

## Correlates of Perceived Discrimination in Healthcare Amongst Black Women

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*This paper examined the impact of medical racism on Black women. Topics explored include Black racial identity, emotion regulation, group-based medical mistrust, perceived social support, and perceived discrimination experiences. The Socioecological Model was used to examine the interplay of factors at the interpersonal, intrapersonal, and institutional levels concerning experiences of perceived discrimination in healthcare settings. The research interest is in how implicit biases contribute to health disparities amongst Black American women. Bivariate correlations suggest relationships between centrality, social support, group-based medical mistrust, and perceived discrimination. Hierarchical regression analysis was indicative of medical mistrust as the most meaningful indicator of perceived discrimination. This study significantly identified relationships between centrality and group-based medical mistrust, centrality, and perceived discrimination, with group-based medical mistrust as a considerable standalone predictor.*

*Keywords:* medical mistrust, perceived discrimination, social support, emotion regulation, Black women, health, health disparities

The Centers for Disease Control and Prevention (2018) defines health disparities as "preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations" (p.1). Researchers studying health disparities have observed the intersection of societal factors such as race, education levels, employment, socioeconomic status, and many other factors that impact different population groups differently. Drayton-Brooks & White (2004) state, "African Americans account for only 12% of the population in the United States, yet African Americans, as a group, have the poorest health status indicators in the nation and are disproportionately represented among underserved populations. 55 % of the 33.9 million African Americans in this country are women" (p. 84). Stewart & Nápoles-Springer (2013) suggest minority patients receive suboptimal medical care compared to White Americans, with discrimination inside healthcare systems compounding the physiological and psychological effects of discrimination felt from the outside (p. 1213). Implicit biases, unconscious attitudes about a person or group, and discriminatory practices within the healthcare system have long been examined and reported, with implicit biases favoring White Americans. Also, implicit bias is a significant predictor of Black patients either mistreated or not receiving treatment (Dehon et al., 2017). Efforts to explain racial differences in healthspan from institutional barriers, employment, lifestyle choices, physiological factors, and legislation (Massoglia, 2008). Comparatively, minority women in America are increasingly vulnerable to unequal healthcare treatment, particularly low-income, uninsured Black women in comparison to higher income and insured White women (Karliner et al., 2016). A report published by the Institute of Medicine in 2003 cited that even when controlling for patient outcomes, insurance status, and access factors, African American patients still did not receive equal treatment compared to their white counterparts (Townsend & Belgrave, 2009).

Understanding the historical and cultural influences that impact healthcare services is essential, especially for women of ethnic/racial minorities. The general mistrust and anticipation of stigmatization that African Americans feel in general and concerning the medical context and larger American systems can negatively impact the utilization of healthcare services (Penner et al., 2009). Black people who report discrimination from their healthcare providers report decreased likelihood of critical health care screenings such as cancer, diabetes, cholesterol screenings, and other health-related behaviors like getting the flu shot (Penner et al., 2009). Additionally, Black patients who experienced increased discrimination related to deteriorating physical and mental health and more significant chronic illnesses when treated by a medical physician (Penner et al., 2009).

For this study, the term Black, a socio-political racial construct, is used to refer to descendants of the African diaspora or those who self-identify as Black. In an effort not to exclude, women from various ethnic groups such as Haitian, Jamaican, continental African and others that fall under the racial stratification of Black were included in this study. This paper focuses on the experiences of Black women and the American healthcare system. While the terms Black and African American are used synonymously in research, it is understood that the terms differ.

### **Statement of the Problem**

Black American women are dually marginalized due to their race and gender. Despite recent public health efforts to promote health equity in the United States, research suggests that physical and sexual health conditions disproportionately impact Black American women than women of other races. Molina and colleagues (2015) assert, "the unique and severe forms of racism African Americans experience, including segregated healthcare systems and overt interpersonal racism by providers, can contribute to elevated levels of medical mistrust and sub-optimal adherence as well as lower satisfaction and quality of life" (p. 4). A meta-analysis of 66 studies examining the effects of racism on mental health conducted by Pieterse and Carter (2007) found that in a sample of 18,140 Black Americans, there was a positive correlation between perceived racism and psychological distress. Research efforts in trying to understand the relationship between individual beliefs, interpersonal relationships, medical mistrust, patient-practitioner relationships, and health outcomes for Black women are severely lacking. Noting this gap in the literature, this paper aims to answer the following questions: what is the association between racial salience and medical mistrust on experiences of discrimination? How do emotion regulation and social support affect the perception of discrimination in healthcare settings? How do sociodemographic factors influence the perception of discriminatory experiences?

### **Literature Review**

#### ***Theoretical Framework***

The socioecological model (SEM) identifies the social determinants of health and how factors are produced and sustained across various overlapping subsystems. Within the SEM, there are five levels of interaction: (1) the individual/intrapersonal level, (2) interpersonal level, (3) organizational/institutional level, (4) community level, and (5) the policy level (Family and Youth Services Bureau, 2015). Due to its vast applicability, the SEM can be used to understand social determinants of issues across multiple disciplines.

The SEM allows for the linkage between biopsychosocial factors and individual and community health outcomes based on examining individuals' systemic and epidemiological distribution accounting for demographic and economic variables. While utilized heavily in public health, the SEM has its place in psychological research, and

many of its core components are rooted in psychological theory. Due to the complex interrelationships of health determinants, targeted research and interventions are most effective when examined at all levels. McLeroy and colleagues (1988) insert "the importance of ecological models in the social sciences is that they view behavior as being affected by and affecting the social environment. Many models—like Bronfenbrenner's—also divide the social environment into analytic levels that can focus on different levels and types of social influences and develop appropriate interventions. Thus, ecological models are system models, but they differ from traditional systems models viewing patterned behavior—of individuals or aggregates—as the outcomes of interests" (p. 355).

The version of SEM most used to address health education and behavior change is Dr. Kenneth McLeroy's. In this version, two main concepts are identified: multiple levels and reciprocal causation (Winch, 2012). Reciprocal causation, a concept like Bandura's reciprocal determinism, states that their surrounding environment shapes their behaviors. A prominent example of reciprocal causation can be viewed with seat belts. Seat belt use is impacted by the cultural norms and attitudes surrounding their use. Still, norms and attitudes are mutually affected based on the laws and regulations encompassing usage. For this study, the interaction between the first three levels of Leroy's SEM was examined.

### ***Emotion Regulation***

The American Psychological Association (2018) defines emotion regulation as "the ability of an individual to modulate an emotion or set of emotions" (p. 1). Emotion Regulation (ER) is typically identified through two strategies; cognitive reappraisal and expressive suppression. Gross and John (2003) outline cognitive reappraisal as "the attempt to reinterpret an emotion-eliciting situation in a way that alters its meaning and changes its emotional impact" and expressive suppression as "the attempt to hide, inhibit or reduce ongoing emotion-expressive behavior" (p. 14). It is difficult to classify which type of regulation strategy is adaptive or maladaptive as gender and cultural differences must be accounted for. Research examining cultural differences between Black Americans and other racial groups is limited as a vast amount of research centers around differences between Asian and White populations. ER deficits have been linked to poor outcomes for both mental and physiological disorders such as cardiovascular disease (Sirois & Burg, 2003), early mortality (Harburg et al., 2003), and anxiety and depression (Consedine et al., 2005). Pascoe and Richman (2004) state, "...some work suggests that active coping strategies, such as confrontation, positive reappraisal, and seeking social support, may buffer the effect of discrimination distress by enabling an individual to challenge the validity of discriminatory events and reduce negative feelings about the self, thereby reducing the chance that discriminatory experiences will exert an enduring impact on mental health outcomes" (p. 9). For this study, ER was explored to examine how ER strategies impact African American women's health.

### ***Perceived Social Support***

Social support is an interpersonal exchange of emotions and cognitions between various friend groups, familial networks, and organizations. Social support is quantified based on the number of social relationships individuals have, such as their marital status, religious affiliation and membership to select groups. Gülaçti (2010) defines perceived social support as "the existence of support resources when they are needed, and it can be identified in subjective qualitative perspectives and be measured and also it is reported that perceived social support is more determinative than received social support." In other words, perceived social support is the overall impression of the amount of support individuals receive from their social network. This is significant to the SEM as it posits

that individuals are influenced by their friends, families, and colleagues – their social environment. Culture is a significant predictor of health behavior. Gersteeen (1997), as cited by Harvey and Alexander (2012), posits, "Considerable evidence links social support with increased health-promoting behaviors and decreased health-compromising behaviors," providing examples of "dietary habits, physical activity, smoking habits, alcohol intake, and adherence to medical regimens" (Allgöwer *et al.*, 2001; Campbell *et al.*, 2000; Cohen *et al.*, 2000; Povey *et al.*, 2000; Sternfeld *et al.*, 1999).

### ***Perceived Discrimination***

The University of Cambridge (2019) defines perceived discrimination as "discrimination based on a perception that an individual is a member of a relevant protected group" (p. 1). The federal government identifies protected group membership to the following designations based on age, race, gender, physical or mental disability, religion, and nationality. Perceived discrimination in healthcare settings has been associated with a myriad of adverse psychological and physical health outcomes, including but not limited to less engagement with medical physicians, decreased treatment compliance and medication adherence, increased use of alternative medicine, and less utilization of preventative care (Hausmann *et al.*, 2011). Blanchard and Lurie (2004) posit "over 14% of Blacks, 19% of Hispanics, and 20% of Asians reported they had been treated with disrespect by their doctor. Members of these groups were also more likely than whites to report that they were maltreated because of their race or their language and that they would have received better care had they belonged to a different race" (p. 725). African Americans are also more likely to report perceived discrimination following an emergency room visit related to the increased stress and fatigue associated with emergent health crises and frustrations concerning their medical concerns being dismissed if they are discharged with minimal medical attention (Abramson *et al.*, 2015).

### ***Black Racial Identity***

Perry and colleagues (2016) assert "racial identity—a specific form of social identity—can play a crucial role in the psychological well-being of African American children, adolescents, and adults" (p.2). Racial identity is a construct related to an individual's relationship to and understanding of in and out-group differences. This self-conceptualization of identity can lend itself to how one self-identifies, interacts with other people within their racial classification, and moderate experiences within the macrosystem. Although steeped in racial superiority and sociopolitical constructions, racial categorizations have a level of individual agency, allowing individuals or communities to subvert the meaning of the classification in empowering ways (Crenshaw, 1991). Chae and colleagues (2017) state "...individuals who diminish the salience of race or the significance of racism may be less likely to interpret negative interactions as being instances of racial discrimination".

On the other hand, those emphasizing the importance of race or who show a greater awareness of systemic social inequalities may be more inclined to attribute motivationally ambiguous experiences of unfair treatment to racial discrimination. Reports of racial discrimination can sometimes be dependent on an individual's perception of whether negative life experiences are racially motivated. Pascoe and Richman (2004) states,

"although higher levels of stigmatized identity may be capable of buffering the effect of discriminatory experiences by making negative stereotypes less likely to be incorporated into one's self-concept, these high levels of identity might also lead to a higher vigilance regarding discriminatory experiences, potentially increasing the number of times discrimination is perceived" (p. 10).

### ***Medical Mistrust***

Black Americans have a discomfiting history with the medical institution in America, and centuries of crude unethical and inhumane experimentation on Black bodies have contributed to the legacy of mistrust. The Tuskegee Syphilis Experiment, the Relf Cases of 1974, and the gynecological experiments of Dr. Marion J. Sims are examples of medical abuse, coercion, and institutional racism in Black communities. Prather and colleagues (2018) assert, "the legacy of medical experimentation and inadequate healthcare has exacerbated African American women's complex relationship with healthcare systems, past and present, and laid a foundation of mistrust of the medical establishment" (p. 30). "Mississippi appendectomy" was a phrase created by African Americans from the South to denote the routine medical practice of sterilizing African-American women who were admitted to the hospital for other operations – these procedures continued into the early 1970s. While many research studies have focused on the impact of medical mistrust on Black American males, research centered around women's health has also denoted significant areas of need. Kolar and colleagues (2015) state "medical mistrust is associated with disparities in cancer stage at diagnosis, breast cancer surgical and postsurgical adjuvant treatment and quality of life, underutilization of health services, routine health examinations, and cancer screening" (p. 78). Although anecdotal, the history of racism in America and atrocities carried out by the healthcare system has contributed to a legacy of mistrust in Black Americans that has spanned decades, negatively impacting generations.

### **Methods**

#### ***Participants***

This study's total sample size was  $n = 205$ , with a little more than half of the respondents relating that they were mothers,  $n = 105$ , (51.2%). Table 1 illustrates that most women were between the ages of 21-30 years old,  $n = 75$ , (36.6%). Married women comprised the largest relational group,  $n = 75$ , (36.6%), with fewer than 20 respondents identifying as lesbian or bisexual,  $n = 18$ , (8.8%). The majority of respondents were employed full-time ( $n = 157$ ).

#### ***Research Design***

A correlational research design was used to describe the relationship between the variables. With this design, measures were conducted once. As this design does not require the manipulation of any variables, a control group is not required. Moreover, a quantitative rather than qualitative design was employed for this study as it intended to serve as a pilot study to gather preliminary results and examine the feasibility of future research.

#### ***Procedures***

The Collaborative Institutional Training Initiative (CITI) Training courses were completed as required by all active researchers. Certificates of completion were submitted for both the principal investigator and the supervising clinician. Permission to conduct this research was granted by the institutional review board (IRB) of Jackson State University. The Qualtrics database was then used to house the consent forms and approved measures (demographic questionnaire, ERQ, MSSPS, EDS, MMBI, GBMMS) for the study. A recruitment flyer with a generic description of the study and the principal and supervising

investigator's contact information was created and publicly uploaded to the social media platform Facebook and the Qualtrics link to access the study.

The public link allowed other Facebook members to publicly disseminate and access the study with other members within their networks. Participants who meet the inclusion criteria were then directed to the Qualtrics site to complete the study. Inclusion criteria consisted of the participants' self-identification as Black American women over the age of 21. Exclusion from participation was limited to age (under 21) and race (non-Black). After reviewing the consent form, potential participants provided or declined consent to participate in the research study. Participants who consented to their involvement in the study were instructed to create a participant identification number using the first two letters of their last name and their date of birth, e.g. JA012386. The participant identification number allowed the researcher to track and maintain all documentation related to the said participant.

However, no other identifying information (name, address, social security number) was collected. Participants then completed the survey instruments within the database taking approximately 30-40 minutes for completion. Upon completing the study, participants were provided with a debriefing form explaining the minimally associated risks and the principal and supervising investigator's contact information. Following the data collection period, the data was transferred from the Qualtrics database directly into SPSS for data analysis. The raw data was securely stored on an encrypted USB drive. Deidentified printed copies of the data are also secured in a locked file cabinet for five years. Remuneration was not provided for participation in this survey.

#### ***Demographic Questionnaire***

A demographic questionnaire was created to collect background information such as age, sexual orientation, socioeconomic status, educational history, employment status, marital status, general health history.

#### ***Emotion Regulation Questionnaires (ERQ)***

The ERQ (Gross & John, 2003) was developed to measure engagement in two broad categories of regulatory strategies: cognitive reappraisal (six items) and expressive suppression (four items). Independent scores are computed for each emotion regulation strategy. The 10-item ERQ measures respondents' reports of aspects of their emotional life using a 7-point Likert scale with options ranging from one (strongly disagree) to seven (strongly agree). A neutral selection, four, is available as well. Items such as "I control my emotions by changing the way I think about the situation I'm in" (reappraisal) and "I control my emotions by not expressing them" (suppression) are inserted within the ERQ. Since its development, the ERQ has presented good psychometric properties with internal consistency based on Cronbach's alpha of  $\alpha = .82$  for cognitive reappraisal and  $\alpha = .76$  for expressive suppression (Wiltink et al., 2011).

#### ***Multidimensional Scale of Perceived Social Support (MSPSS)***

The MSPSS authored by Zimet and colleagues (1988) is a 12-item 7-point Likert scale with options ranging from one (very strongly disagree) to seven (very strongly agree). Total scores range from 12 to 84, with total scores of 50 and over indicative of beneficial perceived social support. The MSPSS measures subjective perceptions of emotional support based on three dimensions; family, friends, and significant others. An example of an item on the measure is, "I get the emotional help and support I need from my family" The MSPSS has strong internal consistency based on Cronbach's alpha of  $\alpha = .81$  to  $.98$  (Zimet et al., 2011).

***The Everyday Discrimination Scale (EDS)***

The EDS is a nine-item self-report questionnaire created by Williams and colleagues in 1997 to measure the frequency in which ethnic and gender minorities experience discrimination throughout areas of life including, lifetime and daily discrimination. The EDS is based on a 6-point Likert scale with options ranging from one (never) to six (almost every day). Respondents are asked to provide the frequency to which they have experienced discrimination through items such as "You are treated with less courtesy than other people." The EDS has strong internal consistency based on Cronbach's alpha of  $\alpha=.88$  (Kim et al., 2014).

***The Multidimensional Model of Black Identity (MMBI)***

The MMBI (Sellers, 1997) was adapted from the Multidimensional Model of Racial Identity (MMRI) to measure the multidimensional conceptualization of Black identity based on three fundamental scales; centrality, regard, and ideology. The 56-item MMBI measures respondents; reports using a 7-point Likert scale response system with items ranging from one (strongly disagree) to seven (strongly agree); neutral selection, four, is also available. As the MMBI assesses racial identity from a multidimensional view, independent scores are computed for each subscale; an overall scale score is inappropriate. For this study, centrality was used to assess Black racial identity. Centrality (10 items) is an autonomous scale, with four subscales for ideology (Nationalist, Assimilation, Minority, and Humanist) and two subscales for regard (Public and Private Regard). An example of an item listed on the MMBI is "Blacks and Whites have more commonalities than differences." Since its development, the MMBI has presented sound psychometric properties with internal consistency based on Cronbach's alpha ranging from low,  $\alpha = .60$  for private regard and high for nationalism,  $\alpha = .79$  for expressive suppression (Sellers et al., 1997).

***The Group-Based Medical Mistrust Scale (GBMMS)***

The GBMMS (Thompson et al., 2004) is a 12-item self-report measure that assesses individual beliefs about group-based mistreatment within medical communities. The GBMMS uses a 5-point Likert scale response system with selections ranging from one (strongly disagree) to five (strongly agree). There are three subscales within the GBMSS; suspicion (6 items), discrimination (3 items), and lack of support (3 items). Typical items within the measure are phrased as, "people of my ethnic group should not confide in doctors and healthcare workers because it will be used against them." The GBMSS is a new assessment tool with psychometric properties being reviewed thus far for gender (male and female) and cultural differences (African Americans and Latinos). However, in its' infancy, it shows a strong internal consistency with Cronbach's alpha  $\alpha = .87-.88$  (Shelton et al., 2010; Thompson et al., 2004).

**Results**

Table 3 presents the correlation matrix between variables based on predicted hypotheses. A bivariate correlational analysis was conducted with results suggesting a significant relationship between centrality and perceived discrimination  $r(198) = -.29, p < .01$ . Thus, as respondents' centrality scores decreased, they tended to perceive more discrimination. The opposite was true for centrality and group-based medical mistrust  $r(202) = .15, p < .05$ . As centrality increased, group-based mistrust increased. Additionally, a positive relationship was established between social support and perceived discrimination,  $r(195) = .21, p < .01$ . More specifically, familial social support depicted a very weak correlation to perceived discrimination,  $r(196) = .18, p < .05$ , and support from friends depicted a weak

correlation,  $r(197) = .21, p < .01$ . Additionally, group-based medical mistrust reports and perceived discrimination frequency have a moderate negative correlation,  $r(197) = -.41, p < .01$ . The third research question was not substantiated as a significant correlation between age, education, employment, relationship status, and perceived discrimination was not identified. As such, there was no clear influence of sociodemographic factors on the perception of discriminatory experiences.

Table 4 reflects the results of the stepwise hierarchical regression. GBMSS, Centrality, and Friend Support, as a regression model, explained 24% of the variance in perceived discrimination. Significant variables comprising the regression equation indicated centrality, which explained 6%, and friends' social support contributed 3% of the variance in the dependent variable of perceived discrimination. Medical mistrust emerged as the most significant predictor,  $b = -.79, t(194) = -6.03, p < .01$ . Group-based medical mistrust explained a significant percentage of the variance in perceived discrimination,  $F(1, 194) = 36.35, p < .001, R^2 = .16$ . Thus, this variable is a significant standalone variable in this equation. Collectively, group-based medical mistrust, centrality, and perceived social support from friends account for 25% of the variance, not attributed to chance, in perceived discrimination.

### Discussion

Over the years, the socioecological model has presented itself as a comprehensive and inclusive theoretical framework. In the context of this study, the SEM was used to examine how those varying levels interplay and influence factors related to health. At the individual level, appreciating the significance of Black racial identity and cultural experiences can hypothetically improve patient-practitioner relationships and decrease perceptions of discrimination and mistrust. Recent studies have provided evidence to support incorporating socio-cultural factors like religiosity holistic treatments in communications about health practices with Black women to bolster communications and increase adherence (Sheppard et al., 2011). In considering community-level interactions, support networks, specifically between friends and family, are essential to Black women's psychological well-being and their ability to mitigate discriminatory events. Similar findings have established that targeted social support can decrease depressive symptoms in Black women who have experienced racism or discriminatory events (Seawell et al., 2014). Enabling and empowering Black women to be more reliant on their support networks when navigating the medical community's interactions can increase comfort and communication with physicians and other health professionals. Engaging Black women as stakeholders in policy at the legislative level and as outreach partners at the community level can encourage peers and families to further their involvement and advocacy within medical communities. By respectfully incorporating the lived experiences of Black women in culturally sensitive non-disposal roles, this potentially can assist in bridging the gap between the Black and medical community.

While relationships between social support and Black racial identity were weak, it is important to note how these correlations impact Black women's experiences working through the American healthcare system's various and sometimes rugged terrain. This is historically and presently relevant as Black women face preventative and tertiary health disparities. Altering and improving the healthcare landscape in America through systemic changes from public and health policy theoretically can transform the culture of health practices that moderate and maintain racism in healthcare and, subsequently, medical mistrust. These changes can be made by increasing implementation strategies that enhance patient-practitioner relationships, encourage implicit bias training to dispel



misconceptions about Black health, and increasing cultural competency training for medical professionals

Considering the other SEM levels, the consequences of medical mistrust can impact Black women, their families, and communities. At the institutional level, issues with accessibility, affordability, and quality of care can culminate in an environment that can reduce discrepant health outcomes. Disproportionate health outcomes and instances of decreased quality of care experienced by women may contribute to their perceptions of discrimination and overall feelings of mistrust towards medical institutions. Medical mistrust can present negative consequences like decreased healthcare services and inadequate management of health conditions at the individual level. Such experiences can impact the overall family as they may relate to delays in scheduling or attending medical appointments, medication compliance, vaccinations, engaging in health-promoting behaviors, and participation in clinical trials. These experiences consequently lend themselves to a detrimental rippling effect through communities and generations. At the organizational-institutional level, with group-based medical mistrust contributing to decreased health utilization and compliance, late identification of chronic illnesses, and limited participation in clinical trials, laws, and policies cannot be put in place to meet population-specific needs appropriately. Thus, the interaction between variables at one level interplay and impact factors in more distal levels.

### ***Limitations***

Several limitations of the current study should be considered, including the inability to determine causality. Given the research's correlational nature and the possibility of bidirectional effects, the findings should be interpreted cautiously. While the study aimed to be inclusive of all female gender identities, it was later realized that some of the questions included in the demographic questionnaire were not trans-inclusive. For example, questions about motherhood and delivery methods only had traditional delivery modes--vaginal and caesarean. This demographic question ignored the birthing routes of trans-women and missed the alternative modes to motherhood that cis-gendered women also utilize, such as adoption and surrogacy. Future studies will include more inclusive responses. Another noted limitation of the study is its reliance on quantitative measures. Despite the extensive evidence highlighting the adverse health outcomes for Black American women due to medical racism, simple Likert scales may not adequately encapsulate the breadth of these lived experiences. Qualitative questions would have allowed women to share their direct medical racism experiences to showcase the disparities through first-person recollections. Qualitative statements could have provided powerful, impactful, and insightful declarations that could have provided a more exploratory, thorough, and personalized depiction of this unfortunate phenomenon.

Moreover, data collection was conducted using snowball sampling from Facebook. Provisions were made via Qualtrics to reduce ballot stuffing; however, there is no way to ensure that participants met the requested inclusion criteria. Additionally, the link was shared within my professional network, comprised of many professional women who further disseminated the study within their networks. This potentially resulted in an over-representation of Black women with post-secondary education and, as a result, underestimates levels of perceived discrimination. Other college-educated women shared the initial survey link within the principal investigators' social network and in professional groups like "PhDiva," "Black Women in Public Health," "Ethnic Counselors," and "Black Girl Doctorate. Accurate probability sampling would have included a more diverse collection of Black women from various educational and socioecological backgrounds. Furthermore, internet data collection raises concerns about sample

selectivity as participants would have access to mobile or computer-based internet access to complete the questionnaire digitally. In future studies, the methodological issues related to sample representation should be considered to secure a more representative sample.

### **Conclusion**

In summary, exposure to racism and discrimination in medical institutions can influence medical mistrust in various manners. There is an urgent need to provide more research data documenting the interplay of interpersonal, intrapersonal, and institutional factors concerning the impacts of medical racism on the health outcomes of Black Women. A comprehensive evaluation of group-based medical mistrust in Black and other minority communities will. The medical community must be held accountable for their past injustices and actively work toward correcting present inequalities. Due to the racist origins and maintenance of medical mistrust, long-term interventions at the interpersonal and institutional levels need to be enacted to elicit significant change. Implementation strategies and interventions can include but should not be limited to increasing the representation of minorities in the medical field, collaboration with faith-based and other culturally relevant resources, encouragement of shared-decision making practices between patients and practitioners, and implicit biases training throughout medical school and throughout training. Future considerations should focus on the importance of incorporating natural support networks in treatment interventions and other aspects of medical care as relational support is positively associated with increased patient-practitioner communications and potentially increased compliance with medical advice. Incorporating natural supports also allow for culturally sensitive practice in communities that value their health impacts on the overall family system. These insights can generally be used to develop or strengthen population-specific interventions that address the multisystemic factors related to medical mistrust and decreased health outcomes. Thus, reducing medical mistrust as a barrier is an essential first step toward eliminating health disparities experienced by Black Women and other vulnerable racial, gender, sexual, and socioecological minority groups.

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### **References**

- Abramson, C. M., Hashemi, M., & Sánchez-Jankowski, M. (2015). Perceived discrimination in U.S. healthcare: Charting the effects of key social characteristics within and across racial groups. *Preventive Medicine Reports*, 2, 615–621. <https://doi.org/10.1016/j.pmedr.2015.07.006>
- Allgöwer, A., Wardle, J., & Steptoe, A. (2001). Depressive symptoms, social support, and personal health behaviors in young men and women. *Health Psychology*, 20(3), 223–227. <https://doi.org/10.1037/0278-6133.20.3.223>
- American Psychological Association. (2018). Emotion Regulation. *APA Dictionary of Psychology*. <https://dictionary.apa.org/emotion-regulation>
- Blanchard, J. & Lurie, N. (2004). R-E-S-P-E-C-T: Patient reports of disrespect in the health care setting and its impact on care. *The Journal of Family Practice*, 53(9), 721–730. <https://www.mdedge.com/familymedicine/article/65550/r-e-s-p-e-c-t-patient-reports-disrespect-health-care-setting-and-its>

- Campbell, M. K., Motsinger, B. M., Ingram, A. F., Jewell, D., Makarushka, C., Beatty, B., & Demark-Wahnefried, W. (2000). The North Carolina black churches united for better health project: Intervention and process evaluation. *Health Education and Behavior, 27*(2), 241–253.
- Chae, D. H., Powell, W. A., Nuru-Jeter, A. M., Smith-Bynum, M. A., Seaton, E. K., Forman, T. A., Turpin, R., & Sellers, R. (2017). The role of racial identity and implicit racial bias in self-reported racial discrimination: Implications for depression among African American men. *The Journal of Black Psychology, 43*(8), 789–812. <https://doi.org/10.1177/0095798417690055>
- Cohen, S., Underwood, L. G., & Gottlieb, B. H. (Eds.). (2000). *Social support measurement and intervention: A guide for health and social scientists*. New York: Oxford Press University.
- Consedine, Nathan S., Magai, C., Horton, D. (2005). Ethnic variation in the impact of emotion and emotion regulation on health: A replication and extension. *The Journals of Gerontology: Series B, 60*(4), 165-173. <https://doi.org/10.1093/geronb/60.4.P165>
- Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review, 43*(6), 1241-1299. <https://doi.org/10.2307/1229039>
- Dehon, E., Faulconer, W., Hinton, E., Jones, J., Sterling, S., & Weiss, N. (2017). A systematic review of the impact of physician implicit racial bias on clinical decision making. *Academic Emergency Medical*. <https://doi-org.ezproxy2.umc.edu/10.1111/acem.13214>
- Drayton-Brooks, S., & White, N. (2004). Health promoting behaviors among African American women with faith-based support. *The ABNF Journal: Official Journal of the Association of Black Nursing Faculty in Higher Education, Inc., 15*(5), 84–90.
- Family and Youth Services Bureau. (2015). Understanding our impact using a socioecological approach. *Adolescent Pregnancy Prevention Program*. [https://www.healthyteenetwork.org/wp-content/uploads/2015/06/TipSheet\\_IncreasingOurImpactUsingSocial-EcologicalApproach.pdf](https://www.healthyteenetwork.org/wp-content/uploads/2015/06/TipSheet_IncreasingOurImpactUsingSocial-EcologicalApproach.pdf)
- Gross, J.J., & John, O.P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology, 85*, 348-362. <https://www.ncbi.nlm.nih.gov/pubmed/12916575/>
- Golden, S. D., & Earp, J. A. L. (2012). Social ecological approaches to individuals and their contexts: Twenty years of health education & behavior health promotion interventions. *Health Education & Behavior, 39*(3), 364–372. <https://doi.org/10.1177/1090198111418634>

- Gülaçti, F. (2010). The effect of perceived social support on subjective well-being. *Journal of Behavioral and Social Sciences*, 3844–3849.  
<https://core.ac.uk/download/pdf/82455253.pdf>
- Harburg, E., Julius, M., Kaciroti, N., Gleiberman, L., Schork, M. A. (2003). Expressive/suppressive anger-coping responses, gender, and types of mortality: A 17-year follow-up (Tecumseh, Michigan, 1971–1988). *Psychosomatic Medicine*, 65, 588-597.
- Harvey, I. S., & Alexander, K. (2012). Perceived social support and preventive health behavioral outcomes among older women. *Journal of Cross-Cultural Gerontology*, 27(3), 275–290. <https://doi.org/10.1007/s10823-012-9172-3>
- Hausmann, L. R., Hannon, M. J., Kresevic, D. M., Hanusa, B. H., Kwoh, C. K., & Ibrahim, S. A. (2011). Impact of perceived discrimination in healthcare on patient-provider communication. *Medical Care*, 49(7), 626–633.  
<https://doi.org/10.1097/MLR.0b013e318215d93c>
- Karliner, L., Marks, A. & Mutha, S. (2016). Reducing health care disparities for minority women in the era of the affordable care act: Opportunities within primary care. *Journal of Health Care for the Poor and Underserved*, 27(2), 392-415.  
<http://muse.jhu.edu.ezproxy2.umc.edu/article/617472>
- Kim, G., Sellbom, M., & Ford, K. L. (2014). Race/ethnicity and measurement equivalence of the Everyday Discrimination Scale. *Psychological Assessment*, 26(3), 892–900. <https://doi.org/10.1037/a0036431>
- Kolar, S. K., Wheldon, C., Hernandez, N. D., Young, L., Romero-Daza, N., & Daley, E. M. (2015). Human papillomavirus vaccine knowledge and attitudes, preventative health behaviors, and medical mistrust among a racially and ethnically diverse sample of college women. *Journal of Racial and Ethnic Health Disparities*, 2(1), 77–85. <https://doi.org/10.1007/s40615-014-0050-2>
- Massoglia, M. (2008). Incarceration, health, and racial disparities in health. *Law and Society Review*, 42, 275-306. <https://doi-org.ezproxy2.umc.edu/10.1111/j.1540-5893.2008.00342.x>
- McLeroy, Kenneth. R., Bibeau, D., Steckler, A. & Glanz, K. (1988). The social ecology of health promotion interventions. *Health Education Quarterly*, 15(4), 351-377.  
[http://tamhsc.academia.edu/KennethMcLeroy/Papers/81901/An\\_Ecological\\_Perspective\\_on\\_Health\\_Promotion\\_Programs](http://tamhsc.academia.edu/KennethMcLeroy/Papers/81901/An_Ecological_Perspective_on_Health_Promotion_Programs)
- Molina, Y., Kim, S., Berrios, N. & Calhoun, E. A. (2015), Medical mistrust and patient satisfaction with mammography: The mediating effects of perceived self-efficacy among navigated African American women. *Health Expect*, 18, 2941-2950. <https://doi.org/10.1111/hex.12278>
- Pascoe, E. A., & Richman, L. S. (2009). Perceived discrimination and health: A meta-analytic review. *Psychological Bulletin*, 135(4), 531–554.  
<https://doi.org/10.1037/a0016059>

- Penner, L. A., Dovidio, J. F., Edmondson, D., Dailey, R. K., Markova, T., Albrecht, R. L. & Gaertner, S. L. (2009). The experience of discrimination and black-white health disparities in medical care. *Journal of Black Psychology* 35(2), 180-203. <https://journals-sagepub-com.ezproxy2.umc.edu/doi/pdf/10.1177/0095798409333585>
- Perry, S. P., Hardeman, R., Burke, S. E., Cunningham, B., Burgess, D. J., & van Ryn, M. (2016). The impact of everyday discrimination and racial identity centrality on African American medical student well-being: A report from the medical student CHANGE study. *Journal of Racial and Ethnic Health Disparities*, 3(3), 519–526. <https://doi.org/10.1007/s40615-015-0170-3>
- Pieterse, A., & Carter, R. (2007). An examination of the relationship between general life stress, racism-related stress, and psychological health among Black men. *Journal of Counseling Psychology*, 54, 101–109. <https://doi.org/10.1037/0022-0167.54.1.101>.
- Povey, R., Conner, M., Sparks, P., James, R., & Shepherd, R. (2000). The theory of planned behavior and healthy eating: Examining additive and moderating effects of social influence variables. *Psychology & Health*, 14(6), 991–1006.
- Prather, C., Fuller, T. R., Jeffries, W. L., 4th, Marshall, K. J., Howell, A. V., Belyue-Umole, A., & King, W. (2018). Racism, African American women, and their sexual and reproductive health: A review of historical and contemporary evidence and implications for health equity. *Health Equity*, 2(1), 249–259. <https://doi.org/10.1089/heq.2017.0045>
- Seawell, A. H., Cutrona, C. E., & Russell, D. W. (2014). The effects of general social support and social support for racial discrimination on African American women's well-being. *The Journal of Black Psychology*, 40(1), 3–26. <https://doi.org/10.1177/0095798412469227>
- Sellers, R. (2013). The Multidimensional Model of Black Identity (MMBI). Measurement Instrument Database for the Social Science. <http://doi.org/10.13072/midss.560>
- Sellers, R. M., Smith, M. A., Shelton, J. N., Rowley, S. A. J., & Chavous, T. M. (1998). Multidimensional model of racial identity: A reconceptualization of African American racial identity. *Personality and Social Psychology Review*, 2(1), 18–39. [https://doi.org/10.1207/s15327957pspr0201\\_2](https://doi.org/10.1207/s15327957pspr0201_2)
- Sellers, R. M., Rowley, S. A., Chavous, T. M., Shelton, J. N. & Smith, M. A. (1997). The Multidimensional Inventory of Black Identity: A preliminary investigation of reliability and construct validity. *Journal of Personality and Social Psychology*, 73(4), 805-815. <https://pdfs.semanticscholar.org/6fd7fa6ebd9a79379bd2433b79b8d6010d2b9932.pdf>
- Shelton, R. C., Winkel, G., Davis, S. N. et al. (2010). Validation of the Group-Based Medical Mistrust scale among urban Black men. *Journal of General Internal Medicine*, 25(6), 549-555. <https://doi.org/10.1007/s11606-010-1288-y>

- Sheppard, V. B., Adams, I. F., Lamdan, R., & Taylor, K. L. (2011). The role of patient-provider communication for black women making decisions about breast cancer treatment. *Psycho-oncology*, 20(12), 1309–1316. <https://doi.org/10.1002/pon.1852>
- Sirois, B. C., & Burg, M. M. (2003). Negative emotion and coronary heart disease: A review. *Behavior Modification*, 27(1), 83–102. <https://doi.org/10.1177/0145445502238695>
- Sternfeld, B., Ainsworth, B. E., & Quesenberry, C. P. (1999). Physical activity patterns in a diverse population of women. *Preventive Medicine*, 28(3), 313–323. doi: 10.1006/pmed.1998.0470.
- Stewart, A., & Nápoles-Springer, A. (2003). Advancing health disparities research: Can we afford to ignore measurement issues? *Medical Care*, 41(11), 1207-1220. <http://www.jstor.org/stable/3768410>
- The Centers for Disease Control and Prevention. (2018). Adolescent and school health: Health disparities. *Centers for Disease Control and Prevention*. <https://www.cdc.gov/healthyyouth/disparities/index.htm>
- Thompson, H. S., Valdimarsdottir, H. B., Winkel, G., Jandorf, L., Redd, W. (2004). The Group-Based Medical Mistrust Scale: Psychometric properties and association with breast cancer screening. *Preventive Medicine*, 38, 209-218. <https://doi.org/10.1016/j.ypmed.2003.09.041>
- Townsend, T., & Belgrave, F. (2009). Eliminating health disparities: Challenges for African. American Psychologists. *Journal of Black Psychologists*. <https://journals-sagepub-com.ezproxy2.umc.edu/doi/pdf/10.1177/0095798409333605>
- University of Cambridge. (2019). Perceptive Discrimination. *Equality & Discrimination*. <https://www.equality.admin.cam.ac.uk/training/equalities-law/key-principles/perceptive-discrimination>
- Williams, D. R., YU, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socioeconomic status, stress and discrimination. *Journal of Health Psychology*, 2, 335-351. <https://journals.sagepub.com/doi/10.1177/135910539700200305>
- Winch, P. (2012). Ecological models and multilevel interventions. *John Hopkins Bloomberg School of Public Health*. [http://ocw.jhsph.edu/courses/healthbehaviorchange/PDFs/C14\\_2011.pdf](http://ocw.jhsph.edu/courses/healthbehaviorchange/PDFs/C14_2011.pdf)
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 52(1), 30-41. [http://dx.doi.org/10.1207/s15327752jpa5201\\_2](http://dx.doi.org/10.1207/s15327752jpa5201_2)
- Zimet, Gregory D., Powell, Suzanne S., Farley, Gordon K., Werkman, S. & Berkoff, Karen A. (2011) Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*. <https://doi.org/10.1080/00223891.1990.9674095>

**Appendix**

**Table 1**

*Frequency Distribution for Age, Sexual Orientation, Employment, Marital Status, and Education*

Variables	Frequency	Valid Percent
Age		
21-30	75	36.6
31-40	56	27.3
41-50	40	19.5
51-60	25	12.2
61 and Older	9	4.4
Sexual Orientation		
Heterosexual	187	91.2
Homosexual	8	3.9
Bisexual	10	4.9
Relationship Status		
Single	62	30.2
Dating	46	22.4
Married	73	35.6
Divorced or Widowed	24	11.7
Employment Status		
Full Time	157	77.0
Part-Time	30	14.7
Unemployed	13	6.4
Retired	4	2.0
Education		
Less than High School	1	.5
High School, GED	24	11.7
Bachelor's Degree (B.A, B.S)	40	19.5
Master's Degree	110	53.7
Professional Degree (MD, Ph.D., JD)	30	14.6

**Table 2**  
*Frequency Distribution for Access to Health Insurance, Primary Care Physician, Physician Gender and Race*

Variables	Frequency	Valid Percent
<b>Health Insurance</b>		
Yes	195	95.1
No	10	4.9
<b>Primary Care Physician</b>		
Yes	174	84.9
No	31	15.1
<b>Primary Care Physician Gender</b>		
Male	45	25.7
Female	130	74.3
<b>Primary Care Physician Race</b>		
Black or African American	63	30.7
Hispanic or Latino	9	4.4
Native Hawaiian or Other Pacific Islander	2	1.0
American Indian or Alaska Native	4	2.0
Asian	14	6.8
White	71	34.6
Other	14	6.8

**Table 3**  
*Correlations Matrix*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Age	1													
Sexual Orientation	-.138	1												
Education	-.074	-.200	1											
Employment	.103	.094	-.050	1										
Health Insurance	-.040	.090	-.054	.096	1									
Perceived Discrimination	.081	-.023	-.022	.026	-.119	1								
Centrality	-.099	.048	.065	-.078	.018	-.290	1							
Medical Mistrust	-.078	.173	-.151	-.029	.030	-.411	.154	1						
Perceived Social Support	.029	.042	.069	-.068	.045	.206	.113	-.298	1					
Family Support	-.007	-.011	.083	-.034	.046	.180	.080	-.235	.845	1				
Significant Other Support	.042	.067	.016	-.047	.064	.119	.033	-.224	.842	.595	1			
Friend Support	.036	.051	.059	-.092	-.003	.214	.149	-.279	.771	.443	.488	1		
Reappraisal	.058	.056	-.016	-.015	.056	-.058	.138	-.009	.052	-.016	.003	.138	1	
Suppression	-.132	-.081	-.050	-.084	-.043	-.066	-.112	.144	-.406	-.309	-.310	-.358	-.124	1



*Correlates of Perceived Discrimination in Healthcare Amongst Black Women*

**Table 4**  
*Regression Analysis Summary for Perceived Discrimination*  
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.397 <sup>a</sup>	.158	.153	8.78020	.158	36.352	1	194	.000
2	.464 <sup>b</sup>	.215	.207	8.49828	.057	14.085	1	193	.000
3	.491 <sup>c</sup>	.242	.230	8.37568	.026	6.691	1	192	.010

a. Predictors: (Constant), GBMSS Composite Score

b. Predictors: (Constant), GBMSS Composite Score, Centrality

c. Predictors: (Constant), GBMSS Composite Score, Centrality, Friend Support Scale Score