

Differences in Treatment Attitudes Between Depressed African-American and Caucasian Veterans in Primary Care

John Kasckow, M.D., Ph.D.
Erin Ingram, B.A.
Charlotte Brown, Ph.D.
James D. Tew, M.D.
Kyaïen O. Conner, Ph.D.

Jennifer Q. Morse, Ph.D.
Gretchen L. Haas, Ph.D.
Charles F. Reynolds, M.D.
David W. Oslin, M.D.

Objectives: Depressive disorders are common, and it is important to understand the factors that contribute to racial disparities in depression treatment. This primary care study of veterans with subsyndromal depression examined two hypotheses: that African Americans would be less likely than Caucasians to believe that medication is beneficial in depression treatment and would be more likely to believe that counseling or psychotherapy is beneficial. **Methods:** Primary care patients with subsyndromal depression were referred to the Philadelphia Department of Veterans Affairs Behavioral Health Laboratory and asked about past experiences and attitudes toward depression treatment. **Results:** Among 111 African-American and 95 Caucasian participants, logistic

regression analyses determined that African Americans were less likely to view medication as beneficial (odds ratio=.44). No racial differences were found in participants' attitude toward counseling or psychotherapy. **Conclusions:** The findings support the premise that clinicians treating patients with subsyndromal depressive syndromes should take into account racial differences in attitudes toward treatment. (*Psychiatric Services* 62:426–429, 2011)

Subsyndromal forms of depression are almost twice as common as major depression in primary care populations (1). These syndromes can lead to disability (2) and are associated with a significant risk of developing major depressive disorder (3). Racial and ethnic disparities in mental health care are a problem in veteran populations. African-American veterans are less likely than Caucasian veterans to receive guideline-concordant depression care (4). Racial differences in attitudes toward depression treatment may contribute to this disparity.

In a nonveteran sample, Givens and colleagues (5) determined that African Americans may believe that counseling is more effective than medications for treatment of depression. In the study reported here, we examined attitudes toward depression treatment in a primary care sample of veterans with subsyndromal depression. We tested two hypotheses. First, we hypothe-

sized that African-American veterans would be less likely than their Caucasian counterparts to believe that medication is beneficial for the treatment of depression. Second, we hypothesized that African-American veterans would be more likely than Caucasian veterans to believe that counseling or psychotherapy is beneficial for the treatment of depression.

Methods

This study was a secondary analysis of a data set collected between October 2004 and February 2006 at the Behavioral Health Laboratory (BHL) of the Philadelphia Department of Veterans Affairs (VA) Medical Center (6). The goal of the original study was to test whether a program of close monitoring of symptoms helped a primary care sample of veterans with subsyndromal depression. Participants were randomly assigned to a control condition (usual care) or to treatment (continuous monitoring), which consisted of a structured telephone assessment and close monitoring of symptoms for up to two months. Patients were recruited from the BHL, an integrated primary care–mental health service that uses validated symptom self-report instruments to provide structured mental health screening for primary care patients (7). As noted in the original report (6), 164 (74%) of the 223 participants completed a six-month follow-up assessment—94 (57%) from the continuous-monitoring condition and 70 (43%) from usual care. At six

Dr. Kasckow and Dr. Tew are affiliated with the Behavioral Health Division, Department of Veterans Affairs (VA) Pittsburgh Health Care System, Pittsburgh, PA 15206 (e-mail: kasckowjw@upmc.edu). They are also with Western Psychiatric Institute and Clinic, University of Pittsburgh Medical Center, as are Dr. Brown, Dr. Conner, Dr. Morse, Dr. Haas, and Dr. Reynolds. Dr. Haas is also with the VA Pittsburgh Health Care System, Mental Illness Research, Education and Clinical Center (MIRECC). Ms. Ingram and Dr. Oslin are with MIRECC, Philadelphia VA Medical Center. Dr. Oslin is also with the Department of Psychiatry, University of Pennsylvania, Philadelphia.

months, participants in the continuous-monitoring condition had fewer psychiatric diagnoses than those in usual care ($p=.040$). The usual-care group had higher rates of PTSD symptoms and diagnoses of PTSD and generalized anxiety disorder. In addition, the intervention group showed improved overall scores on the physical component summary of the Short Form-12 Health Survey.

Participants were identified on the basis of primary care providers' clinical concern. They were then screened with the Patient Health Questionnaire (PHQ-9) and were included in the study if they had scores <2 on each of the first two PHQ-9 items, which assess depressed mood and anhedonia. The resulting sample included patients with minor depression (those who met two to four *DSM-IV* criteria for depression) and those with emotional distress or other depressive symptoms that did not meet criteria for minor depression. Veterans were excluded if they had a current diagnosis of posttraumatic stress disorder (PTSD), panic disorder, alcohol dependence, bipolar disorder, or a psychotic disorder, if they reported suicidal ideation, if they had used illicit drugs in the past year, or if they were currently seeing a mental health clinician or taking any antidepressants, benzodiazepines, antipsychotics, addiction medications (such as naltrexone or varenicline), or mood stabilizers. A history of major depression was not an exclusion criterion.

Eligible participants provided oral consent to participate. Because of the low risk to participants in this project, waivers of written consent and HIPAA authorization (Health Insurance Portability and Accountability Act) were granted from the Philadelphia VA Institutional Review Board.

We initially administered "watchful waiting medical care questions" to identify perceived barriers to medical care. Participants endorsed difficulty obtaining health care for any of the following reasons: child care, family, work, transportation, financial problems, emotional issues, difficulties "getting going," or medical problems. The past antidepressants-attitudes scale was also administered. This instrument asks participants (yes-no)

whether they believe that the following approaches to treat depression would be beneficial: prayer, counseling or psychotherapy, spiritual advice, vitamins, exercise, dietary adjustment, alternative medicine, self-reliance, or medication. A third set of questions asked participants about past experiences with antidepressants. If participants stated that they had taken antidepressants, they were asked at what age they began taking them and how many years since they had taken them. They were also asked the duration of use and the number of different antidepressants used. Participants were also asked about past receipt of counseling or psychotherapy. If they reported ever receiving counseling, they were asked about their age at the first session, number of years since the last session, number of months in counseling or psychotherapy, and number of sessions, if the duration was less than one month.

Continuous variables were assessed for normality of distribution and for homogeneity of variance. Descriptive statistics were used to characterize the two groups with means and standard deviations or percentages. Inferential statistics were used to test our hypotheses ($\alpha<.05$).

Results

The sample included 206 of the 223 participants who completed the six-month follow-up assessment in the original study (6)—111 African Americans and 95 Caucasians. Seventeen of the 223 participants were excluded because of missing demographic data. The average PHQ-9 score was 6.80 ± 3.90 (range 0–16). (Possible scores on the PHQ-9 range from 0 to 27, with higher scores indicating greater severity of depression symptoms.) African-American participants were younger than Caucasian participants (56.3 ± 15.0 years compared with 62.9 ± 16.4 years; $t=3.03$, $df=204$, $p=.003$). Significant differences were also found in financial status. Among African Americans, 27 (24%) stated that they "cannot make ends meet," 66 (60%) stated that they "have enough to get along," and 18 (16%) stated that they "are comfortable." Among Caucasians, these figures were 12 (13%), 52 (55%), and 29

(31%), respectively ($\chi^2=8.48$, $df=2$, $p=.014$).

No differences were found in the following demographic characteristics: male gender, 103 (93%) African Americans and 89 (94%) Caucasians; married or cohabiting, 47 (42%) African Americans and 52 (55%) Caucasians; employed, 38 (34%) African Americans and 25 (27%) Caucasians; and living alone, 32 (29%) African Americans and 18 (19%) Caucasians. No significant differences were found in tobacco smoking—38 (34%) African Americans and 21 (22%) Caucasians ($\chi^2=3.69$, $df=1$, $p=.055$).

No significant differences between races were noted in perceived barriers to medical care. However, participants' attitudes toward coping with depression differed significantly. Of the 132 participants (64%) who reported that prayer would be beneficial for depression, a larger proportion were African Americans (79%, $N=88$, compared with 46%, $N=43$; $\chi^2=25.8$, $df=1$, $p<.001$). Similarly, of the 92 participants (45%) who reported that spiritual advice would be beneficial, a larger proportion were African Americans (58%, $N=64$, compared with 29%, $N=27$; $\chi^2=17.80$, $df=1$, $p<.001$). Of the 127 participants (62%) who reported that a dietary approach would be useful, a larger proportion were African Americans (69%, $N=77$, compared with 53%, $N=49$; $\chi^2=6.86$, $df=1$, $p=.009$). In addition, African Americans were more likely than Caucasians to report that medication would not be beneficial for depression treatment. Of the 61 participants (30%) who reported that medication would be useful, a greater proportion were Caucasians (37%, $N=35$, compared with 23%, $N=26$; $\chi^2=4.25$, $df=1$, $p=.039$). No racial differences were noted in responses to whether the following approaches would be beneficial: counseling or psychotherapy, vitamins, alternative medicine, exercise, or self-reliance. Participants could have endorsed more than one approach for coping with depression.

As shown in Table 1, differences were found in previous use of antidepressants. A smaller percentage of African Americans than Caucasians

Table 1

Past use of antidepressants and counseling or psychotherapy among veterans with subsyndromal depression, by race

Variable	Total sample (N=206)		Caucasian (N=95)		African American (N=111)		Test statistic ^a	df	p
	N	%	N	%	N	%			
Antidepressant use									
Ever used	41	20	25	26	16	14	$\chi^2=4.41$	1	.036
Age at first use (M±SD)	45±14		48.8±13.2		37.2±10.8		t=2.71	35	.011
Years since last use (M±SD)	7±6		6±4		9±8		$\chi^2=1.81$	1	.178
Duration of past use (M±SD months)	19±30		18±23		19±40		$\chi^2=.40$	1	.527
Antidepressants used (M±SD)	2±2		2±1		2±4		$\chi^2=1.61$	1	.205
Receipt of counseling or psychotherapy									
Ever received	66	32	34	36	32	29	$\chi^2=1.05$	1	.306
Age at first session (M±SD)	38±16		39±17		38±15		t=.23	59	.821
Years since last session (M±SD)	13±13		13±15		12±11		$\chi^2=.00$	1	.963
Duration of past use (M±SD months)	11±26		6±9		18±37		$\chi^2=.06$	1	.814
Sessions if duration was of less than 1 month (M±SD)	2±3		6±6		1±0		$\chi^2=.93$	1	.334

^a Chi square values are from the Kruskal-Wallis test.

had ever taken antidepressants (14% compared with 26%). In addition, African Americans were younger at first use of antidepressant therapy (37 compared with 49 years). No differences were found in past receipt of counseling or psychotherapy.

We used logistic regression analyses to test our hypotheses. For hypothesis 1—that African-American veterans would be less likely than Caucasian veterans to believe that medication is beneficial for depression treatment—we examined potential predictors of attitudes toward medication while controlling for possible confounders, which included the variables for which significant differences were found in univariate analyses: age; financial status; smoking status; whether participants believed that prayer, spiritual advice, or diet would be beneficial; and whether they had ever taken an antidepressant. Other variables were added that the research team believed might influence participants' attitude toward medication: marital status, transportation difficulties, whether participants believed that counseling would be beneficial, and whether participants had ever received counseling. The analysis found that African-American participants were significantly less likely than Caucasian participants to believe that medications would be beneficial for depression treatment (Wald=4.54,

df=1, $p=.033$; odds ratio=.44; 95% confidence interval=.20–.94).

For hypothesis 2—that African-American veterans would be more likely than Caucasian veterans to believe that counseling or psychotherapy would be beneficial—the analyses controlled for variables for which significant differences were found in univariate analyses: age; financial status; smoking status; whether participants believed that prayer, spiritual advice, or diet would be beneficial; and whether participants had ever taken an antidepressant. The analyses also controlled for variables that the research team believed might influence the outcome (marital status, transportation difficulties, and whether participants had ever received counseling or psychotherapy). When these variables were entered into a stepwise logistic regression, the results were not significant.

Discussion

The findings of this study support our hypothesis that African-American veterans with subsyndromal depression would be less likely than Caucasian veterans to believe that medications are beneficial for depression treatment. Our findings were not consistent with the second hypothesis. African-American veterans were no more likely than Caucasian veterans to believe that counseling or psychother-

apy would be beneficial for depression treatment. Furthermore, although the two groups were equally likely to have used counseling or psychotherapy, a disparity was found in the specific issue of antidepressant use. In the study by Givens and colleagues (5), African Americans were less likely than Caucasians to believe that medications are effective for depression treatment and that depression is biologically based. They were also more likely than Caucasians to believe that antidepressants are addictive. In that sample, levels of emotional distress were more severe than in our sample.

African Americans in our study were more likely than Caucasians to believe that prayer and spiritual advice would be beneficial for depression treatment. The differences were marked for both variables. Using cross-sectional surveys, Cooper and colleagues (8) determined that African Americans were three times as likely as Caucasians to rate spirituality as an important mechanism for coping with depression; African Americans were also more likely to believe that prayer is effective in treating depression. Various reports have suggested that African-American patients want their physicians to consider their spiritual needs as part of medical care (8,9), which suggests that a discussion of faith might make African-American pa-

tients more likely to report depressive symptoms.

Racial disparities have been reported for other mental health conditions. Spont and colleagues (10) conducted a one-year retrospective cohort study of veterans with a diagnosis of PTSD. After adjusting for demographic, disability, and access factors, they determined that African Americans were as likely as Caucasians to initially receive medication for their treatment but less likely to use medications for at least four months. However, African Americans were more likely than Caucasians to engage in counseling and to receive at least eight sessions. Another study, by Elwy and colleagues (11), in 12 mental health treatment centers examined the relationship between race, diagnoses or symptoms of psychiatric or substance use disorders, and number of outpatient mental health visits two months after an initial assessment. Compared with Caucasian clients, African-American clients reported more severe symptoms of psychiatric and substance use disorders at intake. However, race was not associated with the subsequent number of outpatient visits.

There is evidence that outcomes of antidepressant treatment among African Americans are similar to those among Caucasians. Lesser and colleagues (12) conducted a prospective eight-week, open-label clinical trial comparing efficacy and side effects of citalopram among African Americans and Caucasians with nonpsychotic major depression. Even though African Americans were more socially disadvantaged and had more severe depressive symptoms than Caucasians, rates of response and remission were similar in both groups. In our sample, however, we could not determine whether racial differences in attitudes toward antidepressants were associated with differences in treatment response.

Given the age difference between groups, we were concerned that Caucasians had more years "at risk" of taking an antidepressant. It is possible that memory may have also affected participants' recollection of when they first took an antidepressant. As a result, we repeated our analyses of the variable "ever taken an antidepressant" while controlling for age; the racial differences continued to be

significant. We also compared PHQ-9 scores of participants who reported having ever taken an antidepressant and those who did not and scores of those who had ever received counseling or psychotherapy and those who had not. In both cases, no significant differences in PHQ-9 scores were found. Furthermore, when race was added as a factor in these two separate analyses, no significant differences in PHQ-9 scores were found.

A limitation of our study is that we did not assess perceived need for treatment. This variable might differ by race and by attitudes toward treatment; it may also differ between those who believe that they need treatment and those who do not. In addition, many of the African-American participants in our study may have believed that their symptoms were attributable to "stress" rather than to depression, which may have led to the perception that antidepressants would not be beneficial and that coping mechanisms other than medication and counseling would suffice. Indeed, it is possible that some participants were simply "stressed" rather than depressed and that removal of a stressor may have led to symptom resolution.

In addition, patients were excluded from the study if they were taking antidepressants. Many patients use this class of medications for long periods, and excluding them may have biased the results against antidepressant use. Finally, all patients were veterans from a single metropolitan area in the eastern United States, and most participants were male. This may limit the generalizability of the findings.

Conclusions

In this study, African-American veterans with subsyndromal depression in primary care settings were less likely than Caucasians to believe that medication would be beneficial for depression treatment. Future research should explore whether interventions that address racial differences in patient attitudes toward treatment will help improve outcomes and reduce disparities in depression care.

Acknowledgments and disclosures

This research was supported by the Mental Illness Research, Education and Clinical Center,

Veterans Integrated Service Network 4; grants P30-MH-71944 and P60-MD00107 to Dr. Reynolds from the National Institutes of Health; the University of Pittsburgh Medical Center Endowment in Geriatric Psychiatry (Dr. Reynolds); and the Robert Wood Johnson Foundation. The authors thank Steven Sayers, Ph.D., for letting them use the "perceived barriers" portion of the "watchful waiting medical care questions."

The authors report no competing interests.

References

1. Pincus HA, Davis WW, McQueen LE: "Sub-threshold" mental disorders: a review and synthesis of studies on minor depression and other "brand names." *British Journal of Psychiatry* 174:288–296, 1999
2. Rapaport MH, Judd LL: Minor depressive disorder and subsyndromal depressive symptoms: functional impairment and response to treatment. *Journal of Affective Disorders* 48:227–232, 1998
3. Chopra MP, Zubritsky C, Knott K, et al: Importance of subsyndromal symptoms of depression in elderly patients. *American Journal of Geriatric Psychiatry* 13:597–606, 2005
4. Charbonneau A, Rosen AK, Ash AS, et al: Measuring the quality of depression care in a large integrated health system. *Medical Care* 41:669–680, 2003
5. Givens JL, Huston TK, Van Vorhees BW, et al: Ethnicity and preferences for depression treatment. *General Hospital Psychiatry* 29:182–191, 2007
6. Ross JT, Ten Have T, Eakin, et al: A randomized controlled trial of a close monitoring program for minor depression and distress. *Journal of General Internal Medicine* 23:1379–1385, 2008
7. Oslin DW, Ross J, Sayers S, et al: Screening, assessment, and management of depression in VA primary care clinics: the Behavioral Health Laboratory. *Journal of General Internal Medicine* 21:46–50, 2006
8. Cooper LA, Roter DL, Johnson RL, et al: Patient-centered communication, ratings of care, and concordance of patient and physician race. *Annals of Internal Medicine* 139:907–915, 2003
9. Cooper LA, Brown C, Vu HT, et al: How important is intrinsic spirituality in depression care? A comparison of white and African-American primary care patients. *Journal of General Internal Medicine* 16:634–638, 2001
10. Spont MR, Hodges J, Murdoch M, et al: Race and ethnicity as factors in mental health service use among veterans with PTSD. *Journal of Traumatic Stress* 22:648–653, 2009
11. Elwy AR, Ranganathan G, Eisen SV: Race-ethnicity and diagnosis as predictors of outpatient service use among treatment initiators. *Psychiatric Services* 59:1285–1291, 2008
12. Lesser IM, Myers HF, Lin KM, et al: Ethnic differences in antidepressant response: prospective multi-site clinical trial. *Depression and Anxiety* 27:56–62, 2010