

Addressing Maternal Mental Health among Black Perinatal Women in Atlanta, Georgia: a CBPR Approach

Natalie D. Hernandez, PhD, MPH¹, Sherilyn Francis, MPH, MSBT^{2,3}, Brielle Evans¹, Andrea G. Parker, PhD³, Jemea Dorsey, MS⁴, Danette McLaurin Glass⁵, Mica Whitfield, LMSW⁶, Elise Blasingame, MSW⁶, Pamela Braxton, LMSW⁷, Rasheeta Chandler, PhD, RN, FNP-BC, FAANP, FAAN^{4,8,9}

¹Department of Community Health and Preventive Medicine, Morehouse School of Medicine, Atlanta, Georgia; ²Cardiovascular Research Institute, Morehouse School of Medicine, Atlanta, Georgia; ³College of Computing, Georgia Institute of Technology, Atlanta, Georgia; ⁴Center for Black Women's Wellness, Atlanta, Georgia; ⁵Center for Family and Community Wellness, Atlanta, Georgia; ⁶Healthy Mothers, Healthy Babies Coalition of Georgia, Atlanta, Georgia; ⁷Odyssey Family Counseling Center, Atlanta, Georgia; ⁸Nell Hodgson Woodruff School of Nursing, Emory University, Atlanta, Georgia; ⁹Visiting Professor, Center for AIDS Prevention Studies, University of California, San Francisco

Corresponding Author: Natalie D. Hernandez, PhD, MPH • Department of Community Health and Preventive Medicine, Morehouse School of Medicine • 720 Westview Drive SW, Atlanta, Georgia 30310 • Email: nhernandez@msm.edu

ABSTRACT

Background: Perinatal mood and anxiety disorders (PMADs) are the most common complication of pregnancy, affecting up to 1 in 5 childbearing women, with higher rates among low-income minority women. One in seven women suffer from perinatal depression. This study aimed to (1) assess the mental and emotional health challenges of underserved Black perinatal women in Atlanta, Georgia (GA) and (2) examine local priorities and sources of care for mental health among underserved women in Atlanta, GA.

Methods: A community-based participatory research partnership between Morehouse School of Medicine (MSM) and the Center for Black Women's Wellness (CBWW)'s Atlanta Healthy Start Community Action Network (AHSI-CAN) conducted a mixed-methods study to examine the mental/emotional health challenges of underserved Black women in Atlanta, GA. Questionnaires were completed with Black perinatal women (n=345). Semi-structured interviews were conducted with Black perinatal women (n=5), health care professionals (n=9) and outreach workers (n=3) to gather perspectives regarding local priorities for maternal mental health care in their communities. Interviews are still being conducted due to delays and impact of COVID-19.

Results: More women reported at least one mental health challenge after pregnancy when compared to prior to pregnancy (i.e., 71% vs 32%). Many women reported (73%) being asked about their emotional and mental health, however, only 16% were queried by an obstetrician. Further preliminary descriptive statistics on other PMADs risk factors are reported. This paper describes the procedures that were implemented to complete this study.

Conclusions: This study addresses critical gaps in current knowledge about PMADS among Black women. Preliminary analyses indicate that PMADS are alarmingly high among this sample of Black perinatal women in Atlanta, GA. The knowledge gained from this formative research will provide researchers and community-based organizations (CBOs) with relevant data that will inform approaches and models to address Black maternal mental health.

Keywords: Black women, inequities, maternal health, mental health, maternal mental health, perinatal mood, anxiety disorders

INTRODUCTION

Perinatal mood and anxiety disorders (PMADs) are the most common complication of pregnancy, affecting up to 1 in 5 childbearing women, with higher rates among low-income minority women (Kendig et al., 2017). One in seven women suffer from perinatal depression; and more specifically, prenatal and postpartum anxiety affects between 13%–21% and 11%–17% of women, respectively, with higher rates among low-income minority women (Wisner et al., 2013; Fairbrother, Young, Antony, & Tucker, 2015). PMADs are common in the perinatal period and when left untreated, pose significant risks to women and their children. Each year more women will be affected by postpartum depression

(PPD) than diabetes (i.e. approximately 800,000) or breast cancer (i.e. approximately 232,000) (DeSantis, Ma, Bryan & Jemal, 2013; DeSisto, Kim & Sharma, 2014). For instance, diabetes screening is embedded as a routinely performed assessment for all perinatal women. Yet, depression is subjectively and sporadically completed in the perinatal period. In Georgia, approximately 30,000 women experience these maternal health problems each year (Mental Health America of Georgia, 2018). PMADs encompass a range of emotional disorders, including major depression, generalized anxiety, obsessive compulsive disorder, panic disorder, and post-traumatic stress disorder. Adverse outcomes associated with these maternal mental

health conditions include poor self-care and nutrition, impaired maternal–fetal attachment, lack of medical care, increased likelihood of tobacco and substance abuse, and a heightened risk of suicide (Wisner et al., 2013; Fairbrother, Young, Anthony & Tucker, 2015). PMADs was cited as the common causes of maternal mortality, as suicide exceeds both hemorrhage and hypertensive disorders. Many Black women at-risk for PMADs are not getting the mental health assistance they need due to screening deficits (Chaudron et al., 2010). Validated screening tools and treatment strategies for combating postpartum depression have been developed but existing screening tools used to assess PMADs may not accurately or adequately assess symptoms experienced by women of color leaving many undetected and untreated (Chaudron et al., 2010).

In fact, 60% of women of color do not receive any treatment or support services for perinatal emotional complications (Chaudron et al., 2010). Reasons for this include lack of insurance coverage, social and cultural stigma, logistical barriers to services, and lack of culturally appropriate care (Goodman, 2009). To address these shortages, interventions are needed that are culturally responsive and integrate mental health services into spaces where Black women feel comfortable and are already accessing services.

In Georgia, mental health care services and providers are scarce, and this poses significant risks (Georgia Department of Community Health, 2021). In this study we aimed to (1) assess the mental and emotional health challenges of underserved Black perinatal women in Atlanta, Georgia (GA) and (2) examine local priorities and sources of care for mental health among underserved women in Atlanta, GA. Subsequently, the overarching goal of this study was to collect formative data to inform the development of a locally, culturally responsive intervention to integrate mental health prevention and promotion into maternal mental health services in community-based settings accessed by perinatal women.

METHODS

Mixed methods research is critical to understand the perspectives of Black perinatal and postpartum women to further explore factors that contribute PMADs, because of the disproportionately high burden on PMAs on minority women (Jallo, Salyer, Ruiz & French, 2015; Dove-Medows et al., 2020; Abdou et al., 2010). Quantitative data was collected via survey. Qualitative data was collected via semi-structured interviews. The Morehouse School of Medicine Institutional Review Board approved the study under Protocol 1310389.

Design

In this study, the primary outcome measures were to determine Black women's experience with perinatal mental health and their engagement with healthcare professionals concerning mental health screening and subsequent treatment. The secondary outcome was group-based medical mistrust; and the tertiary outcome were social determinants

of health and other maternal mental health risk factors. This cross-sectional study included a baseline assessment and semi-structured interviews.

Setting

The Atlanta Healthy Start-Community Action Network (AHSI-CAN) was the Community Based Participatory Research (CBPR) partnership for the study. The Center for Black Women's Wellness (CBWW) serves as the backbone support of the AHSI-CAN and is dedicated to coordinating the various dimensions and collaborators involved in the initiative (Hernandez et al., 2019). CAN partner organizations included community-based organizations (CBOs), social service agencies, early educational centers, and local health departments.

CBWW is located immediately southwest of downtown Atlanta in Neighborhood Planning Unit (NPU) V, in a multipurpose community center owned and operated by the City of Atlanta, GA. With a population of just over 17,000, NPU-V is a predominantly Black/African American community (80%) and has an average household income of \$27,000 and 37% of households receive food stamps (Neighborhood Nexus, 2019).

The AHSI-CAN research partner communities serve perinatal women in Atlanta, GA and South Fulton County. According to the 2018 American Community Survey estimates, Fulton County has a population of 1,021,902, with a racial/ethnic breakdown of 44.1% Black, 44.9% White, 6.9% Asian, and 7.3% Hispanic/Latino (United States Census Bureau, 2019). Blacks in Fulton County are disproportionately impacted by poverty and other social and economic factors (e.g., unemployment, low educational attainment). For instance, the median household income of Whites in Fulton County in 2018 was approximately 2.5 times the median income of Blacks (\$102,053 and \$40,220 respectively) (United States Census Bureau, 2019). Additionally, Blacks had the highest rates of individuals living below the federal poverty line, and 31.7% of households earned less than \$25,000 per year (United States Census Bureau, 2019). The unemployment rate for Blacks was almost 4 times the rate of Whites (10.8% compared to 2.8%) (United States Census Bureau, 2019).

Capacity Building of CBPR Partnership

The research team and key community stakeholders developed an eight-hour training using the content learned from the CBPR Partnership Academy, to build the capacity of CAN partners to implement research. The research team and CAN partners conducted this training, because both groups perceived there to be an imbalance of knowledge and resources focused on maternal health equity research. Part one of the training focused on CBPR and research to build the CAN partners research capacity. The research content included: 1) introduction to research, 2) an overview of CBPR, 3) the difference with traditional research, 4) data collection methodologies, 5) significance of research to communities, and 6) health inequities. The priority areas of

the research curriculum were population of interest (low-income women of color), PMADs, research with pregnant women, research ethics and informed consent, and working with low-literate populations. The training employed a multiple intelligence approach, which consisted of didactics, media, math, music, hypothetical scenarios, role-playing, and the teach-back method (Barrington, 2004). Research partners decided on this process because of existing distrust of academic partners, to ensure integrity and fidelity in the research process, the stigmatization of mental health, and concerns related to research with pregnant women.

Participants

Women were recruited through word-of-mouth and venue-based sampling from AHSI-CAN partner organization sites. AHSI-CAN partner organization sites recruited and administered the survey during community events (e.g. community baby shower or maternal mental health events). All AHSI-CAN survey implementation site partners agreed to administer at least 60 surveys and were remunerated with \$500. Women who agreed to participate were screened to determine whether they met the eligibility criteria for the study. Written informed consent was obtained prior to administration of the survey and individual participants received a \$10.00 gift card and a community resource guide developed by AHSI-CAN partners.

Eligibility criteria for inclusion in the study was a) self-identify as Black or African American; b) 18 to 45 years of age; c) reside in Atlanta, GA; d) speak English; e) currently pregnant or ≤ 18 months postpartum.

For the qualitative component of the study, we implemented purposive, word-of-mouth and venue-based sampling to identify and recruit providers, community-based health outreach workers, and perinatal women from the AHSI CAN and organizations who provide maternal mental health services, (e.g. Mental Health America of Georgia and Postpartum Support International- Georgia Chapter).

Data Collection

Quantitative Data

A risk assessment survey was implemented from August 2019-October 2019 to assess Black perinatal women's experiences regarding mental/emotional health challenges experienced during a pregnancy, communication with health care providers and the quality of care they received. The survey took about 10 minutes to complete and participants were remunerated with a \$10 gift card and a community resource guide developed by AHSI-CAN partners.

Instrument Development

CBPR approaches were used to equitably engage AHSI-CAN partners in the design and development of a survey instrument. During CAN meetings, the Maternal Mental Health workgroup conducted five discussions to

establish goals for the survey and to develop preliminary questions based on their experiences working with underserved women. Based on those preliminary questions and discussions, the research team drafted questions grounded on the peer-review literature and validated measures. The research team then refined the instruments, with drafts reviewed by the CAN partners.

Measures

The paper and pencil survey consisted of single items that assessed sociodemographic characteristics, self-esteem, medical mistrust, and adverse childhood experiences.

Social Determinants of Health

Single items assessed demographic characteristics (i.e. age, age at most recent pregnancy, marital status, race/ethnicity, employment status, household income, educational attainment, health insurance, health care provider).

Mental Health Challenges

Nine questions related to maternal mental health challenges during and after their most recent pregnancy were adapted from the Royal College of Obstetricians and Gynaecologists Maternal Mental Health Survey (Russell, Ashley, Chan, Gibson, & Jones, 2017). The survey was chosen because it also comprised questions related to women's experiences with maternal health challenges, women experiences engaging with healthcare providers, and referrals and experiences of maternal mental health.

Self-Esteem

Self-esteem was assessed using The Rosenberg Self-Esteem Scale (RSES) (Chao, Vidacovich, & Green, 2017). The RSES is one of the most widely used measures of global self-esteem (SE; Byrne, 1996) in social science research today is made up of 10 items that refer to self-respect and self-acceptance rated on a 4-point Likert-type scale, ranging from 1 (totally disagree) to 4 (totally agree). The Likert-type responses are summed up to create a total score for each domain. The total achievable score for the Rosenberg Self-Esteem Scale is 30, with higher scores indicating higher self-esteem.

Group-Based Medicine Mistrust

The 12-item Group-Based Medical Mistrust Scale (GBMMS), a validated instrument that has been used in samples of racial/ethnic minority men and women, was used to assess distrust and apprehension of healthcare providers and institutions in the current study (Thompson, Valdimarsdottir, Winkel, Jandorf, & Redd, 2004; Wheldon, Kolar, Hernandez, & Daley, 2017). All answers for these items are on a 5-point Likert scale ranging from strongly disagree (0) to strongly agree (4). Responses to these eight items were summed to create a medical mistrust score with higher scores indicating greater medical mistrust (theoretical range = 0 to 32).

Adverse Childhood Experiences

Adverse Childhood Experiences (ACE) were assessed using the Behavioral Risk Factor Surveillance System (BRFSS) ACE Module (Centers for Disease Control and Prevention [CDC], 2009). The ACE module consisted of 11 items that assessed exposure to nine types of ACEs including physical abuse, sexual abuse, emotional abuse, mental illness of a household member, problematic drinking or alcoholism of a household member, illegal drug use by a household member, divorce or separation of a parent, domestic violence towards a parent, and incarceration of a household member. The ACE score is a measure of cumulative exposure to adverse childhood conditions.

Qualitative Data

In-depth interviews to date lasted between 45 to 60 minutes and we expect additional interviews to be the same. The general purpose of the interviews was to gather perspectives from community stakeholders regarding their personal and lived experiences providing or receiving care, barriers and facilitators to maternal mental health services, thoughts on cultural responsiveness, and other questions that may come from analysis of survey data. Written informed consent was obtained from each participant prior to starting the interview and a copy was given to each participant. Perinatal women participants received a \$25.00 gift card, while health care providers and community-based health outreach workers were remunerated with \$50 gift cards

Interview Guide Development

CAN partners and research team met over the course of two months bi-weekly to discuss the purpose of the interview guide and to generate open-ended questions. Interview questions were developed and tailored to the unique knowledge and experiences of the target population (i.e. Black perinatal women vs. health care professional). During the maternal mental health workgroup discussions, CAN partners expressed the need to explore implicit bias and for organizations that provide mental maternal health services, cultural responsiveness, and ways to strengthen community partnerships. CAN partners also developed the demographic profile sheet completed by participants prior to the interview.

Questions

Interviews with Black perinatal women investigated their personal and lived experiences with maternal mental health

challenges, experiences with and perceptions of maternal mental health care, and suggestions for maternal mental health programming. Interviews with community-based outreach workers explored community-level factors to maternal mental health such as status of maternal mental health in the community, contributors to maternal mental health issues, barriers and facilitators to maternal mental health services and services, as well as strategies for outreach and services with this population. Lastly, interviews with healthcare providers examined the multiple levels of facilitators and barriers that exist for these women attempting to access maternal mental health services as well as the daily complexities and challenges and opportunities confronting healthcare providers when serving this unique population.

Processes

Figure 1 represents the Using Community Engaged Approaches to Integrate Maternal Mental Health into Community-Based Perinatal Health Services study design and participant flow.

Timeline

Figure 2 details the Using Community Engaged Approaches to Integrate Maternal Mental Health into Community-Based Perinatal Health Services timeline and aims.

Data Analysis

Preliminary quantitative data was analyzed using R (version 3.6.1). Descriptive analyses, including means and variances, frequency distributions, and cross-tabulations were conducted (table 1).

Qualitative data analysis will be accomplished with NVIVO qualitative software. AHSI-CAN partners and an academic partner will independently develop an initial list of themes expressed in response to each research question. Both partners will compare their list of themes and reach agreement on a final coding scheme. Subject matter and supporting quotes will be extracted from the data. Specific and illustrative quotes will be extracted verbatim. The research team will document and synthesize findings, as well as any challenges or lessons learned gathered through data collection activities.

RESULTS

Preliminary descriptive statistics are reported from the target patient population's responses to the survey.

Primary Outcome Measures

Experiences of mental health challenges

Approximately 32% of the women reported having a mental health challenge prior to their pregnancy. Of those women who reported experiencing any mental health challenges prior to pregnancy although there was a wide range of mental health problems, the majority described those challenges as anxiety, depression, mood swings, and sleeping too much.

Moreover, 71% of women self-reported they had experienced at least one maternal mental health condition during or after their pregnancy. Low mood was experienced by 46% of the women, depression by 28% and anxiety by 27% of the women. Psychosis was experienced by 4% of the women.

Experiences engaging with healthcare professionals

During pregnancy, many women (73%) reported that they were asked about their emotional and mental health by at least one healthcare professional, with 33% reported being asked by a primary care provider. Only 16% reported being asked about their mental health by an obstetrician.

After pregnancy, 70% of women reported they were asked about their mental health concerns by at least one health care professional. Thirty-seven percent reported that they were asked by their primary care provider, while 19% reported being asked by their gynecologist.

Many women (60%) who reported experiencing mental health challenges were not referred to support service or counseling for further help. Of those that were referred to support services almost half (48%) did make an appointment to see a provider.

Secondary Outcome Measure

Group-Based Medical Mistrust

Approximately 45% of the respondents reported at least one measure of group-based medical mistrust, which was associated with race/ethnicity.

Tertiary Outcome Measures

Social Determinant of Health Demographics and Other Risk Factors

The median age of the women was 26 years old + 6.05, and the median age at most recent pregnancy was 24 + 6.34.

Most women were single (44%) or not married but living with their partner (27%); completed a high school education or less (61%); had health insurance (80%); had a regular health care provider (77%); and had a household income of less than \$20,000 a year (73%).

The majority (67%) of the Black women reported at least one low self-esteem indicator. Further, the mean Adverse Childhood Experience (ACE) score was 2.44 + 2.3.

Dissemination and Community Feedback

Consistent with CBPR approaches, the authors are currently co-presenting data from this project to study participants, and other key stakeholders in our community. The sharing of this information will not be purely for the purpose of reporting outcomes, but rather to invite stakeholders to contribute to the interpretation of the findings. Moreover, the community members and health professionals will provide recommendations for maternal mental health care models that can be implemented in community settings. This iterative process will be on-going and will result in adjustments to dissemination and translation of findings. This feedback process will be critical for shaping our interpretation and presentation of data collected from study participants in the context of the community to which they belong.

DISCUSSION

Maternal mental health is a major public health issue and racial disparities are persistent. However, to date there is a dearth of studies focused on maternal mental health and Black women.

Experience of Mental Health Challenges

Preliminary results from the current study indicate that most women (70%) in this sample self-reported at least one mental health challenge during their pregnancy. These preliminary results are aligned with other studies that found Black women to have higher rates of depression and anxiety during pregnancy than non-Latina white women (Evans, Phillippi, & Gee, 2015; Liu & Tronick, 2014; Melville, Gavin, Guo, Fan, & Katon, 2010; Rich-Edwards et al., 2006). Studies report rates of maternal mental health challenges among Black women to be between 7 to 40%; however, women in our study reported alarmingly higher rates (Lara-Cinisomo & Wood, 2018; Tandon & Cluxton-Keller, 2012; Beeghly, Olson, Weinberg, Pierre, Downey & Tronik, 2003; Segre, O'Hara, Arndt, Stuart, 2007).

Experience Engaging Health Care Professionals

Despite PMADs affecting a significant number of women in this sample, only 16% reported being asked about their mental health by an obstetrician. Thus, the majority of women in this study were not referred to mental health

services. Like other studies, of those who were referred, only 50% sought treatment (Chang, Tabet, Elder, Kiel, & Flick, 2016). Screening rates for PMADs are inconsistent and low among US healthcare providers (Evan, Phillippi & Gee, 2015). A systematic review by Evans, Phillippi and Gee (2015) demonstrated that among seven studies, an average of 55% of healthcare professionals responded affirmatively when asked if they assessed for maternal mental health concerns (Evan, Phillippi & Gee, 2015). Although there is consensus from leading physician organizations like the American College of Obstetricians and Gynecologists encouraging maternal mental health screening, screening rates are low among obstetricians and gynecologists. If obstetricians recognize a woman's PMAD, then referral and treatment for maternal mental health concerns are high during the prenatal period (80%) and postpartum period (93.7%) (Goodman & Tyler-Viola, 2010).

In Georgia, there is a lack of mental health professionals with expertise in PMADS, there are no standardized screening protocols, and there is only one established Maternal Mental specific support group in the state. Moreover, of those providers with PMADs training, very few accept Medicaid which is the coverage mechanism for roughly 50% of pregnant women in Georgia. The self-report rate of PMADs stands at 16.6% according to the Centers for Disease Control and Prevention (CDC), higher than the US average. To address this critical public health problem, more attention must be paid to PMADs, and resources must be allocated to provide mental health support for Georgia mothers. By taking care of Georgia mothers, we can affect the future health of their children and families. Through awareness, intervention, and treatment, we can work to support maternal mental health in Georgia.

Group-Based Medical Mistrust

Forty-five percent of the respondents reported at least one measure of group-based medical mistrust. This may be due to the study participants seeking care at community-based centers, Federally Qualified Health Centers (FQHCs), or safety-net settings where the providers represent the ethnicity of the service population. However, even 45% reporting racial/ethnic group-based medical-mistrust is concerning finding, because medical mistrust may lead to delayed care or a decreased likelihood to seek medical care. Williamson, Smith, and Bigman (2019) found that medical mistrust was positively associated with prior personal experiences and vicarious experiences with discrimination (Williamson, Smith & Bigman, 2019).

Despite a number of publications evaluating the impact of medical mistrust on Black women living with chronic diseases like HIV, breast cancer, or its impact on sexual and reproductive health services, provider satisfaction, and PrEP use, the authors found no studies focused on medical mistrust among Black perinatal and postpartum women (Tekeste et al., 2019; Sutton, He, Edmond & Sheppard, 2019; Rosenthal & Lobel, 2020; Molina, Kim, Berrios & Calhoun, 2015; Benkert, Peters, Clark & Keves-Foster, 2006; Benkert, Hollie, Nordstrom, Wickson, Bins-Emerick

&Trust, 2009). Subsequently, there is a need to develop interventions designed to combat group-based medical mistrust.

Social Determinant of Health and Other Risk Factors

Social determinants of health (SDoH) are the conditions in which a person is born, lives, works, worships, and plays that affects their quality-of-life outcomes (Office of Disease Prevention and Health Promotion, 2020). The five key areas are economic stability, education, social and community context, health and health care, and built environment (Office of Disease Prevention and Health Promotion, 2020).

Strong predictors and risk factors for maternal mental health concerns are having previously experienced a maternal mental health challenge, being low-income, and race/ethnicity (i.e. Black or Latinx). Large portions of the study population reported low levels of income (73%) and educational attainment (61%). This is problematic because 78% of Georgian adults have higher annual salaries; and nationally, 79.8% of American adults have a higher annual salary (United States Census Bureau, 2019). Similarly, 58.8% of Georgians adults have higher levels of educational attainment; and nationally, 60.5% of American adults have higher levels of educational attainment (United States Census Bureau, 2019). It has been found that women who had less than a high school degree were more than three times more likely to suffer from postpartum behavioral health problems. Low education level is an indicator of socioeconomic status and has been associated with an increased risk for postpartum depression and anxiety (Weissman, 2018). Conversely, many participants report having health coverage (80%) with the majority being covered through Medicaid under the coverage category for "pregnancy-related services" and "conditions that might complicate the pregnancy." Preliminary findings suggest that low-income women, including those enrolled in the Medicaid program, and racial/ethnic minorities are disproportionately affected by maternal behavioral health disorders, as they face unique barriers to diagnosis and treatment. Rates of depressive symptoms among low-income women are estimated to fall between 40 and 60 percent (Centers for Medicare and Medicaid Services [CMS], 2016). These findings mirror our sample of Black perinatal women (70%). Subsequently, it is important to expand Medicaid coverage from 60 days postpartum to one year to fully treat postpartum illnesses in state programs (National Health Law Program, 2018).

Our findings are consistent with national trends of inequity. In 2020, the median weekly earnings of Black women were \$813, while the median weekly earnings of White women were \$1,008 (US Department of Labor, 2020). Undoubtedly, lower wages represent many of the negative outcomes associated with the five key areas of the SDoH. These key areas have a circular relationship, with each factor bearing equal influence upon the other. Therefore, further research is necessary to elucidate the impact of SDoH on Black maternal mental health and maternal health equity.

Identifying more effective strategies to reduce health disparities in Black communities require an understanding of the context and an approach that is community-led and sustainable. The qualitative component of the research study aims to comprehensively understand the barriers and facilitators to maternal mental health screening and treatment among low-income Black women in Atlanta, GA.

Future Directions

Universal maternal mental health screening protocol for all pregnant and postpartum women will ensure that all women are screened without delay. Most importantly, a universal screening system should assess the presence of prenatal or postpartum mood and anxiety disorders, using evidence-based tools. According to Postpartum Support International – Georgia chapter (PSI-GA), the recommended schedule for screening should include all the following: screening at the first prenatal visit; at least once during the second trimester; at least once in the third trimester; screening at the facility where the woman gives birth (i.e. between labor and discharge); four to six weeks postpartum at an obstetrical visit; repeated screenings at 6 and 12 months in the OB and/or primary care setting (or midwifery, Federally qualified health centers), and 3, 9 and 12-month pediatric visits (Postpartum Support International, 2021). Following the 2016 recommendation from the United States Preventative Task Force (2016), mandatory depression screening is now recommended by the American College of Obstetrics and Gynecology (ACOG, 2015), the American Academy of Pediatrics (2010), and the American Medical Association (American Medical Association [AMA], n.d.).

Further, Pregnancy Medicaid and private insurance should support and cover mental health services for pregnant and postpartum women during pregnancy and at least 12 months post-delivery. For states that did not adopt Medicaid expansion programs in 2014, many of those women lost coverage as early as 60 days postpartum (Kaiser Family Foundation, 2019). Mothers who lost this needed medical coverage, were no longer able to receive care for conditions that may have arisen during their pregnancy, leaving them at risk for mortality or morbidity in the postpartum period. Extending Medicaid for at least 12 months would ensure essential access to treatment for PMADs.

It is imperative to establish universal maternal mental health screening of all pregnant women and to expand Medicaid coverage for at least 12 months. Equally, there is a critical need to develop a culturally tailored screening tool and implementation schedule. A comprehensive maternal mental health screen approach must include advocacy, strategies to overcome the impact of racism, and crisis-related stress.

Advocacy

Various AHSI-CAN partners have been involved across local and national coalitions to address issues of perinatal mental health. In 2019, AHSI-CAN partners worked to establish a proclamation for the Georgia state legislature

recognizing May 1st as Georgia's first annual Maternal Mental Health Day (Governor of the State of Georgia, 2019). In the bill, the issues of perinatal mood and anxiety disorders among women were addressed. Even though 1 out of 7 Georgian mothers experience depression, anxiety, compulsive thoughts, and/or psychosis associated with these disorders, only 10 percent of women with these disorders receive the treatment they need (Postpartum Support International, 2015). Additionally, advocacy efforts led Georgia lawmakers to benchmark \$1 million in the fiscal year 2020 budget to screen and treat maternal mental illness in rural and underserved regions of the state (Georgia Budget & Policy Institute, 2019).

As a state with one of the highest maternal mortality rates in the country, Georgia maternal-health leaders are working to better ensure that all women have access to the treatment they need. The AHSI-CAN's efforts to combat maternal mental health are a part of a larger wave of efforts that support making maternal mental health a public health priority.

Crisis-Related Stress & Worry

COVID-19 has exacerbated mental health concerns and may have impacted the pathways by which Black women are currently seeking mental health service (Chandler et al, 2020). However, COVID-19 is a new crisis. The Black community has lived through countless crises, and some may argue that the community is in a constant state of crisis due to racist systems and white supremacist ideology. These crises derive from hyper-vigilance and the threat of exposure to discrimination; health professional bias and reduce access to care; internalized racism; environmental racism; systematic racism; and hostility and stress in the larger society (William, 2019; Wallace, Nazroo & Becares, 2016). Black women live in the crisis of constant and cumulative exposure to racial discrimination.

Recognizing this dichotomy, the authors have embarked on a new study to define emerging themes related to maternal mental health, specific to crisis-related stress and worry. The focus of this study is to investigate current mental health challenges among pregnant and postpartum Black women amidst the COVID-19 pandemic. Additionally, the authors are seeking to determine the effectiveness of a digital health platform to support Black pregnant and postpartum women's mental health amidst the COVID-19 pandemic and other crisis points.

ETHICAL CONSIDERATIONS

This study was limited to low-income Black women in Atlanta. Therefore generalization to other Black women in rural Georgia or other racial/ethnic women is limited.

To maintain privacy, participants completed paper and pencil surveys in private rooms or if in public space were spread out and handed folders to place surveys in once they were completed. We assured participants that all information provided was strictly confidential. It was stated (verbal and

on paper) that completed questionnaires would “never be shown to anyone else, and would only be known to the research team as a number identifier.

Pilot funding was granted through Detroit Community-Academic Urban Research Center, CBPR Partnership Academy. There were no conflicts of interest

CONCLUSION

This study aims to contextualize the experiences of Black women. Centering the experiences of Black women is an opportunity to rethink conventional research practices, thereby identifying pathways that can contribute knowledge associated with maternal mental health. To date, there is still a dearth of information based on the narratives of Black women. Applying CBPR principles and emphasizing the lived experiences of Black, reminds us that their voices are legitimate sources of knowledge and ensures a strategic focus on culturally and contextually appropriate research.

The knowledge gained from this formative research will provide us with community-driven relevant data that will inform approaches and models to address Black maternal mental health. These data will be adapted in a variety of settings by leveraging existing community-based resources across diverse disciplines. The authors are working to see how this model can be adapted and used with other Healthy Start programs across the country, to address the gaps in maternal mental health care for Black women.

Acknowledgements

This manuscript is supported, in part, by the National Center for Advancing Translational Sciences of the National Institutes of Health under Award Number UL1TR002378.

References

- Abdou CM, Schetter CD, Jones F, Roubinov D, Tsai S, Jones L, Lu M, Hobel C. (2010). Community perspectives: mixed-methods investigation of culture, stress, resilience, and health. *Ethnicity & Disease*, 20(1 Suppl 2).
- American Medical Association House of Delegates. (n.d.). *Addressing Depression to Prevent Suicide Epidemic*. Retrieved from American Medical Association House of Delegates: https://www.ama-assn.org/system/files/2019-04/a19-ims-resolution-2_0.pdf
- Barrington, E. (2007). Teaching to student diversity in higher education: how Multiple Intelligence Theory can help. *Teaching in Higher Education*, 9(4), 421-434.
- Beeghly, M., Olson, K., Weinberg, M., Pierre, S., Downey, N., Tronick, E. (2003). Prevalence, stability, and socio-demographic correlates of depressive symptoms in Black mothers during the first 18 months postpartum. *Matern Child Health J*, 157-68. doi:10.1023/a:1025132320321
- Benkert, R., Hollie, B., Nordstrom, C., Wickson, B., Bins-Emerick, L. (2009). Trust, mistrust, racial identity and patient satisfaction in urban African American primary care patients of nurse practitioner. *J Nurs Scholarsh*, 41(2), 211-9. doi:10.1111/j.1547-5069.2009.01273.x.
- Benkert, R., Peters, R., Clark, R., Keves-Foster, K. (2006). Effects of perceived racism, cultural mistrust and trust in providers on satisfaction with care. *Journal of the National Medical Association*, 98(9), 1532–1540.
- Center for Medicare & Medicaid Services (CMS). (2016, May 11). *Maternal Depression Screening and Treatment: A Critical Role for Medicaid in the Care of Mothers and Children*. Retrieved from Centers for Medicare & Medicaid Services: <https://www.medicare.gov/federal-policy-guidance/downloads/cib051116.pdf>
- Chandler, R., Guillaume, D., Parker, A., Mack, A., Hamilton, J., Dorsey, J., Hernandez, N. (2020). The impact of COVID-19 among Black women: evaluating perspectives and sources of information. *Ethnicity & Disease*, 1-14. doi:0.1080/13557858.2020.1841120
- Chaudron LH, Szilagyi PG, Tang W, Anson E, Talbot NL, Wadkins HI, Tu X, Wisner KL. (2010). Accuracy of depression screening tools for identifying postpartum depression among urban mothers. *Pediatrics*, 125(3), e609-17. doi:10.1542/peds.2008-3261
- DeSantis, C., Ma, J., Bryan, L., Jemal, A. (2014). Breast cancer statistics, 2013. *CA Cancer J Clin*, 64(1), 52.62. doi:10.3322/caac.21203
- Dove-Medows E, Deriemacker A, Dailey R, Nolan TS, Walker DS, Misra DP, Kavanaugh K, Giurgescu C. (2020). Pregnant African American Women's Perceptions of Neighborhood, Racial Discrimination, and Psychological Distress as Influences on Birth Outcomes. *MCN Am J Matern Child Nurs*, 49-56. doi:10.1097/NMC.0000000000000589
- Evans MG, Phillippi S, Gee RE. (2015). Examining the screening practices of physicians for postpartum depression: implications for improving health outcomes. *Womens Health Issues*, 25(6), 703–710.
- Fairbrother, N., Young, A. H., Janssen, P., Antony, M. M., & Tucker, E. (2015). Depression and anxiety during the perinatal period. *BMC psychiatry*, 15(206). Retrieved from <https://doi.org/10.1186/s12888-015-0526-6>
- Georgia Budget & Policy Institute. (2019). *Georgia's FY 2020 Budget: Majority of New Spending Dedicated to \$530 Million Teacher Pay Raise*. Retrieved from <https://gbpi.org/georgias-fy-2020-budget/>
- Georgia Department of Community Health . (2021). Health Professional Shortage Area (HPSA) Designations. Retrieved from <https://dch.georgia.gov/health-professional-shortage-area-hpsa-designations>

- Goldin Evans M., Phillippi S., Gee R. (2015, Nov-Dec). Examining the Screening Practices of Physicians for Postpartum Depression: Implications for Improving Health Outcomes. *Womens Health Issues*, 25(6). doi:10.1016/j.whi.2015.07.003
- Goodman J., Tyer-Viola L. (2010). Detection, treatment, and referral of perinatal depression and anxiety by obstetrical providers. *J Women's Health*, 19(3), 477–490.
- Goodman JH. (2009). Women's attitudes, preferences, and perceived barriers to treatment for perinatal depression. *Birth*, 36(1). doi:10.1111/j.1523-536X.2008.00296.x
- Governor of the State of Georgia. (2019). *Maternal Mental Health Day*. Retrieved from <https://gov.georgia.gov/document/proclamation/maternal-mental-health-day-5119pdf/download>
- Hernandez ND, Dorsey J, Glass DM, Pope E, Worthy N, Blasingame E, Gooding J, Braxton P, Whitfield M, Dotson Y. (2019). Community-Engaged Approaches to Address the Ethical Concerns of Maternal Mental Health Disparities Research. *J Health Care Poor Underserved*, 12-20. doi:10.1353/hpu.2019.0110
- Jallo, N, Salyer, J, Ruiz, RJ, and French, E. (2015, Aug). Perceptions of guided imagery for stress management in pregnant African American women. *Arch Psychiatr Nurs*, 249-54. doi:10.1016/j.apnu.2015.04.004
- Kaiser Family Foundation. (2019, May). *Expanding Postpartum Medicaid Coverage*. Retrieved from Kaiser Family Foundation: <https://www.kff.org/womens-health-policy/issue-brief/expanding-postpartum-medicaid-coverage/>
- Kendig, S., Keats, J. P., Hoffman, M. C., Kay, L. B., Miller, E. S., Simas, T. A. M., ... & Semenuk, K. (2017). Consensus bundle on maternal mental health: perinatal depression and anxiety. *Journal of Obstetric, Gynecologic & Neonatal Nursin*, 272-281.
- Lara-Cinisomo, S., Clark, C., Wood, J. (2018, May-Jun). Increasing Diagnosis and Treatment of Perinatal Depression in Latinas and African American Women: Addressing Stigma Is Not Enough. *Womens Health Issues*, 28(3), 201-204. doi:10.1016/j.whi.2018.01.003
- Mental Health American of Georgia. (2018). *Advocacy & Public Policy*. Retrieved from <https://www.mhageorgia.org/legislative-priorities/>
- Molina, Y., Kim, S., Berrios, N., & Calhoun, E. (2015). Medical mistrust and patient satisfaction with mammography: the mediating effects of perceived self-efficacy among navigated African American women. *Health expectations : an international journal of public participation in health care and health policy*, 18(6), 2941–2950. Retrieved from <https://doi.org/10.1111/hex.12278>
- National Health Law Program. (2018, September). *Pregnant Women's Coverage*. Retrieved from National Health Law Program: <https://healthlaw.org/resource/qa-on-pregnant-womens-coverage-under-medicaid-and-the-aca/>
- Neighborhood Nexus. (2019). *Neighborhood Statistical Area V04: Mechanicsville*. Retrieved from Neighborhood Nexus: <http://documents.atlantaregional.com/NN/Profiles/AtlantaProfiles/V04.pdf>
- Office of Disease Prevention and Health Promotion. (2020). *Health People*. Retrieved from Social Determinants of Health: <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>
- Postpartum Support International. (2015). *Perinatal Mood and Anxiety Disorders: Fact Sheet*. Retrieved from Postpartum Support International: <https://www.postpartum.net/wp-content/uploads/2014/11/PSI-PMD-FACT-SHEET.pdf>
- Postpartum Support International. (2021). Screening Recommendations. Retrieved from <https://www.postpartum.net/professionals/screening/>
- Rosenthal, L., Lobel, M. (2020). Gendered racism and the sexual and reproductive health of Black and Latina Women. *Ethn Health*. *Ethn Health*, 25(3), 367-392. doi:10.1080/13557858.2018.1439896
- Segre, L., O'Hara, M., Arndt, S., Stuart, S. (2007). The prevalence of postpartum depression: the relative significance of three social status indices. *Soc Psychiatry Psychiatr Epidemiol*, 42(4), 316-2. doi:10.1007/s00127-007-0168-1
- Sutton, A., He, J., Edmonds, M., & Sheppard, V. (2019). Medical Mistrust in Black Breast Cancer Patients: Acknowledging the Roles of the Trustor and the Trustee. *Journal of cancer education: The official journal of the American Association for Cancer Education*, 34(3), 600–607. Retrieved from <https://doi.org/10.1007/s13187-018-1347-3>
- Tandon, S., Cluxton-Keller, F., Leis, J., Le, H. N., & Perry, D. F. (2012). A comparison of three screening tools to identify perinatal depression among low-income African American women. *Journal of affective disorders*, 136(1-2), 155–162. Retrieved from <https://doi.org/10.1016/j.jad.2011.07.014>
- Tekeste, M., Hull, S., Dovidio, J., Safon, C., Blackstock, O., Taggart, T., Kershaw, T., Kaplan, C., Caldwell, A., Lane, S., Calabrese, S. (2019). Differences in Medical Mistrust Between Black and White Women: Implications for Patient-Provider Communication About PrEP. *AIDS Behav*, 23(7), 1737-1748. doi:10.1007/s10461-018-2283-2
- United States Census Bureau. (2019). *2014-2018 ACS 5-Year Data Profil*. Retrieved from American Community Survey: <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/>
- US Department of Labor. (2020, October 16). *USUAL WEEKLY EARNINGS OF WAGE AND SALARY*

WORKERS. Retrieved from Bureau of Labor Statistics:
<https://www.bls.gov/news.release/pdf/wkyeng.pdf>
Wallace, S., Nazroo, J., & Bécaries, L. (2016). Cumulative
Effect of Racial Discrimination on the Mental Health of
Ethnic Minorities in the United Kingdom. *American
journal of public health*, 1294–1300. Retrieved from
<https://doi.org/10.2105/AJPH.2016.303121>
Williams D. (2018). Stress and the Mental Health of
Populations of Color: Advancing Our Understanding of
Race-related Stressors. *Journal of health and social
behavior*, 59(4), 466–485. Retrieved from
<https://doi.org/10.1177/0022146518814251>
Williamson, L., Smith, M., Bigman, C. (n.d.). Does
Discrimination Breed Mistrust? Examining the Role of

Mediated and Non-Mediated Discrimination
Experiences in Medical Mistrust. 2019, 24(10),
791-799. Retrieved from
<https://doi.org/10.1080/10810730.2019.1669742>
Wisner, K. L., Sit, D. K., McShea, M. C., Rizzo, D. M.,
Zoretich, R. A., Hughes, C. L., Eng, H. F., Luther, J. F.,
Wisniewski, S. R., Costantino, M. L., Confer, A. L.,
Moses-Kolko, E. L., Famy, C. S., & Hanusa, B. H.
(2013). Onset timing, thoughts of self-harm, and
diagnoses in postpartum women with screen-positive
depression findings. *JAMA psychiatry*, 70(5), 490–498.
Retrieved from
<https://doi.org/10.1001/jamapsychiatry.2013.87>

© Natalie D. Hernandez, PhD, MPH, Sherilyn Francis, MPH, MSBT, Brielle Evans, Andrea G. Parker, PhD, Jemea Dorsey, MS, Danette McLaurin Glass, Mica Whitfield, LMSW, Elise Blasingame, MSW, Pamela Braxton, LMSW, Rasheeta Chandler, PhD, RN, FNP-BC, FAANP, FAAN. Originally published in jGPHA (<http://www.gapha.org/jgpha/>) May 4, 2022. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial No-Derivatives License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work ("first published in the Journal of the Georgia Public Health Association...") is properly cited with original URL and bibliographic citation information. The complete bibliographic information, a link to the original publication on <http://www.gapha.jgpha.org/>, as well as this copyright and license information must be included.