (Bentler & Chou, 1987; Tanaka, 1987).

## RESULTS

Before conducting any multivariate analyses, the distributions of all of the independent, mediating, and dependent variables were examined. Table 1 reveals that young mothers in our study reported low direct exposure to violence ( $M = 4.70$ ,  $SD = 4.90$ ), and the distribution of scores was positively skewed. The most prevalent type of directly experienced violence was being slapped or hit (62%,  $n=143$ ). Additionally, 27% ( $n=62$ ) of mothers had been sexually assaulted, and 15 (6%) mothers had been shot at. Mothers also reported experiencing ethnic discrimination infrequently ( $M = 9.93$ ,  $SD = 10.08$ ), and the distribution of these scores was positively skewed. Log-transforming these variables did not affect the significance of our multivariate results, thus the reported results are based on the original, non-transformed variables for ease of interpretation. While the distribution of depressive symptom scores was also positively skewed, such a pattern is expected in a non-clinical sample, so no transformation of this variable was undertaken.

As expected, Table 2 shows significant correlations between each of the demographic control variables and parenting, particularly harsh discipline, but the direction of these associations is contrary to previous findings (Socolar, Winsor, Hunter, Catellier, & Kotch, 1999). Among this sample of young African American mothers, those who were older and more highly educated endorsed more harsh disciplinary strategies. On the other hand, observers gave higher ratings of home environment quality to mothers who were older, more highly educated, and who had higher household incomes. As anticipated, mothers' depressive symptoms and aggression were positively correlated with harsh discipline and negatively correlated with the quality of the home environment. However, while experienced violence, witnessed violence, and ethnic discrimination were significantly associated with mothers' psychological health, there were no significant correlations between violence exposure and parenting. Mothers who had directly experienced or witnessed more violence and perceived more ethnic discrimination reported more depressive symptoms and higher general aggression but not higher levels of harsh discipline or less stimulation in their home than young mothers who were less violence exposed.

There were significant associations among all of the violence exposure variables, with stronger positive correlations between experienced and witnessed violence than between ethnic discrimination and either form of violence exposure.

### Path Analysis

The initial model we tested was nearly saturated, therefore goodness of fit statistics reflected near perfect fit. We thus tested a trimmed model in which only the significant pathways were included (Figure 2), and fit indices for this model ( $\chi^2 = 16.98$ ,  $df = 13$ ,  $p = .20$ ; RMSEA = .04; CFI = .98; TLI = .96) indicated adequate fit (Byrne, 1998). Structural  $R^2$ s suggest the model explains moderate proportions of variance in young mothers' depressive symptoms ( $R^2 = .19$ ,  $p < .001$ ), aggression ( $R^2 = .15$ ,  $p < .001$ ), harsh discipline ( $R^2 = .20$ ,  $p < .001$ ) and home quality ( $R^2 = .11$ ,  $p < .01$ ).

There were significant direct paths linking experienced violence and young mothers' depressive symptoms and aggression. Mothers who directly experienced more violence reported experiencing more depressive symptoms and higher generalized aggression. Additional significant paths between violence exposure and psychological health indicated mothers who witnessed more violence were more aggressive, and those who experienced more ethnic discrimination reported more depressive symptoms. In turn, there were significant associative pathways between psychological health and parenting. Mothers who reported more depressive symptoms used harsh disciplinary tactics more often, and mothers who rated themselves as more aggressive were both harsher and provided less stimulating home environments for their children. Although not depicted in the model for clarity's sake, there were significant associations between mothers' age and stimulation in the home ( $\beta = .14$ ,  $SE = .06$ ,  $p < .05$ ) and between mothers' education level and depressive symptoms ( $\beta = -.13$ ,  $SE = .06$ ,  $p < .05$ ), general aggression ( $\beta = -.15$ ,  $SE = .07$ ,  $p < .05$ ), and harsh discipline ( $\beta = .22$ ,  $SE = .06$ ,  $p < .001$ ).

Out of the twelve indirect effects tested, three were significant, and they all involved harsh discipline. While there was no direct link between experienced violence and harsh discipline, there were significant indirect effects through both depressive symptoms ( $\beta = .05$ ,  $SE = .02$ ,  $p < .05$ ) and general aggression ( $\beta = .05$ ,  $SE = .03$ ,  $p < .05$ ). There was also an indirect effect of witnessed violence on harsh discipline through aggression ( $\beta = .05$ ,  $SE = .03$ ,  $p < .05$ ).

## DISCUSSION

In this study we found that young, African American mothers' exposure to violence was associated with increased general aggression and depressive symptoms. Similar effects of community violence on urban adolescent girls have been consistently reported (Buka et al., 2001), and our study extends those findings to women who were adolescent *mothers*. On average, young African American mothers directly experienced approximately five episodes of violence and witnessed more than twenty-seven. While no direct comparisons to other groups can be made in the current study, these descriptive findings suggest that young, urban, African American mothers are exposed to concerning levels of violence, though more often as witnesses than as victims. However, these young mothers did not report many discriminatory experiences, which may be a sign of a changing social climate or possibly an artifact of the segregated nature of daily life in Washington, DC (Varady, 2005). Nonetheless, our findings indicate that even relatively few experiences of discrimination can contribute to symptoms of depression in young, African American mothers.

In support of the theory of intergenerational transmission of trauma, we found indirect associations between violence exposure and parenting through mothers' psychological health. Young, African American mothers' direct experiences of violence were associated with more



aggression and depressive symptoms, which were in turn associated with more frequent use of harsh discipline. Furthermore, mothers who witnessed more violence tended to be more aggressive and thus harsh in their discipline. Young mothers who have been victimized may exhibit depressive symptoms because they feel unable to control their environment or mitigate the threats in it (Rutter, Caspi, & Moffitt, 2003). Also, they may be more aggressive as a proactive means of coping with their own traumatic experiences or the environmental threat they perceive based on witnessed incidents. These psychological responses to violence exposure may translate into less patience with young children and thus greater reliance on harsh disciplinary tactics (Shay & Knutson, 2008).

Although the evidence regarding effects of harsh discipline on African American children are mixed (Deater-Deckard & Dodge, 1997), the preponderance of research suggests that the negative sequelae we found to be associated with young mothers' violence exposure – depression, aggression, and harsh discipline – are also risk factors for child behavior problems and poor academic achievement (Black et al., 2002; Johnson & Flake, 2007; Joussemet et al., 2008). Other studies of older mothers' violence exposure have reported significant effects on child outcomes. Morrel and colleagues (2003) found that the association between low-income, inner-city, African American mothers' history of victimization and their reports of their preschool-aged children's behavior problems was mediated by maternal depression and verbally aggressive disciplinary practices. Thompson (2007) also found that low-income mothers' history of childhood victimization was linked to their 4 year-old children's behavior problems through mothers' psychological aggression toward their children. The current study provides preliminary evidence that African American women who were adolescent mothers are similarly affected by violence exposure in negative ways that may be transmitted to their children, and that witnessed violence may have some of the same consequences as directly experienced violence.

### Limitations and Future Directions

Although our study makes important contributions to research on violence exposure among a vulnerable population, there are several limitations of this research. First, there may be noteworthy differences between the young mothers' who self-selected into this study and those who did not participate, which influence the generalizability of these findings. However, the socio-demographic characteristics of our sample (e.g., low educational attainment, unemployment, single-parent or intergenerational households) resemble the larger population of African American adolescent mothers (Eshbaugh & Luze, 2007; Forste & Tienda, 1992). Also, the data reported here were predominantly self-report, which is subject to problems of shared variance that may have exaggerated the associations between variables, such as general aggression and harsh discipline. However, the discrete pattern of associations these variables had with violence exposure variables suggests there was adequate unique variance to validate the distinction between these two constructs.

There are also limitations of the violence exposure measure, such as the inherent issue of recall bias in retrospective measures, although follow-up questions (e.g., 'where did this happen?') should have increased accurate reporting. Also, a limitation common to community violence questionnaires is the comparable weight given to each violent event regardless of perpetrator (e.g., family member vs. stranger) or severity (e.g., use of lethal weapon vs. slap/hit). It may be that parenting is affected by direct exposure to more severe and traumatic violence. Furthermore, the wording of the parenting measure items may explain the unexpected positive correlations between maternal age, education and harsh discipline if younger and less educated mothers had trouble conceptualizing their disciplinary responses to the hypothetical situations proposed. There were also unforeseen problems with the observational measure of the home environment, which may explain the lack of significant results for this aspect of parenting.

Because almost half of the children were not present at the interview and thus many of the warmth and acceptance items were imputed with mean-substitution (according to the HOME manual), this measure may not have accurately captured all aspects of the typical parenting behavior displayed by young mothers in our sample.

Finally, while the retrospective measure of violence exposure was intended to capture prior experience, this study was cross-sectional and thus cannot adequately address the direction of relationships between young mothers' violence exposure, psychological health, and parenting. Future longitudinal research employing mixed methods of data collection and including child outcomes would be helpful for extending the current study of young African American mothers. Additionally, research on violence exposure within other vulnerable populations, such as Latino adolescent mothers, is needed.

## Conclusion

In sum, the current study's findings suggest that young African American mothers who are exposed to violence are more likely to suffer from increased aggression and depressive symptoms which, in turn, make them more likely to use harsh discipline with their preschool aged children. While further research is needed, these results provide preliminary evidence of intergenerational transmission of the negative sequelae of community violence exposure to children of adolescent mothers. These findings also suggest that, while ethnic discrimination may contribute to maternal depression, discriminatory experiences do not seem to influence parenting behavior, at least while children are young. Based on these results, service providers working with young mothers who may have been exposed to violence should screen for depression and increased aggression. Further, violence exposed young mothers who are in fact suffering from increased depression or aggression would be good candidates for parenting interventions that teach and support alternatives to harsh disciplinary practices.

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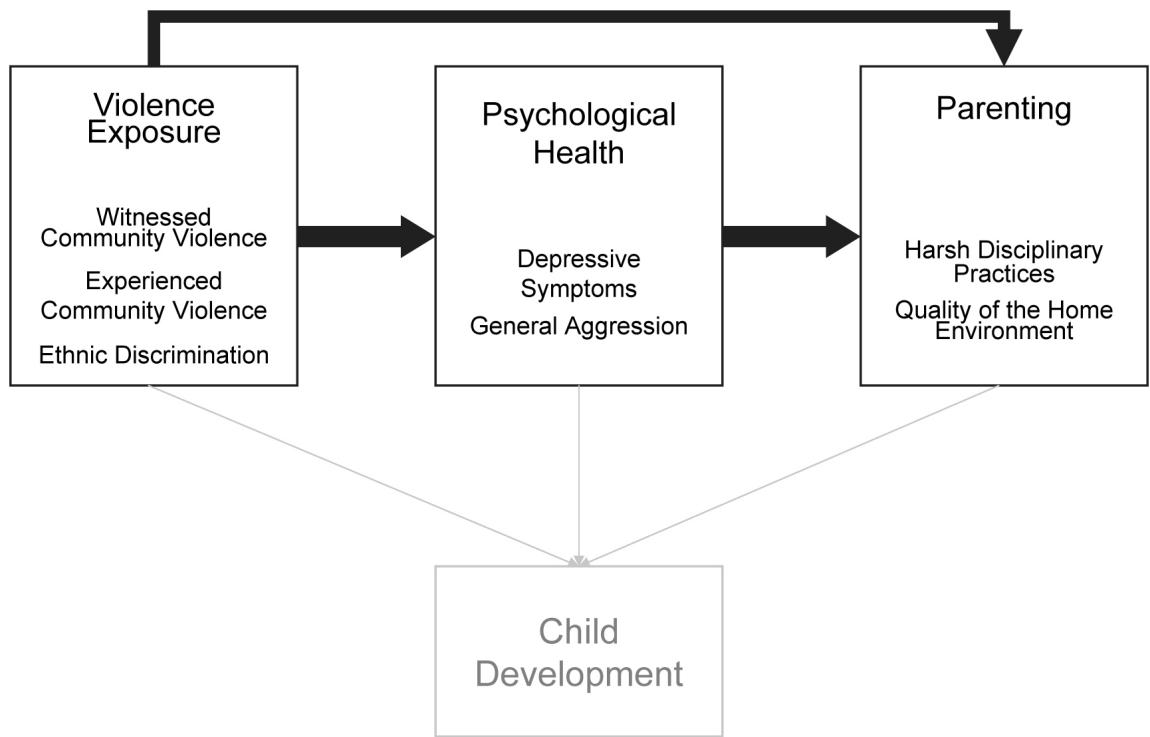
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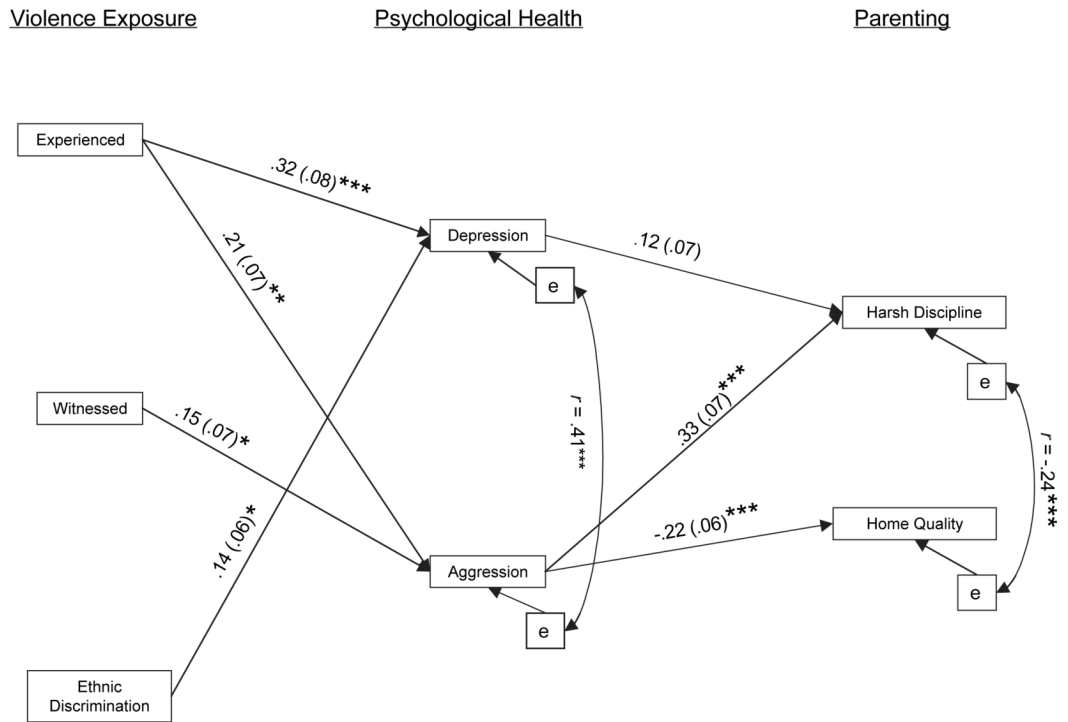
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**Figure 1.** Conceptual model of maternal violence exposure



**Figure 2.** Path analysis model of associations between violence exposure, psychological health, and parenting among young mothers. Note. Figure only displays paths for which structural coefficients are significant at  $p < .05$ .

**Table 1**

## Variable Descriptive Statistics

	Scale Range	<i>M(SD)</i>	Skew
Maternal demographics			
Age		22.00(1.50)	-.51
Education	1-4	2.97(.80)	-.06
Income (household)	1-7	2.91(1.89)	.71
Violence exposure			
Experienced	0-40	4.70(4.90)	1.37
Witnessed	0-68	27.89(12.54)	-.03
Ethnic Discrimination	0-85	9.93(10.08)	1.31
Psychological Status			
Depressive Symptoms	0-60	14.02(9.81)	1.20
Clinical cut-off ( $\geq 16$ )		34%	
Aggression	0-100	53.81(9.81)	.03
Clinical cut-off ( $\geq 60$ )		36%	
Parenting			
Harsh Discipline	1-7	3.07(.74)	.14
HOME Quality	0-55	41.57(5.68)	-.78

Table 2

Correlations among violence exposure, psychological status and parenting

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Mother age	-								
2. Mother education	.17	-							
3. Household income	.05	<b>.34</b> ***	-						
4. Experienced violence	.01	.05	-.01	-					
5. Witnessed violence	.04	.03	.04	<b>.60</b> ***	-				
6. Ethnic Discrimination	.03	.05	.11	<b>.37</b> ***	<b>.34</b> ***	-			
7. Depression	.01	<b>-.14</b> *	-.12	<b>.37</b> ***	<b>.28</b> ***	<b>.27</b> ***	-		
8. Aggression	.06	<b>-.15</b> *	-.12	<b>.29</b> ***	<b>.29</b> ***	<b>.17</b> **	<b>.49</b> ***	-	
9. Harsh Discipline	<b>.15</b> *	<b>.15</b> *	-.01	.10	.11	.00	<b>.26</b> ***	<b>.35</b> ***	-
10. HOME Quality	<b>.15</b> *	<b>.19</b> **	<b>.15</b> *	-.01	-.01	.07	<b>-.17</b> **	<b>-.22</b> ***	<b>-.23</b> ***

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