

BRIEF REPORT

Anticipated Negative Police-Youth Encounters and Depressive Symptoms among Pregnant African American Women: A Brief Report

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Abstract The widely publicized violent encounters between police and African American youth have unknown consequences for the emotional and mental health of pregnant African American women. Since studies document the hypervigilance black mothers exert to protect children from violence and racism and findings also reveal the association between racial and gendered stress (which

includes parenting stressors) and depressive symptoms during pregnancy, an examination of the effects of stress from anticipated negative experiences between black youth and police on maternal mental health is warranted. Between July and August 2014, 100 mostly low income pregnant African American women who lived in metropolitan Atlanta and were in their first and second trimesters completed the Edinburgh postnatal depression scale, selected items from the Jackson, Hogue, Phillips contextualized stress measure, and a demographic form. Bivariate and logistic regression analyses were conducted in response to questions that asked: (1) is the anticipation of negative encounters between black youth and police associated with antenatal depressive symptoms and (2) how does the presence of prior children, male or female, contribute to the association? For question 1, the results showed that anticipated negative African American youth-police experiences were significantly associated with antenatal depressive symptoms $\chi^2(2, N=87)=12.62, p=.002$. For question 2, the presence of a preschool-aged male child in the home was significantly associated with antenatal depression ($p=.009$, odds ratio = 13.23). The observed associations between antenatal depressive symptoms and anticipated negative police-youth encounters have implications for clinical- and community-based interventions responding to the unique psychosocial risks for pregnant African American women.

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Introduction

Concerns about the future safety and well-being of children are universal stressors for expectant mothers; however, historical and contemporary police violence targeting African American youth present an added burden for pregnant African American women [1–5]. Highly publicized deadly encounters between the police and African American men and boys raise the question of how does the stress associated with a high probability of negative police-youth encounters affect African American pregnant women's emotional and mental health? [1–4].

In general, there is a dearth of population studies on the effects of police violence on public health [6]. However, recent studies are revealing that blacks living in neighborhoods where there is a high likelihood of police stops show indications of poorer health outcomes. Police frisks in highly surveilled neighborhoods are not only negative for the individuals stopped by the police but results also suggest their deleterious health effects on individuals who have not directly encountered police [7]. Research is also indicating how gender matters for the health effects of negative police interactions [8, 9]. Notably, since an investigation demonstrated the effects of aggressive policing and surveillance on the mental health of black men and not black women, further research is needed to discern the patterns of responses to the threat of police violence among black women [9].

The need to be hypervigilant to prepare and protect children from racism and violence is among the most difficult stressors for African American women and it presents a risk to the psychosocial well-being of African American mothers during pregnancy [10, 11]. Research on stressors for African American women reveals that during pregnancy, they anticipate their children experiencing racial inequalities which includes the possibility of negative police interactions. The psychosocial stress produced by racial and gendered inequities is associated with disproportionately higher rates of adverse birth outcomes among African American women, regardless of their socioeconomic position [11–16]. Studies have also revealed significant associations between intersectional racial and gendered stress (that includes parenting demands) and antenatal depression [17–22]. Depression during pregnancy is not only detrimental for an expectant mother and her developing fetus but also elevates the risk for postpartum depression, thus impairing a mother's ability to nurture the growth and development of her child [23, 24].

To date, there are few studies revealing how anticipated violent encounters between the police and African American youth influence maternal mental health, especially for pregnant African American women [25, 26]. In this report, we examine the association between stress from anticipated negative encounters between black youth and police and maternal mental health. In the presence of ongoing discussions and revelations about the exposure to police violence for black male youth, there is an increasing attention to negative police encounters for black females as well. This research explores how the gender of prior children factors into a possible link between anticipated police violence toward youth and antenatal depression. The study asks two questions: (1) is there an association between the anticipation of negative encounters between black youth and police and depressive symptoms for black pregnant women and (2) how does the presence of prior children, male or female, contribute to the association?

Methods

Participants

Between July and August 2014, 100 mostly low income pregnant African American women were recruited from a metropolitan Atlanta public health department to participate in research for quality improvement of a home visitation program. This was a convenience sample and the inclusion criteria were that women had to be at least 20 years old and in their first or second trimester. Women were invited to participate through announcements and information from the provider staff. After completing two surveys, participants received a \$25 gift card. This study received Institutional Review Board approval through the Georgia Department of Community Health and the women recruited granted written informed consent indicating their agreement to participate in the research.

As summarized in Table 1, 73% had household incomes less than \$19,000 per year, 68% were single, and 56% had completed only high school. Seventy-three percent (73%) had children in the household with the great (90%) majority under 5 years old. For women with prior children, 31% had males only, 25% had females only, 12% had female and male, and 32% had no prior children. The women participating in the study were recruited from the 682 pregnant women who received pregnancy screening and were enrolled in WIC (Women, Infants, and Children)

Table 1 Characteristics of study participants and comparison of demographic variables with women at the study site

Variable	Percent	<i>n</i>	Study participants compared to women receiving services ^a
Age (years)			
20–30	77	77	$\chi^2 (1) = 2.03, P = .15$
>31	23	23	
Education			
<High school	13	13	$\chi^2 (1) = .50, P = .48$
High school	56	54	
2-Year associate's degree	18	17	
4-Year college degree	13	13	
Relationship status			
Single	68	68	$\chi^2 (1) = 10.67, P = .001^*$
Married/in a relationship	25	25	
Not in a relationship ^b	7	7	
Annual household income (\$)			
<9,000	33	32	$\chi^2 (1) = .60, P = .44$
9000–19,000	40	39	
20,000–29,000	18	17	
>30,000–39,000	9	9	
Sex of prior children			
Male only	31	31	
Female only	25	25	
Male and female	12	12	
No prior children	32	32	
Age of prior children (years)			
≤5	90	86	
>6	10	9	
Depressive symptoms			
EPDS ^f score ≤10	65.6	63	
EPDS score ≥10	34.4	33	
JHP ^c question 1: African American youth and negative police experience ^d (%)			
Agree	41	41	
Disagree	36	36	
Unsure	13	13	
Missing	10	10	
JHP question 2: losing our African American boys and men ^e (%)			
Agree	71	71	
Disagree	18	18	
Unsure	6	6	
Missing	5	5	

* $P \leq 0.001$

^a Chi-square results for available demographic variables between study participants and women receiving prenatal services

^b Includes separated, divorce, and widowed

^c JHP Jackson, Hogue, Phillips Contextualized Stress Measure

^d The African American youth in my community are more likely than other youth to have a negative experience with law enforcement

^e I feel we are losing our African American boys and men

^f EPDS Edinburgh postnatal depression scale

certified programs at the study site in 2014. The majority of the pregnant women receiving services had household incomes less than \$19,000 (68%). Eighty-five percent (85%) were single, and 51% had only high school diplomas. The mean age was 28.

Measures

Participants completed the Edinburgh postnatal depression scale (EPDS), the Jackson, Hogue, Phillips contextualized stress measure (JHP), and a demographic form. The EPDS has been widely validated as a measure for detecting depressive symptoms (loss of interest, guilt feelings, sleep disturbances, and suicide ideation) during the antenatal and postpartum periods [24]. The 10-item scale is scored by adding the responses from each item; scores of 10 or greater indicate possible depression [27, 28]. The Cronbach alpha for this study was 0.88.

The revised 56-item JHP measure is a Likert scale (1 = strongly agree to 5 = strongly disagree) designed to assess chronic intersectional racial and gendered stress. This tool is a multidimensional measure created from focus groups and interviews as part of community-based participatory research where African American women were asked to elaborate on their particular racial and gendered stressors and stress mediators [18, 29]. The tool consists of subscales for assessing racism, gendered roles and burden, abuse and neglect, workplace stress, coping, social support, and affective stress responses (distress). The total stress score is calculated from the sum of stressors and stress mediators denoting high, medium, and low stress. The Cronbach's alpha for this study was 0.91.

As part of the investigational process of individual item analysis for a shortened version of the JHP measure and because of our interest in the impact of policing on maternal mental health, analysis was conducted with two JHP items from the racism subscale most relevant to our study objectives. The selected items that specifically pertain to children and policing were: (1) the African American youth in my community are more likely, than other youth, to have negative experiences with law enforcement and (2) I feel we are losing our African American boys and men.

Statistical Analysis

The data were analyzed in two steps using IBM-SPSS. The two JHP items were treated as dichotomous

variables indicating agree or disagree responses. A variable was created indicating the absence or the presence (cutoff ≥ 10) of depressive symptoms [27]. First, chi-square analysis was performed to determine covariate associations for the two individual items related to children and to depression scores. Secondly, logistic regression analysis was used to estimate the independent contributions of the JHP racism items and maternal depression scores. The two models controlled for the age, education level, income, and the relationship status of the participants. The first model also controlled for the presence of prior children in the home. Three categories were created for the gender of prior children: (1) female only denoting that only girls lived in the household, (2) male only indicating that only boys lived in the household, and (3) male and female meaning that there were both boys and girls in the household. The gender categories were added to model 2. Beta coefficients from the logistic regression model were used to estimate the odds ratios and associated 95% confidence intervals.

Results

Thirty-three percent of the women showed signs of antenatal depressive symptoms ($M=17.11$, $SD=3.47$). Forty-one percent agreed with the higher likelihood of negative experiences between police and black youth and 71% agreed that we are losing our African American boys and men.

A statistically significant association was observed for antenatal depressive symptoms and anticipated negative African American youth and police experiences, $\chi^2(2, N=87)=12.62$, $P=.002$ (Cramer's $V=.38$). The association with the question "We are losing our African American men and boys" was not significant, $\chi^2(2, N=91)=1.20$, $P=.55$ (Cramer's $V=.12$). The logistic regression models used to adjust depressive symptoms are shown in Table 2.

The fully adjusted model found no significant associations between antenatal depressive symptoms and control variables (age, $p=.44$; education, $p=.95$; income, $p=.22$; and relationship status, $p=.40$). There was a significant association between anticipated negative African American youth and police experiences and elevated antenatal depressive symptoms ($p=.001$). The presence of prior children was also a significant predictor ($p=.02$).

Table 2 Predictors of antenatal depressive symptoms

	Odds ratio	95% CI	
		Lower	Upper
Model 1 (<i>n</i> = 70)			
Age	1.94	.36	10.40
Education	1.03	.48	2.21
Income	.65	.32	1.31
Relationship status	.54	.133	2.23
African American youth at risk for negative police experience ^a	.07**	.02	.35
Prior children	.06*	.01	.62
Model 2 (<i>n</i> = 70)			
Age	2.95	.47	18.37
Education	1.06	.49	2.31
Income	.66	.33	1.35
Relationship status	.45	.11	1.88
African American youth at risk for negative police experience ^a	12.16**	2.63	56.22
Male children	13.23*	1.90	92.22
Female children	6.40	.93	44.16
Male and female children	3.58	.46	28.21

* $P \leq 0.05$; ** $P \leq 0.001$

^a The African American youth in my community are more likely than other youth to have a negative experience with law enforcement

In the second model, the statistically significant association for negative police encounters between black youth and police with antenatal depression was robust to adjustments for the covariates. Again, no significant associations were found between antenatal depressive symptoms and control variables (age, $p = .25$; education, $p = .88$; income, $p = .26$; and relationship status, $p = .27$). Elevated antenatal depressive symptoms were almost 12 times higher for women who agreed that African American youth are at higher risk for having negative police experiences ($p = .001$). The association between elevated antenatal depressive symptoms and having male children only was highly significant ($p = .009$) with 13 times greater odds of antenatal depression. The association between elevated antenatal depressive symptoms and female children was only marginally significant ($p = .06$); whereas, the association for women with both male and female children was not statistically significant ($p = .23$).

Discussion

Our finding of a significant association between antenatal depression in pregnant African American women and anticipated negative encounters between African American youth and police is both timely and relevant. It has uncovered how stress from the future possibility of negative African American youth-police encounters places pregnant African American women in jeopardy for depression. Interestingly, of the two questions selected for analysis, only the item pertaining to police-youth encounters was significant for antenatal depression; the item pertaining to the loss of black men and boys was not. We can only speculate about why the former, but not the latter, item predicted the outcomes; but we suspect that the former item is more directly tapped into the latent fears that many black women have about negative encounters between police and black youth and the added demands that it places on them for rearing black children.

The findings suggest an adverse psychological impact when there are preschool-aged children already living in the home. The results were significant for the presence of male children only which might reflect the mothers' fears that young black boys are perceived as being older and therefore more threatening, thus placing them at similar risk for negative police encounters as much older black males [30–32]. Mothers care for all of their children yet less is understood or acknowledged about when, and under what circumstances, black mothers' concerns about their daughters' potentially negative encounters with police arise. Although the results were marginally significant for females, our findings advance future examinations of the timing of gendered threats to the protection and safety of African American girls as well as boys.

Strengths and Limitation

The strengths of this study include its strong social and public health relevance, its conceptually well-grounded questions, and the use of validated survey instruments. In the case of the JHP measure, the tool is unique as a chronic stress measurement that includes assessments of exposures to negative policing and violence [11]. Although the study was conducted with a convenience sample, with the exception of relationship status, the participants were representative of the individuals who were served by the clinic

at the time of the study (Table 1). An important shortcoming is the study's cross-sectional design, which combined with a small sample size, precludes unqualified casual inferences. In this study, we could not determine the degree to which the results were influenced by vicarious experiences from the news of police shootings, or direct or indirect experiences (e.g., involving family, friends, or networks), women may have had with the police in their communities. Previous studies indicate worries about children's safety and protection even among black women who were not pregnant as well as expectant mothers who did not have prior children [10, 11]. While there was some indication of anticipated negative police encounters for a very small number of the expectant mothers in the study without children, a larger study is needed to reliably assess their responses.

Implications

The US Preventive Health Services Task Force released a report recommending universal antenatal and postpartum depression screening. The recommendations also acknowledge the importance of stress mediation for the support and treatment of mild to moderate pregnancy and maternal depression [33]. Our study argues for the development and enhancement of interventions that are attendant to the particular cumulative stressors affecting African American women. These novel findings, indicating the problematic association between police-black youth encounters and antenatal depressive symptoms, provide a framework for designing clinical- and community-based interventions to ameliorate the impact of the unique stressors African American mothers-to-be confront.

Conclusion

This study extends our research agenda on the psychosocial pregnancy risks embedded in the racial and gendered lives of African American women [11]. To our knowledge, this is the first study on the potential adverse effects of negative black youth and police interactions on the mental health of black women residing in a major US metropolitan area and in the Southern region. Our findings contribute to the emerging research on police encounters in other urban areas advancing a public health perspective on negative policing while

underscoring the importance of efforts to improve relations between police and the African American community [7, 8, 34]. It aligns with research employing larger sample sizes asking critical questions concerning negative police encounters. Most importantly, this work illustrates the need for further investigation of racial and gendered determinants for the health and well-being of pregnant black women and the children that they bear.

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