Are Latinos Less Satisfied with Communication by Health Care Providers?

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OBJECTIVE: **To examine associations of patient ratings of communication by health care providers with patient language (English vs Spanish) and ethnicity (Latino vs white).**

METHODS: **A random sample of patients receiving medical care from a physician group association concentrated on the West Coast was studied. A total of 7,093 English and Spanish language questionnaires were returned for an overall response rate of 59%. Five questions asking patients to rate communication by their health care providers were examined in this study. All five questions were administered with a 7-point response scale.**

MAIN RESULTS: **We estimated the associations of satisfaction ratings with language (English vs Spanish) and ethnicity (white vs Latino) using ordinal logistic models, controlling for age and gender. Latinos responding in Spanish (Latino/Spanish) were significantly more dissatisfied compared with Latinos responding in English (Latino/English) and non-Latino whites responding in English (white) when asked about: (1) the medical staff listened to what they say (29% vs 17% vs 13% rated this "*very poor,*" "*poor,*" or "*fair*"; $p < .01$); (2) answers to their questions (27% vs 16% vs 12%; $p < .01$); (3) explanations about prescribed medications (22% vs 19% vs 14%; $p < .01$); (4) explanations about medical procedures and test results (36% vs 21% vs 17%; $p < .01$); and (5) reassurance and support from their doctors and the office staff (37% vs 23% vs 18%; $p < .01$).**

CONCLUSION: **This study documents that Latino/Spanish respondents are significantly more dissatisfied with provider communication than Latino/English and white respondents. These results suggest Spanish-speaking Latinos may be at increased risk of lower quality of care and poor health outcomes. Efforts to improve the quality of communication with Spanish-speaking Latino patients in outpatient health care settings are needed.**

KEY WORDS: **Hispanic; Latino, satisfaction, communication; quality of care.**
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Although many studies have documented barriers to health care faced by Latinos,[1–5] relatively few studies have examined satisfaction with care in this population once they have access to the health care system. Assessing satisfaction with care among Latinos is important because Latino patients have unique cultural and linguistic needs that are frequently not well served by the current health care system, which is oriented to serving patients belonging to the dominant culture.[6–9] Moreover, this relative scarcity of research on satisfaction with care among Latinos exists at a time when the Latino population is growing rapidly, particularly in states such as California, where Latinos already account for nearly a third of the resident population (Los Angeles Times. Dec 7, 1997: B1).

The research on satisfaction with care among Latinos that does exist tends to run in two general veins: comparisons of satisfaction between Latino and non-Latino patients, and comparisons between Spanish-speaking and English-speaking patients. The results of research comparing satisfaction with care among Latinos and non-Latinos are mixed. On the one hand, in one of the first large studies of health care use by Latinos, Andersen and colleagues found that Latinos were more dissatisfied with appointment waiting time, information provided by their physician, and time spent with their physician than the general population.[1] On the other hand, a more recent meta-analysis of patient sociodemographic characteristics and satisfaction concluded that there was no overall association between ethnicity and satisfaction with care, while greater age and less education were positively associated with satisfaction.[10] Similarly, a study of satisfaction with care among clinic outpatients failed to find an association between race (including Latino) and patient satisfaction with provider communication or courtesy of the office staff.[11]

The results of research comparing satisfaction with care among Spanish-speaking and English-speaking patients are clearer; Spanish-speaking patients tend to be more dissatisfied with care than English-speaking patients. In a study of interpreter use in emergency rooms, Baker showed that monolingual Spanish-speaking patients were more dissatisfied with communication than English-speaking patients, even with the use of interpreters.[12] Hu and Covell found that outpatients whose primary language was English were more satisfied with their care in general than were patients whose primary language was Spanish,[13] and Harpole and colleagues found that Spanish-speaking patients were less satisfied with office staff courtesy, but were not less satisfied with communication with providers or timeliness of care.[11] Other patient characteristics found to be associated with greater dissatisfaction with care include being unmarried, poorer health status, and younger age.[4,10,14–17]

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In this study, we investigate the association of patient ratings of communication by providers with ethnicity (Latino vs white) and language (Spanish vs English). In order to isolate the effects of language and ethnicity on satisfaction with communication, we have included three comparison groups: non-Latino whites responding in English (whites); Latinos responding in Spanish (Latino/Spanish); and Latinos responding in English (Latino/English). At the outset of this study, we hypothesized that Latino/Spanish respondents would express the most dissatisfaction with communication because they were most likely to face language and cultural barriers to communication; followed by Latino/English respondents, who may face cultural but not language communication barriers; followed by whites, who are least likely to face either language or cultural barriers to communication.

METHODS

This analysis was based on survey data obtained from randomly selected patients receiving medical care from an independent association of physician groups located primarily in the western United States. The survey was designed to ask individuals about their health status, satisfaction with care, and use of health services during the past 12 months. At the time of the study, approximately two thirds of the association's member medical groups were located in California. Of the 48 medical groups in the association participating in the study, 32 groups were located in Southern California, 10 groups were located in Northern California, and 21 groups were located in other states (Washington, Oregon, Texas, Arizona, and New Jersey).

Patients at least 18 years of age and with a minimum of one provider visit during the 365 days prior to the study were considered eligible for the survey. Each selected patient was mailed both Spanish and English language versions of the 12-page opscan questionnaire and cover letter along with a $2 cash payment and a return envelope. One week later, each individual was mailed a reminder/thank you postcard. Two weeks later, nonrespondents were mailed a second packet of materials and a reminder telephone call was attempted. Each nonrespondent was called back a maximum of six times. A total of 18,480 surveys were mailed out, and 7,093 were returned for an overall response rate of 59% when adjusted for undeliverable surveys, ineligible respondents, and deceased. Response rates across medical groups ranged from 46% to 73% and were not significantly associated with ratings of health care.[18]

A detailed description of the survey, including its psychometric properties, is reported elsewhere.[18] Briefly, the Spanish language version of the survey was created through a process of independent forward translation (English to Spanish) and back translation (Spanish to English) followed by reconciliation. The questionnaire included 153 items assessing the following: (1) intention to switch to another physician group; (2) intention to switch to another health plan; (3) ratings of care including ratings of communication with health care providers; (4) reports about care; (5) utilization of care; (6) health status; and (7) a chronic condition inventory. The survey took approximately 27 minutes to complete. Overall, the health care rating questions showed excellent construct validity as measured by product-moment correlations between ratings of care and intentions to switch physician groups, continuity of care and reports about care. The field period began October of 1994 and ended in June of 1995.

Dependent Variables

To assess satisfaction with provider communication, respondents were asked to rate five facets of provider communication: (1) medical staff listening to what you have to say (el personal médico presentando atención a lo que usted dice); (2) answers to your questions (las respuestas a sus preguntas); (3) explanations about prescribed medications (las explicacions sobre las medicinas que le recetan); (4) explanations about medical tests and procedures (las explicaciones de los procedimientos medicos y los resultados de los análisis); and (5) reassurance and support from your doctor and support staff (la tranquilidad y apoyo que le ofrecen los médicos y el personal). Each question was administered using a 7-point response scale (*very poor, poor, fair, good, very good, excellent, and the best*) (*muy malo, malo, más o menos, bueno, muy bueno, excelente/buenisimo, and lo mejor*) along with the option *does not apply to me* (*no se refiere a mí*).

Independent Variables

Based on a review of the literature, three types of potential confounding variables were considered: demographic, socioeconomic including health insurance status, and health status. The following demographic variables were included in this analysis: gender (male, female) and age (60 years or less, over 60 years). The following socioeconomic variables were included in this analysis: education (less than high school, high school, and more than high school), household income ($20,000 or less annual household income, more than $20,000), household size (two or less persons, more than two persons), and insurance status (private, Medicare, Medicaid, other, or uninsured). Health status measures included in this analysis were a physical health composite score, a mental health composite score, and a checklist of comorbid conditions. The physical and mental health composite scores were derived from the RAND 36-Item Health Survey.[19] The checklist of comorbid conditions inquired about presence of 26 different medical conditions, including prostate conditions for men and abnormal vaginal bleeding for women (see Appendix A).

Because respondents were allowed to identify more than one source of insurance coverage, we derived a single

hierarchical variable that reflects a rank ordering of reported coverage. Persons were classified as having private insurance if they reported HMO, independent practice association, preferred provider organization, or fee-for-service insurance. Persons who did not report private insurance but did report Medicaid coverage were classified as covered by Medicaid insurance (e.g., this included persons reporting Medicaid and Medicare coverage). Persons who did not report private or Medicaid coverage but did report Medicare coverage were classified as covered by Medicare. Persons who had none of these types of insurance coverage but did report "other" insurance were classified as having other insurance. Finally, those who did not report coverage from any source were classified as uninsured.

A Spanish language response variable (SLVR) was also used in this analysis. This variable controlled for potential differences in response patterns between Spanish and English language respondents attributable to linguistic and cultural differences in use of the response scale. Research has shown a potential problem with Spanish translated Likert-type response scales.[20–22] The SLRV survey item asked about satisfaction with parking (How do you rate arrangements for parking?) using the same 7-point response scale used for the dependent variables. Assuming similar parking opportunities for Spanish and English language respondents, adding the SLRV to multivariate models of satisfaction with communication should statistically control for differences in ratings between Spanish and English language respondents attributable to linguistic and cultural differences in using the response scale alone.

Analysis Plan

Survey respondents included in this analysis were Latino/Spanish respondents, Latino/English respondents, and white respondents. Other respondents, including African Americans or blacks, Asians or Pacific Islanders, Native Americans or American Indians, and those reporting their race/ethnicity as "other," were dropped from the analysis. Of the total number of survey respondents (n = 7,093), 88% were retained for this analysis (n = 6,211).

Differences in demographic, socioeconomic, and health status characteristics among Latino/Spanish respondents, Latino/English respondents, and white respondents were examined using bivariate statistics. For categorical and continuous variables, χ^2 and analysis of variance (ANOVA) were used, respectively.

The five communication ratings questions were analyzed in two steps. First, a communication summary score was constructed by averaging together the five provider communication ratings questions. Then the score was normalized to a mean of 50 and SD of 10 (T-score). T-scores were used rather than raw scores in order to ease interpretation (e.g., a score of 40 is 1 SD below the overall sample mean). Associations between this score and each independent variable were examined using ANOVA and ordinal logistic model regression. For these analyses, the satisfaction score was assumed to have interval scale properties.

Second, each satisfaction-with-communication question was independently modeled using multivariate ordinal logistic regression. Because subjects belonged to 1 of 48 medical groups, standard errors were adjusted (using a Huber correction) for potential intracluster variability. In total, we estimated three models for each satisfaction-with-communication question. In the first regression (model 1), we controlled for age and gender. In the second regression (model 2), we controlled for age, gender, and the SLRV. In the third regression (model 3), we controlled for age, gender, income, household size, education, insurance status, health status, and the SLRV.

The total number of response categories were reduced from seven (*very poor, poor, fair, good, very good, excellent, and the best*) to five (*very poor/poor, fair, good, very good, and excellent/the best*) in order to satisfy the parallel slope assumption of the ordinal logistic model. Satisfaction of this assumption was tested using the χ^2 score test in the SAS Logistic Procedure (SAS/STAT User's Guide, version 6, vol. 2, 4th ed., SAD Institute Inc., Cary, NC, 1989). All other statistical analysis presented in this study were conducted using STATA, version 5 (Stata Corp., College Station, Tex, 1989). In accordance with the recommendations of DuMoucel and Duncan,[23] sampling weights are not used in the regression models.

RESULTS

Those returning the questionnaire had a mean age of 51 years (median, 49 years) compared with the mean age of the sampling frame, which was 46 years (median, 43 years). Sixty-five percent of the respondents were women, whereas only 58% in the sampling frame were women. The last medical visit for the study participants was, on average, 119 days (median, 88 days) before the beginning of the study. For those in the sampling frame, the average was 130 days (median, 112 days). Four percent of the respondents and 3% of the sampling frame had hypertension as the last diagnosis recorded (according to the *International Classification of Diseases, Ninth Revision*, code).[18]

Sample Characteristics

Latino/Spanish respondents compared with Latino/English respondents and whites reported lower educational attainment (less than high school, 59% vs 21% vs 8%), lower annual income ($20,000 or less, 69% vs 24% vs 21%), larger family size (two or more persons, 87% vs 68% vs 43%), younger age (years, 40.2 vs 42.2 vs 51.9), fewer mean number of comorbid conditions (2 vs 3 vs 3), and were more likely to be married (90% vs 74% vs 74%) (Table 1). The proportion of female respondents was smaller among Latino/Spanish respondents (56%) than among

Table 1. Sample Characteristics by Ethnic Background and Interview Language

Variable	Latino/Spanish (n = 181)	Latino/English (n = 532)	White/English (n = 5,498)	p Value*
Age (mean), years	40	42	52	<.01
Female, %	56	65	65	.04
Education, %				
Less than high school	59	21	8	<.01
High school	20	24	23	
More than high school	21	55	69	
Annual income $20,000 or less, %	69	24	21	<.01
Married, %	90	74	74	<.01
Household size of 2+ persons, %	87	68	43	<.01
Insurance status, %				
Private	64	84	88	<.01
Medicaid	3	2	1	
Medicare	8	4	6	
Other	18	9	5	
None	7	2	1	
Health status (mean)				
Physical health index	50	51	50	.01
Mental health index	50	49	50	.20
Number of comorbid conditions	2	3	3	<.01

**Statistical significance was determined with χ^2 (categorical variables) or analysis of variance (continuous variables) depending on the variable.*

Latino/English respondents (65%) and whites (65%). Private health insurance was most commonly reported by whites (88%), followed by Latino/English respondents (84%) and Latino/Spanish respondents (64%). Having no insurance was most commonly reported by Latino/Spanish respondents (7%), followed by Latino/English respondents (2%) and whites (1%). There was no meaningful difference between Latino/Spanish respondents, Latino/English respondents, and whites with respect to the physical health index (50 vs 51 vs 50) or the mental health index (50 vs 49 vs 50). However, Latino/Spanish respondents did report a lower average number of health conditions compared with Latino/English respondents and whites (1.9 vs 2.5 vs 3.1).

Satisfaction with Communication

Overall, Latinos reported greater average dissatisfaction with communication than whites (Table 2). Latino/Spanish respondents rated provider communication 5.4 points lower than whites (more than 0.5 SD below the overall mean), while Latino/English respondents rated provider communication 1.7 points lower than whites. A difference of 2.5 points separated the average satisfaction ratings of older patients (60+ years) and younger patients (<60 years). Other differences in average satisfaction ratings by respondent characteristics included (1) a 0.4 point difference between males and females; (2) a 0.4 point difference between married and not married; (3) a 0.2 point difference between education groups; (4) a 0.2 point difference between income groups; and (5) a 4.2 point difference between Medicare and uninsured respondents. In an ordinal logistic model regression controlling for age, gender, physical and mental health, education, income, SLRV, insurance status, and language/ethnicity, we found significant positive associations between the communication summary score and age ($p < .01$), physical health ($p < .01$), mental health ($p < .01$), other insurance ($p < .01$), and Latino/Spanish respondents ($p < .01$).

Ordinal logistic models of individual satisfaction with communication questions also showed significant differences in ratings between Latino and white respondents (Table 3). Table 3 only displays adjusted proportions using model 1 (adjusting for age and gender) because all models produced nearly identical results. To the question, "How would you rate medical staff listening to what you have to say?" 28.8% of Latino/Spanish respondents answered *very poor/poor* or *fair* compared with 17.2% of Latino/English respondents and 13.4% of whites. To the question, "How would you rate answers to your questions?" 26.6% of Latino/Spanish respondents answered *very poor/poor or fair* compared with 16.0% of Latino/English respondents and 12.4% of whites. To the question, "How would you rate explanations about prescribed medications?" 30.5% of Latino/Spanish respondents answered *very poor/poor* or *fair* compared with 18.6% of Latino/English respondents and 14.0% of whites. To the question, "How would you rate explanations about medical tests and procedures?" 36.0% of Latino/Spanish respondents answered *very poor/poor* or *fair* compared with 21.2% of Latino/English respondents and 17.3% of whites. Finally, to the question, "How would you rate reassurance and support from your doctor and the office staff?" 28.8% of Latino/Spanish respondents answered *very poor/poor* or *fair* compared with 17.3% of Latino/English respondents and 13.4% of whites.

Table 2. Average Satisfaction Scores by Respondent Characteristics

Characteristic	Summary Satisfaction Score*	*p* Value†
Age, years		
Less than 60	49.1	<.01
60 or Older	51.6	
Gender		
Male	49.9	.16
Female	50.3	
Marital status		
Married	50.3	.29
Other	49.9	
Education		
Less than high school	49.6	.58
High school	50.0	
More than high school	50.1	
Income		
$20,000 or less	50.2	.42
More than $20,000	50.0	
Insurance status		
Private	49.9	.02
Medicaid	49.3	
Medicare	51.6	
Other	50.5	
None	47.4	
Ethnicity/interview language		
Latino/Spanish	44.9	<.01
Latino/English	48.6	
White/English	50.3	

**Overall satisfaction scores based on equally weighted average of the five satisfaction with communication questons normalized to a mean of 50 and SD of 10 (T-scores). Higher scores indicate greater patient satisfaction.*
†Statistical significance was determined with analysis of variance.

Controlling for covariates had minimal effects on the distribution of patient rating scores (Table 4). Table 4 shows the unadjusted and adjusted (models 1–3) distribution of responses to the question, "How would you rate medical staff listening to what you say?" Reading across Table 4 shows the distribution of responses by model within ethnic/language group. For example, the proportion of Latino/Spanish respondents answering *very poor/poor* or *fair* ranged from 27.7% (unadjusted responses) to 31.8% (model 3). Among whites, the proportion of respondents answering *very poor/poor* or *fair* ranged from 13.4% (unadjusted responses) to 13.7% (model 3). This demonstrates that the effect of alternative model specifications on the distribution of rating scores was minimal. Table 4 only presents this analysis for the question, "How would you rate medical staff listening to what you say?" The identical analyses of the four other communication ratings questions yielded similar results and thus are not shown here.

DISCUSSION

This study evaluated satisfaction with provider communication among a sample of Latino and non-Latino patients responding to a patient satisfaction survey in Spanish and English. The Latino/Spanish respondents were significantly more dissatisfied with provider communication than the Latino/English and white respondents. These disparities were not accounted for in multivariate regression models controlling for confounding variables such as age, gender, education, or insurance status. We also show that Latino/English respondents were somewhat more dissatisfied with provider communication than whites, though this finding did not reach statistical significance.

Comparisons of satisfaction ratings by a number of demographic characteristics have been reported in the literature.[12,24] These include age, gender, and insurance status. In contrast to these same comparisons made in our study sample, the disparities in provider communication ratings by ethnicity/interview language are substantial. For example, the disparity between Latino/Spanish and white respondents is 5.4 points (Table 2) compared with 2.5 points by age, 0.4 points by gender, 2.5 points by insurance status, and 0.2 points by annual income.

We also found a small difference of 1.7 points in satisfaction ratings between Latino/English and white respondents, which was greater than disparities we detected by gender (0.4 points), marital status (0.4 points), and education (0.2 points). The difference in provider communication ratings between Latino/English and white respondents

Table 3. Patient Ratings of Communication by Health Care Providers

How Do You Rate . . .	Adjusted Proportions*					p Value
	Very Poor/Poor	Fair	Good	Very Good	Excellent/The Best	
Medical staff listening to what you have to say						
Latino/Spanish	9.1	19.7	28.3	22.5	20.4	<.01†
Latino/English	4.9	12.3	23.3	26.0	33.5	.12‡
White/English (reference group)	3.7	9.7	20.3	26.0	40.3	
Omnibus test						<.01§
English-Spanish Latino equivalence test						<.01¶
Answers to your questions						
Latino/Spanish	6.7	19.9	30.2	23.2	20.0	<.01
Latino/English	3.6	12.4	24.9	26.8	32.3	.03
White/English (reference group)	2.7	9.7	21.6	27.0	39.0	
Omnibus test						<.01
English-Spanish Latino equivalence test						<.01
Explanations about prescribed medications						
Latino/Spanish	10.3	20.2	29.6	20.2	19.7	<.01
Latino/English	5.6	13.0	25.3	24.0	32.1	.02
White/English (reference group)	4.1	9.9	21.8	24.3	39.9	
Omnibus test						<.01
English-Spanish Latino equivalence test						<.01
Explanations about medical tests and procedures						
Latino/Spanish	12.9	23.1	30.3	18.3	15.4	<.01
Latino/English	6.6	14.6	27.2	23.9	27.6	.13
White/English (reference group)	5.2	12.1	24.9	24.8	33.0	
Omnibus test						<.01
English-Spanish Latino equivalence test						<.01
Reassurance and support from your Doctor and support staff						
Latino/Spanish	12.0	25.0	30.3	17.6	15.1	<.01
Latino/English	6.5	16.5	28.0	22.8	26.2	.05
White/English (reference group)	4.8	13.0	25.1	24.1	33.2	
Omnibus test						<.01
English-Spanish Latino equivalence test						<.01

**Results from ordinal logistic model controlling for age, and gender (model 1). Standard errors adjusted for medical group membership.*
†p *Value for Spanish/Latino coefficient (reference white/English).*
‡p *Value for English/Latino coefficient (reference white/English).*
§p *Value for adjusted Wald test of Spanish/Latino coefficient=0 and English/Latino coefficient=0 (omnibus test).*
¶p *Value for adjusted Wald test of Spanish/Latino coefficient = English/Latino coefficient.*

may reflect more subtle and less easily measured, but no less salient, barriers to patient-physician communication. For example, greater differences in social class between physicians and their Latino/English patients than between physicians and their white patients may account for this finding.

If the disparities in satisfaction ratings between Latino and white patients reflect actual differences in quality of provider communication, then Latino patients, particularly Spanish-speaking Latino patients, are at increased risk of poor quality of care and poor treatment outcomes. Research shows that Latino patients are at risk of low quality of care compared with non-Latino whites[25] and of poorer treatment outcomes when there is not language concordance between the patient and provider.[26] Unsatisfactory communication between Spanish-speaking patients and their providers may result in lower quality of care and poorer treatment outcomes in a variety of ways. Poor communication between a physician and patient, as indicated by dissatisfaction with provider listening and answering of questions, may result in excessive ordering of medical tests as a provider attempts to establish a diagnosis in the absence of an adequate patient history. Spanish-speaking patients receiving unsatisfactory explanations about taking their prescribed medications may inadvertently take them inappropriately, resulting in less than optimal outcomes including medication toxicities, regardless of whether or not the prescriptions were technically appropriate. Greater dissatisfaction with care among Latino patients may also result in increased plan disenrollment, doctor shopping, and inappropriate follow-up.[27,28]

Because optimal treatment outcomes depend on satisfactory communication between patients and physicians about medical test results, medications, and treatment

Table 4. Unadjusted and Adjusted Ratings for Question, "How Would You Rate Medical Staff Listening to What You Have to Say?"

Language/Ethnic Response Group	Unadjusted Proportions*	Adjusted Proportions		
		Model 1†	Model 2‡	Model 3§
Latinos/Spanish				
Very poor/poor	8.7	9.1	9.1	11.0
Fair	19.0	19.7	18.9	20.8
Good	28.1	28.3	27.8	27.1
Very good	22.9	22.5	23.4	23.0
Excellent	21.3	20.4	20.8	18.1
Latinos/English				
Very poor/poor	4.9	4.9	5.1	5.1
Fair	12.1	12.3	12.1	12.3
Good	23.2	23.3	22.5	21.5
Very good	26.1	26.0	26.0	26.7
Excellent	33.8	33.5	34.3	34.4
Whites				
Very poor/poor	3.7	3.7	3.8	3.8
Fair	9.7	9.7	9.7	9.9
Good	20.3	20.3	20.0	19.1
Very good	26.1	26.0	26.0	26.5
Excellent	40.2	40.3	40.5	40.7
Tests of statistical significance (*p* value)				
Latino/Spanish coefficient (white reference)	<.01	<.01	<.01	<.01
Latino/English coefficient (white reference)	<.01	.12	.88	.88
Omnibus test (adjusted Wald test of Latino/Spanish coefficient = 0 and Latino/English coefficient = 0)	<.01	<.01	<.01	<.01
English-Spanish Latino equivalence test (adjusted Wald test of Latino/Spanish coefficient = Latino/English coefficient)	<.01	<.01	<.01	<.01

**Unadjusted ordinal logistic model. Standard errors adjusted for medical group membership.*

†Ordinal logistic model controlling for age and gender (model 1).

‡Ordinal logistic model controlling for age, gender, and Spanish language response variable (SLRV) (model 2).

§Ordinal logistic model controlling for age, gender, number of comorbid conditions, education, income, household size, insurance status and SLRV (model 3).

options, special attention should be given to improving communication with Spanish-speaking patients. Various strategies for improving communication with Spanish-speaking patients have been described in the literature.[12,29,30] Among these, increased access to and use of professional interpreters is frequently mentioned. Professional interpreters can significantly improve satisfaction with care among Spanish-speaking patients.[12] Moreover, use of professional interpreters improves Spanish-speaking patients' understanding of their disease.[12] Bilingual doctors who have adequate fluency in Spanish can also improve Spanish-speaking patients' understanding of their diseases and satisfaction with care.[12] Bilingual doctors have also been shown to improve outcomes among Spanish-speaking patients with hypertension and diabetes.[26] Other strategies to improve the quality of care for linguistic and ethnic minority patients include teaching medical Spanish to health care providers, educating health care providers about the health beliefs and practices of their patients,[8] and developing clinical practice guidelines that ensure cultural competence.[9]

Findings from this study should be interpreted with caution for several reasons. First, those who participated in the study were similar, but not identical, to those in the sampling frame.[18] Moreover, because language preference and race/ethnicity were self-reported and not available through administrative records, we were unable to calculate response rates specific to language or race/ethnicity. Had we been able to adjust for Spanish language non-response, however, it is likely we would have found even greater disparities in provider communication ratings between English and Spanish language respondents because Spanish-speaking patients, who are probably faced with the greatest communication barriers (including lower literacy), would be least likely to respond to the survey. Second, our satisfaction rating scale (*very poor, poor, fair, good, very good, excellent, and the best*) might have been interpreted differently by Spanish and English language survey respondents. Other reports in the literature suggest that Spanish language respondents tend to score lower on some rating scales (e.g., *poor to excellent*) than English language respondents;[20,21] thus, the direction of a

language response bias, if present, would inflate disparities between Spanish and English language respondents. Analytically, we account for a potential language response bias by including the SLRV in our analysis. Adding the SLRV does not significantly change the results of our study, so the satisfaction disparities we have identified are unlikely to be entirely attributable to a differential interpretation of the rating scale. Finally, this survey was conducted in the western United States where Mexican Americans are the predominant Spanish-speaking ethnic group. Thus, the results of this study may not generalize to other U.S. Spanish-speaking ethnic groups such as Puerto Ricans or Cubans.

Our results suggest that health plans and other large providers of medical care to Latino patients should monitor patient dissatisfaction with provider communication and examine its association with treatment outcomes. Satisfaction-with-care tools may be used to monitor treatment outcomes within and among health plans and aid Latino patients in choosing among multiple providers of care. When appropriately constructed, administered, and reported, these tools may help to focus provider attention on specific aspects of patient-provider communication such as explanations about medications, treatment side effects, giving consent, or advance directives.

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APPENDIX A

Checklist of Medical Conditions

Hypertension	Cancer
Myocardial infarct	Migraines
Congestive heart failure	Cataracts
Stomach trouble	Deafness or trouble hearing
Limitation in use of leg or arm	Blurred vision
Diabetes	Glaucoma
Angina	Macular degeneration
Chronic lung disease	Liver trouble
Chronic allergies	Epilepsy
Seasonal allergies	Sciatica or chronic back problems
Arthritis	Trouble seeing
Kidney problems	Thyroid problems
Dermatitis/other chronic skin rash	Males only: prostate problems
	Females only: abnormal vaginal bleeding

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ANNOUNCEMENT

SGIM Website

Please visit the Society of General Internal Medicine on their World-Wide Website. SGIM is located at

http://www.sgim.org