



An Intersectional Approach to Understanding Barriers to Healthcare for Women

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Abstract

Access to health care depends on multiple sociodemographic factors such as race/ethnicity, marital status, education, income, and insurance status. However, a paucity of research has examined access to healthcare disparities as they uniquely affect women, specifically women of color. National data were analyzed from the Medical Expenditure Panel Survey (MEPS) utilizing an 11-year sample (2005–2015) of women ages 18–74 (N = 128,355). More recent data were not included due to changes in how sampling was conducted after 2015. Predictor variables included race/ethnicity cross-classified with marital status, education, income, or insurance status, controlling for age. A dichotomous outcome variable called “any barriers to healthcare” was created based on usual source of care, delayed medical care, delayed dental care and delayed prescription care. Multivariate logistic regression models were used to identify associations with barriers to care. The foundation of this methodology is intersectionality and how it impacts access to care for women across social identities. Hispanic women (OR 1.08, 95% CI 1.02–1.14) had higher odds of having a barrier to care compared to White women. However, Black women (OR 0.92, 95% CI 0.87–0.97) had lower odds of having a barrier to care compared to White women. Race/ethnicity also significantly moderated the relationship between socioeconomic variables (marital status, income, education and insurance status) and having a barrier to care. To achieve a healthy community, addressing these racial/ethnic and socioeconomic inequalities helps to support the people who live and work within these communities.

Keywords Healthcare disparities · Gender/sex differences in health and health care · Intersectionality · Racial/ethnic differences in health and healthcare

Since the early 2000s, much literature finds that gender is a social determinant of health [1, 2]. However, more recently,

there has been a deeper understanding that Black, Indigenous and other women of color experience more disparate health outcomes than do white women, such as maternal mortality [3–5], Intersectionality is a theoretical perspective which encompasses the ways in which compounded systems of oppression work together at multiple levels of society to perpetuate these inequalities among women of color. Recent research highlights how the more systems of oppression an individual experiences, the greater negative effect on that person’s health and the well-being of the community in which they reside. Utilization of healthcare services also shows similar patterns across these systems of oppression [6]. Healthcare access is important because it decreases the risk of poor health outcomes and health disparities [7]. Yet, few analyses have explored the ways in which gender, race, ethnicity and other demographic and social variables affect healthcare access disparities.

A key domain of women’s health care experience—access to care—affects several health outcomes for women [8, 9].

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Lack of access to care is associated with greater health disparities and shaping attitudes and beliefs about health and well-being [10]. Women of color and women with an income at or below 200% of the federal poverty level were more likely to be uninsured, representing one in five women without insurance. Sociodemographic variables such as race/ethnicity, income, education, and marital status may have devastating repercussions for the well-being of women over the life course, affecting the health of not only the women but the next generations as well.

Analyses of healthcare access in the US have employed the Medical Expenditures Panel Survey (MEPS) or the National Health Interview Survey (NHIS) to understand health disparities among marginalized groups [11, 12]. However, few studies have examined factors related to healthcare experiences as they uniquely affect women, and even less do so with an intersectional approach. Specifically, intersectionality theory guides this study and [13–16] asserts that race/ethnicity and socioeconomic status are not independent strands, but intersecting constructs of inequality [17]. By focusing on women, we shed light on whether, and to what extent, the intersection of race/ethnicity and socioeconomic factors operate to stratify health care access. To our knowledge, this will be the first study utilizing findings from the Medical Expenditure Panel Survey (MEPS) to investigate women's access to healthcare from an intersectional lens.

When examining women's access to healthcare, the effects of intersectionality must be considered. Termed by Crenshaw [18], intersectionality considers the confluence of multiple social identities and systems of oppression as they determine an individual's experience [18, 19]. Within a women's healthcare utilization lens, intersectionality operates by examining how each additional identity marker such as race, ethnicity, socioeconomic status, and/or marital status may compound healthcare inequality and disadvantage by multiple sources of oppression.

Intersectional studies that focus on health highlight intersecting statuses and identities [13]. People with multiple disadvantaged statuses often experience poorer health outcomes than those with a single disadvantaged status [20]. Also, intersectional research focusing on discrimination emphasizes that individuals with multiple disadvantaged statuses perceive multiple forms of discrimination [20–22]. Likewise, individuals who experience discrimination at multiple axes of inequality (race/ethnicity and gender, such as women of color) versus a single axis (race/ethnicity or gender) tend to experience worse health outcomes [23, 24]. Health outcomes such as heart disease, depression, poor self-rated health are all at higher risk for non-Hispanic Black adults than Whites even with high educational attainment [25]. The concept of “diminishing returns” holds true in that Black individuals with high educational attainment do

not receive the same health returns of Whites having high educational attainment [26, 27]. This evidence indicates the importance of intersectional research.

Purpose of this Study

Focusing on how different sociodemographic factors influence barriers to health care for women draws attention to the multiple layers of oppression and how the intersection of these layers create greater inequality. As evidenced above, little empirical research has examined racial and socioeconomic health disparities as they uniquely affect women. For this study, racial and socioeconomic factors along with having health insurance or not is used to bring greater understanding of barrier to healthcare for women. Previous research suggests that Black and Hispanic women have lower quality of care and worse health outcomes, particularly as it relates to reproductive care, breast cancer screening and treatment [28–31]. However, little has been studied on access to healthcare more broadly such as having a usual source of care. Therefore, the purpose of this study is to understand how race/ethnicity and socioeconomic factors (marital status, education, income, and health insurance status) jointly influence barriers to care for women. We focus this work on the intersection of race/ethnicity and socioeconomic factors to allow for a more accurate reflection of lived experiences among women [17]. Based on previous research, we hypothesize that overall, barriers to care will be particularly highest for low income, low education status single Black women followed by Hispanic women and Asian and White women. We also hypothesize that women with no insurance (vs. public or private insurance) will have the highest barriers to care. In particular, Black women with no health insurance will have highest barriers to care followed by Hispanic women, then Asian women and White women.

Methods

Data Source & Sample

National data were analyzed from the Medical Expenditure Panel Survey (MEPS) utilizing an 11-year sample (2005–2015) of women ages 18–74 (N = 128,355). The Medical Expenditure Panel Survey (MEPS) is a panel survey of the larger National Health Interview Survey, which utilizes multistage sampling techniques to collect household data, family data, adult data and child data through face-to-face interviews on an annual basis [32, 33]. Oversampling of certain subgroups, specifically Black and Hispanic, are also incorporated in the sampling methodology. MEPS provides demographic and socioeconomic characteristics, as well

as information on respondents' healthcare barriers during the survey year. More recent data was not included due to changes in the sampling design in 2016, such as sample areas being reselected to account for changes in population distribution as well as not implementing oversampling methods for Black, Hispanic and Asian persons [34]. These changes significantly affected the variance estimation of pooled analyses, and was not recommended [34]. Additionally, three of the four access variables regarding delayed medical, dental and prescription care were removed from the MEPS database in 2018.

Variables

Independent Variable

The primary independent variable for this analysis was race/ethnicity. Racial groups in the original survey included Black, White, Alaska Native or American Indian, Asian and Pacific Islander. Due to small sample sizes, Alaska Native or American Indian and Pacific Islander were dropped from the study sample. Hispanic ethnicity was measured in a separate, dichotomous question (yes/no). Therefore, the race/ethnicity variable was coded into four distinct categories: non-Hispanic White, non-Hispanic Black, non-Hispanic Asian and Hispanic. We understand that race, as a socially constructed variable, does not measure racism—a necessary component to understand health disparities among women [35]. However, given data available, this analysis serves as an initial look at racial/ethnic/socioeconomic differences in barriers to care among women and serves as a guide for other intersectional analyses.

Demographic & Socioeconomic Variables

Predictor variables included age, marital status, education, income and insurance status as research suggests these all are factors associated with healthcare access [7, 36, 37]. The age variable is continuous (increases in 1 year increments) and restricted to adults between 18 and 74. Marital status was coded into dichotomous categories: single (includes “never married”, “divorced”, “separated” or “widowed”) or married (includes “married” or “living with partner”). This was based on the literature that suggests adults living with partners have significantly different health outcomes than single adults [38, 39]. The education variable was coded into four, distinct categories: less than high school, high school diploma/GED, some college and college or more. The income variable was coded into four categories: Less than 124% FPL; 125–199% FPL, 200–399% FPL and 400% FPL or more. Spearman's correlation analyses found that most

sociodemographic variables were significantly associated with each other.

Outcome Variable

The primary outcome variable is *any barrier to care*. This variable is based on four healthcare access variables: having a usual source of care, delayed medical care, delayed dental care and delayed prescription care. The final outcome variable, *any barrier to care*, is a dichotomous variable coded “yes” if any one of the four access questions are endorsed and “no” if none of the access questions are endorsed. While “usual source of care” is often used to measure racial and ethnic health disparities in access to preventive care, it does not discriminate between types of provider or how often someone is able to access this care [40, 41]. Yet few studies include delays in care when assessing healthcare access [42]. Therefore, we decided to include all four of these variables in our analysis to better understand how women were affected by any of these as barriers to care.

Statistical Analyses

Descriptive statistics were computed for all sociodemographic variables (age, marital status, race/ethnicity, education, income and insurance status), the four, original barrier to care variables as well as the final outcome variable, any barrier to care. Prevalence rates of any barrier to care were also stratified and computed by racial/ethnic group. Then we cross classified each independent variable: marital status, education, income, and insurance status by race and ethnicity. In other words, we assessed whether the four socioeconomic variables moderated the relationship between race/ethnicity and barriers to care. These cross-classified variables were used in logistic regressions to assess the intersection between race/ethnicity and socioeconomic variables (marital status, education, income and insurance status) in terms of having a barrier to care. The foundation of this unique methodology is intersectionality and how it manifests for women when examining barriers to care.

Reference groups were White women within each socioeconomic status category based on their social advantage as the majority group. Analyses were conducted in SAS and incorporated weighting and the complex sample design [43]. Statistical analyses were deemed significant with p values of <0.05. Respondents with missing data on any variable were removed from the analyses (4% of the data overall).

Table 1 Weighted demographic characteristics of women ages 18–74, N = 128,355

Variable	Mean (SE) or %
Age (years)	M = 44.0 (SE = 0.11)
Marital status	
Single	45.7%
Partnered	54.3%
Race/ethnicity	
Non-Hispanic Black	12.9%
Non-Hispanic White	66.9%
Non-Hispanic Asian	5.7%
Hispanic	14.6%
Education	
Less than high school	14.2%
High school/GED	27.9%
Some college	22.1%
College or more	35.9%
Income	
Less than 124% FPL	17.6%
125–199% FPL	13.0%
200–399% FPL	29.7%
400% FPL or more	39.8%
Insurance status	
Uninsured	14.1%
Public	16.8%
Private	69.1%
Barriers to care	
Lacks usual source of care ^a	19.9%
Delayed medical care ^a	5.0%
Delayed dental care ^a	4.9%
Delayed prescription care ^a	3.9%
Any barrier to care	28.6%

^aBarriers to care variables are not mutually exclusive

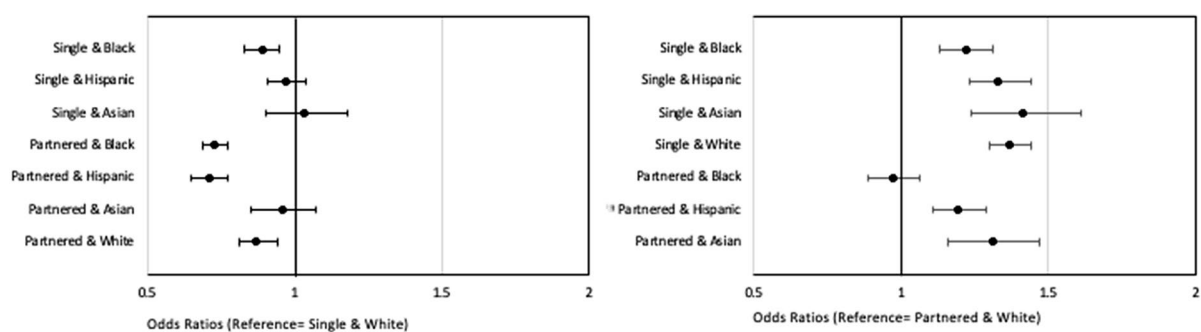
Results

Demographics

Table 1 presents sociodemographic characteristics. The average age of the sample was 44 years old and nearly half were single. The majority of respondents were Non-Hispanic White (67%) followed by Hispanic (15%), Non-Hispanic Black (13%) and Non-Hispanic Asian (6%). Over half the sample had more than a high school education, two-fifths of the sample had incomes at or above 400% FPL, and the majority of respondents had private insurance (69%). Almost 30% of respondents reported at least one barrier to care and lacking a usual source of care was the most common barrier. Refer to our Supplemental materials for additional information.

Intersectionality Models

Figure 1 presents the adjusted multivariate logistic regression model for the factor of marital status and race/ethnicity (a variable with eight categories). All other factors including age, income, education, and insurance status, were held constant. In addition, two different reference groups were used to provide an intersectional lens: single White women and partnered White women. Counter to expectations, lower odds were observed for single Black women (OR 0.89, 95% CI 0.83–0.95) and all partnered women (aside from Asians) than single White women for a barrier to care. Single women from all racial/ethnic groups had significantly higher odds of barriers to care than partnered White women. Partnered Asian (OR 1.31, 99% CI 1.16–1.47) and partnered Hispanic women (OR 1.19, 99% CI 1.11–1.29) also had significantly higher odds of a barrier to care than partnered White women while partnered Black women (OR 0.97, 95% CI 0.89–1.06) were observed to have similar odds of a barrier to care as partnered White women.



*Models controlled for age, race/ethnicity, marital status, education, income and insurance status

Fig. 1 Marital status × race/Ethnicity predicting any barrier to care, MEPS 2005–2015, N = 128,355

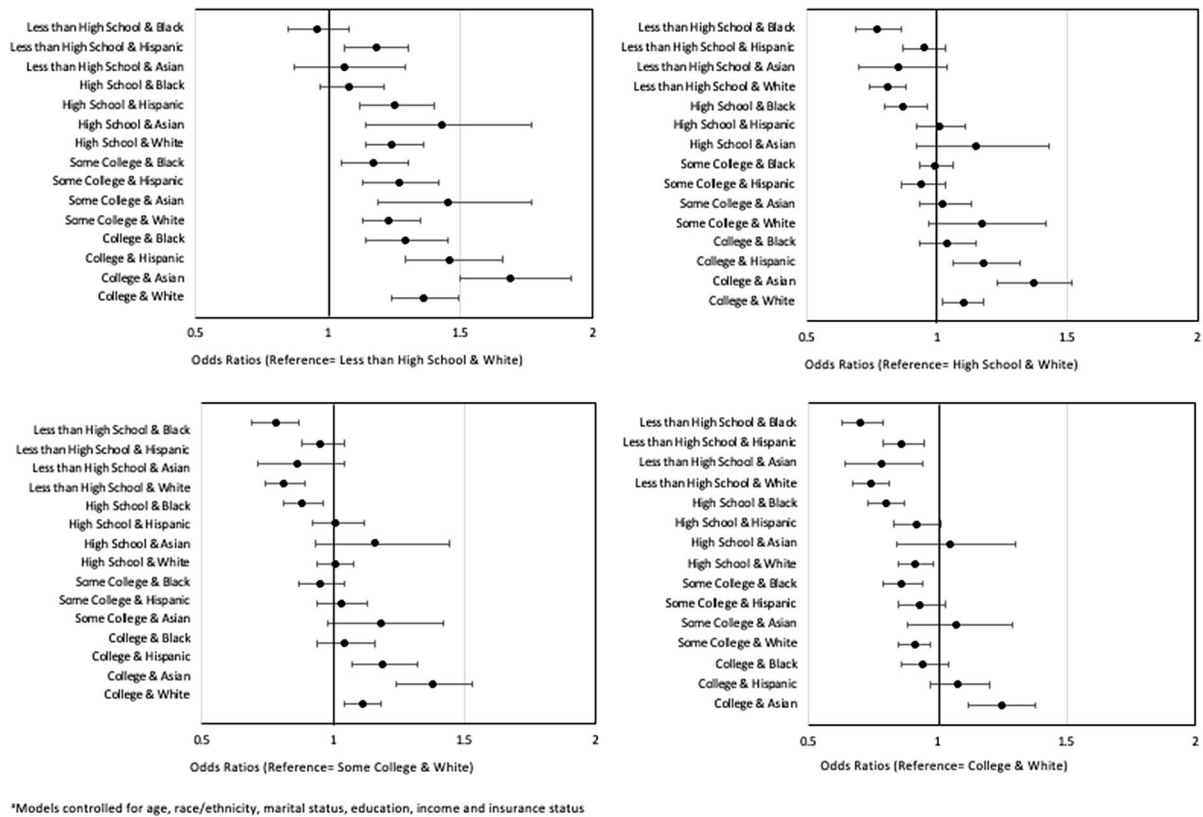


Fig. 2 Education × race/ethnicity predicting any barrier to care, MEPS 2005–2015, N = 128,355

Figure 2 presents the adjusted multivariate logistic regression model for the factor of education and race/ethnicity (a variable with 16 categories). For an intersectional understanding, four reference groups were used: less than high school and White, high school/GED and White, some college and White, and college or more and White. Compared with White women without a high school degree or GED, nearly every racial/ethnic/education group had *higher* odds of having a barrier to care. Compared with White women with a high school degree or GED, Black women without any college had lower odds and most college graduates had higher odds. A nearly identical pattern was observed when the reference group was White women with some college. And finally, when White women with a college degree was the reference group, all women without a high school degree or GED, and Black and White women with either a high school degree or GED OR with some college education also had lower odds. Asian women, however, with a college degree had higher odds of having a barrier to care than their White counterparts.

Figure 3 presents the adjusted multivariate logistic regression model for the factor of income and race/ethnicity (16 categories). Reference groups include White women at each of the four income groups. When the reference group was White women with lower income (less than 124%

FPL or 125–199% FPL), nearly every racial/ethnic income group had lower odds of having a barrier to care. In contrast when the reference group was White women with higher income levels (200–399% FPL or above 400% FPL), most all racial/ethnic income groups had significantly higher odds of having a barrier to care. In addition, interestingly, Black and Hispanic women with the highest income level had lower odds to having a barrier to care compared with White women with moderate income.

Figure 4 presents the adjusted multivariate logistic regression model for the factor of insurance by race/ethnicity (12 categories); reference groups include: uninsured White women, publicly insured White women, and privately insured White women. When uninsured White women were the reference group, uninsured Hispanic and Asian women had higher odds of having a barrier to care, and all groups of publicly or privately insured women had significantly lower odds of having a barrier to care. When publicly insured White women were the reference group, publicly insured and privately insured women, aside from Asians, had lower odds, while all groups of uninsured women had higher odds of having a barrier to care. Finally, all uninsured, publicly insured White women, and privately insured Asian women had higher odds of having a barrier to care than privately insured White women.

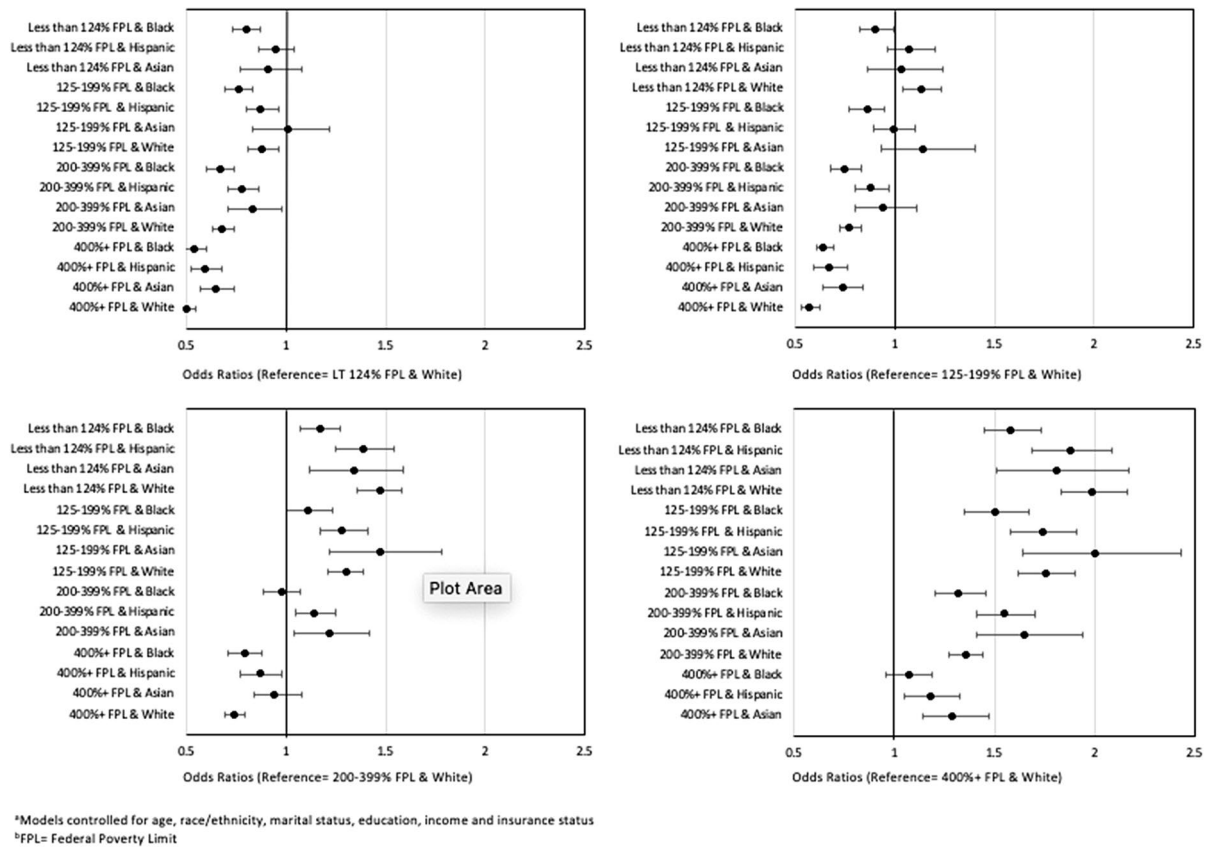


Fig. 3 Income × race/ethnicity predicting any barrier to care, MEPS 2005–2015, N = 128,355

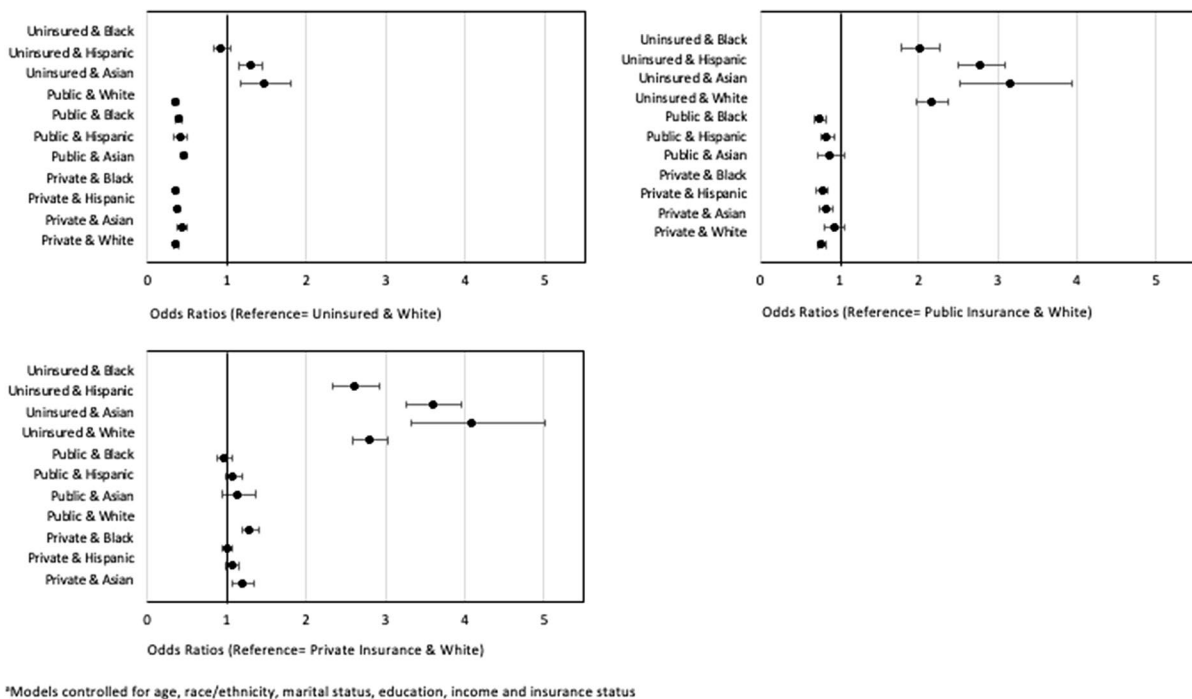


Fig. 4 Insurance status × race/ethnicity predicting any barrier to care, MEPS 2005–2015, N = 128,355

Discussion

Although much work reports on barriers to healthcare for the general population, little research focuses on the barriers to care for women only. We improve upon previous work by focusing on socioeconomic factors that influence barriers to healthcare as they uniquely affect women, with an effort to examine barriers to care for women of color with an intersectional lens. We incorporated a unique methodology to gain a deeper understanding of intersectionality and how it manifests for women when examining barriers to care. First, we cross classified each independent variable: marital status, education, income, and insurance status by race and ethnicity to highlight how each barrier might affect women differently based on their race and ethnicity. Second, we identified and modeled different reference groups. This knowledge enables policy makers and researchers to develop policy and practice around decreasing racial/ethnic inequalities in barriers to care for women.

Overall, we found that across all racial/ethnic groups of women, being single vs. partnered, having lower income vs higher income, and being uninsured vs. privately insured, resulted in higher odds of barriers to care. A deeper intersectional analysis revealed that race/ethnicity moderated these relationships. The findings imply that not all women of color experience the impacts of socioeconomic factors, such as those resulting from discrimination and oppression, in the same way. Future research should collect and understand narratives from different intersectionalities of women's identities.

Not surprisingly, lack of health insurance had the largest association for women having a barrier to care. Here, two distinct intersectional findings emerge. First, uninsured Asian women had four times higher odds of a barrier to care than privately insured White women, 3.2 times higher odds than publicly insured White women, and 1.5 times higher odds than uninsured White women. Asian Americans are often labeled at the "model minority" perhaps due to the perceived higher income levels and education levels than other minority groups. This misperception does not consider all the sub groups of the Asian American population and often disenfranchises those subgroups that are in most need of resources. Based on our findings, it is clear that Asian American women across the spectrum, from having no insurance to private insurance, experience barriers to healthcare irrespective of income and education. Several reasons for this come to mind. First, language barriers often account for delayed medical care as in arranging an appointment with a medical provider, as well as understanding symptoms, diagnosis, and follow up treatments [44]. Second,

complementary and alternative medicine within the Asian community may be used to either replace or be the initial source of remedy to manage illnesses or disease. Trust in these cultural remedies may be a source for delayed medical, prescription, or dental care. Third, logistical barriers that affect all women, such as transportation and childcare, may also contribute to increased barriers to care. Further research to better understand the barriers that affect Asian American women, specifically by sub group, is necessary.

A second interesting finding was that public insurance predicted significantly higher odds to barriers to care for White—but not Black, Hispanic, or Asian—women when compared with privately insured White women. Perhaps "Whiteness," the socially constructed notion that lighter skin affords privilege, influences the stigma around public insurance for White women. In a study conducted by Mays et al., the authors examined perceived healthcare discrimination as a reason for delayed medical care and found the most commonly reported reasons for healthcare discrimination for Whites was insurance status [45]. In addition, a majority of US counties are rural and about 90% White. As a result of living in rural counties, White women may experience greater barriers to care [46, 47]. Health disparities among women do not look the same for all racial groups and more nuanced research and methodologies can shed light on how to mitigate these barriers to care.

Our findings also support the relationship between income and having a barrier to care where the lower the income the higher the odds of having a barrier to care. Through the intersectional analysis, we find an interesting pattern: when lower income White women were the reference group, other racial/ethnic groups at the same income level tended to have *lower* (Black) or *similar* (Hispanic and Asian) odds of having a barrier to care; in contrast, when higher income White women were the reference group, other racial/ethnic groups at the same income level tended to have *higher* (Hispanic or Asian) or *similar* (Black) odds of having a barrier to care. This may be related to cultural factors, wherein Black, Hispanic, or Asian culture are more community oriented, while White culture tends to value individualism and self-sufficiency [48]. Another anticipated finding was that, single women had greater barriers to care than partnered women. Generally, with the additional social and economic support that partnerships bring, it is not surprising that partnered women experienced lower barriers to care.

Our findings around education are puzzling in that, despite the prevalence of barriers to care by education generally following the expected gradient pattern where less education is associated with higher prevalence of barriers, our models found unexpected associations. While beyond the scope of this paper, future research needs to further examine the interaction of education and barriers to care for

women by breaking down subgroups by race/ethnicity and individually looking at the barriers—usual source of care, delayed medical, dental, and prescription care.

Several noteworthy narratives emerge from this analysis. First, lower income White women have increased odds of having a barrier to care while partnered Asian and Hispanic women with high income have increased odds of having a barrier to care than the selected reference categories. Second, Black women are faring as well as or better than White women among almost all socioeconomic factors. Third, intersecting, social identities along with the lived experience (historical context of oppression) of women significantly influences barriers to care.

Strengths of the analysis include the large sample size of over 100,000 women selected from a national database of a diverse population base over an 11-year period, as well as utilizing a unique methodology to gain a deeper understanding of intersectionality for women and barriers to healthcare. This research also specifically examines women, a necessary contribution to health disparities work.

Limitations include that the results cannot lead to causal inferences and may not be generalizable for all within-group differences among the racial/ethnic groups. For example, Asian, Black, and Hispanic women are heterogeneous such as Chinese, South Asian, Hmong, etc. for the Asian population, African American and Afro-Caribbean for the Black population, and Mexican–American, Cuban, Central American, etc. for Hispanic population. The data does not offer a more accurate understanding of barriers to care within these racial/ethnic sub-groups. Another limitation is the data utilized for this study is from 2007 to 2017 and therefore any observed relationship may be different in a more contemporary cohort. Lastly, this study cannot look at geographical differences within the United States, such as comparing states that have varied healthcare policies, such as Medicaid expansion, or other socioeconomic policies such as minimum wage policies, since this dataset does not go beyond geographical regions (East Coast, West Coast, Midwest and South).

Addressing the social determinants of health through intersectionality of race/ethnicity and gender is an essential component for understanding health disparities, particular for women's health disparities. Our work shows that not only race/ethnicity, but the intersection of race/ethnicity and gender with socioeconomic variables predict having a barrier to care. These findings have a significant impact as COVID-19 has disparately affected women. In fact, a greater number of women have lost their jobs and are unemployed or have had to leave their workplace due to caretaking responsibilities [49, 50]. In addition, a significant number of women will lose health insurance as healthcare access is generally tied to the employer. The racial/ethnic, socioeconomic, and gender inequalities that existed prior to

the pandemic are expected to increase in a post pandemic era.

We view our results as important for several reasons. First, gender, race/ethnicity, and socioeconomic status together may compound discrimination. Analyses that incorporate this perspective may offer meaningful insights systems and structures that cause differential healthcare access and in identifying targeted subgroups for focused interventions to redress such access disparities. Second, healthcare delivery can become a challenge for healthcare personnel therefore understanding these inequalities better can help offer more equitable healthcare delivery. Finally, collecting qualitative and quantitative data by race/ethnicity and its sub-groups are imperative to fully understand barriers to care faced by women. Our work dismantles these intersectionalities to provide evidence to design new policies and practices to decrease barriers to healthcare for all women. Achieving a healthy community requires understanding and addressing racial/ethnic and socioeconomic inequalities to help support the people who live and work within these communities.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s10900-022-01147-8>.

Author Contributions All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by Dr. SV-G, Dr. LP, CJ and Dr. CC. The first draft of the manuscript was written by Dr. SV-G, Dr. LP, and CJ and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

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Data Availability The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Conflict of interest The authors have no competing interests to declare that are relevant to the content of this article.

Ethical Approval Not needed for this study due to utilization of secondary analysis.

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