Stigma and the Acceptability of Depression Treatments Among African Americans and Whites

Jane L. Givens, MD, MSCE^{1,6}, Ira R. Katz, MD, PhD², Scarlett Bellamy, ScD⁵, and William C. Holmes, MD, MSCE^{3,4,5}

¹Boston University Medical Center, Geriatrics Section, Boston, MA 02118-2393, USA; ²Section of Geriatric Psychiatry, Department of Psychiatry, University of Pennsylvania, Philadelphia, PA, USA; ³Center for Health Equity Research and Promotion, Philadelphia Veterans Administration Medical Center, Philadelphia, PA, USA; ⁴Division of General Internal Medicine, University of Pennsylvania, Philadelphia, PA, USA; ⁵Center for Clinical Epidemiology and Biostatistics, University of Pennsylvania, Philadelphia, PA, USA; ⁶88 East Newton Street, Robinson 2, room 2702, Boston, MA 02118-2393, USA.

BACKGROUND: Stigma is associated with depression treatment, however, whether stigma differs between depression treatment modalities is not known, nor have racial differences in depression treatment stigma been fully explored.

OBJECTIVE: To measure stigma for four depression treatments and estimate its association with treatment acceptability for African Americans and whites.

DESIGN: Cross-sectional, anonymous mailed survey.

PARTICIPANTS: Four hundred and ninety African-American and white primary care patients.

MEASUREMENTS: The acceptability of four depression treatments (prescription medication, mental health counseling, herbal remedy, and spiritual counseling) was assessed using a vignette. Treatment-specific stigma was evaluated by asking whether participants would: (1) feel ashamed; (2) feel comfortable telling friends and family; (3) feel okay if people in their community knew; and (4) not want people at work to know about each depression treatment. Sociodemographics, depression history, and current depressive symptoms were measured.

RESULTS: Treatment-specific stigma was lower for herbal remedy than prescription medication or mental health counseling ($p < .01$). Whites had higher stigma than African Americans for all treatment modalities. In adjusted analyses, stigma relating to self [AOR 0.43 (0.20–0.95)] and friends and family [AOR 0.42 (0.21–0.88)] was associated with lower acceptability of mental health counseling. Stigma did not account for the lower acceptability of prescription medication among African Americans.

CONCLUSIONS: Treatment associated stigma significantly affects the acceptability of mental health counseling

but not prescription medication. Efforts to improve depression treatment utilization might benefit from addressing concerns about stigma of mental health counseling.

KEY WORDS: stigma; depression treatment; patient preferences; ethnicity.

DOI: 10.1007/s11606-007-0276-3

© 2007 Society of General Internal Medicine 2007;22:1292–1297

INTRODUCTION

Depression is the most common mental health disorder, affecting nearly 14 million U.S. adults annually.¹ Despite the availability of effective depression treatments, utilization rates are low.^{2–4} One reason may be the stigma associated with receiving treatment. Stigma, defined by sociologist Goffman⁵ as “spoiled identity” and characterized as the perception of difference associated with undesirable traits,⁶ is recognized as a barrier to mental health care.⁷ Stigma has been cited by the 1999 Surgeon General’s Mental Health Report,⁸ the Department of Health and Human Service’s Healthy People 2010,⁹ and the 2003 President’s New Freedom Commission on Mental Health¹⁰ as an important reason for low receipt of treatment. These reports have identified reducing stigma as a major goal in improving mental health care delivery.

Prior research reports that depressed patients with higher stigma are less likely to adhere to pharmacologic treatment,^{11,12} and that stigma may be a barrier to initiating other forms of treatment.¹³ However, whether the level and effect of stigma differs between depression treatment modalities remains understudied. We sought to measure the stigma of four depression treatment modalities and to estimate the association between treatment stigma and treatment acceptability.

Differences in depression treatment acceptability between African Americans and whites have been documented, with African-Americans expressing lower acceptability of antidepressant medication,¹⁴ greater preference for counseling,¹⁵ and more interest in counseling from clergy.¹⁶ In addition, concern has been raised that mental health stigma may be higher among African Americans than whites.^{17,18} For these reasons, in our exploration of depression treatment stigma, we sought to investigate differences between African Americans and whites and to assess whether stigma could explain racial differences in treatment acceptability.

Abstract presented at the Society of General Internal Medicine annual meeting, Los Angeles, CA, 2006

Funding source: University Research Foundation of the University of Pennsylvania

Received November 3, 2006

Revised April 5, 2007

Accepted June 19, 2007

Published online July 4, 2007

CONCEPTUAL MODEL

The conceptual framework for this study was drawn from the Theory of Reasoned Action.¹⁹ In our adaptation of this model, the outcome was the intention to accept a depression treatment. We tested the effect of stigmatizing beliefs about depression treatment (treatment stigma) and social pressures to accept treatment (social norms) on treatment acceptability, adjusting for other beliefs about depression treatments, sociodemographics, depression history, and current depressive symptoms.

MATERIALS AND METHODS

Study Participants

Potential participants were selected from patients seen in the University of Pennsylvania Health System Network of Affiliated Practices, which includes over 200 primary care practices. We included patients from internal medicine, family medicine, and women's health practices. Patients were eligible if they: (1) were seen in their practice within the last 12 months; (2) were 18 years or older; and (3) were identified in the network database as either African American or white. From the 100,602 patients who met eligibility criteria, we assembled a stratified random sample of 755 patients with approximately equal numbers of African American and white patients to maximize our ability to make comparisons between the racial groups.

Data Collection

The study questionnaire was mailed to all potential participants; nonresponders got up to two repeat mailings. Those who completed the questionnaire were asked to also return, separately, a postcard with a unique identifier. This identifier provided investigators knowledge about who had and had not responded, whereas assuring participants that their responses, in the separately mailed questionnaire, remained anonymous.

Questionnaire

Treatment Acceptability. Acceptability of the four treatment modalities was assessed using the following vignette:

For the past 2 months, you have been feeling down and have lost interest in many of your normal activities. You no longer want to go out with friends and feel a loss of energy. Lately you have had difficulty sleeping and have been worried about a change in your weight. Your doctor has examined and tested you thoroughly and has made a diagnosis of depression.

Participants were asked whether they would accept each of four possible depression treatments (prescription medication, mental health counseling, herbal remedy, or spiritual counseling). All treatments were described as low cost. Response options were: "Definitely yes," "probably yes," "probably no," and "definitely no."

Treatment Stigma. Current published measures of mental illness stigma are not specific to depression, but rather,

evaluate stigma associated with a wide range of mental illnesses including schizophrenia. In addition, they do not assess the stigma associated with accepting treatment.^{20,21} In this study, we focused on two aspects of stigma, namely, the feelings of personal shame and fear of disclosure that a person considering depression treatment might be concerned with. These important components of stigma²² have been linked to avoidance of mental health treatment.¹² Because the wish to avoid disclosure may be one of the most fundamental components of stigma,²³ it is likely to be a sensitive measure. For these reasons, we developed the following items to assess treatment stigma:

If I were taking a prescribed medication for depression,

1. I would feel ashamed
2. I would feel comfortable telling my friends or family
3. I would feel okay if people in my community (church, school, etc) knew
4. I would not want to tell people at my job

These questions were repeated, once for each of the other treatments (with text changed only to indicate treatment modality). Possible response options were "yes" and "no" for each item.

Social Norms. To measure social norms associated with depression treatment, we assessed anticipated support from others using a 5-point Likert scale from strongly agree to strongly disagree. (i.e., "If I were taking a prescription medication for depression, people close to me would support me"). Responses of strongly agree and agree were combined and compared to the other responses in dichotomous analysis.

Other Beliefs. We included several items assessing beliefs about depression and depression treatment, the majority adapted from the Patient Attitudes Toward and Ratings of Care for Depression (PARC-D) questionnaire.²⁴ Items addressed the perceived effectiveness or harmfulness of each treatment, the importance of treating depression, the etiology of depression, side effects of antidepressants, and the power of prayer to treat depression. Response options were on a 5-point Likert scale from -2 (disagree) to +2 (agree). Responses of +1 and +2 were combined and compared to the other responses in dichotomous analysis.

Demographics, Medical History, and Depressive Symptoms. Sociodemographic variables included age, sex, ethnicity, race, education, marital status, household income, and religious service attendance. We also assessed personal and family history of depression and prior depression treatment. We used the Patient Health Questionnaire (PHQ-9) to measure current depressive symptoms.²⁵ Scores range from 0 to 27, with a score of 10 or greater having a sensitivity of 88% and specificity of 88% for major depression. PHQ-9 scores of 5, 10, 15, and 20 represent mild, moderate, moderately severe, and severe depression, respectively.²⁵

Pilot Testing. The entire questionnaire was pilot tested on a convenience sample of 20 patients in an adult primary care practice of the University of Pennsylvania. Pilot study

participants were 65% African American, 30% white, and 80% female. The purpose of the pilot testing was to assess the face and content validity of the vignette and the stigma items. In addition, to ensure that items were understood, we asked participants to discuss the wording of items and to suggest alternative wording if appropriate. Changes were incorporated iteratively into the questionnaire during the pilot study with particular attention focused on ensuring that questions were meaningful and intelligible to all participants.

Analytic Strategy. We assessed the internal consistency of the treatment stigma items, within each treatment modality, to determine whether they could be combined. Cronbach's alphas were too low to allow items to be combined (range 0.54–0.59); thus, simple frequencies were used to describe treatment stigma items for each modality as well as treatment acceptability. We used McNemar's test²⁶ to make pairwise comparisons of treatment stigma item responses for different modalities (i.e., medication vs counseling).

The association between treatment-specific stigma and treatment acceptability was first tested with unadjusted logistic regression and then with multivariable logistic regression models. The purpose of this analysis was to assess whether stigma items significant in unadjusted analysis remained significant after adjusting for other covariates and to assess the adjusted effect of race on treatment acceptability. We focused on the acceptability of prescription medication and mental health counseling because of their relevance to depression treatment in primary care settings. In each adjusted model we included only treatment-specific stigma items and other belief items that were significant in unadjusted analysis at the $p < .10$ level. Models were adjusted for all sociodemographic variables, depression history, PHQ-9 scores, and social norms. All covariates were assessed for collinearity. For those variables with a correlation coefficient equal to or greater than 0.4, the covariate with a higher predictive value in unadjusted analysis was retained in the model. In the case of two correlated sociodemographic variables where neither was predictive in unadjusted analysis, the variable with the stronger association in the adjusted model was retained. All analyses were performed using STATA SE version 8.2 (STATA Corporation, College Station, TX). This study was approved by the University of Pennsylvania institutional review board.

RESULTS

Data Collection

Of the 755 patients to whom questionnaires were mailed, six were ineligible because of death or visual problems, and 46 had their questionnaires returned because of an incorrect address. Of the remaining 703 potential participants, 528 (75%) returned the anonymous questionnaires, and 447 also returned the tracking postcards. Postcard responders were more likely to be female (67 vs 58%, $P = .02$) and older (mean age 54 vs 47 years, $p < .001$) than nonresponders. There was no racial difference between responders and nonresponders.

Participant Characteristics

From the 528 questionnaires, 38 were excluded because participants did not confirm their race was either African

American or white (25 with missing race data, eight "other," three "unknown," one American Indian, one Asian). This left 490 questionnaires for subsequent analysis. As seen in Table 1, the analytic sample was 43% African American, the majority were female (68%) and had a high school education (90%). Approximately one third of participants reported a history of depression, and of these, over 90% reported prior treatment with either prescription medication or counseling. Most participants (68%) had no depressive symptoms, 18% had mild symptom levels, and 14% had clinically significant levels with PHQ-9 scores of 10 or greater.

Treatment Stigma and Treatment Acceptability

Table 2 displays treatment stigma items for each of the four depression treatments. Stigma for all treatments increased with expansion of the social circle, being the lowest for feeling ashamed and increasing sequentially for disclosure to friends and family, community, and then to the workplace. Herbal remedy stigma for self, community, and workplace was significantly lower than the corresponding stigma items for prescription medication and mental health counseling ($p < .01$ for each comparison). Treatment stigma was not related to history of depression or to prior use of depression treatments (data not shown).

Whites had higher treatment stigma than African Americans related to the workplace (all treatments), the community (prescription medication, mental health counseling and spiritual counseling), and friends and family (spiritual counseling).

Treatment acceptability rates were 76% for prescription medication, 72% for mental health counseling, 75% for herbal remedy, and 53% for spiritual counseling. African Americans reported significantly lower acceptability of prescription medication compared to whites (67 vs 76%, $p < .001$) and higher levels of acceptability of spiritual counseling (69 vs 53%, $p < .001$).

Association between Treatment-specific Stigma and Treatment Acceptability

Table 3 displays the results of multivariable logistic regression models for the outcomes of prescription medication and mental health counseling acceptability. For the outcome of

Table 1. Participant Characteristics (N=490)

Characteristic	N (%)
Age (year), mean (SD)	52.5 (17.5)
African American (vs white)	210 (43)
Women	333 (68)
High school education or greater	441 (90)
Married	261 (54)
Household income > \$50K	213 (46)
History of depression	164 (34)
Family history of Depression	210 (43)
Prior antidepressant use	140 (30)
Prior counseling for depression	125 (27)
Prior use of herbal remedy for depression	38 (8)
Prior use of spiritual counseling for depression	39 (8)
Patient Health Questionnaire-9	
Minimal depression (score 1–4)	312 (68)
Mild depression (score 5–9)	82 (18)
Moderate depression (score 10–14)	38 (8)
Moderately severe depression (score 15–19)	25 (5)
Severe depression (score 20–27)	4 (1)

Table 2. Stigma Item Endorsement for Each of Four Depression Treatments

Depression treatment	Stigma item			
	Ashamed of self (n, %)	Friends/family (n, %)	Community (n, %)	Workplace (n, %)
Prescription medication	84 (18)	117 (25)	303 (65)	315 (68)
Mental health counseling	89 (19)	124 (27)	310 (66)	318 (68)
Herbal remedy	65 (14)	115 (25)	287 (62)	303 (65)
Spiritual counseling	73 (16)	128 (28)	294 (63)	306 (67)

prescription medication acceptability, no stigma items were included in the adjusted analysis because of a lack of association in unadjusted analysis. The only sociodemographic characteristics associated with decreased prescription medication acceptability were being African American and having higher income.

For mental health counseling, two stigma items, those relating to self and friends/family, remained significant in the adjusted model, associated with lower odds of treatment acceptability. Being married was also associated with decreased mental health counseling acceptability.

Perceiving that others would support the use of treatment (social norms) was positively associated with acceptability of both treatments; whereas age, sex, education, religious service atten-

dance, prior depression treatment, and family history of depression were not associated with acceptability of either treatment.

Because the variables for history of depression and depression treatment history were highly correlated, we included treatment history variables in the adjusted models because they were stronger predictors of treatment acceptability. Similarly, because income and marriage were correlated, the variable with a stronger association to the outcome was retained in the adjusted models (income for the prescription medication model and marriage for the mental health counseling model). Stigma items were not correlated with other belief items or social norms. There were no interactions between stigma and race or stigma and prior depression treatment on the outcomes of treatment acceptability.

DISCUSSION

In this study of stigma associated with depression treatment, we found that for all four depression treatments, stigma increased as the focus moved from the individual to the wider community; a minority of individuals reported feelings of personal shame and over half reported fear of their community and workplace knowing of any depression treatment. These results mirror prior findings from depressed patients where 24% reported expecting depression-related stigma to have a negative impact on friends and 67% a negative impact on employment.²⁷ Our results indicate, then that despite our study being vignette-based with participants being asked to project themselves into a hypothetical depressed state, participants appeared to perceive similar negative societal views about depression and were concerned with revealing a diag-

Table 3. Adjusted Odds Ratios (AOR) From Multivariable Logistic Regression Models Predicting Acceptability of Prescription Medication and Mental Health Counseling

Variable	Prescription medication AOR (95%CI)	P value	Mental health counseling AOR (95%CI)	P value
African American (vs white)	0.46 (0.22–0.96)	0.04	1.14 (0.56–2.33)	0.71
Age (years)	1.00 (0.98–1.02)	0.79	0.99 (0.97–1.01)	0.31
Female	0.53 (0.26–1.09)	0.08	0.70 (0.36–1.37)	0.30
Household income > \$50K	0.47 (0.22–0.99)	0.05	^a	N/A
Married	^a	N/A	0.37 (0.19–0.74)	0.005
High School education	0.69 (0.19–2.52)	0.57	1.26 (0.96–1.66)	0.10
Religious service attendance ^b	0.80 (0.42–1.54)	0.50	1.11 (0.60–2.06)	0.74
Prior depression treatments				
Prescription medication	1.78 (0.63–5.04)	0.28	0.69 (0.26–1.81)	0.45
Mental health counseling	0.99 (0.39–2.51)	0.99	2.21 (0.83–5.89)	0.11
Herbal remedy	2.28 (0.36–14.51)	0.38	2.77 (0.44–17.23)	0.28
Spiritual counseling	^c		0.87 (0.23–3.27)	0.83
Family history of depression	1.09 (0.56–2.14)	0.79	1.56 (0.82–2.98)	0.18
PHQ-9 score	1.09 (1.00–1.19)	0.05	0.99 (0.91–1.07)	0.74
Social norms	3.69 (1.90–7.17)	<0.001	3.53 (1.70–7.30)	0.001
Stigma items				
Feel ashamed	^c	N/A	0.43 (0.20–0.95)	0.04
Friends/family	^c	N/A	0.42 (0.21–0.88)	0.02
Community	^c	N/A	0.78 (0.39–1.64)	0.54
Workplace	^c	N/A	^c	N/A
Other beliefs				
Prescription medications are effective	4.32 (2.01–9.26)	<0.001	0.91 (0.42–1.96)	0.80
Depression is a medical illness	2.65 (1.26–5.58)	0.01	1.82 (0.90–3.70)	0.10
Mental health counseling is effective	0.82 (0.36–1.83)	0.63	5.06 (2.36–10.86)	<0.001
Antidepressants cover up depression	0.48 (0.24–0.94)	0.03	0.58 (0.30–1.14)	0.11

Models also adjusted for other belief items significant in unadjusted analysis. Only belief items found to be significant in either the prescription medication or mental health counseling models are displayed in the table.

^aVariable not included in analysis because of collinearity

^bReligious service attendance of at least twice a month

^cItems not included in model because of lack of significance in unadjusted analysis

nosis of depression in the same way as has been shown in actual depressed patients.

We hypothesized that stigma would differ between treatment modalities and found that herbal remedy was less stigmatizing than prescription medication or mental health counseling. We also found that stigma affected the acceptability of treatments differently. In adjusted analyses, treatment stigma adversely affected the acceptability of mental health counseling but not prescription medication. These findings suggest that participants may perceive concealing a depression diagnosis to be more difficult when seeing a mental health specialist than when seeing a pharmacist for medication. If true, integrating specialty mental health care into the primary care setting could help to address this concern. Unfortunately, although integrated mental health care is associated with better patient outcomes as well as higher patient and provider satisfaction,^{28–30} these arrangements are not always feasible and often are not available to patients.

We sought to investigate whether treatment stigma differed for African Americans and whites and whether such a difference could explain racial differences in treatment acceptability. Contrary to prior findings from qualitative work,¹⁸ but consistent with other quantitative results,³¹ we found stigma to be higher among whites than African Americans. Thus, although African Americans in our study reported lower acceptability of prescription medication, a finding seen in prior work,¹⁴ this lower acceptability could not be explained by concerns about stigma. These variations in ethnic differences in stigma argue for further research into the particular aspects of stigma which may be salient to particular populations, as well as larger studies examining stigma across ethnic groups.

Our results should be interpreted in light of certain methodological limitations as well as the particular characteristics of our sample. We utilized a vignette-based questionnaire to assess intended rather than observed behavior. As noted, however, our findings mirror those reported for actual patients with depression. Because we were specifically interested in isolating the effect of stigma on treatment acceptability, we intentionally stated in the vignette that all treatments were low cost to eliminate cost concerns from influencing the relative acceptability of the treatments. This constraint may have had the effect of raising the overall acceptability of treatments. We developed new treatment stigma items not tested in other populations. These items, which were intended to capture specific components of stigma associated with treatment, may have also captured stigma associated with the diagnosis of depression, thus limiting our ability to measure the intensity of stigma associated with specific treatment modalities. In addition, our focus on the aspects of shame and fear of disclosure as well as our use of yes/no response options may have limited our ability to capture both the breadth and subtlety of stigma concerns. Our sample was purposefully limited to African Americans and whites, and so, our findings cannot be generalized to other racial groups. These constraints to generalizability were counterbalanced, somewhat, by the strengths of our study, which included the use of random sampling from a large population of primary care patients and the inclusion of patients with a range of depressive symptom levels.

In our sample population, the majority of respondents found the proposed depression treatments acceptable. Other patients less enthusiastic about depression treatment may display higher levels of stigma. Our sample also reported a higher than expected

(30%) prevalence of a history of depression. This self-reported history likely includes those with prior major depression as well as those with milder episodes of symptoms not meeting criteria for major depression. Whereas screening measures such as the PHQ-9 may overestimate true disease levels, participants had levels of current depressive symptoms similar to those expected in primary care, where the combined prevalence of major and minor depression ranges from 13.2 to 18.3%.³² Our sample also reported high rates of depression treatment. Because of the general nature of this question, however, it is not clear that these reported rates of treatment reflect a full treatment course of either medication or counseling.

Our study demonstrates a significant relationship between treatment stigma and treatment acceptability for mental health counseling, an important treatment option in primary care settings and one generally preferred by patients.^{15,33} This suggests that providers should be aware that stigma could play a determinative role in whether this treatment will be accepted. Because of the nature of stigma, it may be difficult for patients to bring up the topic. Some argue that providers should elicit patient's concerns regarding self-image, social support, and fears of discrimination regarding mental health treatment.³⁴ Our findings support such inquiry as well as future research into how clinicians might best approach discussing treatment stigma with their patients. Such discussions can be an important step in reducing treatment stigma and may help to individualize treatment plans in a manner congruent with the patient's social pressures and preferences.

Acknowledgments: The authors would like to acknowledge Jason Fu and Brian Shin for their assistance with survey distribution and data entry. This project was supported by funding from the University Research Foundation of the University of Pennsylvania.

Conflict of Interest: None disclosed.

Corresponding Author: Jane L. Givens, MD, MSCE; 88 East Newton Street, Robinson 2, room 2702, Boston, MA 02118-2393, USA (e-mail: jane.givens@bmc.org).

REFERENCES

1. Kessler RC, Berglund P, Demler O, et al. The epidemiology of major depressive disorder: results from the National Comorbidity Survey Replication (NCS-R). *JAMA*. 2003;289(23):3095–105.
2. Olfson M, Marcus SC, Druss B, Elinson L, Tanielian T, Pincus HA. National trends in the outpatient treatment of depression. *JAMA*. 2002;287(2):203–9.
3. Wang PS, Berglund P, Kessler RC. Recent care of common mental disorders in the United States: prevalence and conformance with evidence-based recommendations. *J Gen Intern Med*. 2000;15(5):284–92.
4. Katon W, von Korff M, Lin E, Bush T, Ormel J. Adequacy and duration of antidepressant treatment in primary care. *Med Care*. 1992;30(1):67–76.
5. Goffman E. *Stigma: notes on the management of spoiled identity*. Englewood Cliffs, N.J.: Prentice-Hall; 1963.
6. Smith M. Stigma. *Adv Psychiatr Treat*. 2002;8:317–25.
7. Phillips DL. Rejection: A possible consequence of seeking help for mental disorders. *Am Sociol Rev*. 1963;28(6):963–72.
8. U.S. Department of Health and Human Services. (1999). *Mental Health: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health.
9. U.S. Department of Health and Human Services. (2000). *Healthy People 2010* (2nd ed.). Understanding and Improving Health. Wash, DC: U.S. Government Printing Office.

10. U.S. Department of Health and Human Services, New Freedom Commission on Mental Health.(2003). Achieving the Promise: Transforming Mental Health Care in America. Final Report. DHHS Pub. No. SMA-03-3832. Rockville, MD: 2003.
11. **Sirey JA, Bruce ML, Alexopoulos GS, Perlick DA, Friedman SJ, Meyers BS.** Stigma as a barrier to recovery: Perceived stigma and patient-rated severity of illness as predictors of antidepressant drug adherence. *Psychiatr Serv.* 2001;52(12):1615–20 (Dec).
12. **Sirey JA, Bruce ML, Alexopoulos GS, et al.** Perceived stigma as a predictor of treatment discontinuation in young and older outpatients with depression. *Am J Psychiatry.* 2001;158(3):479–81.
13. **Barney LJ, Griffiths KM, Jorm AF, Christensen H.** Stigma about depression and its impact on help-seeking intentions. *Aust N Z J Psychiatry.* 2006;40(1):51–4 (Jan).
14. **Cooper LA, Gonzales JJ, Gallo JJ, et al.** The acceptability of treatment for depression among African-American, Hispanic, and white primary care patients. *Med Care.* 2003;41(4):479–89.
15. **Dwight-Johnson M, Sherbourne CD, Liao D, Wells KB.** Treatment preferences among depressed primary care patients. *J Gen Intern Med.* 2000;15(8):527–534.
16. **Blank MB, Mahmood M, Fox JC, Guterbock T.** Alternative mental health services: the role of the black church in the South. *Am J Public Health.* 2002;92(10):1668–72.
17. **Pimm A, BR L, Rowe C.** Culture and Ethnic Sensitivity. In: **Breakey W, ed.** Integrated Mental Health Services. New York: Oxford University Press; 1996:146–59.
18. **Cooper-Patrick L, Powe NR, Jenckes MW, Gonzales JJ, Levine DM, Ford DE.** Identification of patient attitudes and preferences regarding treatment of depression. *J Gen Intern Med.* 1997;12(7):431–8.
19. **Ajzen I, Fishbein M.** Understanding attitudes and predicting social behavior. Englewood Cliffs, N.J.: Prentice-Hall; 1980.
20. **Link B.** Understanding labeling effects in the area of mental disorders: An assessment of the effects of expectations of rejection. *Am Sociol Rev.* 1987;52:96–112.
21. **Ritsher JB, Otilingam PG, Grajales M.** Internalized stigma of mental illness: psychometric properties of a new measure. *Psychiatry Res.* 2003;121(1):31–49.
22. **Corrigan P.** How stigma interferes with mental health care. *Am Psychol.* 2004;59(7):614–25.
23. **Jones E, Farina A, Hastorf A, Markus H, Miller D, Scott R.** Social Stigma: The psychology of marked relationships. New York: W.H Freeman and Company; 1984:27–36.
24. **Cooper LA, Brown C, Vu HT, et al.** Primary care patients' opinions regarding the importance of various aspects of care for depression. *Gen Hosp Psychiatry.* 2000;22(3):163–73.
25. **Kroenke K, Spitzer RL, Williams JB.** The PHQ-9: validity of a brief depression severity measure. *J Gen Intern Med.* 2001;16(9):606–13.
26. **McNemar Q.** Note on the sampling error of the difference between correlated proportions or percentages. *Psychometrika.* 1947;12:153–7.
27. **Roeloffs C, Sherbourne C, Unutzer J, Fink A, Tang L, Wells KB.** Stigma and depression among primary care patients. *Gen Hosp Psychiatry.* 2003;25(5):311–5.
28. **Katon W, Robinson P, Von Korff M, et al.** A multifaceted intervention to improve treatment of depression in primary care. *Arch Gen Psychiatry.* 1996;53(10):924–32.
29. **Gallo JJ, Zubritsky C, Maxwell J, et al.** Primary care clinicians evaluate integrated and referral models of behavioral health care for older adults: results from a multisite effectiveness trial (PRISM-e). *Ann Fam Med.* 2004;2(4):305–9.
30. **Gilbody S, Bower P, Fletcher J, Richards D, Sutton AJ.** Collaborative care for depression: a cumulative meta-analysis and review of longer-term outcomes. *Arch Intern Med.* 2006;166(21):2314–21, Nov 27.
31. **Diala CC, Muntaner C, Walrath C, Nickerson K, LaVeist T, Leaf P.** Racial/ethnic differences in attitudes toward seeking professional mental health services. *Am J Public Health.* 2001;91(5):805–7, May.
32. U.S. Preventive Services Task Force. Guide to Clinical Preventive Services, 3rd edition: Recommendations and Systematic Evidence Reviews. Bethesda, Md: National Library of Medicine. Available at: www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat3.table.2147. Accessed February 10, 2007.
33. **Gum AM, Arean PA, Hunkeler E, et al.** Depression treatment preferences in older primary care patients. *Gerontologist.* 2006;46(1):14–22, Feb.
34. **Byrne P.** Stigma of Mental illness and ways of diminishing it. *Advances in Psychiatric Treatment.* 2000;6:65–72.