

# Lifetime Exposure to Family Violence: Implications for the Health Status of Older African American Women

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## Abstract

**Background:** Family violence among older women encompasses intimate partner violence (IPV) and elder maltreatment, both linked to poor health status. Little is known about the association between family violence and the health status of older innercity African American women.

**Methods:** One hundred fifty-eight African American women, aged  $\geq 50$ , were interviewed in the ambulatory clinics of a large public hospital. Lifetime family violence exposure as an adult was measured by the Family Violence against Older Women (FVOW) scale; physical and mental health status were measured by the physical and mental component summary scores of the Short Form 8<sup>®</sup> scale.

**Results:** Mean participant age was 61.5 years (SD 7.1). Participants with FVOW scores in the top quartile were considered to have high lifetime family violence exposure. Participants with higher family violence exposure and those younger, unemployed, or disabled reported worse physical and mental health status. Lower income and not having Medicare were associated with worse physical and mental health status, respectively. Using stepwise linear regression techniques, only employment status and high family violence exposure were associated with worse physical ( $F = 7.16, p = 0.0011$ ) and mental health ( $f = 7.09, p = 0.0012$ ) status. Women with high FVOW scores reported physical and mental component summary scores that were 4.18 and 4.6 points lower, respectively, than those of women with lower FVOW scores.

**Conclusions:** Among older, innercity, African American women, lack of employment and high levels of family violence exposure as an adult are associated with worse physical and mental health status. Clinicians caring for older African American women need to be cognizant of the role both current and prior violence exposure may play in their patients' current health status.

## Introduction

FAMILY VIOLENCE (FV) among older women is defined as actual or threatened acts of physical and sexual violence, neglect, or emotional and financial abuse directed toward an older woman by a family member, including an intimate partner.<sup>1</sup> FV encompasses elements of intimate partner violence (IPV) and elder maltreatment (EM), both linked to adverse health outcomes. Most studies that link FV to adverse physical and mental health outcomes have been conducted in younger women who are IPV survivors. Such women have been noted to report more physical symptoms and higher rates of mental problems, such as depression and posttraumatic stress disorder (PTSD), when compared with women who do not report IPV.<sup>2-5</sup> Not surprisingly, self-reported

health status, a commonly used reliable and reproducible measure of overall health that correlates with mortality rates,<sup>6,7</sup> has been shown to be worse in women who are exposed to long-term or lifetime FV, even after the violence has ceased.<sup>8-10</sup> These findings are congruent with child maltreatment literature, where investigators have demonstrated that adult survivors of child maltreatment and witnessing violence at home are more likely to experience health problems than those who did not experience such adverse childhood experiences.<sup>11,12</sup>

Recently, increasing attention has been directed toward understanding the effects FV has on the physical and mental health of older women, with the recognition that it represents a problem broader in scope than either IPV or EM alone.<sup>1,13-17</sup> To our knowledge, however, few studies have

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examined the *health status of older women who have experienced FV, as defined broadly*. Although most of the investigations into the association between FV, or specific elements thereof, and *health status* have had small numbers of participants over the age of 50, studies that have examined this problem suggest that FV may be associated with worse physical and mental health status in older women. Mouton et al.<sup>13</sup> found that among women 50–79, exposure to incident physical or verbal FV (defined as the 12-month period prior to the study) was associated with lower reported physical and mental health status as assessed by physical (PCS) and mental (MCS) component summary scores of the Medical Outcomes Short Form 36 (SF-36), a valid, reliable health status scale. Specifically, their findings indicated that women who reported incident physical abuse reported lower PCS scores, indicating poor physical health, and women who reported verbal abuse reported lower PCS and MCS scores, indicative of worse physical and mental health. Bonomi et al.<sup>6</sup> interviewed 3429 women, all members of a large health plan, to assess the link between IPV and health status. Women who reported recent physical or sexual IPV also reported lower SF-36 scores; of these participants, 28% were over 55 years of age.<sup>8</sup> Lachs et al.<sup>14</sup> demonstrated that EM was associated with higher mortality rates in a cohort of 2812 community-dwelling elderly people in New England, even after adjusting for comorbid chronic illnesses. Finally, with respect to exposure to child maltreatment, Fellitti et al.<sup>9</sup> have shown that witnessing or experiencing abuse as a child or living in an otherwise dysfunctional home has been linked to poor health as an adult.

Whereas a history of FV is associated with worse health status, age, race, and gender are also important, nonmodifiable determinants of physical and mental health. According to the National Health Interview Survey (NHIS), a nationally representative survey designed to monitor the health of the United States population, one third of adults >age 75 and one fifth of adults aged 65–74 reported their overall health to be either fair or poor, with African Americans less likely to report being in good health than non-Hispanic white or Asian Americans.<sup>21</sup> Even though no significant differences were reported in perceived health by gender in this survey, racial differences in life expectancy have been noted in national surveys. In a 2006 report by the National Center for Health Statistics,<sup>16</sup> African American women were found to have a lower life expectancy both at birth and at 65 years in comparison with white women. Thus, based on available national data, older African American women are at risk for experiencing *poorer health status* by virtue of their age, race, and gender. Given this triple threat to their overall health, examining the effect of FV in this particular demographic group is *particularly* important.

At this time, the connection of lifetime FV to *poorer* physical and mental health status among older African American women is not clear. In the Bonomi study,<sup>6</sup> even though over a quarter of this large sample's participants were >age 55, women >age 65 were not included, and only 2% of all participants were African American. Similarly, even though all participants in the Mouton study<sup>19</sup> were older women, few were African American. Therefore, it is not known if older African American women exposed to FV over a lifetime report *worse* physical and mental health status than women who have not been exposed. Based on data on long-term FV exposure among younger women, it is highly likely that life-

time FV is associated with *worse* perceived health status among older African American women. On the other hand, it is possible that among innercity older African American women, who may experience other barriers to healthcare as an adult, exposure to FV over a lifetime may not be a significant factor influencing their health status. Because current health status can be affected by education and income levels irrespective of FV exposure, it is possible that once the effects of other known socioeconomic determinants are accounted for, the health status of those exposed to FV may not be different from those who are not exposed. Therefore, in this study, we sought to determine whether or not the physical and mental health status of older, innercity African American women who report high levels of exposure to FV is worse than that of older, innercity African American women who report either lower FV levels or no exposure to FV.

## Materials and Methods

### Setting and sample

*Participants* were recruited participants from the ambulatory medicine clinics of a large, innercity hospital in the southeastern United States that serves as a safety net hospital to low-income and uninsured people. Women eligible for this investigation were English-speaking women who identified themselves as African American and were over the age of 50. The lower age limit was selected because of the relative paucity of data on the effects of FV on the physical and mental health of older women. Potential participants were identified from the clinic visit sheet by trained research assistants (RAs), who then systematically approached these women in the clinic waiting room to assess their level of interest in participation. Women who were not able to provide informed consent because of a lack of understanding or capacity, who scored <22 on the Mini-Mental State Exam,<sup>17</sup> or who needed immediate medical attention were excluded from the study. RAs obtained written informed consent from those interested and screened patients for eligibility in the privacy of a room at the clinic. The teach back method,<sup>18</sup> adapted for informed consent, was used to assess capacity; specifically, we assessed participants' ability to repeat back the reason and context of the study and the implications of study participation. Family members or anyone accompanying the participant to the clinical site were not present during the interview. Caregiver or surrogate consent was not used for those unable to provide informed consent. The study was approved by the university Institutional Review Board and hospital Research Oversight Committee. All participants were offered \$10 at the end of the interview and were provided resource information, including toll-free numbers for agencies that assisted with IPV and EM.

### Measures

Demographic variables assessed included age, grade level attained, individual income, place of residence, marital and relationship status, employment status, insurance status and type, number of children, and whether or not they lived with their children.

**Exposure variable.** Lifetime FV was determined by scores on the Family Violence in Older African American women (FVOW) scale.<sup>19</sup> This scale consists of 29 items that assess

the presence and severity of FV that older women have experienced during their adult life, with questions representing the domains of physical violence, emotional, financial, and sexual abuse, neglect, and coercion. All items were scored on a 5-point Likert scale, with response options ranging from 0 to 4 corresponding to the following response choices: never, occasionally, frequently, often, and very often. Participant responses were summed; high lifetime exposure was defined as a total score in the top quartile of FVOW scores, and participants with FVOW scores in the lower three quartiles were classified as having no or lower levels of lifetime FV exposure. The FVOW is valid and reliable, with a Cronbach's alpha of 0.973 and test-retest reliability correlation coefficients of 0.829. Scores on the FVOW are highly correlated with established scales for IPV (0.694 and 0.778) and EM (0.553).

**Outcome variable.** Health status was assessed using the Short Form-8 (SF-8)<sup>®12</sup>, a valid and reliable brief version of the SF-36 instrument.<sup>21,22</sup> The SF-8 contains eight items that rate the following dimensions of health: general health, physical and social function; mental health; role limitation due to physical health or emotional problems, bodily pain, and fatigue. Item responses are transformed, weighted, and aggregated according to standardized scoring procedures, resulting in two summary scores: physical (PCS-8) and mental (MCS-8) component summary scores.<sup>20</sup> Scores range from 0 to 100, with a median score of 50 and a standard deviation (SD) of 10. The scores of the SF-8 correlate well with the scores of the SF-36.<sup>20</sup> The shorter version was selected over the SF-36 to reduce respondent burden.

### Analyses

Means with SDs were estimated for participant age, median and range were calculated for participant income, and frequencies were calculated for all categorical variables. Next, bivariate analyses were performed to test for possible associations between the exposure variable (lifetime FV) and demographic variables. To test the hypothesis that physical and mental health status is affected by high levels of exposure to FV over a lifetime, each individual demographic vari-

able and exposure variable was evaluated for relationship with each outcome (PCS-8 and MCS-8 scores). Two separate multivariate linear regression models were built to assess the combined effect of all significant variables (including the exposure variable) and each outcome. Using stepwise linear regression techniques, a final model was built for each outcome using only those predictors that independently and incrementally predicted the outcome. A *p* value of 0.05 was used for all tests of significance.

### Results

Table 1 demonstrates the demographic characteristics of the participants (*n* = 158). Of the 158 participants, 44 (27.8%) had high lifetime exposure, as measured by FVOW scores. Mean participant age was 61.5 years (SD 7.1 years), and their median income was \$627 (range \$0–\$5000). Almost all had children (89.5%), 52.5% did not finish high school, 58.6% were unemployed or disabled, and 27.8% did not have insurance. Forty-one participants (25.9%) were in an intimate relationship at the time of the interview; of these, 13.6% reported having high FV exposure, and 30.7% reported low or no exposure (chi-square = 4.81, *p* = 0.028). There was a difference in income that was not statistically significant between participants who reported high FV exposure and those who did not, with the former group reporting a lower median income of \$631 than the latter (*t* = 1.79, *p* = 0.07). Employment status did not differ by FV exposure status.

Table 2 shows the association between self-reported health status and lifetime FV exposure using SF-8 physical and mental summary scores. Those participants who reported high lifetime FV exposure on the FVOW reported PCS-8 scores that were 4.94 points lower (*F* = 7.15, *p* = 0.0085) and MCS-8 scores that were 5.77 points lower (*F* = 7.61, *p* = 0.00066) than scores of those who reported low or no lifetime FV exposure. Of all the demographic variables, lower age, income, and being unemployed or disabled were found to be associated with worse physical health status, and lower age, being unemployed or disabled, and having no insurance or insurance other than Medicare were associated with worse mental health status. The first set of models, which contained all significant predictors of worse physical or men-

TABLE 1. DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS

	High FV exposure ( <i>n</i> = 44)	Low or no FV exposure ( <i>n</i> = 114)	Total ( <i>n</i> = 158)	<i>p</i> value
In intimate relationship at time of interview	6 (13.6)	35 (30.7)	41 (25.9)	0.02
Has children	37 (84.1)	105 (92.1)	142 (89.9)	0.1344
Children living with participant <sup>a</sup>	14 (37.8)	37 (35.2)	51 (35.9) <sup>a</sup>	0.06
Lives in own home	30 (24.6)	92 (81.4)	122 (77.7)	0.0736
Separated or divorced	26 (59.1)	37 (32.5)	63 (39.9)	0.0022
Did not finish high school	23 (52.2)	62 (54.4)	85 (53.8)	0.811
Unemployed/disabled	31 (70.4)	64 (56.1)	95 (60.1)	0.995
Uninsured	16 (37.2)	29 (35.4)	45 (28.7)	0.14
Mean age in years (SD)	58.14 (7.15)	62.43 (8.49)	61.5 (8.57)	0.199
Median monthly family income (range)	\$631 (\$0–3000)	\$852 (\$0–\$5000)	\$627 (\$0–\$5000)	0.07 0.07

<sup>a</sup>Of those with children, *n* = 143.

TABLE 2. ASSOCIATION BETWEEN LIFETIME FV EXPOSURE AND HEALTH STATUS

	<i>High lifetime FV exposure</i>	<i>Low or no lifetime FV exposure</i>	<i>All participants</i>	<i>p value</i>
Mean SF 8 physical health summary score (SD)	35.07 (9.55)	40.02 (9.84)	38.51 (9.98)	0.0085
Mean SF-8 mental health summary score (SD)	42.49 (13.57)	48.26 (9.73)	46.50 (11.3)	0.0066

tal health status, demonstrated a trend toward lower PCS-8 ( $t = -1.86$ ,  $p = 0.0646$ ) and MCS-8 ( $t = -1.91$ ;  $p = 0.0581$ ) scores among those reporting high lifetime FV exposure.

Table 3 demonstrates the results of the stepwise multivariate regression analyses. In these final models, both employment status and FV exposure were found to be significant predictors of physical and mental health status. With respect to physical health status, women reporting high FV exposure reported PCS-8 scores that were 4.18 points lower than those who did not, and women reporting being unemployed or disabled had PCS-8 scores that were 4.58 points lower than those who were never unemployed ( $F = 7.16$ ,  $df = 2$ ,  $p = 0.0011$ ). Finally, women who reported high FV exposure reported MCS-8 scores that were 4.6 points lower than those who reported lower levels or no lifetime FV exposure. Unemployment was associated with MCS-8 scores that were 5.28 points lower than scores of women not reporting being unemployed or disabled ( $F = 7.09$ ,  $df = 2$ ,  $p = 0.0012$ ).

## Discussion

In this investigation, we have demonstrated that older African American women reporting high lifetime FV exposure also reported worse health status than their peers who did not report high lifetime exposure to FV. These women also had PCS-8 and MCS-8 scores that were 4.18 and 4.63 points lower, respectively. These findings are congruent with published literature on the association between IPV and health status in both younger and older women.<sup>13</sup> In their investigative work on older women, Mouton et al. demonstrated SF-36 MCS scores that were 5.44 and 5.85 lower in women exposed to physical and verbal abuse, respectively, and PCS-36 scores that were 2.8 points lower in those reporting verbal abuse in the 12 months. Interestingly, they did not report an association between lifetime physical or verbal abuse and health status. Our findings are striking in that the overall health status of those who have experienced high lev-

els of FV is much lower than published norms for both African Americans and women in general but is similar to the health status of a chronically ill, economically disadvantaged population.<sup>7</sup> Mean PCS-8 and MCS-8 scores for African Americans in nationally representative samples have been estimated to be 49.78 and 49.98, respectively.<sup>20</sup> Mean PCS-8 scores for women over the age of 50–74 in general are estimated to lie between 46.57 and 47.28, with mean MCS-8 scores ranging from 48.50 to 51.63.<sup>26</sup> Our participants' mean PCS-8 and MCS-8 scores were 38.51 and 46.50, respectively. Thus, the overall health status of this sample appears to be worse when compared with national averages, especially as it relates to physical health, and our finding that exposure to high levels of FV is associated with an even worse health status is of concern. One explanation for this association between lifetime FV and worse health status might lie in relationship factors, such as having a controlling partner interfering with healthcare access. Another reason for our findings might be that those reporting higher levels of FV may have a greater number of medical comorbidities, which in turn may represent either reasons to lack healthcare access, such as lack of insurance or employment, both of which are linked to FV, or past injuries sustained as a result of FV over a lifetime.

Although FV was associated with worse physical and mental health status as measured by the SF-8 summary scores, unemployment also was found to be strongly associated with worse health status. Our present study does not allow us to examine the nature of the relationship among lifetime FV exposure, current unemployment, and health status. It is possible that those exposed to high levels of lifetime FV may have had poor health and, consequently, may not be able to work. Our cross-sectional design and sample size preclude analyses that would have allowed us to examine the exact nature of the association among poor self-reported health, employment, and FV exposure.

This study has a few limitations. First, as noted, our study

TABLE 3. HEALTH STATUS AND LIFETIME FV EXPOSURE: RESULTS OF STEPWISE MULTIVARIATE REGRESSION

	<i>PCS-8 score</i>			<i>MCS-8 score</i>		
	<i>Parameter estimate</i>	<i>Standard error</i>	<i>p value</i>	<i>Parameter estimate</i>	<i>Standard error</i>	<i>p value</i>
High FV score	-4.18057	1.83377	0.0243	-4.63805	2.08758	0.0281
Unemployed or on disability	-4.58668	1.75281	0.0099	-5.288131	1.98230	0.0087



design does not allow us to draw conclusions about the causal role of FV on poor physical and mental health status. Next, these data are based on self-report, which may underestimate the extent of FV. Finally, the comparison group included women who experienced FV albeit at lower levels, which may have weakened the strength of our association between FV and poor physical and mental health status. However, these limitations need to be considered in light of the strength of the data presented. In particular, we used a validated comprehensive instrument that assesses the presence and severity of FV. Also, in contrast to prior work, we were able to demonstrate that lifetime exposure to FV does adversely impact both the physical and mental health status of older African American women who may have a lower health status at baseline.

### Conclusions

FV has effects on health that persist despite time, over and above other nonmodifiable factors. Health status is a measure used largely for research purposes, yet knowing how well patients feel is a key question during any primary care visit. Our findings should encourage clinicians practicing in innercity neighborhoods to focus more broadly on the overall physical and mental well-being of their older female patients, as well as their patient's home environment and employment status. While the debate continues over the utility of FV screening, identifying past FV may put women's current health into perspective for their providers. Further, given that unemployment has an independent effect on people's physical and mental health, providers should consider referrals to community agencies that can facilitate job training as a step toward employment for those who wish to work. This holistic approach to physician-patient visits is likely to result in a deeper appreciation of the patients' lives and to be empowering to these women.

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### Disclosure Statement

The authors have no conflicts of interest to report.

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