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Sociodemographic factors and perceived patient-provider communication associated with healthcare avoidance among women with psychological distress

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ABSTRACT

Objective: To establish the extent to which psychological distress influences health avoidance behavior among women, controlling for patient provider communication and sociodemographic characteristics.
Methods: Data from the 2019 Health Information National Trends Survey (HINTS 5, Cycle 3) was analyzed to obtain healthcare avoidance behavior among women aged 18 and older ($n = 2788$). Weighted descriptive, bivariate, and multivariable logistic regression models were conducted.
Results: Approximately 649 women or 1 in 4 women (26.7% weighted prevalence; 95% Confidence Interval [CI] 0.23%–0.29%) avoided healthcare in the past 12 months. Non-Hispanic white (62.8%) and married (55.4%) women represented a higher proportion of the sample. Bivariate analysis revealed that the odds of reporting healthcare avoidance among women with mild, moderate, and severe psychological distress (Odds Ratio [OR]: 2.26, 95% CI: 1.45–3.53, $p = 0.001$; OR: 3.88, 95% CI: 2.29–6.56, $p < 0.001$; OR: 3.08, 95% CI: 1.81–5.23, $p < 0.001$) was significantly higher compared to those with none-minimal psychological distress. In the adjusted model, women with moderate and severe psychological distress (Adjusted OR [AOR]:3.15, 95% CI: 1.55–6.38, $p = 0.002$; AOR: 2.24, 95% CI: 1.10–4.92, $p = 0.044$) were more likely to report healthcare avoidance than those experiencing none-minimal psychological distress. Furthermore, increasing patient-provider communication score (AOR: 0.91, 95% CI: 0.87–0.96, $p < 0.001$) reduced the likelihood of healthcare avoidance. Among the sociodemographic variables assessed, being younger (18–49 years) and having less than a high school degree significantly increased the chances of avoiding healthcare.
Conclusion: A high proportion of women with psychological distress avoid necessary healthcare. Patient-provider communication quality, increasing age, and being a high school student contribute to healthcare avoidance in women.
Innovation: Strategies to improve health service utilization must address healthcare avoidance by developing effective health communication targeted at women with psychological distress.

1. Introduction

Despite the Healthy People 2030 goals to reduce the proportion of Americans who delay or avoid necessary medical care, the percentage of individuals with healthcare avoidant behaviors in the United States is steadily increasing, ranging from 14% in 2003 to 36% in 2007 [1-3]. Healthcare avoidance is a phenomenon that hinders a patient's health behaviors or causes them to delay obtaining necessary healthcare services, leading to substantial adverse consequences [4]. These include increased emergency room visits, negative health-seeking behaviors, nonadherence to treatment

protocols, increased morbidity and mortality, and subsequently increased healthcare costs [4]. Although multiple reasons, such as access to care and health insurance, contribute to nonadherence to health service utilization, there is evidence that mental health plays a significant role in whether or not a patient will avoid or delay necessary healthcare [5-6].

Psychological distress, defined as a "state of emotional suffering characterized by symptoms of depression and anxiety, p 105" [7], is associated with negative health outcomes, including chronic disease and adverse birth outcomes. In women, psychological distress can lead to low birth weight, preterm birth, substance use, and poor mother-infant bonding,

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and also causes developmental delays in infants born to women with these conditions [8]. Additionally, women with psychological distress face substantial structural inequalities within the healthcare system that impede their willingness to seek care, further exacerbating existing treatment gaps [8]. Although studies report that women have lower odds of avoiding healthcare than males, psychological distress is positively associated with healthcare avoidance and under-utilization of healthcare among the general population [2,9]. Moreover, it is well established that women are twice as likely as men to experience depression and that these conditions are independent of childbearing [10]. Previous studies have found that healthcare avoidance contributes to why women do not utilize recommended preventive medical care such as cancer screening [11-12]. However, these studies are limited to the perinatal period (e.g., pregnancy and postpartum), particular subpopulations, or specific health conditions [13-15]. Thus, there is a gap in the literature about the patterns of healthcare avoidance among the adult female population with psychological distress.

A positive patient-provider relationship is attributable to improved health service utilization and is associated with improved health outcomes and positive health-seeking behaviors [18]. Unfortunately, many individuals with mental health concerns do not perceive they receive quality care or are unsatisfied with their provider's care. This is especially true for individuals with minority identities and women [16-17]. For example, a cross-sectional study found that women who reported that their provider sometimes or never listened to them were less likely to receive adequate depression treatment [18]. Another qualitative study found that among women with depression, patient-provider rapport may increase the chances of utilizing depression treatment [19]. In general, studies demonstrate that a positive provider communication style is associated with adherence to antidepressant medication, patient satisfaction, and receipt of appropriate care [18,20-22]. Taken together, patient-provider communication quality may be related to the non-delay of needed healthcare services among women. To our knowledge, there is limited evidence about the relationship between patient-provider communication and healthcare avoidant behavior among the adult female population.

Psychological distress and patient-provider communication represent potentially modifiable factors that could affect healthcare utilization. This study adds to the literature by investigating the association of healthcare avoidance with psychological distress controlling for patient-provider communication and sociodemographic characteristics among adult US women. Therefore, this study primarily hypothesizes that women who report elevated levels of psychological distress are more likely to avoid healthcare. Secondarily, this study hypothesizes that poor patient-provider communication would be associated with increased healthcare avoidance among women. And lastly, it is expected that sociodemographic characteristics would predict healthcare avoidance behavior.

2. Methods

2.1. Data source

This study used data from the National Cancer Institute's 2019 Health Information National Trends Survey (HINTS). HINTS is a nationally representative cross-sectional survey of the non-institutionalized adult population aged 18 and older in the United States. HINTS collects data about the public use of and access to health-related information [23].

Data used from this study were drawn from HINTS 5 Cycle 3, collected from January to April 2019. Samples were randomly assigned using address-based postal sampling. HINTS 5 Cycle 3 included a web pilot option, in which another random sample from the address-based sample was encouraged to respond via the web rather than the paper-pen survey instrument to increase the response rates. Within the web-pilot, respondents were further randomized into two conditions: web option condition only, wherein respondents had the option to respond via paper or web without any incentive, or the web bonus condition, wherein respondents received an additional incentive for responding via the web alone. While the web-group did not differ from the paper-only group,

providing bonus helped increase younger adults in the sample and improved the representation of those who are otherwise underrepresented among the paper group. Detailed information about the survey methodology is reported elsewhere [23].

Complete data for HINTS 5 Cycle 3 was drawn from 5247 respondents, with an overall response rate of 30.3%. Because HINTS is publicly available data, institutional review board approval was not required.

2.2. Study variables

2.2.1. Outcome variable: healthcare avoidance

The outcome variable for this study was a dichotomized response to the question; some people avoid visiting their doctor even when they suspect they should. Would you say this is true for you or not true for you? (Not true (0) vs. True (1)).

2.2.2. Key independent variable: psychological distress

Patient Health Questionnaire-4 (PHQ-4) was the main independent variable for this study. The PHQ-4 is an ultra-brief, four-item validated psychological instrument for assessing depression (PHQ-2 with two items) and anxiety (Generalized Anxiety Disorder-2 with two items) and has shown to have high sensitivity and specificity in the screening for these conditions [24,25]. Respondents were asked, over the past two weeks, how often have you been bothered by any of the following problems: 1) little interest or pleasure doing things; 2) feeling down, depressed, or hopeless; 3) feeling nervous, anxious, or on edge; and 4) not being able to stop or control worrying. Responses were on a four-point Likert scale from 1 to 4, with options for, nearly every day, more than half the days, several days, and not at all. For this study, we used the reverse coded PHQ-4 score (0–12, lower scores indicate lower levels of psychological distress) created by HINTS and developed a grouped category based on the literature. Scores were rated as none-minimal (0–2), mild (3–5), moderate (6–8), and severe (9–12) [24].

2.2.3. Control variables

2.2.3.1. Patient-provider communication.
Participants responded to seven patient-provider communication questions, which are key aspects of patient-centered care outlined by Epstein and Street and used in several studies [26-29]. For this study, a patient-provider communication composite score was created by adding the individual responses to the questions related to respondents' communication with all doctors, nurses, or other health professionals they saw in the past 12 months. Respondents were asked how often did they do each of the following: 1) give you the chance to ask all the health-related questions you had, 2) give the attention you needed to your feelings and emotions, 3) involve you in decisions about your healthcare as much you wanted, 4) make sure you understood the things you needed to do to take care of your health, 5) explain things in a way you could understand, 6) spend enough time with you, and 7) helped you deal with uncertainty about your health or healthcare. We recoded the responses so that higher scores indicated positive patient-provider scores (i.e., 1 = never, 2 = sometimes, 3 = usually, and 4 = always). Scores for individual questions were summed, and the minimum and maximum scores were 7 and 28, respectively. The Cronbach alpha for the seven patient-provider communication items was 0.93, indicating a high internal consistency. We also analyzed the patient-provider communication items individually.

2.2.3.2. Sociodemographic variables.
Consistent with the literature [27], the following sociodemographic variables were included in the study. These include age (18–34, 35–49, 50–64, and 65 and older), marital status (married vs. not married), education level (less than high school, some college, and college degree and higher), and race/ethnicity (non-Hispanic white, non-Hispanic black, Hispanic, and non-Hispanic Asian/others). This study was restricted to female respondents.

2.3. Statistical analyses

This study applied the HINTS recommended weights to compute accurate and robust standard errors and provide population-level estimates using the jackknife replication method. Weighted descriptive, (grouped age, marital status, education level, race/ethnicity, patient-provider communication items) bivariate and multivariable binary logistic regression model were performed in the analysis. For the descriptive analysis, we reported the raw counts and weighted percentages for the categorical variables (grouped age, marital status, education level, race/ethnicity, patient-provider communication items) and weighted mean and standard error for continuous variables (continuous age, psychological distress score, and patient-provider communication composite score). Bivariate logistic regression was performed for each variable (categorical and continuous) to show their association with health care avoidance. Finally, for the multivariable logistic regression model, we assessed the association between avoiding healthcare and psychological distress, patient-provider communication composite score, and the sociodemographic variables. We included variables in the multivariable model based on model performance and theoretical relevance.. Uncontrolled odds ratio (OR), adjusted odds ratio (AOR), and 95% confidence interval (CI) were reported. Statistical significance was set at $p < 0.05$.. All analyses were conducted using Stata 17. We excluded missing data from all analyses.

3. Results

Table 1 shows the weighted sample characteristics of women who avoided healthcare and those who did not. The total sample of women ($n = 2788$) was included in this study. Overall, 649 women noted that they had avoided healthcare in the past 12 months - the weighted prevalence was 26.7% (95% CI: 0.23%–0.29%). The majority of respondents were non-Hispanic white (62.8%) and married (55.4%). Those with some college degree (39.6%) and between the ages of 50–64 (31.3%) represented a small percentage of the respondents. Women who avoided healthcare had a higher mean psychological distress composite score than those who did not report avoiding healthcare (mean 3.6 vs. 20.) Participants who reported avoiding healthcare were generally non-Hispanic whites (59.7%), married (51.6%), had less than a high school degree (37.5%), and were younger (18–34; 32.6%). Concerning the patient-provider communication score, those who avoided healthcare had a lower mean than those who did not (mean 15.4, vs. 17.4). In addition, compared to women who avoided healthcare, those with mild, moderate, and severe psychological distress had higher percentages of healthcare avoidance than those within the none-minimal spectrum. Also, compared to women who did not avoid healthcare, those who did reported lower percentages of "always" vs. "never", "sometimes", and "usually" in the individual patient-provider communication items.

Table 2 displays the bivariate logistic regression model reporting the uncontrolled OR and 95% CI. Psychological distress was significantly associated with higher odds of avoiding healthcare. Specifically, the odds of reporting healthcare avoidance among women with mild, moderate, and severe psychological distress (OR: 2.26, 95% CI: 1.45–3.53, $p = 0.001$; OR: 3.88, 95% CI: 2.29–6.56, $p < 0.001$; OR: 3.08, 95% CI: 1.81–5.23, $p < 0.001$) was significantly higher compared to those having none-minimal psychological distress. Higher patient-communication scores (OR: 0.91, 95% CI: 0.87–0.95, $p < 0.001$) and increasing age (OR: 0.97, 95% CI: 0.96–0.98, $p < 0.001$) reduced the odds of avoiding healthcare. Furthermore, women who reported "always" in the patient-provider communication items had statistically significant lower likelihood of avoiding healthcare compared to those who reported "never." Lastly, among the

Table 1

Descriptive statistics of the total sample population, weighted percentages, mean and standard error stratified by healthcare avoidance among women in 2019.

Variables	Total Sample N (Weighted %) 2788	Avoided healthcare N (weighted %) 649 (26.7)	Did not avoid healthcare N (weighted %) 2139 (73.2%)
Psychological distress score. Weighted mean (standard error)	2739	3.6 (0.18)	2.0 (0.13)
Psychological distress grouped			
None-minimal	1907 (64.4)	338 (46.7)	1546 (70.8)
Mild	498 (19.6)	134 (25.9)	358 (17.3)
Moderate	195 (8.8)	84 (15.9)	108 (6.2)
Severe	139 (7.1)	66 (11.5)	73 (5.6)
Patient-provider communication score. Weighted mean (standard error)	2152	15.4 (0.4)	17.4 (0.1)
Patient-provider communication grouped [a]			
Attention needed for your feelings and emotions	2157 (52.3)	204 (44.3)	903 (54.7)
Chance to ask health-related questions	2168 (65.7)	255 (53.9)	1153 (69.5)
Involved you in healthcare decisions	2157 (57.8)	216 (47.9)	1040 (61.0)
Made sure you understood things needed to	2161(63.7)	251 (52.9)	1129 (67.3)
Explained things in a way that you could understand	2162 (67.2)	261 (57.8)	1177(70.4)
Spent enough time with you	2159 (51.8)	188 (44.3)	894 (54.2)
Helped you deal with feelings of uncertainty	2146 (47.7)	177 (37.7)	842 (50.9)
Age continuous score Weighted mean (standard error)	2794	44.1(1.1)	51.5 (0.4)
Age grouped			
18–34	385 (22.4)	132 (32.6)	251 (18.8)
35–49	551 (25.5)	162 (28.1)	387 (24.8)
50–64	895 (31.3)	199 (28.2)	686 (32.4)
>65	963 (20.8)	152 (11.1)	793 (24.0)
Marital status			
Not married	1442 (44.6)	329 (48.4)	1094 (43.2)
Married	1353 (55.4)	313 (51.6)	1027 (56.8)
Education			
Less than high school	689 (29.8)	192 (37.5)	481 (26.7)
Some college	820 (39.6)	182 (35.9)	629 (41.1)
College degree or more	1289 (30.6)	271 (26.6)	1010 (32.3)
Race/Ethnicity			
Non-Hispanic white	1610 (62.8)	369 (59.7)	1223 (63.9)
Non-Hispanic Black	430 (12.3)	71 (11.6)	352 (12.4)
Hispanic	390 (17.6)	107 (19.5)	280 (17.0)
Non-Hispanic Asian/others	197 (7.2)	58 (9.2)	137 (6.5)

[a] Values for these variables represent the percent of people who answered "always."

Table 2
Weighted bivariate analysis showing the odds of having avoided health care vs. not avoiding healthcare among adult women in the United States, 2019.[a]

	Uncontrolled Odds Ratio (95% CI)	P-value
Psychological distress score	1.16 (1.10–1.22)	<0.001
Psychological distress grouped		
None-minimal (ref)	1.0	
Mild	2.26 (1.45–3.53)	0.001
Moderate	3.88 (2.29–6.56)	<0.001
Severe	3.08 (1.81–5.23)	<0.001
Patient-provider communication score	0.91 (0.87–0.95)	<0.001
Patient-provider communication grouped		
Attention needed for your feelings and emotions		
Always	0.18 (0.69–0.48)	0.001
Usually	0.18 (0.06–0.51)	0.002
Sometimes	0.43 (0.15–1.24)	0.117
Never (ref)	1.0	
Chance to ask health-related questions		
Always	0.16 (0.03–0.76)	0.023
Usually	0.23 (0.04–1.12)	0.070
Sometimes	0.77 (0.14–4.11)	0.762
Never (ref)	1.0	
Involved you in healthcare decisions		
Always	0.11 (0.03–0.32)	<0.001
Usually	0.14 (0.04–0.43)	0.001
Sometimes	0.26 (0.08–0.86)	0.028
Never (ref)	1.0	
Made sure you understood things needed to do		
Always	0.08 (0.03–0.21)	<0.001
Usually	0.11 (0.43–0.30)	<0.001
Sometimes	0.33 (0.11–0.98)	0.047
Never (ref)	1.0	
Explained things in a way that you could understand		
Always	0.04 (0.01–0.17)	<0.001
Usually	0.05 (0.01–0.21)	<0.001
Sometimes	0.17 (0.03–0.98)	0.049
Never (ref)	1.0	
Spent enough time with you		
Always	0.11 (0.44–0.27)	<0.001
Usually	0.13 (0.05–0.35)	<0.001
Sometimes	0.15 (0.05–0.40)	<0.001
Never (ref)	1.0	
Helped you deal with feelings of uncertainty		
Always	0.21 (0.09–0.52)	0.001
Usually	0.27 (0.11–0.64)	0.004
Sometimes	0.49 (0.20–1.21)	0.123
Never (ref)	1.0	
Age Continuous Score	0.97 (0.96–0.98)	<0.001
Age		
>65 (ref)	1.0	
50–64	1.88 (1.33–2.66)	0.001
35–49	2.45 (1.63–3.69)	<0.001
18–34	3.74 (2.40–5.82)	<0.001
Marital Status		
Not married (ref)	1.0	
Married	0.81 (0.58–1.11)	0.197
Education		
College degree and more (ref)	1.0	
Some college	1.06 (0.74–1.49)	0.736
High school or less	1.70 (1.23–2.35)	0.002
Race/Ethnicity		
Non-Hispanic white (ref)	1.0	
Non-Hispanic black	0.99 (0.52–1.88)	0.995
Hispanic	1.22 (0.87–1.72)	0.227
Non-Hispanic Asian/others	1.50 (0.84–2.66)	0.158

[a] Ref: reference.

sociodemographic variables, age and education were significant predictors of healthcare avoidance.

The multivariable logistic regression model based on statistical and theoretical relevance included the grouped psychological distress measure and the patient-provider communication composite score, . The results, as seen in Table 3, shows that compared to women with none-minimal psychological distress, those with moderate (AOR: 3.15, 95% CI: 1.55–6.38, *p* = 0.002)

Table 3
Multivariable logistic regression modelling the association of healthcare avoidance with psychological distress, patient-provider communication score, and socio-demographic variables among women in the United States, 2019. (*n* = 1929, Weighted Sample: 81,914,587).[a,b]

Item	Adjusted Odds Ratio (95% CI)	P-value
Psychological distress		
None-minimal (ref)	1.0	
Mild	1.64 (0.91–2.93)	0.094
Moderate	3.15 (1.55–6.38)	0.002
Severe	2.24 (1.10–4.92)	0.044
Patient-Provider communication score (continuous)	0.91 (0.87–0.96)	0.001
Age	0.97 (0.96–0.98)	<0.001
>65 (ref)	1.0	
50–64	1.40 (0.86–2.29)	0.169
35–49	2.15 (1.31–3.51)	0.003
18–34	3.15 (1.78–5.56)	<0.001
Married		
Not married (ref)	1.0	
Married	1.20 (0.79–1.81)	0.366
Education		
College degree and more (ref)	1.0	
Some college	1.20 (0.75–1.95)	0.435
High school or less	2.18 (1.21–3.94)	0.010
Race/Ethnicity		
Non-Hispanic white (ref)	1.0	
Non-Hispanic black	0.99 (0.46–2.14)	0.985
Hispanic	0.87 (0.45–1.68)	0.686
Non-Hispanic Asian/others	1.52 (0.66–3.46)	0.312

ref: reference.
[a] AOR: odds ratio.
[b] ref: reference.

and severe psychological distress (AOR: 2.24, 95% CI: 1.10–4.92, *p* = 0.044) had increased odds of avoiding healthcare. Among the control variables, increasing patient-provider communication score (AOR: 0.91, 95% CI: 0.87–0.96, *p* = 0.001) decreased the likelihood of health avoidance. Furthermore, of the sociodemographic variables assessed, age (18–49 years) and education (less than high school) remained significant predictors of avoiding healthcare.

4. Discussion and conclusion

4.1. Discussion

This study aimed to investigate the factors associated with healthcare avoidance among women with psychological distress controlling for patient-provider communication quality, and sociodemographic factors in the United States. Overall, our study revealed that approximately 1 in 4 or 26.7% of American women actively avoided healthcare in the past 12 months. Previous studies among the general population in the United States using the 2007 HINTS data have reported higher consistent percentages (36%–36.4%) of healthcare avoidance [2,9]. Stratification of our sample to women alone may account for the difference in our results with previous studies. Nevertheless, our findings coincide with a recent report indicating that 1 in 4 women in the US are unable to afford medical care costs which may translate to avoiding the necessary healthcare as a whole [30]. Importantly, however, this current study demonstrates that a substantial proportion of the American adult female population delays medical care well above the Healthy People 2020 objective target [31].

In line with our study primary hypothesis, women with moderate and serious psychological distress had a three-fold and two-fold increase in healthcare avoidance, respectively, compared to their counterparts none-minimal psychological distress. This finding is consistent with our analysis using the psychological distress score (data not shown; AOR, 1.11; 95% CI: 1.05–1.18; *p* < 0.001), which revealed that women with higher psychological distress scores had higher odds of avoiding healthcare. Our results are consistent with previous studies documenting higher levels of unmet

healthcare needs among reproductive-aged women with mental health disorders [8,12]. This study illustrates the urgent need to understand better why women with psychological distress avoid healthcare, considering the deleterious consequences of delaying or foregoing mental healthcare on reproductive health outcomes and women's health in general. Perhaps, designing specific psychological strategies for women to decrease healthcare avoidance behavior for improved health outcomes may be appropriate. For example, the use of telemedicine was found to increase healthcare utilization among breast cancer patients [32]. Thus, incorporating psychological telemedicine care into women's primary healthcare might be a feasible approach to reduce healthcare avoidance behavior.

It is noteworthy to highlight why individuals may delay or forgo healthcare. Factors such as age, cost, health belief, perception of vulnerability, service access, anxiety, and stigma related to the disease are potential reasons for healthcare avoidance. Since individuals with mental health problems often report such barriers, it is plausible that they may be at increased risk of avoiding medical care. In addition, barriers specific to mental health patients, such as doubts about clinical psychological treatments, shortage of mental health providers, and lack of diversity in the mental health workforce, contribute to why women with mental health disorders may not seek mental health services [12,33,34]. Since psychological distress is already associated with adverse health outcomes, poor access to medical care is doubly detrimental to women's health. This study, therefore, calls for additional research into the healthcare avoidance behavior among women.

Concerning our secondary hypothesis, our study revealed that a higher patient-provider communication composite score was associated with a reduced odds of avoiding healthcare. Our results support previous studies suggesting that positive patient-provider communication is associated with increased health service utilization and improved health outcomes [18]. It is important to underscore the importance of patient-provider communication quality on women's healthcare service utilization. For example, women who report high patient-provider communication quality are more likely to be satisfied with their prenatal care, adhere to preventive screening, such as mammography and cervical cancer screening, and trust their providers [35-38]. In contrast, suboptimal patient-provider communication is associated with reduced health service utilization [30,39,40]. Taken together, our results demonstrate that enhancing patient-provider communication is a step in the right direction to improving women's health in general.

Lastly, among the sociodemographic factors assessed, only age and education were found to be significantly associated with our outcome of interest. Younger-aged women (18–34) and those in their midlife (35–49), which represent those in their reproductive age, are more likely to avoid medical care than older-aged women (65 and older). This result is consistent with previous national estimates among reproductive-aged women [12]. Our findings call for public health efforts to reduce the proportion of reproductive-aged women who delay healthcare, considering that the reproductive-age period is a significant period where women require increased medical care – although women 65 and older also purchase medical care at high rates due to age-related health conditions [30]. Lastly, this study found that women with less than a high school degree had significantly higher odds of avoiding healthcare than those with a college degree or more. Research and programs on comprehensive approaches that target health care avoidance behaviors resulting from educational barriers should be explored. Notwithstanding, our result indicate that a multifaceted strategy is required to address healthcare avoidance behavior among women with psychological distress to close existing treatment gaps and to achieve the nation's goal of reducing the proportion of Americans who delay medical care by 2030.

This study has several strengths and limitations. First, it utilizes the most recent HINTS data and provides up-to-date information about healthcare avoidant behaviors. In addition, we applied the jackknife replicate weights to provide unbiased population estimates. However, the 2019 data did not contain the follow-up questions contained in the 2007 HINTS data asking respondents why they avoided healthcare. This made it impossible to investigate further the underlying factors why women with psychological distress avoid healthcare.

Nonetheless, our choice to use the 2019 data was to ensure our findings reflect recent health policy trends and public health initiatives in the United States. Second, this study adds to the literature by assessing the role of patient-provider communication on healthcare avoidance behavior. However, as with every cross-sectional study, responses were self-reported, which is prone to bias. As a result, we may be unable to draw conclusions on causal relationships. For example, healthcare avoidance may simply be comorbid with psychological distress. Another limitation is that we do not know the type of doctor or health service that women avoided. Despite these limitations, HINTS is well-cited in the medical sciences in the United States, suggesting strong reliability, validity, and inference of our results.

4.2. Innovation

Reducing healthcare avoidance behavior is a national priority because it is an important determinant to improve population health and well-being. Strategies to improve health service utilization must address healthcare avoidance by developing effective health communication targeted at women with psychological distress. This may include messages that destigmatize mental health, incorporate real people with these conditions, contain contents that ameliorate fear of mental health treatments, and address those along specific cultural lines. An inclusive and diverse behavioral health workforce is also important to address healthcare avoidance in women. Additional training of obstetricians and primary care providers to identify women at risk of psychological distress for immediate treatment referrals and integration of the behavioral healthcare workforce into the primary healthcare system may lessen barriers to mental health care. Another important and feasible mechanism to reduce healthcare avoidance is through telemedicine. Since the Coronavirus pandemic, it has become obvious that telemedicine can improve healthcare access for patients with mental health problems while also being effective. Results from this study have important implications for public health, policy, and researchers to identify strategies to improve the mental and overall health of women with psychological distress as well as the general female population.

4.3. Conclusion

In summary, we found that 26.7% of the adult female population reported avoiding healthcare in past 12 months. Despite the limitations acknowledged, this study reports pertinent information about healthcare avoidance behavior among women experiencing psychological distress. Notably, our study brings visibility to the burden women with psychological distress encounter in seeking care. We found that women with moderate and severe psychological distress were more likely to avoid healthcare. Another important finding in our study is that positive patient-provider communication quality may reduce healthcare avoidance behavior. Considering that healthcare avoidance behaviors worsen prognosis, there is an urgent need for tailored strategies to promote healthcare utilization and access among an already vulnerable population.

Author statement

Kobi V. Ajayi: Conceptualization; Writing -original draft preparation; Writing- reviewing and editing; Method: Data analysis and interpretation; Approval of submitted version.

Sonya Panjwani: Writing – reviewing and editing; Approval of submitted version.

Whitney Garney: Writing – reviewing and editing; Approval of submitted version.

Carly E. McCord: Supervision; Writing – reviewing and editing; Approval of submitted version.

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Declaration of Competing Interest

Acknowledgments

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