Disparities in Depression Treatment for Latinos and Site of Care

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Objective: This study examined the impact of patient characteristics and source of care on differences between whites and Latinos in use and quality of depression treatment in managed primary care settings. Methods: Data were examined for 1,175 patients (398 Latinos and 777 whites) in 46 managed primary care practices who screened positive for probable depressive disorder. Patient baseline assessments were used to compile sociodemographic and clinical characteristics and to derive variables for receipt of any depression care and depression care that met minimum guidelines (antidepressant use or specialty counseling) in the past six months. Clinics were classified by the percentage of their patient population that consisted of Latinos to determine whether patients in highly Latino clinics reported lower rates of care. Predictors of use and quality of depression care were examined by using logistic regression. Results: Rates of receipt of any depression care and guideline-level depression care were low, and Latinos were less than half as likely as whites to receive such care, even after the analyses controlled for independent predictors (that is, younger age, higher educational level, current unemployment, more comorbid medical illness, and a diagnosis of a depressive or anxiety disorder). The likelihood of receiving any care or care that met guidelines did not significantly vary according to whether clinics served a low, moderate, or high percentage of Latinos. Conclusions: Disparities in depression care for Latinos were not attributable to sociodemographic and clinical characteristics, and they were not attributable to receiving care in clinics that served ethnically similar or dissimilar clientele. These findings suggest that other patient or provider factors may be responsible. (Psychiatric Services 56:1517–1523, 2005)

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The recent Supplement to the Report of the Surgeon General on Mental Health found that in the United States Latinos with mental disorders are much less likely than whites to use mental health care (1). Fewer than one in 11 Latinos with mental disorders seeks care from mental health care specialists, and fewer than one in five seeks care from general health care providers (2). These rates are even lower for immigrants with mental disorders, with one in 20 seeing a mental health specialist and one in ten seeing a general health care provider (3).

Although poor access through lack of insurance has been one explanation for low rates of care (4), evidence suggests that even among patients with insurance and a regular source of care, Latinos are still less likely than whites to be given a diagnosis of depression and to receive depression care (5,6). Latinos with depressive or anxiety disorders who have seen a health care provider in the previous year are less likely than whites with similar disorders to receive treatment concordant with evidence-based practice guidelines, regardless of insurance status (24 percent of Latinos compared with 34 percent of whites in a national survey) (6).

These disparities may be related to patient and clinic factors. Patient factors may include differences in sociodemographic characteristics (for example, education and income), clinical status (for example, depression severity and comorbid disorders), or attitudes (for example, problem recognition, illness beliefs, and social norms). The clinics that Latinos frequent may have fewer resources for programs that offer depression care or culturally relevant services (7–12).

We conducted a secondary analysis of baseline data from Partners in Care (PIC), a national quality improvement intervention for depression that was implemented in managed primary care settings (13,14). We sought to determine whether differences in use and quality of depression care continue to exist among depressed primary care patients by studying a sample of patients who were in managed care plans and had access to a regular source of care. We first examined the demographic and clinical characteristics of the patients and the characteristics of clinics that serve low, moderate, and high proportions of Latino clientele. We then examined whether potential disparities in depression care for Latinos in the sample were associated with these factors.

Methods

We used baseline data from PIC, a group-level randomized controlled trial described in detail elsewhere (13,14) and funded by the Agency for Healthcare Research and Quality (AHRQ). The study was approved by the institutional review boards of all participating institutions and RAND, and informed consent was obtained from all patients and clinicians.

Participants

Organizations, clinics, and providers. Six nonacademic managed care organizations were selected that were diverse in geography and organizational structure. Mexican Americans were oversampled. Participating organizations were located in Los Angeles; San Antonio; Twin Cities, Minnesota; San Luis Valley, Colorado; and Columbia, Maryland. These organizations included various types of practices—prepaid, staff model, mixed fee-for-service and prepaid, and network model—as well as rural, managed public health clinics. Among the 48 primary care practices within participating regions with at

least two clinicians, 46 participated (96 percent). Among the 183 providers within these clinics, 181 (99 percent) participated, 167 (92 percent) of whom completed a 20-minute, self-administered clinician background questionnaire.

Patients. Consecutive patient visitors were screened over a five- to seven-month period between June 1996 and March 1997. Patients were eligible for the study if they were aged 18 years or older, intended to use the clinic as their main source of care for the next year, and had cur-



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rent depressive symptoms according to a six-item screening instrument that included the four stem items for major depressive and dysthymic disorders from the 12-month Composite International Diagnostic Interview (CIDI), edition 2.1 (15). Also included were two parallel items, written in CIDI format, to assess the presence of depression in the past month. Persons with positive responses to both a 12-month and a 30-day item were scored as having a possible depressive disorder. Patients with an acute medical emer-

gency, who did not speak either English or Spanish, or who did not have insurance or a public-pay arrangement that covered the study intervention were excluded.

Among the 27,332 patients screened, 3,918 (14 percent) were potentially eligible for the study, but many of these patients left the clinic before completing the multistage enrollment process. Among the 2,417 patients who were asked to hear about the study and were present to confirm their insurance eligibility, 296 were not eligible for the study. Among the remaining patients, 1,356 (64 percent) were eventually enrolled; these analyses were restricted to the 398 Latinos (29 percent) and the 777 whites (57 percent) who identified themselves as such on one item asking them if they were Latino/Latina/Latin American/Hispanic; Asian; black/African American; Native American/American Indian/Indigenous People; Pacific Islander; or white. Although countries of origin were not assessed at baseline, among the 294 Latinos (74 percent) who completed the 18-month study assessment, 216 (73 percent) were Mexican or Mexican American, 21 (7 percent) were Caribbean, seven (2 percent) were Central American, five (2 percent) were South American, and the remaining 45 (15 percent) did not specify. A majority of Latino patients were from Southern California, Texas, and Colorado.

Enrolled patients completed the CIDI affective disorders section to determine depressive diagnoses. They also completed a telephone interview to determine the presence of comorbid anxiety disorders (as determined by the CIDI anxiety disorders section) as well as to gather data on income, wealth, and employment. Self-administered mail surveys were also obtained at baseline. Survey response rates were 95 percent for the telephone interview and 88 percent for the baseline survey. Data were weighted for both the probability of enrollment and survey response.

Measures

Use and quality of depression care. Information from the patient baseline surveys was used to construct

variables for any use of care and minimum quality care. Any use of care in the previous six months was defined as taking any antidepressant medication or having any counseling from a mental health specialist. Minimum quality care variables were derived by using AHRQ treatment guidelines (16,17). Effective dosage ranges for the newer antidepressants that were not included in the guidelines were developed. Minimum quality care in the previous six months was thus defined as receiving any antidepressant medication at a daily dosage concordant with guidelines (that is, at or above the minimum daily dosage) for at least 25 of the past 30 days or having at least four specialty mental health visits that used an active cognitive-behavioral component (for example, engaging in pleasant activities and solving problems).

Patient sociodemographic and clinical characteristics. Sociodemographic and clinical factors included gender; age; marital status; education; employment status; net worth, as calculated by summing the net value of the home and other assets (18): and number of chronic medical diseases. Acculturation was measured with a 12-item adaptation of a measure from the Hispanic Health and Nutrition Examination Survey (19); possible mean scores range from 1, low acculturation, to 5, high acculturation. Depressive symptom severity was measured with the Center for Epidemiologic Studies Depression Scale (20). The CIDI was used to determine depressive diagnoses. Patients were then classified into two groups: the first included patients with current major depression, dysthymia, or both, and the second included those with current depressive symptoms that did not meet diagnostic criteria. The presence of an anxiety disorder was defined as meeting CIDI criteria for panic disorder, agoraphobia, social phobia, or generalized anxiety disorder in the past year. Alcohol abuse was defined as having a score of 8 or higher on the Alcohol Use Disorders Identification Test (21), and drug use was determined by whether patients reported using any drug of abuse either on their own or not as prescribed by their doctor. Patients were not compensated for participating in the interview.

Provider characteristics. The clinician background questionnaire was used to measure age, gender, ethnicity, Spanish-speaking ability, specialty, board certification status, number of years in practice, mean number of clinic visits per week, mean number of minutes for both new and follow-up visits, depression knowledge (based on a 13-item battery that assessed knowledge of AHRQ guidelines), any participation in the past three years in continuing medical ed-

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ucation that dealt with depression, and the extent to which clinicians perceived that lack of access to mental health providers limited their treatment of depression (does not limit, limits somewhat, and limits a great deal).

Ethnicity of the clinic population. Information about ethnicity from the 27,332 patients who completed the initial screening process was used to characterize the 46 individual clinics according to the percentage of their population that was made up of Latino patients. The clinics ranged from less than 1 percent Latino to more than 96 percent Latino. At 13 clinics (28 percent) less than 10 percent of

patients were Latino, at 20 (43 percent) between 11 and 49 percent were Latino, and at 13 (28 percent) 50 percent or more were Latino.

Data analysis

We conducted patient-level analyses to compare the sociodemographic and clinical characteristics of Latino and white medical patients and their use of depression care, using chi square analyses and t tests to examine significant differences between the two groups. We also conducted analyses using chi square analyses and F test statistics, as appropriate, to compare clinician characteristics in clinics serving low, moderate, or high proportions of Latinos. Logistic regression models were used to examine patient-level predictors of receipt of any depression care or quality depression care, including ethnicity as the main independent variable as well as sociodemographic and clinical variables that differed between the two groups as covariates. A logistic regression model was also used to examine the relationship between the proportion of Latinos served by clinics and the likelihood that patients received any depression care or depression care that met guideline criteria. The model included ethnicity, the presence of a currently diagnosable depressive or anxiety disorder (to control for need), a continuous variable representing the percentage of Latinos in each clinic, and an interaction term of ethnicity by percentage of Latinos in each clinic. Cluster adjustments for within-class correlations at the provider and clinic levels were included in the analyses. To account for missing data, we imputed five data sets, averaged responses, and adjusted standard errors for uncertainty caused by imputation.

Results

characteristics and depression care
The sociodemographic and clinical
characteristics of the Latino and
white patient subgroups are presented in Table 1. Compared with whites,
Latinos were significantly younger,
had less formal education, were less
likely to be employed, and reported

Table 1Sociodemographic and clinical characteristics and use of depression care among Latino and white patients in managed care settings

	All (N=1,175)		Latino (N=398)		White (N=777)				
Variable	N	%	N	%	N	%	F	df	p
Sociodemographic characteristic									
Female	821	70	286	72	534	69	1.06	1, 42	.31
Currently working	731	62	221	56	511	66	7.2	1, 42	.01
Married	653	56	209	53	444	57	2.04	1, 42	.154
Education							41.73	3, 42	<.001
Less than high school	229	19	156	39	71	9			
High school	357	30	113	28	244	31			
Some college	353	30	106	27	247	32			
College	237	20	24	6	214	28			
Three or more chronic diseases	405	34	120	30	285	37	3.9	1, 42	.06
Net worth (in \$1,000; mean±SD)	124.4±387.7		55.5 ± 176.2		160.4 ± 447.5		29.56	1, 42	<.001
Age (mean±SD years)	43.9 ± 15.3		40.9 ± 13.7		45.5 ± 15.8		22.1	1, 42	<.001
Clinical characteristics									
Anxiety disorder	508	43	194	49	314	40	5.9	1, 42	.02
Possible alcohol use disorder	144	12	57	14	88	11	1.44	1, 42	.24
Drug use	311	26	88	22	224	29	3.76	1, 42	.06
Current depression diagnosis	668	57	211	53	458	59	3.24	1, 42	.08
CES-D (mean±SD score) ^a	43.1 ± 20.2		43.8 ± 20.9		42.7 ± 19.8		.60	1, 42	.44
Any use of care									
Ántidepressants or counseling	517	44	125	31	392	50	27.63	1, 42	<.001
Antidepressants	393	33	83	21	311	40	33.03	1, 42	<.001
Counseling	323	27	76	19	246	32	15.67	1, 42	<.001
Use of guideline care								,	
Antidepressants or counseling	352	30	74	19	278	36	28.12	1, 42	<.001
Antidepressants	273	23	46	12	227	29	35.73	1, 42	<.001
Counseling	200	17	47	12	153	20	8.98	1, 42	.004

^a As measured by the 23-item version of the Center for Epidemiologic Studies Depression Scale. Possible scores range from 0 to 69, with higher scores indicating greater depressive severity.

less household wealth. The mean±SD acculturation score for Latinos was 3.12±.97. Only 19 percent of the Latino patients chose to complete study assessments in Spanish. Clinically, Latinos were significantly more likely than whites to have comorbid anxiety disorders and less likely to have reported illicit use of drugs during the previous six months.

Although all patients were in managed care, Latinos were significantly less likely than whites to receive any depression care or depression care that met the guideline criteria. Within the past six months, only 31 percent of Latinos, compared with 50 percent of whites, had received any antidepressants or attended any specialty counseling. In terms of the quality of care, only 19 percent of Latinos had received the minimum level of antidepressant treatment or counseling, compared with 36 percent of whites.

Clinic characteristics

Table 2 describes the characteristics of providers in clinics with low, moderate, and high proportions of Latino patients. Among the three groups, significant differences were seen in the percentage of clinicians who spoke Spanish, were from a racial or ethnic minority group, or were board certified; significant differences were also seen in clinicians' age and mean number of visits per week. Differences in years in practice approached statistical significance.

Patient-level predictors of use and quality of care

Table 3 depicts the regression model used to examine predictors of differences in depression care between Latinos and whites. Even after the analyses controlled for sociodemographic and clinical differences, Latinos remained less than half as likely as whites to receive any depression

care or depression care that met the guideline criteria.

Clinic-level predictors of use and quality of care

As seen in Table 4, neither the percentage of Latinos in the clinics nor the interaction of this variable and Latino ethnicity were associated with differences in receiving any depression care or with the quality of depression care.

Discussion

In a national sample of depressed primary care patients, all of whom had insurance and a regular source of care, rates of any depression care and the quality of depression care were low. However, Latinos were significantly less likely than whites to report receiving any recent depression care (31 percent of Latinos compared with 50 percent of whites) or any depression care that met minimum treat-

Table 2Clinic and provider characteristics for primary care clinics with low, moderate, and high proportions of Latino patients

	Percentage								
	0 to 33 (N=63 providers)		34 to 66 (N=67 providers)		67 to 100 (N=37 providers)		Test		
Characteristics	N	%	N	%	N %		statistic	df	p
Female	23	37	22	33	14	38	$\chi^2 = .32$	2	.85
Nonwhite	7	11	21	31	24	65	$\chi^2 = 31.4$	2	<.001
Spanish speaking	3	5	17	25	20	54	$\chi^2 = 30.6$	2	<.001
Specialty							$\chi^2 = 6.5$	4	.17
Internist	15	24	28	42	14	38			
General practice	39	62	32	48	16	43			
Nonphysician	9	14	7	10	7	19			
Board certified	56	89	46	69	30	81	$\chi^2 = 8.1$	2	.02
Continuing medical education									
for depression ^a	42	67	50	75	20	54	$\chi^2 = 4.6$	2	.10
Perceived lack of mental health care access	b 8	13	12	18	9	24	$\chi^2 = 2.2$	2	.33
Age (mean±SD years)	43.2 ± 9.2		45.4 ± 9.7		40.1 ± 6.3		F=4.27	2, 164	.02
Years in practice (mean±SD)	12.0 ± 9.3		12.5 ± 11.2		8.1 ± 6.1		F=2.78	2, 163	.07
Number of visits per week (mean±SD)	87.4 ± 28.6		106.4 ± 37.1		90.2 ± 27.0		F=6.40	2, 164	.002
Number of minutes per new visit									
$(mean \pm SD)$	23.0 ± 8.3		23.6 ± 8.1		22.5 ± 8.5		F = .22	2, 164	.81
Number of minutes per follow-up visit									
$(mean \pm SD)$	15.2 ± 3.8		14.0 ± 2.9		14.0 ± 3.4		F=2.3	2, 164	.10
Depression knowledge (mean±SD									
percentage of questions correct) ^c	74.9 ± 17.7		71.5 ± 16.1		75.0 ± 15.3		F = .85	2, 164	.43

a Percentage of clinicians reporting participation in continuing medical education activities regarding depression in the past three years

ment guideline criteria (19 percent compared with 36 percent). Indeed, even when the analyses controlled for sociodemographic and clinical differences between Latino and white patients, Latinos continued to be less than half as likely as whites to report receiving any depression care or depression care that met guideline criteria. We found that rates of care did not vary according to the ethnic composition of the clinic patient population, despite some differences in clinician characteristics among clinics. Because treatment differences in our sample were not accounted for by access to care, sociodemographic characteristics, clinical characteristics, or source of care, other patientand provider-level factors may be driving low rates of depression care

Table 3

Logistic regression analysis of predictors of use of depression care by socioeconomic and clinical characteristic differences among Latino and white patients in managed care settings

	Any antidepressant or counseling use					Quality antidepressant or counseling use				
Variable	OR	95% CI	p	Group effect	OR	95% CI	р	Group effect		
Age	.98	.98–1.00	.046		.98	.98–1.00	.030			
Education				.073				.094		
Less than high school	1.00	_	_		1.00	_	_			
High school graduate	1.40	.91 - 2.17	.123		1.39	.87 - 2.25	.167			
Some college	1.37	.88 - 2.13	.159		1.30	.81-2.13	.277			
College	1.91	1.16 - 3.15	.011		1.92	1.12 - 3.29	.017			
Currently working	.71	.5299	.041		.78	.56-1.11	.170			
Net worth (in \$1,000)	1.00	1.00 - 1.00	.448		1.00	1.00 - 1.00	.427			
Three or more chronic diseases	1.50	1.08 - 2.11	.017		1.58	1.12 - 2.26	.010			
Anxiety disorder	2.53	1.91 - 3.36	0		2.48	1.85 - 3.34	<.001			
Drug use	1.22	.88 - 1.70	.237		1.15	.82 - 1.62	.417			
Latino	.45	.3266	0		.40	.2760	<.001			

b Percentage of clinicians reporting that their ability to treat depression is "limited a great deal" by lack of access to mental health care providers.

^c As measured by a 13-item battery that assessed knowledge of Agency for Healthcare Research and Quality guidelines. Scores represent the percentage of items answered correctly and range from 1 to 100 percent, with higher scores indicating greater depression knowledge.

Table 4Logistic regression analysis of predictors of depression care by proportion of Latino patients served by clinics

	Any dep	ression treatme	Any quality depression treatment			
Variable	OR	95% CI	p	OR	95% CI	p
Latino	.49	.26–.96	.037	.4	.19–.85	.017
Depressive or anxiety disorder	3.59	2.63-4.90	<.001	4.68	3.21 - 6.84	<.001
Proportion of Latino patients in the clinic	.99	.99-1.01	.634	.99	.98-1.01	.414
Interaction of the proportion of Latino patients in						
the clinic and Latino ethnicity	.99	.98–1.01	.865	1	.99–1.02	.825

among Latinos. Because of the lack of depression treatment experienced by Latinos, they may have less knowledge and different attitudes about depression care. In some Latino primary care samples, patient-level barriers have included lack of recognition of depression as an illness requiring medical care, not knowing where to go for care, and misconceptions about antidepressants (Lagomasino IT, Dwight-Johnson M, Aisenberg E, et al, unpublished data, 2005). Patients with less knowledge about depression are less likely to want active depression treatment (22). Furthermore, low rates of care in Latino communities may result in greater stigma associated with mental health care and few opportunities to find support and encouragement for entering depression treatment (Lagomasino IT, Dwight-Johnson M, Aisenberg E, et al, unpublished data, 2005).

Poor provider-patient communication may also result in lower rates of care among Latinos. Providers may have difficulty recognizing and diagnosing depression among Latinos because of differences in language, culture, or symptom expression. Furthermore, patient participation in care may be diminished by cultural values of respeto (exceptional respect for authority figures) and familismo (heightened importance and centrality of family) (23-25), which may prevent patients from being assertive with medical professionals and from making individual treatment decisions without family consultation. Unfortunately, provider discrimination cannot be excluded as a factor in low rates of care among Latinos. However, we did not find that Latino patients in clinics that served mostly Latino clientele had higher rates of depression care, despite the fact that providers in these clinics were more likely to speak Spanish.

Our study findings imply that improving current disparities in depression care will likely require addressing patient- and provider-level barriers in a variety of settings. Interventions may include culturally appropriate patient education and efforts to help affect knowledge, attitudes, and social norms and to empower patients as active participants in their care. Including families in education and decision making may also improve entry into and retention in care. Providers may need further training in diagnosing depression among Latino patients and providing culturally appropriate depression care for them.

Several limitations to this study should be noted. Sample loss during enrollment may have affected results. All measures, including use of depression treatments, were self-reported, although recent work supports the superiority of similar assessments of antidepressant use over studies based on pharmacy data (26). There has also been some concern about Latinos having a higher false-positive rate for depression on the CIDI, which would bias our findings toward less adequate care for Latinos (27). However, the CIDI was designed for use in cross-cultural studies, and in this sample, whites and Latinos did not significantly differ on depressive symptom severity as measured by the Center for Epidemiologic Studies Depression Scale. Our clinic-level variable of percentage of Latinos served in each clinic was meant to be representative of resource differences among

clinics, but specific measures of organization and resources were not explicitly used in regression models. However, our analysis of clinic- and provider-level characteristics did not reveal consistent differences among clinics that might affect quality of care. This lack of significant differences among clinics suggests that further subanalyses that used more detailed clinic characteristics would not have been fruitful. A similar variable has been used to examine the impact of community ethnic composition on perceived access to health care, which has shown that Latinos and blacks reported greater access to health care services when residing in counties with more than 40 percent of residents with similar ethnic background (28).

We included sociodemographic and clinical factors in our analyses that are commonly believed to account for health care disparities. These factors were not found to account for differences in care between Latinos and whites in this sample; the precise characteristics that account for the differences were not measured and can only be speculated about. Although we were examining disparities in a managed care sample, it is important to note that low rates of insurance among Latinos in the general population may result in their greater use of resourcepoor public-sector systems. These clinics may not be able to deliver the same level of care as managed care clinics, producing even greater disparities in care between Latinos and whites. Our sample was predominantly Mexican American and was moderately to well acculturated; thus findings may not be generalizable to all Latino primary care populations.

Conclusions

Despite these limitations, the results of this study suggest that disparities in depression care between Latinos and whites exist, even among insured patients with a regular source of primary care and even when the analyses controlled for sociodemographic and clinical characteristics. These differences were not attributable to the ethnic composition of clinic clientele. Further research is needed to identify patient and provider factors that may contribute to poor rates of depression care in order to address current disparities. \blacklozenge

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