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Disparities in Offered Anxiety Treatments Among Minorities

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Abstract

Purpose: The primary purpose of this article was to determine if race and ethnicity played a role in if primary care physicians offered anxiety treatment in office visits by adult patients who were diagnosed with an anxiety disorder(s). **Methods:** This study pooled data from the 2011 to 2018 National Ambulatory Medical Care Survey (NAMCS) that included adult patients with an anxiety disorder and the type of treatment offered to them. Logistic regressions were performed to examine the odds of offered anxiety treatment in office visits by non-Hispanic Black, Hispanic, and other race/ethnicity patients compared to office visits by non-Hispanic White patients. **Results:** Physicians offered anxiety treatment in more than half of office visits where the patient was diagnosed with an anxiety disorder. Providers offered counseling or talk therapy in less than 13% of all office visits. Office visits by non-Hispanic Black patients had half the odds of being offered counseling/talk therapy ($P = .068$) compared to those by non-Hispanic White patients. **Conclusions:** These findings suggest that statistically significant differences in the offering of any anxiety treatments in office visits to minorities compared to non-Hispanic White patients do not exist; however, there are still differences in the rates of counseling/talk therapy offered in office visits by minorities versus non-minorities. Future studies may want to examine reasons for lower rates of counseling/talk therapy offered to minority and majority patients and the specific pharmacological or therapeutic treatments offered to different races.

Keywords

anxiety, disparities, ethnicity, minorities, race, treatment

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Anxiety disorders were identified as the most prevalent class of mental health conditions in the United States, affecting 33.7% of the population in 2015.[1] Because of the high prevalence of these disorders, it is important to examine possible racial and ethnic disparities in treatment, which usually consists of counseling and/or medication.[2-4] Research in the past 10 years has provided evidence of disparities in mental health treatment for minorities, including restricted access to mental health care and sub-optimal mental health treatment.[5,6] These disparities can be attributed to social determinants including socioeconomic status, educational attainment, housing status, access to health insurance, and exposure to toxic environments.[7] Other attributions to disparities include implicit bias by physicians and stigma toward mental health illnesses.[8,9] Negative social determinants such as low socioeconomic status disproportionately affect minority populations; the 2 largest minorities in the United States, Black and Hispanic people, have poverty rates at twice that of White people.[10] We are unaware of other studies that investigated racial and ethnic disparities in the treatment of anxiety disorders alone. The purpose of this study was to determine if race and ethnicity played a role in whether primary care physicians offered anxiety treatment in office visits by adult patients who were diagnosed with an anxiety disorder. It is crucial to note that the focus of this paper is not on the quality of treatment but on whether some form of anxiety treatment was offered during the visit.

The trend of mental health disparities over the past decade has been examined.[11] One study explored disparity rates between 2004 and 2012 and concluded that disparities experienced by Black and Hispanic patients when compared to White patients in any mental health care increased from 8.2% to 10.8% and from 8.4% to 10.8% respectively;

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both of these values were significant in absolute and relative terms.[11] This study also reported that rates of access to care for White patients was 20% in 2012, 10% for Black patients, 9% for Hispanic patients, and 5% for Asian patients.[11] The availability of mental health provider office facilities in predominantly minority primary care service areas were significantly reduced when compared to predominantly White primary care service areas.[12] This reduction in health care offices may contribute to the lack of access to care experienced by minority patients.[12]

Disparities in adequate treatment of mental health care received by minorities when compared to White patients also exist.[6,13,14] A recent study found that Black and Latino patients were significantly less likely than White patients to have an adequate episode of mental health care.[6] A 2008 study concluded that Black patients with depression who accessed care were significantly less likely to receive adequate depression care; this definition was taken from evidence-based treatment guidelines for depressive and anxiety disorders and is consistent with recommendations from the American Psychiatric Association.[14] This study then made predictions from their results based on an extended research model that 33.4% of Non-Hispanic Whites with depression would receive adequate depression care compared to only 25% of Latinos, 18.9% of Asians, and 10.4% of African Americans.[14]

Implicit bias among physicians has been shown to negatively impact the care of minority patients.[8,9] Data was collected from a large sample of test takers (N = 404 277) who took the Implicit Association Test; those test takers with medical degrees (N = 2535) showed a strong implicit preference for White Americans over Black Americans. Implicit bias based on race or ethnicity was shown to have a significant effect on if a physician treated their Black or White patients with thrombolysis.[9] As the physician's pro-White implicit bias increased, the likelihood of treating White patients and not Black patients also increased.[9] This implicit bias may also influence the mental health treatment of minorities.[8,9] Black and Hispanic patients also report experiencing discrimination at a prevalence 3 times higher than White patients in mental health office visits.[15] This is relevant to health treatment because perceived discrimination among patients has been associated with under-utilization of medical care.[15] Stigma is another factor that affects patients' likelihood of seeking out treatment.[16] A meta-analysis performed in 2020 concluded that minorities have a significantly increased stigma toward mental health illness compared to White communities.[16] It is important to note that the studies reviewed in this paper have examined both depressive and anxiety disorders together while our study focuses only on treatment of anxiety disorders.

Substantial evidence shows the mental health care disparities experienced by minorities.[11] However, there is a gap in research regarding anxiety treatment disparities among minority groups. The high prevalence of anxiety disorders and the detrimental effects it has on one's mental health highlights the need to examine the disparities that may exist in the offering of anxiety disorder treatment in primary care physician office visits. The purpose of this study was to determine if race and ethnicity played a role in whether primary care physicians offered anxiety treatment in office visits by adult patients who were diagnosed with an anxiety disorder.

Methods

Investigators examined if primary care physicians offered anxiety treatment and the type of treatment offered in office visits using pooled data from the 2011 to 2018 National Ambulatory Medical Services (NAMCS). NAMCS[17] is a nationally representative annual survey of physician office visits in the United States conducted annually by the National Center for Health Statistics (data from 2017 are not included, as this data was not publicly released). Only visits classified by the American Medical Association or American Osteopathic Association as "office-based, patient care" were included in the survey. Physicians, randomly assigned to a 1-week report-period, noted each patient's demographic variables, diagnosis, screenings, and treatments offered or referrals made. The data was limited only to adult primary care physician office visits, which were identified as visits to family/general medicine and internal medicine physicians.

This study included data for adult patients who visited a primary care physician office visit and who were diagnosed with an anxiety disorder(s). The 2011 to 2015 NAMCS used ICD-9 codes for anxiety disorder diagnoses while the 2016 and 2018 NAMCS used ICD-10 codes (see Table 1). Anxiety disorder diagnoses included anxiety states (ICD-9; ICD-10), panic disorder without agoraphobia (300.01, F41.0), generalized anxiety disorder (300.2; F41.1), phobic disorders (300.2x; F40.10) phobia unspecified, agoraphobia with panic disorder (300.21, F40.01), agoraphobia without mention of panic attack (300.22, F40.00), social phobia (300.23, F40.10), and other isolate or specific phobias (300.2x, F40.2).

Anxiety treatment provided or ordered in office visits was categorized as pharmacological, counseling/talk therapy, or any combination of anxiety treatment (pharmacological and/or counseling/talk therapy). The category "pharmacological treatment," included anti-anxiety agents and antidepressants limited to selective serotonin reuptake inhibitors, serotonin non-reuptake inhibitors, and benzodiazepines while "counseling/talk therapy," included psychotherapy, stress management, and mental health counseling.

This study examined variables that were included in the NAMCS dataset. These variables were age (this is the age of the patient at the time of the visit), sex, race/ethnicity,

Table 1. Anxiety Disorder Diagnoses With ICD-9 and ICD-10 Codes.

Diagnoses	ICD-9	ICD-10
Panic disorder without agoraphobia	300.01	F41.0
Generalized anxiety disorder	300.2	F41.1
Other anxiety states	300.00	F41.9
Phobic disorders	300.2x	F40.10
Agoraphobia with panic disorder	300.21	F40.01
Agoraphobia without mention of panic attack	300.22	F40.00
Social phobia	300.23	F40.10
Isolate or specific phobias	300.2x	F40.2

type of insurance, and number of chronic conditions. The races/ethnicities included were non-Hispanic Black, Hispanic, non-Hispanic White, and other race/ethnicities. The type of insurances patients had included privately purchased insurance (this includes employer sponsored insurance), Medicare, Medicaid, or other types that did not fall in these categories, and uninsured. The analysis also controlled for the presence of 1 or more chronic conditions by the patient.

Weighted analyses using Stata's survey procedures were performed to allow results to be nationally representative and to produce standard errors for the complex sampling design of the survey. Bivariate analysis was performed to determine the proportion of office visits by non-Hispanic White patients, non-Hispanic Black patients, Hispanic patients, and other races/ethnicities that were offered anxiety treatment. Investigators then performed a logistic regression to examine the odd ratios of office visits by minority patients offered anxiety treatment compared to those by non-Hispanic White patients controlling for the variables described above. All analyses were performed in Stata version 15.0.[18] The Florida State University Institutional Review Board certified this study as exempt.

Results

Table 2 shows the descriptive statistics of the 2822 office visits included in the study sample. Bivariate analysis determined the proportion of office visits in which physicians offered anxiety treatment (Table 3). Any type of anxiety treatment was offered in 65% of all visits (CI;61%-68%), pharmacological treatment was offered in 61% (CI;57%-64%) of all visits, and counseling/talk therapy was offered in 11% (CI;8%-13%) of all visits. Pharmacological treatment was offered in 62% of office visits by Non-Hispanic White patients (CI;58%-65%), in 61% of office visits by non-Hispanic Black patients (CI;48%-74%), in 54% of office visits by Hispanic patients (CI;41%-67%), and in 56% (CI;46%-66%) of office visits by other races/ethnicities. Providers offered counseling or talk therapy in 12% of office visits by non-Hispanic White patients (CI;9%-15%), in 5% (CI;2%-9%) of office visits by non-Hispanic Black patients, in 8% (CI;3%-12%) of office visits by Hispanic patients, and in 5% of office visits by other races (CI;0.03%-13%).

Table 2. Office Visits by Patients With Anxiety Disorder.

Characteristic	n	%
Age category		
18-34	673	23.85
35-49	805	28.53
50-64	814	28.84
≥65	530	18.78
Sex (%)		
Male	961	34.05
Female	1861	65.95
Ethnicity/race (%)		
Non-Hispanic Black	195	6.91
Non-Hispanic White	340	82.92
Hispanics	195	6.91
Other	92	3.26
Type of insurance (%)		
Not insured	180	6.92
Privately purchased	1472	56.62
Medicare	588	22.62
Medicaid	296	11.38
Other	54	2.08
Number of chronic conditions (%)		
0	709	25.35
1	899	32.14
≥2	1189	42.51

Descriptive statistics of primary care office visits by patients with anxiety listed as a reason for the visit or a physician diagnosis of an anxiety disorder. Data are from the 2011 to 2018 National Ambulatory Medical Care Surveys. Estimates of visits derived from weights provided by National Center for Health Statistics.

Logistic regression determined the odds ratios of office visits by non-Hispanic Black patients, Hispanic patients, and other race and ethnicity patients offered anxiety treatment compared to those by non-Hispanic White patients (Table 4). The odds of offered anxiety treatment in office visits by non-Hispanic Black patients (OR = 1.00, $P = .982$) were similar to the odds of offered anxiety treatment in office visits by non-Hispanic White patients. Office visits by Hispanic patients (OR = 0.81, $P = .53$) and other races (OR = 0.78, $P = .375$) did not have significantly different odds of being offered anxiety treatment in office visits compared to those by non-Hispanic White patients. Office visits by non-Hispanic Black patients (OR = 1.10, $P = .757$) also had similar odds of offered pharmacological treatment compared to office visits by non-Hispanic White patients. Office visits by Hispanic patients (OR = 0.76, $P = .332$) and

Table 3. Proportion of Office Visits With Anxiety Disorder Treatments.

	Anxiety treatment					
Ethnicity/race	Any	95% CI	Pharmacological	95% CI	Counseling/talk therapy	95% CI
All visits	0.65	[0.61, 0.68]	0.61	[0.57, 0.64]	0.11	[0.08, 0.13]
Non-Hispanic Black	0.63	[0.50, 0.76]	0.61	[0.48, 0.74]	0.05	[0.02, 0.09]
Non-Hispanic White	0.66	[0.62, 0.70]	0.62	[0.58, 0.65]	0.12	[0.09, 0.15]
Hispanic	0.59	[0.46, 0.72]	0.54	[0.41, 0.67]	0.08	[0.03, 0.12]
Other	0.60	[0.48, 0.72]	0.56	[0.46, 0.66]	0.05	[−0.003, 0.13]

Abbreviation: CI, confidence interval.
Define pharmacological treatment and counseling/talk therapy. Proportion of primary care office visits that offered anxiety disorder treatment. No confounding variables controlled for in this table. Data are from the 2011 to 2018 National Ambulatory Medical Care Surveys. Estimates of visits derived from weights provided by National Center for Health Statistics.

Table 4. Odds Ratios (OR) of Receiving Anxiety Disorder Treatment Based on Race/Ethnicity.

	Any			Pharmacological			Counseling/talk therapy		
Race/ethnicity	OR	*P*	95% CI	OR	*P*	95% CI	OR	*P*	95% CI
Non-Hispanic White	1.00	—	—	—	—	—	—	—	—
Non-Hispanic Black	1.00	.982	[0.55, 1.85]	1.10	.757	[0.60, 2.00]	0.52	.068	[0.26, 1.05]
Hispanic	0.81	.461	[0.46, 1.42]	0.76	.332	[0.45, 1.31]	0.75	.449	[0.36, 1.57]
Other	0.78	.375	[0.45, 1.35]	0.75	.253	[0.46, 1.22]	0.51	.375	[0.11, 2.27]

Abbreviations: CI, confidence interval; OR, odds ratio.
Odds ratios of office visits by racial/ethnic minorities offered anxiety treatment compared to office visits by Non-Hispanic Whites. Table 2 data controlled for confounding variables including age, sex, race/ethnicity, type of insurance, and number of chronic conditions. Data are from the 2011 to 2018 National Ambulatory Medical Care Surveys. Visit estimates derived from weights provided by National Center for Health Statistics.

other races (OR = 0.75, $P = .253$) had seemingly lower odds of offered pharmacological treatment compared to visits by non-Hispanic White patients, but these results were not statistically significant. Office visits by non-Hispanic Black patients had half the odds (OR = 0.52, $P = .068$) of offered counseling/talk therapy compared to those by non-Hispanic White patients. Office visits by both Hispanic patients (OR = 0.75, $P = .449$) and other races (OR = 0.51, $P = .375$) also had lower odds of offered counseling/talk therapy than those by non-Hispanic White patients, but the odds were not statistically significantly different.

Discussion

The results of our analysis with the NAMCS data showed that more than half of all office visits were offered some type of anxiety treatment; that is, patients who received an anxiety disorder diagnosis at their physician visit or had an existing diagnosis of an anxiety disorder were offered treatment for their anxiety. Physicians offered counseling or talk therapy in less than 13% of all office visits regardless of race or ethnicity of the patients. This low percentage of counseling/talk therapy offered raises concern because an extensive number of randomized controlled trials for anxiety disorders has documented the efficacy of cognitive behavioral therapy.[2-4] Office visits by non-Hispanic Black patients and the "other" minorities had half the odds of being offered counseling/talk therapy compared to office visits by non-Hispanic White patients. While these results were not statistically significant at the $P < .05$ level, there is still a large difference in the offering of counseling based only on race/ethnicity with marginal statistical significance ($P < .10$). This finding supports the literature that 10.2% of Black patients did not receive the mental health care they needed compared to 5.1% of the general population who had an unmet need.[13] Recent literature proposed explanations on why Black people may be hesitant to engage in any type of therapy. A study done in 2015 found that therapists vary in their effectiveness at reducing psychological symptoms among clients, with this variability partially due to client's racial/ethnic heritage.[19] These results emphasize the importance of cultural competence, a quality that some therapists have not obtained.[13] An additional study from 2015 concluded that racial match of therapist and client was a strong predictor of service experiences across access and quality of care.[20] If the patient brought up any of these concerns in the office visit, the physician may be less likely to offer counseling/talk therapy as a form of treatment and use pharmacological means instead.

There was also evidence that office visits by Hispanic patients had lower odds of being offered counseling/talk therapy compared to non-Hispanic White patients. Although the odds of anxiety treatment during visits by Hispanic patients had about 15% lower odds compared to visits by non-Hispanic White patients, this result did not achieve statistical significance in our study. However, this finding supports those from a 2008 study in which Latinos were predicted less likely to receive adequate depression care compared to non-Hispanic White patients.[14]

Overall, when examining the results of this study, there were not statistically significant differences in the offering of anxiety treatment in office visits by minority patients compared to non-Hispanic White patients. These are hopeful results that tell us we are moving in the right direction considering how much evidence supports the mental health care disparities experienced by minority patients. However, the offering of anxiety treatment is the first step in practicing good medicine and there were still differences in offered anxiety treatment based on race/ethnicity alone. It is critical that the medical community creates interventions aimed at educating physicians on self-awareness of implicit bias and how this may affect their treatment plans. Additional steps include ending the stigma of mental health illnesses, especially in minority populations. If physicians speak more freely on this topic and normalize seeking help for mental health, patients may feel more comfortable asking for help. Future studies should examine why counseling/talk therapy treatment is minimally offered and what medications or therapies are offered to minority and White patients diagnosed with an anxiety disorder to study if treatment types differ based on one's race or ethnicity.

The study has a few limitations. The NAMCS data's unit of analysis is a physician office visit and not an individual patient. Therefore, our finding that less than 5% of office visits by non-Hispanic Black patients were offered counseling/talk therapy does not mean that less than 5% of non-Hispanic Black patients with anxiety disorders were offered counseling/talk therapy. The data is also from a 1-week snapshot of time. After we categorized the office visits into which type of anxiety treatments were offered to each race/ethnicity, small sample sizes resulted. Due to the relatively small sample sizes, we found no statistically significant differences between treatments offered in office visits to minorities and non-Hispanic White patients, even though some of the effect sizes were large. Even though there were over 2000 visits to primary care providers with an anxiety diagnosis disorder in the sample, the number of visits by minority patients was quite small (482), making it difficult to detect statistically significant differences. However, the relatively large effect sizes found in this study point to the need for future research to further examine racial differences in anxiety disorder treatment. The small sample size also did not allow us to determine which type of medication was offered in the office visits (eg, SSRI, SNRI, benzodiazepine) and which type of therapy (eg, psychotherapy, mental health counseling, stress counseling) was offered. These specifics are important because certain medications are first line while others are prescribed only under specific circumstances and come with dangerous side effects and addictive features.[21] Because providers determined cognitive behavioral therapy as the highest evidence level psychotherapy,[21] identifying the types of therapy offered by providers could enhance understanding about the level of treatment being offered. Due to the small number of certain races besides those of non-Hispanic Black, non-Hispanic White, and Hispanic, the data had to combine all these races into 1 category identified as "other." This modification is broad and does not differentiate if office visits by some races are more likely to receive treatment while others are less likely to receive treatment, resulting in an odds ratio that is a mixture of a multitude of races. Despite these limitations, this study is the first to look at racial/ethnic disparities in anxiety disorder treatment alone in a nationally representative sample of primary care office visits.

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