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Disparity in Use of Psychotherapy Offered in Primary Care Between Older African-American and White Adults: Results from a Practice-Based Depression Intervention Trial

Jin Hui Joo, MD, MA^{*}, Knashawn H. Morales, ScD[†], Heather F. de Vries, MSPH[‡], and Joseph J. Gallo, MD, MPH[‡]

^{*}Department of Psychiatry, University of Pennsylvania, Philadelphia, Pennsylvania

[†]Center for Clinical Epidemiology and Biostatistics, University of Pennsylvania, Philadelphia, Pennsylvania

[‡]Department of Family Medicine and Community Health, School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania

Abstract

The purpose of this study was to assess ethnic differences in use of psychotherapy (having met at least once with a psychotherapist) for late-life depression in primary care. Participants were identified through a two-stage, age-stratified (60–74, 75) depression screening of randomly sampled patients from 20 practices in New York City, Philadelphia, and Pittsburgh in a practice-randomized trial. Practices were randomly assigned to usual care or to an intervention with a depression care manager who worked with primary care physicians to provide algorithm-based care. Depression status based on clinical interview and any use of psychotherapy within the 2-year follow-up interval were the primary dependent variables under study. The focus was on 582 persons with complete data. Participants were sorted into major depression ($n = 385$, 112 African American and 273 white) and clinically significant minor depression ($n = 197$, 51 African American and 146 white) based on clinical diagnostic assessment. Persons who selfidentified as African American were less likely than whites to use interpersonal therapy (IPT) if they had minor depression, even after adjusting for potentially influential variables including age, cognitive functioning, and whether the dose of antidepressant was adequate (adjusted odds ratio (AOR) = 0.22, 95% confidence interval (CI) = 0.06–0.80). Ethnicity was not significantly associated with IPT use in persons with major depression (AOR = 0.71, 95% CI = 0.37–1.37). Older African Americans with minor depression were less likely than whites to use psychotherapy. Targeted strategies are needed to mitigate the disparity in use of psychotherapy.

Address correspondence to Jin Hui Joo, Department of Psychiatry, University of Pennsylvania, 3615 Chestnut Street, Rm 237, Philadelphia, PA 19104. Jinhui.joo@uphs.upenn.edu.

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Keywords

African American; aged; healthcare disparities; psychotherap; depression

Depression is a major public health concern for older adults and is associated with excess functional disability, use of healthcare services, and mortality. Several community studies have suggested that major depression affects up to 15% of older persons. In an analysis from the 13-year follow-up of participants in the Baltimore Epidemiologic Catchment Area (ECA) study, the life-course distribution of the incidence of Diagnostic Interview Schedule (DIS)/Diagnostic and Statistical Manual of Mental Disorders (DSM) major depression appeared to be bimodal, with a primary peak in the fourth decade but with a secondary peak in the sixth decade. Based on continued 24-year follow-up in the ECA, the prevalence appears to be rising. Minor depression has no standard operational criteria across studies, although suggested research criteria in the DSM, Fourth Edition (DSM-IV) are the same as for major depression, except that the number of symptoms required for diagnosis is less than for major depression. In older persons with minor depression, psychotherapy may play an important role alone or in combination with antidepressant medications. Although medications and psychotherapy have been shown to be effective in treating late-life depression, older adults state a preference for counseling over medicines. For example, of 1,801 older adults with depression in primary care, most indicated a preference for counseling or psychotherapy over antidepressant medications, but only 8% received such treatment in the 3 months before interview, and only 1% reported four or more sessions of counseling. Despite a preference for psychotherapy, rates of use of psychotherapy by older adults are low.

The evidence that African Americans are less likely than whites to use mental health counseling and psychotherapy has been summarized; African Americans who engage in psychotherapy attend fewer sessions and terminate treatment earlier than white patients. In addition to barriers facing all patients (such as convenience and cost), African Americans face additional challenges related to stigma, differences in presentation of depression, perceptions of racism or discrimination, mistrust of medical providers and the mental health system, lack of knowledge of available mental health services, impersonal service, and lack of cultural sensitivity by therapists.

The purpose of this study was to examine whether reducing barriers to access to psychotherapy by co-locating services in primary care offices and providing services at no cost to the patient increased use of psychotherapy (defined as having at least one visit with a psychotherapist). A significant difference between African-American and white patients in use of psychotherapy in persons who were exposed to the same depression-care algorithm represents a significant and specific disparity in mental health care because the clinical diagnosis and depression severity were similar across groups.

METHODS

The Prevention of Suicide in Primary Care Elderly: Collaborative Trial

The Prevention of Suicide in Primary Care Elderly: Collaborative Trial (PROSPECT) was a group-randomized controlled trial comparing a primary care–based intervention with usual care to improve depression outcomes. The study was conducted in 20 primary care practices located in New York, Philadelphia, and Pittsburgh from May 1999 to August 2001. Individual patients were followed for 2 years. Two stages were employed to recruit participants. In the first stage, a random sample of patients aged 60 to 74 years and 75 years and older with upcoming appointments was obtained. Patients were mailed a letter allowing them to decline further study-related contact. Trained lay interviewers contacted patients who did not decline and solicited informed consent. Patients who gave oral consent were screened for depressive symptoms using the Center for Epidemiologic Studies Depression Scale (CES-D). Patients who scored higher than 20 on the CES-D were invited to enroll, as well as 5% of patients with lower scores. To increase the sensitivity of screening, patients with scores less than 20 and with positive responses to questions about previous depression episodes or treatment were also included. Interviewers scheduled appointments for in-person interviews at the primary care practice site for participants who agreed to be part of the study.

Intervention and Usual Care Conditions

The intervention consisted of trained depression care managers who offered guideline-concordant recommendations to the primary care physicians. Educational sessions for primary care physicians and education for patients' families incorporated standard material about the symptoms, course, and treatment of depression based on Agency for Healthcare Research and Quality guidelines. The care manager worked with the primary care physician to recommend treatment according to a standardized algorithm. Citalopram was selected as the first-line agent. In patients with milder depression who did not tolerate medication, IPT alone was provided because psychotherapy has been shown to have comparable efficacy to pharmacotherapy for milder depression. Interpersonal therapy (IPT) emphasized the interpersonal context of depression to build interpersonal skills and did not focus on adherence to medications. Combined treatment was warranted for patients with more-severe depression or for whom an adequate trial of pharmacotherapy led to only a partial response (< 50% reduction in symptoms as assessed using the Hamilton Depression Rating Scale (HDRS)). All depression specialists participated in weekly supervision of their cases by site supervisors with monthly conference calls to ensure cross-site consistency in IPT implementation. IPT was provided at no cost to the patients.

The depression care managers were trained to deliver IPT at the primary care practices randomized to PROSPECT's intervention arm and included experienced social workers, nurses, and psychologists. They had psychiatric backup, weekly on-site supervision, and monthly cross-site IPT supervision. IPT that was consistent with the needs of older depressed patients was provided during the acute, continuation, and maintenance phases of a patient's 2-year protocol participation. Patients attended weekly sessions when possible during the initial 3-month acute phase. Those exhibiting at least partial response entered into

the continuation phase, during which IPT sessions were scheduled monthly over the next 6 months. During the 15-month maintenance phase, IPT sessions were scheduled bimonthly. If the patient's depressive status relapsed at any point during the 2-year study enrollment, IPT could be resumed with weekly sessions. In both study arms, physicians were informed by letter if patients reported any suicidal ideation and immediately when patients were identified at high suicide risk, using prespecified guidelines. Other sources detail the PROSPECT treatment algorithm and implementation, including the role of the care manager, the strategy for pharmacotherapy, the management of suicidal ideation, and the types and proportions of treatment received over time by persons in practices randomized to the intervention condition or to usual care.'

In usual care practices, specific recommendations regarding individual patients were not given to physicians except for psychiatric emergencies, but physicians were informed of patient diagnoses. All study procedures were implemented with written informed consent, and the institutional review boards of Cornell University, the University of Pittsburgh, and the University of Pennsylvania School of Medicine approved the study protocols.

Measurement Strategy

Depression Diagnosis—Trained research assistants used the Structured Clinical Interview for DSM-IV Disorders Axis I (SCID-I) to diagnose major depression and clinically significant minor depression. Clinically significant minor depression was defined as meeting DSM-IV criteria for minor depression with four total symptoms, HDRS score 10 or higher, and 4-week duration of symptoms. Severity of depression was assessed using the HDRS.

Uptake of Psychotherapy—Reported use of psychotherapy any time during the 2-year follow-up, regardless of source (including having met with the depression care specialist in the intervention condition), was the dependent variable. Patients reported use of healthcare services (quantity and type of provider) in the 4 months before the 4-, 8-, 12-, 18-, and 24-month follow-up interviews using the Cornell Service Index. The Cornell Service Index has good interrater and test-retest reliability in older adults for assessment of mental health services use.

Other Covariates—Standard questions were used to obtain information from the respondents on age, level of educational attainment, sex, marital status, and self-reported ethnicity. Persons who self-identified as white or African American constitute the sample (17 persons who self-identified as other than white or African American were excluded from analysis). Designations of ethnic status imply a homogeneity within groups that is a simplification, and observed differences in behavior are likely to represent measured and unmeasured differences in social class, exposures, health beliefs and practices, and other factors. Patients self-reported medical conditions using the Charlson Comorbidity Index. The Mini-Mental State Examination (MMSE) was used to evaluate cognition. The Duke Social Support Index was used to measure social interaction, subjective support, and instrumental support. The Composite Antidepressant (CAD) score adapted for geriatric patients yields a rating of the adequacy of antidepressant treatment. Adequacy of

antidepressant treatment was coded 0 if an antidepressant had not been prescribed or if the dose was not adequate and 1 if the dose was adequate.

Analytical Strategy

The analysis proceeded in three phases. First, the characteristics of persons were compared according to personal and clinical variables, stratified according to ethnic group (African American and white) and depression diagnosis (major depression and clinically significant minor depression). Second, potentially influential variables were identified for inclusion in the adjusted models according to their association with the dependent variable, namely, psychotherapy use ($P < .10$). Bivariate comparisons for continuous and binary characteristics were based on the F -test from linear and logistic regression models with random effects accounting for clustering according to practice. Associations between baseline characteristics and psychotherapy use were also assessed using logistic regression models with random effects. Generalized estimating equations were used to incorporate practice-level effects. Third, terms were introduced into multivariate models representing the interaction between ethnicity and intervention condition, to assess whether the practice-level intervention modified the association between ethnicity and use of psychotherapy. The conventional level of statistical significance at $P < .05$ was used, recognizing that tests of statistical significance are approximations that serve as aids to interpretation and inference.

RESULTS

Sample Characteristics

Patient characteristics, stratified according to ethnic group and diagnosis, were examined (Table 1). African-American patients with major depression were more likely than whites with major depression to be female and unmarried. African-Americans with major depression differed from whites with major depression in age, level of educational attainment, and MMSE score. African-American patients with clinically significant minor depression were more likely than whites to be female. Mean level of educational attainment and MMSE were significantly lower in African Americans, whereas mean instrumental social support was higher. Comparable proportions of African-American and white patients were diagnosed with depressive disorders and were receiving adequate doses of antidepressants over the 2-year follow-up. The CONSORT flow diagram for the PROSPECT trial has been published elsewhere and is provided as Appendix A.

Uptake of Psychotherapy

Estimates of association were adjusted for age, cognitive functioning, and adequate antidepressant dosage, because only those variables were found to be associated with psychotherapy uptake (data not shown). African Americans with minor depression were one-fifth as likely as whites to have used psychotherapy (unadjusted odds ratio (AOR) = 0.18, 95% confidence interval (CI) 0.05–0.61; Table 2). In a model that adjusted for age, cognitive functioning, and whether the dose of antidepressant was adequate, the association was not appreciably changed (AOR = 0.22, 95% CI = 0.06–0.80). Corresponding ORs indicated that African Americans with major depression were less likely than whites to use psychotherapy, but the confidence bounds included the null.

Effect Modification of Intervention Condition

Table 3 shows that older adults in practices randomized to the intervention condition were more likely to use psychotherapy than those in practices randomized to usual care, although African Americans were less likely than whites to have used psychotherapy even in intervention practices. The term representing the interaction between ethnicity and intervention condition was not statistically significant ($P = .71$ for major depression, $P = .64$ for minor depression), indicating that the intervention did not completely mitigate the disparity in use of psychotherapy across ethnic groups.

DISCUSSION

In this randomized clinical trial of a practice-based depression intervention for older adults, older African-American adults who met criteria for clinically significant minor depression were less likely to use psychotherapy (report at least one visit over the 2-year follow-up interval) than were white patients who met criteria for minor depression, even after adjusting for potentially influential personal characteristics and having reached an adequate dose of an antidepressant. There was no statistically significant ethnic difference in psychotherapy use between persons who met criteria for major depression. (Although the point estimates indicated that African Americans were less likely to use psychotherapy, the confidence bounds included the null.) All persons in the intervention practices were more likely to have used psychotherapy, but African Americans did not achieve the rates of use of white patients even in the intervention practices.

Before discussing implications, the results must be considered in the context of potential study limitations. First, primary care practices in the greater metropolitan areas of New York City, Philadelphia, and Pittsburgh may not be representative of other primary care practices in the United States. Nevertheless, participating sites represented diversity in practice size and location (urban, suburban, or sparsely populated areas). Second, African Americans in the practices participating in PROSPECT may not be representative of African Americans across the United States in terms of levels of educational attainment and other factors. However, even if African Americans who participated in PROSPECT differed from other African Americans in important ways, measured and unmeasured characteristics should be distributed similarly across the intervention and usual care practices because of randomization. Third, a self-report measure was used to assess psychotherapy uptake, which could have resulted in underreporting of use of psychotherapy services because of stigma or other reasons. Although it is plausible that African Americans sought treatment from ministers or others outside the healthcare system, the evidence suggests that older African Americans do not seek formal or informal care for emotional problems. Fourth, measures of stigma associated with receiving depression care or patient perceptions of psychotherapy that might explain ethnic differences in psychotherapy uptake were not included. Fifth, information on the ethnicity of the depression care managers was limited. Although a meta-analysis of matching the ethnicity of the psychotherapist and patient suggested lower dropout rates after the first session, ethnic match alone was a weak predictor of psychotherapy engagement.

The current study differs from observational studies that report that older African Americans are less likely than others to use mental health care, including psychotherapy, because all participants were assessed clinically, were found to have met criteria for major depression or for clinically significant minor depression, and were exposed to algorithm-based care in a randomized fashion. In one study, 160 persons aged 18 to 64 who met criteria for major depression were randomized to medication or psychotherapy, and adherence rates similar to the acute phase of psychotherapy of 41% for 68 African Americans and 54% for 92 white patients followed over an 8-month interval were reported. Another study of a quality improvement intervention in primary care practices (Partners in Care, PIC) reported less psychotherapy use in African Americans and a modest increase in psychotherapy use with the intervention, but fewer than 10% of the participants in PIC were African American, and the sample was much younger than in PROSPECT (mean age 45). Few patients who were referred for psychotherapy made any visits. Of 222 older African Americans who participated in Improving Mood-Promoting Access to Collaborative Treatment (IMPACT), a randomized trial of collaborative care for depression, use of psychotherapy increased to 35% at 12 months for patients receiving collaborative care (vs 14% in usual care), whereas in white patients, use of psychotherapy increased to 44% for patients receiving collaborative care (vs 16% in usual care). IMPACT was restricted to older persons in health maintenance organizations (PROSPECT practices were organizationally heterogeneous in comparison) and studied dysthymia, not minor depression, without stratifying diagnosis according to ethnicity. Another study reported better engagement with treatment in older adults exposed to care integrated with primary care than those receiving enhanced referral to specialty care but did not provide estimates stratified according to ethnicity.

Although research and treatment have appropriately emphasized major depression, “minor depression” is not so minor in terms of functional loss and risk for major depression. Persons with depression who do not meet criteria for major depression are more likely than persons without depressive symptoms to progress to meet criteria for major depression and to have adverse functional and cognitive outcomes. A previous study examined data from PROSPECT and found that patients with minor depression had more than five times the risk for major depression at 1 year than persons without depression. Although psychotherapy may be appropriate and preferred for older adults with minor depression, rates of use are low especially in African Americans, which may be due to various reasons. The presentation of depression varies across ethnic groups and may differ from what clinicians are trained to expect, potentially leading to underrecognition. Symptoms of depression may be attributed to physical disease, interpreted as a loss of faith, or conceptualized as loneliness. Primary care physicians may opt for watchful waiting for minor depression rather than active treatment. In PROSPECT, patients were screened, clinically assessed, and diagnosed with major or minor depression so that some barriers to treatment, such as lack of recognition by physicians, would be mitigated.

The results of this investigation call attention to the need for development of new approaches to engage patients in psychotherapy, especially minority older adults. The Institute of Medicine report *Challenges and Successes in Reducing Health Disparities* stated that a model that integrates the clinic and the community is needed to reduce disparities in mental health care. Providing psychotherapeutic interventions for African-American patients that

integrate outreach efforts or modify the method of delivery beyond the formal mental healthcare system may improve acceptability, engagement, and outcomes for depression. Future studies will need to consider how to mitigate ethnic disparities in mental health care that may require strategies based on a public health mode. Findings on psychotherapy offered in an algorithm-based manner suggest that new approaches are needed to improve acceptance of treatment, even for treatment that older adults prefer.

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Appendix A.: CONSORT flow diagram

CESD = Centers for Epidemiological Studies Depressor Scale

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Table 1.

Personal and Clinical Characteristics of Patients According to Clinical Diagnosis of Major Depression or Clinically Significant Minor Depression

Characteristic	Major Depression		Clinically Significant Minor Depression			
	African America (n = 112)	White (n = 273)	P-Value	African American (n = 51)	White (n = 146)	P-Value
Sociodemographic characteristics						
Age, mean ± SD	68.3 ± 7.4	70.2 ± 7.9	.01	70.6 ± 8.3	71.9 ± 8.0	.66
Female, n (%)	96 (86)	181 (66)	< .001	42 (82)	98 (67)	.05
Education, mean ± SD	11.4 ± 3.0	12.9 ± 3.2	< .001	12.0 ± 3.2	13.4 ± 3.0	.01
Married, n (%)	21 (19)	117 (42)	< .001	14(7)	62 (32)	.10
Medical conditions reported at baseline						
Number of medical conditions, mean ± SD	3.4 ± 2.4	3.1 ± 2.3	.30	2.6 ± 2.2	2.4 ± 2.2	.47
Severity of psychiatric conditions assessed at baseline						
Hamilton Depression Scale score, mean ± SD	20.0 ± 5.5	20.5 ± 5.8	.99	13.6 ± 3.7	13.5 ± 3.4	.84
Mini-Mental State Examination score, mean ± SD	26.4 ± 3.0	27.8 ± 2.3	< .001	27.0 ± 2.4	28.0 ± 2.0	< .001
Social support and life events reported at baseline						
Subjective social support, mean ± SD	12.5 ± 3.1	12.2 ± 2.7	.19	11.5 ± 2.2	11.3 ± 2.5	.70
Instrumental social support, mean ± SD	8.1 ± 3.3	7.9 ± 2.9	.90	9.0 ± 2.8	7.8 ± 2.7	.02
Social interaction, mean ± SD	5.0 ± 2.3	5.4 ± 2.7	.24	5.6 ± 1.9	5.7 ± 2.2	.85
Depression treatment over the 2-year follow-up						
Adequate dose of antidepressant, n (%)	49 (44)	141 (52)	.31	17 (33)	65 (45)	.22
Use of psychotherapy, n (%)	21 (19)	82 (30)	.20	3 (6)	36 (25)	< .01

Prevention of Suicide in Primary Care Elderly: Collaborative Trial (data 1999-2004).

SD = standard deviation.

Table 2.

Comparison of African Americans and Whites Using Psychotherapy, Stratified According to Clinical Depression Status

Model	Odds Ratio (95% Confidence Interval)			
	Major Depression		Clinically Significant Minor Depression	
	African American (n = 112)	White (n = 273)	African American (n = 51)	White (n = 146)
Unadjusted	0.67 (0.36–1.24)	1.00	0.18 (0.05–0.61)	1.00
Adjusted	0.71 (0.37–1.37)	1.00	0.22 (0.06–0.80)	1.00

Adjusted models included terms for age, cognition, adequate antidepressant dose, and intervention condition.

Prevention of Suicide in Primary Care Elderly: Collaborative Trial data (1999–2004).

Table 3.

Comparison of African Americans and Whites Using Psychotherapy, Stratified According to Clinical Depression Status and Intervention Condition (Intervention or Usual Care Practice) and Adjusted for Baseline Characteristics

Patients	Odds Ratio (95% Confidence Interval)	
	Major Depression	Clinically Significant Minor Depression
African American		
Intervention practices	1.27 (0.44–3.65)	0.49 (0.09–2.62)
Usual care practices	0.79 (0.93–4.46)	0.15 (0.02–1.33)
White		
Intervention practices	2.0 (0.93–1.97)	1.71 (0.74–3.94)
Usual care practices (reference)	1.0	1.0

Prevention of Suicide in Primary Care Elderly: Collaborative Trial data (1999–2004).