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Mental Health Treatment Seeking Among Older Adults with Depression: The Impact of Stigma and Race

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Abstract

Objective—Stigma associated with mental illness continues to be a significant barrier to help seeking, leading to negative attitudes about mental health treatment and deterring individuals who need services from seeking care. This study examined the impact of public stigma (negative attitudes held by the public) and internalized stigma (negative attitudes held by stigmatized individuals about themselves) on racial differences in treatment seeking attitudes and behaviors among older adults with depression.

Method—Random digit dialing was utilized to identify a representative sample of 248 African American and White adults older adults (over the age of 60) with depression (symptoms assessed via the Patient Health Questionnaire-9). Telephone based surveys were conducted to assess their treatment seeking attitudes and behaviors, and the factors that impacted these behaviors.

Results—Depressed older adult participants endorsed a high level of public stigma and were not likely to be currently engaged in, nor did they intend to seek mental health treatment. Results also suggested that African American older adults were more likely to internalize stigma and endorsed less positive attitudes toward seeking mental health treatment than their White counterparts. Multiple regression analysis indicated that internalized stigma partially mediated the relationship between race and attitudes toward treatment.

Conclusion—Stigma associated with having a mental illness has a negative influence on attitudes and intentions toward seeking mental health services among older adults with depression, particularly

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African American elders. Interventions to target internalized stigma are needed to help engage this population in psychosocial mental health treatments.

Keywords

Stigma; Depression; Treatment; Aging

Introduction

Depression is a common psychiatric disorder, affecting nearly 18.8 million adults or approximately 9.9% of the adult in a given year(1). Among the elderly, depression is a major public health concern leading to increased disability and morbidity. Depression among elderly persons is widespread and is often undiagnosed and untreated. In 2002, approximately 15% of adults aged 65 and older had a clinically significant depressive disorder(2). By 2030, the numbers of older adults with depression will nearly double the current numbers(3). These projections are largely based on the aging of the “baby boomer” cohort and greater life expectancy. Despite these high prevalence rates, few older adults report seeing a mental health professional for treatment. In fact, older adults seek professional mental health treatment at a rate lower than any other adult age group(4).

Without appropriate mental health intervention, older adults with depression experience significant disability and impairment, including impaired quality of life, increased mortality, and poor health outcomes(4,5). In addition to the above, older adults have the highest rate of completed suicide, which is associated with high rates of depression(5). With the numbers of older adults rapidly increasing in the United States, untreated mental illness among this population is one of the most significant challenges facing the mental health service delivery system(6), especially considering that the combination of psychotherapy and psychopharmacology is highly effective in treating mental health disorders among older adults (7).

Race and Age Disparities in Treatment Utilization

African American older adults suffer more psychological distress than their White counterparts due to their life long exposure to and experiences with racism, discrimination, prejudice, poverty, and violence(8); and they tend to have fewer psychological, social, and financial resources for coping with stress than their White counterparts(9). Despite epidemiological research which suggests similar rates of depression among African Americans and Whites(5), racial disparities continue to exist in mental health service utilization. African Americans (10) and African American older adults (11) are significantly less likely to seek mental health services than their White counterparts. While only one-third of all individuals with a diagnosable mood disorder seek mental health treatment, African Americans seek treatment at a rate half that of their White counterparts(5,12). These disparities continue even after initial barriers have been overcome. African Americans attend fewer sessions when they do seek specialty mental health treatment, and are more likely than their White counterparts to terminate treatment prematurely(10,12). And while older adults, and in particular older African Americans, are more likely to seek mental health treatment in primary care than in specialty mental health settings(13,14), they remain less likely than their younger counterparts to have their depression detected and treated in these settings (15-17).

Negative attitudes towards mental health treatment significantly impact help-seeking behaviors. Utilizing a nationally representative sample, Diala and colleagues(18) found individuals who endorsed negative attitudes toward treatment were five times less likely to seek mental health services than those with more positive attitudes. Research has reported

mixed findings regarding racial differences in attitudes toward seeking mental health services. Some cross-sectional studies find few or no racial differences in attitudes toward mental health treatment (19-21) while others suggest that compared to their White peers, African American adults hold more negative attitudes towards seeking mental health treatment(22). In the existing literature, however, the relationships among race, attitudes and mental health treatment utilization have not been explored in depth among older adults. Given the mental health service utilization disparities among older adults, we suggest it is critical to explore attitudes about seeking mental health treatment in this population.

The Impact of Stigma

The stigma associated with having a mental illness may be an important factor which influences treatment-seeking attitudes and behaviors and may, in part, account for existing disparities in service utilization among African American older adults. According to Goffman(23), stigma is an identified mark or characteristic, which disqualifies those possessing the mark from full social acceptance in society. This includes the negative perceptions, attitudes, and beliefs held about individuals who bear such a mark. Stigmatization has been identified as one of the most significant barriers to mental health treatment and contributes to poor quality care, particularly for African Americans(24).

Stigma theory posits that the stigma associated with having a mental illness manifests via public stigma and internalized stigma(25). Public stigma refers to the negative beliefs, attitudes, and conceptions about mental illness held by the general population, which lead to stereotyping, prejudice, and discrimination against individuals with mental health disorders(25). An individual's perceptions about society's attitudes and beliefs about their mental health status often lead to negative attitudes about mental health treatment and thus become a barrier to help-seeking. Internalized stigma refers to devaluation, shame, secrecy, and social withdrawal, which are triggered by applying the negative stereotypes associated with mental illness to oneself(26). Living in an environment which sanctions the stigmatization of people with mental illness, an individual with a mental health disorder may accept and internalize these stigmatizing attitudes and beliefs endorsed within society(27).

According to Cooper, Corrigan and Watson(28), an inverse relationship exists between stigma and treatment seeking. Individuals who perceive society as holding stigmatizing beliefs about mental illness, and individuals who internalize stigma are less likely to seek mental health treatment(29,30). The relationship between stigma and treatment seeking attitudes and behaviors may be particularly pertinent among older adults. Katon and Livingston(31) identified the stigma of mental illness as the most fundamental reason why older adults chose not to seek mental health services and the Surgeon General's report on mental health(5) highlighted stigma as a powerful obstacle to seeking care among the elderly. Research suggests that stigma may be a more salient barrier to mental health service utilization for older adults. Utilizing a two stage sampling design, Sirey and colleagues(30) found while younger adults tended to perceive more stigma, stigma about mental illness predicted early treatment discontinuation in elderly mental health patients who suffer from depression. In their qualitative analysis, Conner and Rosen(32) found that older African Americans with depression often experience multiple, concurrent stigmas and may be less likely to seek help due to bearing more than one stigmatizing characteristic (e.g. mental illness, aging, and racial minority status). Research suggests that African Americans are more likely to experience stigma about mental illness than their White counterparts(33) however this finding has been inconsistent (34). There is still little known about racial differences in stigma experiences among older adults.

In order to examine the relationships between stigma associated with having depression, race and treatment seeking attitudes and behaviors among older adults with depression we test the following hypotheses: 1) African American older adults will have more negative attitudes toward seeking treatment than their White counterparts; 2) African American older adults will be less likely to be currently engaged in treatment for depression and less likely to intend to seek treatment for depression than Whites; 3) African American older adults will report higher levels of internalized and public stigma than their White counterparts; 4) Stigma (public and internalized) will be significantly associated with more negative treatment seeking attitudes and behaviors among older adults with depression; 5) Stigma will partially mediate the relationship between race and treatment seeking attitudes and behaviors.

Method

Research Design

Study participants were recruited by the University Center for Social and Urban Research (UCSUR) at the University of Pittsburgh using random digit dialing (RDD) telephone sampling methodology. Participants were recruited from Allegheny County (Pittsburgh) PA. To attain a representative sample of both African-Americans and Whites for this study, the area-code/exchanges were divided into two strata for sampling: (1) exchanges with less than 25% estimated African American population, and (2) exchanges with an estimated 25% or higher African American population. This stratified sampling approach increased efficiency and reduced cost. Data collection was conducted using UCSUR's computer-assisted telephone interviewing (CATI) system. Upon contact, households were first screened for depression symptoms using the Brief Patient Health Questionnaire-9(35). Only those reporting mild to moderate depression symptoms (a score of 5 or above) were eligible. Respondents with bipolar disorder or severe substance abuse were ineligible. These procedures resulted in a final sample size of 449 participants, which included 229 Whites (101 under age 60, 128 age 60 and older), and 201 African Americans (100 under age 60, and 120 age 60 and older). The findings from the larger sample of 449 adults are presented elsewhere. For the purpose of this paper, we are focusing on the sample of 248 older adults to examine their attitudes about seeking mental health treatment, and the impact of stigma and race on these attitudes.

An extremely labor intensive effort was required to achieve this sample. A total of 63,557 telephone numbers were processed, and nearly 198,599 actual dialings were conducted. Across both high-and low-density strata, 34.4% of households were successfully screened (12,859 total screened households), and 87.2% of those aged 60 and older determined to be eligible completed the full interview.

Measures

Demographic Characteristics—Self reported demographic characteristics included: age, gender, race, marital status, education, and employment status.

Clinical Characteristics—The Patient Health Questionnaire-9 (PHQ-9; (35) was used to characterize severity of the depressive symptoms. Cut offs have been established that correspond to minimal (*score 1-4*), mild (*score 5-9*), moderate (*score 10-14*), moderately severe (*score 15-19*), and severe (*score 20-27*) symptom levels and algorithms developed to establish depressive disorder diagnoses. The PHQ-9 has also been found to sensitive to change in depressive symptoms over time(35).

Perceived Public Stigma was assessed with a revised version of the *Perceived Devaluation Discrimination Scale* (PDD)(36). This 12-item scale evaluates the extent to which a person believes that other people will devalue or discriminate against individuals with a mental illness.

It asks about the extent of agreement on a four-point likert scale (1= strongly disagree to 4=strongly agree) with statements indicating that most people devalue individuals with mental illness by perceiving them as failures, as less intelligent than other person (e.g. “Most people believe that having depression is a sign of personal failure” and “Most employers will pass over the application of person with depression in favor of another applicant”). For this investigation, we adapted the scale so that items referred to having ‘had depression’ rather than ‘having a mental illness.’ The revision was necessary because perceptions about severe mental illnesses and depression may differ. Higher scores indicate more public stigma.

Internalized Stigma was assessed with the 29-item, four-point likert scaled (1= strongly disagree to 4=strongly agree) *Internalized Stigma of Mental Illness Scale*(37). Distinct from other stigma scales, which focus on social attitudes toward the mentally ill or perceptions of these attitudes (Link, 1982), the ISMI focuses on the individual's subjective experience as someone with a mental illness (e.g. “Stereotypes about mental illness apply to me” and “I am embarrassed and ashamed to have depression”). The ISMI demonstrates excellent internal consistency reliability, test-re-test reliability, concurrent and validity(37). For language consistency, we revised this scale so that items refer to ‘depression’ instead of ‘mental illness.’ Higher scores indicate more internalized stigma.

Mental Health Treatment was assessed with 3 questions. The first question asked “At any time in the past, have you ever visited a health professional (psychiatrist, psychologist, social worker, mental health counselor, or primary care physician for a problem with your emotional or mental health (yes or no)?” If yes, “When was your most recent visit? Within the past month, 1-6 months ago, 7-12 months ago, more than 12 months ago.” A third question asked: “Are you currently receiving treatment for depression (yes or no)?”

Intention to Seek Treatment for Depression was assessed with one item; “During the next month, I intend to speak or meet with a health professional to discuss my symptoms of depression.” Respondents indicated on a 7-point scale (extremely unlikely to extremely likely) the likelihood of their engaging in this behavior.

Attitudes Toward Mental Health Services was assessed utilizing the Attitudes Toward Mental Health Treatment Scale (ATMHT). The ATMHT is comprised of 20 items with a four-point likert scale, and is intended to reflect an individual's attitude toward professional mental health treatment. The ATMHT is a modified version of the 29-item Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS) (38). Despite its utility and vast usage, several conceptual and methodological concerns have been raised regarding the language and cultural appropriateness of the ATSPPHS. Some identified concerns are the outdated language used and that it only refers to psychiatrists and psychologists as providers of mental health services (39). An additional concern is the lack of attention to culturally relevant items that may impact attitudes toward seeking.

To address these concerns, we shortened the original scale, adapted 8 original items by incorporating more inclusive and easier to understand language, and added 12 items that reflect issues that may impact racial minority elder's attitudes about mental health treatment (e.g. “I feel confident that I could find a therapist that is understanding and respectful of my ethnicity/culture”, and “In my community, people take care of their emotional problems on their own; they don't seek professional mental health services”). We developed these items based upon comments endorsed within focus groups we conducted with African American older adult primary care patients (40). While the adapted scale refers primarily to psychotherapy, the instructions ask participants to rate their attitudes about seeking mental health treatment from any mental health professional (e.g. psychiatrist, psychologist, social worker, counselor or

primary care physician). Higher scores indicate more positive attitudes about seeking mental health treatment.

Analysis

Racial differences in demographic variables were examined using either *t*-tests or Chi Squares. *T*-tests were utilized to examine racial differences in score variables such as attitudes toward seeking mental health treatment (hypothesis 1) and stigma (hypothesis 3), and chi squares were utilized to examine racial differences in categorical variables relevant to current or previous engagement in mental health treatment (hypothesis 2). Regression analyses were utilized to examine the relationship between stigma and treatment seeking attitudes and behaviors (hypothesis 4) and to assess for mediation (hypothesis 5). Before the analysis, the data were tested for assumptions of multiple regression, including the absence of outliers and multicollinearity, homoscedasticity of residuals, and independence of error terms. Following the procedure of Baron and Kenny(41), four regression equations were conducted for each dependent variable. The final regression models determined whether statistical significance of race on mental health treatment seeking attitudes and behaviors was reduced when both public and internalized stigma were added to the analysis.

We utilized the SOBEL test to examine the significance of the final regression models. SOBEL estimates the total, direct, and indirect effects of independent variable on outcome variables through a proposed mediator variable based upon the mediation steps of Baron and Kenny (41). Preacher and Hayes (42) suggest that a more accurate estimate of the standard error of indirect effects should be calculated with a bootstrap procedure. Bootstrapping is an empirical method of determining the significance of statistical estimates. Therefore, we used a bootstrap procedure developed by Preacher and Hayes to calculate the standard error which was then used in the calculation of the Sobel test to examine the statistical significance of the hypothesized indirect effect (42). Age and education were controlled in all statistical analyses.

Results

Eighty four percent of the sample was female (n=207). Participants' age ranged from 60 years to 93 years-old, with a mean age of 72 (SD= 7.8). Forty percent of the sample was widowed (n= 112), with the additional 42% either married (n= 54) or divorced (n= 49). Sixty-seven percent of the sample participants were high school graduates (n= 82), had a GED equivalent (n= 13) or had completed at least some college (n= 73), and 81% (n= 201) of the sample participants were retired.

The majority of participants (88%) scored between 7 and 17 on the Brief Patient Health Questionnaire (PhQ-9). While we did not assess whether people endorsed the label of depression, we did find that 85% of participants endorsed having had depressed mood for at least several days, and 42% felt depressed down or hopeless at least half the days over the past two weeks. Despite high rates of depression symptoms, more than half of study participants (56%) had never seen a health professional (e.g. social worker, psychologist, primary care physician, etc.) for depression treatment. For those 106 participants who had sought mental health treatment, sixty percent (n= 63) stated that their most recent visit to a health professional was over 12 months ago. Less than 16% of participants were currently in treatment for depression. Additionally, only 18% stated that they were likely to seek mental health treatment in the future, with 82% of study participants stating that they were unlikely or extremely unlikely about seeking mental health treatment in the future.

As shown in Table 1, African American participants were more likely to be older, less educated, and still have a full- or part-time job than their White counterparts. African American and

White participants had similar PHQ-9 scores, indicating similar levels of depressive symptoms, which is consistent with current literature. However, while more than half ($n=67$) of the White participants had seen a health professional in the past for depression treatment, less than one-third of the African American sample ($n=39$) stated that they had never seen a health professional for depression treatment. Additionally, there were fewer African Americans currently in treatment for their depression ($n=16$) than their White counterparts ($n=23$).

Racial differences in attitudes toward treatment were evident when looking at individual items on the Attitudes Toward Seeking Mental Health Services Scale. White participants (80.5%) felt that they would feel comfortable seeing a mental health professional that was from a different racial background, however only 56.6% of African American participants stated that they would feel such comfort. Also, while White participants (59.4%) stated they would feel comfortable seeing a mental health professional younger than themselves, only 31.7% of African American participants stated that they would feel comfortable with a younger mental health professional. There were also some interesting similarities. The majority of both African American participants (67.2%) and White participants (65.7%) in this sample stated that they did not fully trust mental health professionals. Both African American participants (76.3%) and White participants (81.2%) felt that in order for mental health treatment to be effective, the mental health practitioner must be of the same racial background. Despite this sentiment, most African American and White participants stated that they would be willing to see a mental health practitioner from a different racial background than their own.

Bivariate Results

Race and Attitudes Toward Mental Health Treatment—As hypothesized, older African Americans ($M=2.72$, $SD=.18$) had significantly lower scores on the attitudes toward seeking mental health treatment scale when compared to their older White counterparts ($M=2.79$, $SD=.17$), indicating less positive attitudes towards mental health treatment ($t(246)=2.79$, $p<.0001$). Interestingly, having never sought mental health treatment was significantly related to having negative attitudes about mental health treatment ($r=-.146$, $df=246$, $p=.02$). While this finding is statistically significant, it has questionable clinical significance with a medium Cohen's d effect size of 0.399.

Contrary to prediction, there were no significant racial differences on intention toward seeking mental health treatment. Both older African Americans and older Whites had low intention toward seeking mental health treatment in the near future. In addition, there were no significant differences by race on current engagement in mental health treatment ($\chi^2=1.06$; $df=1$, $n=248$, $p>.05$). Both African American and White older adults were not likely to currently be engaged in mental health treatment. There were, however, significant differences by race on having ever sought mental health treatment ($\chi^2=11.1$; $df=1$, $n=248$, $p<.0001$). African Americans were significantly less likely to have ever sought mental health treatment as compared to their White counterparts.

Race and Perceived Public and Internalized Stigma—Contrary to prediction, there were no significant differences by race on perceptions of public stigma ($t(246)=-.58$, $p>.05$). Older African Americans ($M=2.61$, $SD=.28$) endorsed similar scores on the public stigma scale when compared to their older White counterparts ($M=2.59$, $SD=.29$). The mean scores are significantly above the median score of 2.5 indicating that the perceptions of public stigma are high for both racial groups. As predicted, older African Americans ($M=2.18$, $SD=.30$) had significantly higher scores on the ISMI scale when compared to their older White counterparts ($M=2.10$, $SD=.31$), indicating that the older African Americans in this sample endorse more internalized stigma ($t(246)=-2.118$, $p=.035$). The mean scores being below the midpoint of 2.5 however suggest that older adults are more likely to perceive public stigma

than to internalize it. Despite a statistically significant difference, there is questionable clinical significance with a small to medium Cohen's *d* effect size of .26.

Public Stigma, Internalized Stigma, and Treatment-Related Attitudes and Behaviors—Table 2 shows Pearson correlation coefficients between study independent and dependent variables. As predicted, internalized stigma was significantly negatively correlated with attitudes toward seeking mental health services. This suggests that having high level of internalized stigma is associated with more negative attitudes toward mental health treatment. The correlation between public stigma and attitudes toward mental health treatment was non-significant. The correlation between public stigma and intention to seek or engagement in mental health treatment was also non-significant.

Internalized stigma was significantly correlated with intention toward seeking mental health services, but not in the expected direction. This suggests that higher level of internalized stigma is related to greater intention to seek mental health treatment. Pearson correlations also identified a positive association between depressive symptoms and internalized as well as and intention to seek treatment. Thus, individuals with more severe depressive symptoms were more likely to intend to seek treatment, and they also endorsed high levels of internalized stigma. Regression analyses indicate that both internalized stigma and depressive symptoms are important when predicting intention to seek treatment. Level of depressive symptoms was not related to any other study variables.

Multivariate Results

Multiple four-step regression analyses (41) were utilized to test the hypothesis that stigma partially mediates the relationship between race and treatment seeking attitudes and behaviors. As shown in the mediation diagram (Figure 1), results of the statistical mediation tests indicated that internalized stigma partially mediated the relationship between race and attitudes toward mental health treatment. After controlling for internalized stigma, the direct effect of race on attitudes towards mental health treatment ($r = -.175, p < .01$) was reduced ($\beta = -.146, p = .029$). This is a partial mediation model in that when internalized stigma was controlled, the relationship between race and attitudes toward treatment was attenuated, but remained statistically significant. As hypothesized, the SOBEL test for mediation (43) supported this partial mediation model for internalized stigma (SOBEL $z = 1.89, \text{bootstrap } p = .05$). While internalized stigma significantly partially mediated the relationship between race and attitudes, contrary to prediction, public stigma did not partially mediate the relationships between race and treatment seeking attitudes or behaviors.

Discussion

Although many studies have examined the association between race, attitudes about mental health treatment, and treatment seeking behaviors, to date, very few investigations have addressed the impact of stigma on these relationships. Even fewer have examined these relationships in a sample of older adults with depression. This investigation bridges the gap by presenting data on the impact of stigma and race on the mental health treatment seeking attitudes and behaviors of older adults with depression.

The first hypothesis that mental health treatment seeking attitudes differ by race was supported in the current study. African American survey participants endorsed significantly less positive attitudes about mental health services than their White counterparts. While this finding is inconsistent with some other studies that have found no racial differences in attitudes about mental health treatment (18-21), the current study has found divergent results for, at least, three reasons. First, this sample included African American and White older adults who may have more negative attitudes about seeking mental health services than younger adults. Therefore,

our findings may more accurately represent attitudes of older adults with depression, identifying an age-cohort effect.

Second, attitude toward services was assessed utilizing the Attitudes Toward Mental Health Treatment Scale (ATMHT), a modified version of the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS)(38). The modified ATMHT(44) includes questions related to racial and ethnic match and comfort seeking services from a therapist of a different race or of a different age group. These questions reflect issues that may impact attitudes toward mental health treatment held by racial/ethnic minorities, as well as aging populations.

Lastly, having never sought mental health treatment was significantly related to negative attitudes about mental health treatment, and the majority of the African Americans in the current study had never sought mental health treatment while the majority of the White participants had sought treatment. Therefore, some of the differences in attitudes may be attributable to actual treatment experiences. While the mean differences between older African Americans and Whites attitudes toward treatment were statistically significant, the moderate effect size suggests that this difference may not be clinically significant. Additional analysis of individual items on the ATMHT scale, however, identified key differences between the two racial groups even when controlling for previous treatment experiences. The majority of African American survey participants identified mistrust in mental health services and believed that mental health treatment was not the most effective strategy to reduce mental health symptoms. Additionally, White older adults were more likely than their African American counterparts to feel comfortable seeing a mental health professional who was from a different racial background as well as seeing a therapist who was younger than them. This suggests that if they choose to seek treatment, African American older adults prefer a therapist who is more 'like' them in the domains of race and age. In general however, treatment seeking attitudes held by older adults are generally positive, which is consistent with additional research in this area (45).

The second hypothesis that African American older adults would be less likely to intend to seek or be engaged in mental health treatment was partially supported. For the purpose of this paper we included seeking mental health treatment from any source, recognizing that older adults often seek depression treatment from their primary care physician. Contrary to prediction, there were no significant differences by race on intentions to seek mental health treatment or on current engagement in mental health treatment. Neither African American nor White survey participants were likely to intend to seek or be currently engaged in mental health treatment. Consistent with prior studies however(11,46-48), African Americans were significantly less likely than their White counterparts to have ever sought mental health treatment. In fact, while the vast majority of African American older adults had never sought mental health treatment, more than half of the White older adults had sought treatment at some point in their lives. These findings were consistent even when controlling for depressive symptoms and education.

The third hypothesis that perceptions of and experiences of stigma differ by race was partially supported in the current study. It should be noted that without a measure of perceived need for treatment, it is possible individuals who did not endorse items on the ISMI did so not because they didn't internalize stigma, but rather because they did not endorse the label of being depressed. The hypothesis that African American older adults would experience more internalized stigma than their White counterparts was supported. These results are consistent with previous research, which suggests that African Americans are more concerned about mental illness stigma(33), are more likely to experience stigma about mental illness(49), and live in communities that may be more stigmatizing towards mental illness(50). Interestingly, the hypothesis that African American older adults would perceive more public stigma than

their White counterparts was not supported by the results. In order to understand this finding, it is important to report that the total sample reported moderate to high public stigma scores ($M= 2.79$, $SD= .30$), suggesting perceived public stigma may be higher among older adults in general.

The fourth hypothesis that high levels of self-reported public and internalized stigma would be related to more negative mental health treatment seeking attitudes was partially supported in this study. For both African American and White older survey participants, higher level of internalized stigma was significantly related to less positive attitudes about mental health treatment. This finding supports previous research that identifies an inverse relationship between stigma and treatment related attitudes and behaviors(28,51). While the relationship between internalized stigma and attitudes was significant for the total sample, this relationship was stronger and more negatively correlated among the African American participants. This finding suggests that in addition to being endorsed at a greater level, internalized stigma also had a greater impact on attitudes toward seeking mental health treatment among African American survey participants in the current study.

While there was a significant relationship between internalized stigma and intention to seek mental health treatment, this relationship was in the opposite direction than hypothesized. This finding suggests that older adult survey participants with higher levels of internalized stigma were significantly more likely to intend to seek mental health treatment. This result diverges from other research studies, which have found that both greater perceived public stigma and internalized stigma reduced the likelihood of seeking help from all sources(51). One reason for this finding is that individuals in the current study with higher levels of internalized stigma were also likely to have severe depressive symptoms. Therefore, despite less positive attitudes about seeking mental health treatment, and their high levels of internalized stigma, these individuals were also in greatest need and therefore more likely to seek mental health treatment, despite these barriers. This also suggests that individuals with lower depressive symptoms may not identify with the label of depression and do not therefore perceive a need to seek treatment. Unfortunately, without a measure of perceived need we can only speculate that individuals with greater depressive symptoms were also more likely to view themselves as depressed and in need of treatment. Therefore, these variables need to be further tested in a larger study.

While there was a trend towards a relationship between higher perceived public stigma and more negative attitudes toward mental health treatment, for both African American and White survey participants, this relationship was not statistically significant. Therefore, it is not merely perceiving or experiencing stigma from others that has a detrimental impact; rather, it is when one internalizes those negative beliefs held by the general public and applies them to oneself that has an impact on their attitudes. This finding is interesting in that public stigma scores were higher among older adults than internalized stigma scores, yet it was internalized stigma that was significantly related to treatment seeking attitudes and behaviors. This is consistent with findings from other studies highlighting the impact of internalized stigma on individuals with mental illness(44,52).

The final hypothesis, that stigma partially mediates the relationship between race and treatment seeking attitudes and behaviors, was partially supported. Internalized stigma partially mediated the relationship between race and attitudes toward seeking mental health treatment, suggesting that while there is still a direct and negative relationship between being African American and having negative attitudes about service utilization, part of this is mediated by higher internalized stigma. This mediation model was not significant for public stigma, again suggesting that the true mediation mechanism may lie in how an individual internalizes stigma that directly impacts ones' attitudes toward mental health treatment. Mediation models for treatment engagement were non-significant. In fact, stigma never seemed to have a significant

impact of treatment seeking behaviors, except through attitudes. This is consistent with the work of Vogel and colleagues, which found internalized stigma impacted treatment engagement through the mediating mechanisms of public stigma and attitudes toward treatment (52). This model was unable to be replicated in this study, but should be tested in future investigations.

Limitations

The results of this study should be viewed within the context of its limitations. It is likely that the individuals who chose not to participate in the current study had greater public and internalized stigma, or a variety of other reasons, which led to their reluctance to be surveyed. Therefore, the African Americans that participated in the current study may have endorsed less stigma than the eligible population. The effect sizes for many of the conducted analyses are moderate despite small differences in means and there was little variability on the study measures despite significant sample heterogeneity. These issues cast some doubt on the clinical significance of the results. The measures of service utilization focused exclusively on mental health care that was provided by a physician or mental health professional, excluding informal sources of care such as the church, family or friends, which is highly utilized in racial/ethnic minority populations. Perhaps the most significant limitation to the study is a lack of a measure of perceived need by the participants rather than inferred need by depressive symptom severity. We did find that in the two weeks prior to being surveyed, 85% of participants endorsed having had depressed mood for at least several days, and 42% felt depressed down or hopeless at least half the days. However, this is not a proxy for self-identification of a clinical depression, and without assessing perceived need for treatment it is difficult to know whether individuals surveyed actually viewed themselves as having depression, which likely impacted study results. Another limitation is that our attitudes scale does not differentiate attitudes about seeking treatment in a specialty mental health setting versus a primary care setting. While the ATMHT scale benefits from including treatment seeking from all sources, it cannot detect possible differences in attitudes based on treatment setting. The cross sectional nature of the study additionally limits the ability to determine changes in treatment seeking attitudes and behaviors over time. Despite the limitations, this study has several strengths and provides a unique look at the relationship among age, race, stigma and attitudes toward treatment which has not been addressed in the literature. Therefore, it provides a useful starting place to address these complex relationships in future studies.

Implications

This investigation suggests older adults experience a great deal of stigma, and that experiencing the label of 'depression' can become a barrier to seeking mental health treatment. Therefore, in order to engage older adults in mental health treatment, it is necessary to identify strategies to reduce the stigma of receiving treatment. Sirey and colleagues (53) have successfully developed a Treatment Initiation and Participation program (TIP) that serves to target and mitigate barriers to care, including perceived stigma, to improve depression treatment adherence among older adults. Internalized stigma however, may be a more useful and modifiable clinical indicator to monitor and attempt to change than public stigma or exposure to stigmatizing experiences. Decreasing internalized stigma can be addressed as a treatment goal, or as the target of separate psychosocial intervention. Treatment might focus on helping the individuals to overcome self-endorsed aspects of stigma(54). In addition, tailoring treatment for stigma reduction to different patient groups, such as older adults, African Americans and other racial/ethnic minorities, and those with co-morbid medical illness, may be an efficient, effective, and culturally competent strategy.

This study also has implications for additional research required in the field. According to this investigation there are four major areas, which represent a gap in the existing literature on

stigma and depression. To narrow this gap, further research should focus on: 1) the continued empirical assessment of the complex interrelationships among perceived public stigma, internalized stigma, race, and mental health treatment seeking attitudes and behaviors, 2) develop and test strategies on facilitating attitude change among older adults followed by longitudinal studies that address how attitude change impacts mental health treatment seeking behavior over time, 3) the development and evaluation of community-based health education campaigns and psycho-therapeutic interventions to reduce mental illness stigma in clinical settings and in the community and to increase the utilization of mental health services, and 4) examining the impact of multiple stigmas experienced simultaneously on treatment seeking attitudes and behaviors, particularly among African American older adults.

Conclusion

This study examined the impact of stigma on racial differences in treatment seeking attitudes and behaviors among older adults with depression. Results suggest while perceived public stigma among older adults is fairly high, African American older adults endorsed higher levels of internalized stigma and less positive attitudes toward seeking mental health treatment than their White counterparts. In addition, high level of internalized stigma was related to more negative attitudes towards treatment and in fact partially mediated the relationship between race and attitudes toward seeking mental health treatment. Of significant concern is the critically low intention to seek and engage in professional mental health services among the older adults study participant, particularly African American older adults. Findings from this study provide a greater understanding of the stigma associated with depression and its' influence on attitudes toward mental health services. This understanding will aid mental health practitioners in targeting and reducing the stigma associated with having depression, which will likely improve attitudes toward mental health services and increase treatment-seeking behaviors among older adults.

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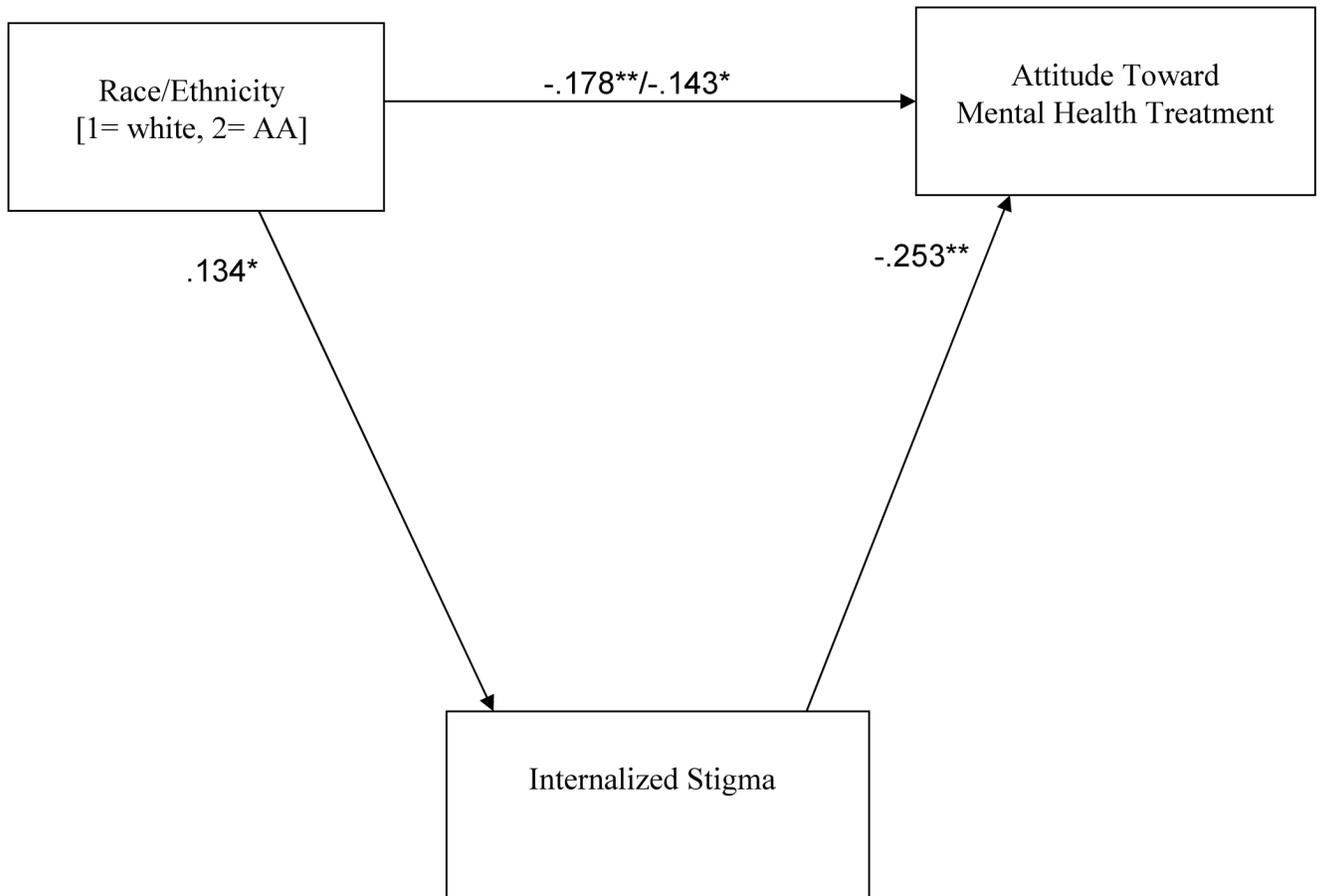


Figure 1. Path Analysis of Mediation Effect of Internalized Stigma on Race and Attitudes

* $p < .05$

** $p < .01$

Final regression model $t(223)$

Model controls for education and age, but controls not shown to enhance readability.

Table 1
Sample Demographic Characteristics

Characteristics	Total Sample (n = 248) n (%)	Black (n = 120) n (%)	White (n = 128) n (%)	t (df) p
Gender:				t(246)=-.62 .53
Female	207 (16.5)	102 (85.0)	105 (82.0)	
Male	41 (83.5)	18 (15.0)	23 (18.0)	
Age:				t(246)=2.06 <.05
60 - 70 years	117 (47.2)	67 (55.8)	50 (39.1)	
71- 80 years	88 (35.4)	36 (30.0)	52 (40.6)	
81- 90 years	42 (16.9)	16 (13.3)	26 (20.3)	
90+ years	1 (0.5)	1 (.08)	0 (0)	
Education:				t(223)=2.03 <.05
Less than high school	5 (2)	6 (12.5)	1 (.9)	
Some high school	27 (10.9)	14 (29.2)	7 (6.1)	
High school graduate	95 (38.3)	14 (29.2)	52 (45.2)	
Some college	73 (29.4)	8 (16.7)	38 (33.0)	
College graduate	25 (10.1)	4 (8.3)	17 (14.8)	
Marital Status:				t(246)=-.47 .63
Single, never married	23 (9.3)	6 (5.0)	17 (13.3)	
Married	54 (21.8)	16 (13.3)	38 (29.7)	
Divorced	49 (19.8)	29 (24.2)	20 (15.6)	
Widowed	112 (45.2)	62 (51.7)	50 (39.1)	
Employment:				t(246)=1.04 .29
Full-time	19 (7.7)	11 (9.2)	8 (6.3)	
Part-time	23 (9.3)	12 (10.0)	11 (8.6)	
Retired	201 (81.0)	95 (78.3)	107 (83.6)	
Unemployed	5 (2.0)	3 (2.5)	2 (1.6)	
PhQ9 Score:				t(246)=.38 .78
5-9(<i>mild</i>)	102 (41.1)	50 (41.7)	52 (40.6)	
10-14(<i>moderate</i>)	95(38.3)	45 (37.5)	50 (39.1)	
15-19(<i>moderate/severe</i>)	38 (15.3)	21 (17.5)	17 (13.3)	
20-27 (<i>severe</i>)	15(5.2)	4 (3.3)	9 (7.0)	
Ever in Treatment:				t(243)=-3.39 .001
Yes	106 (42.7)	39 (32.5)	67 (53.6)	
No	139 (56.0)	81 (67.5)	58 (46.4)	
Most Recent Treatment (n =106)				t(104)=1.76 .08
Within the past month	10 (9.4)	3 (7.7)	7 (10.4)	
1 to 6 months ago	23 (21.7)	13 (33.3)	10 (14.9)	
7 to 12 months ago	10 (9.4)	6 (15.4)	4 (6.0)	
More than 12 months ago	63 (59.4)	17 (43.6)	46 (68.7)	
Currently in Treatment:				t(245)=-1.02 .30
Yes	39 (15.7)	16 (13.3)	23 (18.1)	

Characteristics	Total Sample (n = 248) n (%)	Black (n = 120) n (%)	White (n = 128) n (%)	t (df) p
No	208 (83.9)	104 (86.7)	104 (81.9)	

Table 2
Correlations Among Main Study Variables for the Total Sample (N= 248)

Measure/Variable	1	2	3	4	5	6	7	8	9	10
1. Race	--									
2. Attitudes Treatment	-.175**	--								
3. Internalized Stigma	.134*	-.253**	--							
4. Public Stigma	.037	-.059	.234**	--						
5. Intention Treatment	-.050	.132*	.136*	.006	--					
6. Current Treatment	.065	-.021	.001	-.103	.281**	--				
7. Depressive Symptoms	-.013	-.005	.132*	.058	.190**	-.079	--			
8. Education	-.135*	.065	-.118	.091	.001	-.095	-.036	--		
9. Age	-.146*	-.042	-.018	-.151*	-.087	.164**	-.037	-.129	--	
10. Gender	.040	.090	.155*	.069	-.108	.016	-.016	-.100	.042	--

* p<.05

** p<.01

Table 3

Final Regression Model for Significant Partial Mediation Model

	R	R Square	B	Beta	t(223)	Significance
Model	.298	.089				
Race			-.049	-.143	-2.139	.034
Internalized Stigma			-.134	-.236	-3.596	.000
Education			.002	.013	.198	.843
Age			-.019	-.054	-.826	.410

Dependent Variable: Attitudes Toward Seeking Mental Health Treatment