

Disparities in Patient Satisfaction Among Hispanics: The Role of Language Preference

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Abstract Hispanic and Spanish-speaking patients experience lower satisfaction with their health care when compared to whites and English speakers. We attempt to clarify the relationship between language preference and patient satisfaction in Hispanics. Study participants were Hispanic patients recruited from two clinics that serve an exclusively Hispanic population. We compared baseline levels of patient satisfaction among English-speaking, Spanish-speaking, and bilingual participants. Multivariate linear regression was used to model the effect of language preference on patient satisfaction. Baseline comparisons revealed that bilingual patients experienced higher satisfaction with doctor–patient communication and the office staff than Spanish-speaking patients. Multivariate analysis demonstrated that language preference was not significantly associated with patient satisfaction. Patient language preference was not a consistent predictor of satisfaction in this cohort of Hispanic patients receiving linguistically competent primary care. The analysis of local data in this study provides a crude adjustment for healthcare quality that is missing from previous research.

Keywords Patient satisfaction · Health disparities · Hispanic · CAHPS · Language preference

Introduction

Patient satisfaction is an important outcome of healthcare experiences. Unfortunately, equal levels of satisfaction are not enjoyed by all patients in the United States health care system. Many studies document lower levels of satisfaction among Hispanics, when compared to other racial and ethnic groups [1–4]. Other research has focused on language rather than race/ethnicity, establishing that Spanish-speaking patients are less likely to report satisfaction with their health care encounters than English speakers [5–7]. Few studies have directly examined language preference within a racial or ethnic group, thus disentangling the two highly related variables [8, 9].

Background

Much of the research documenting disparities in satisfaction among Hispanic and Spanish-speaking patients has used state-level or health-plan data. As a result, none of these studies could assess the actual quality of care that subjects receive—a critical variable in understanding the effect of ethnicity and language preference on patient satisfaction. Our cohort—recruited from two similar health centers that employ only bilingual staff and serve an exclusively Hispanic population—offers a unique opportunity to do so. Since all participants in our study received linguistically competent services, variation in patient satisfaction related to language is less likely to result from large differences in health care quality.

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This study seeks to clarify the effect of language preference on satisfaction among Hispanic patients. Specifically, we attempt to answer the following two research questions: (1) Are there significant baseline differences in satisfaction among English, Spanish, and bilingual Hispanics receiving linguistically appropriate primary care? 2) What are the predictors of satisfaction in this cohort of Hispanic patients? Because of the linguistically competent care provided at these two sites, we hypothesized that satisfaction would not differ by language preference and that language preference would not significantly predict higher satisfaction in multivariate analyses.

Methods

Hispanic patients enrolled in Medicare or Medicaid managed care were sampled from the waiting rooms of two Federally Qualified Health Centers in Philadelphia that serve a large Hispanic community in north Philadelphia. Patients greater than 18 years of age who had Medicaid or Medicare were eligible. Exclusion criteria included other forms of insurance coverage or prior participation in the parent study (R01 HS 10299) [10]. Only patients of self-reported Hispanic ethnicity were included in these analyses ($n = 1,267$). The University of Pennsylvania institutional review board approved the protocol.

Satisfaction, the dependent variable, was measured using the National Consumer Assessment of Health Plans Survey 2.0 (CAHPS 2.0), which is the current gold standard for patient satisfaction in the ambulatory setting. This survey assesses patient satisfaction with multiple domains of the health plan and health care experiences—access to care, promptness of care, doctor communication, and office staff helpfulness. A single-item satisfaction rating of the patient's personal doctor and the overall care they receive is also included. A final domain of satisfaction with the health plan's customer service was not considered in this study.

Patients' language preference—our primary independent variable—was determined by the language in which the study instruments were completed and the respondents' answer to the following question: "What language do you speak at home?" Patients who completed the instruments in Spanish and reported speaking Spanish at home were classified as Spanish-speaking. We classified those who completed the instruments in English and spoke English at home as English-speaking. Bilingual status was defined by patients who reported speaking both English and Spanish at home or who completed the instruments in a different language than they reported using at home.

One-way ANOVA and Kruskal–Wallis tests were used to assess differences in patient satisfaction among

English-speaking, Spanish-speaking, and bilingual Hispanics. Post-hoc analyses were performed using the Bonferroni–Dunn test. We used multivariate linear regression to estimate coefficients describing the effect of the following covariates on all domains of patient satisfaction: age, sex, educational attainment, comorbidity (Charlson Comorbidity Index), health status (SF-12), and clinic site. Health literacy was also included in multivariate analyses, measured here by the Short Test of Functional Health Literacy in Adults (S-TOFHLA), which has demonstrated good internal consistency, reliability (Cronbach's $\alpha = 0.98$), and validity compared with the long version (Spearman rank correlation = 0.91) [11–13]. This instrument, which was administered in English or Spanish according to the participants' preference, has been validated in both languages [14]. All statistical analyses were performed using Stata version 10 (StataCorp LP, College Station, TX).

Results

Sociodemographic characteristics of our cohort are provided in Table 1. Significant differences in patient satisfaction among bilingual, Spanish-speaking, and English-speaking Hispanics were demonstrated for two domains of the healthcare experience (Table 2). Bilingual Hispanics were more satisfied with their doctor-patient communication than their Spanish-speaking counterparts ($P < 0.01$). Similarly, bilingual patients were more satisfied with the help provided by office staff than Spanish speakers

Table 1 Sociodemographic characteristics

Characteristic	Percent
Hispanic ethnicity	100
Language preference	
English	10
Spanish	55
Bilingual	35
Age (mean, SD)	40 (14)
Sex	
Female	80
Male	20
Education	
Less than H.S	57
H.S. or equivalent	28
More than H.S.	15
Health literacy	
Inadequate	21
Marginal	11
Adequate	68
Any comorbidity	36

Table 2 Baseline comparisons of patient satisfaction by language preference

Domain of satisfaction	Language preference ^a			P value
	English	Spanish	Bilingual	
Access to care	88	92	89	0.06
Promptness of care	68	68	70	0.08
Provider communication	84	80 ^b	84 ^c	<0.01
Office staff helpfulness	83	80 ^b	84 ^c	<0.01
Global health care rating	82	86	86	0.33
Global provider rating	90	84	87	0.40

^a Expressed as a score from 0 to 100

^b Denotes significant difference from other language groups in the same row marked with c

($P < 0.01$). There were no significant differences among bilingual, Spanish-speaking, and English-speaking Hispanics with respect to the following four factors: satisfaction with the regular provider, overall health care, access to care, or promptness of care.

Language preference did not consistently predict patient satisfaction in our multivariate models when controlling for all of the covariates (Table 3). Spanish language preference was a significant predictor only of satisfaction with healthcare access ($\beta = 5.6$, $P < 0.01$). The following covariates had no significant effect on patient satisfaction: age, gender, educational attainment, comorbidity, health status, or clinic site. Health literacy was the only covariate that predicted patient satisfaction in our multivariate analyses. The positive association between health literacy and patient satisfaction was weak, but consistent across all multivariate models (Table 4).

Discussion

In this study, we examined the relationship between language preference and patient satisfaction in a cohort of Hispanic patients receiving linguistically appropriate primary care. Our baseline comparisons of satisfaction among English-speaking, Spanish-speaking, and bilingual Hispanics reveal some significant differences. The differences

observed reflect only two areas of patient satisfaction—communication with provider and office staff helpfulness. Multivariate analyses support our hypothesis that language preference would not significantly predict satisfaction in this cohort of Hispanic patients. Access was the only satisfaction measure which was associated with language preference in our models.

In our baseline comparisons, bilingual patients experienced higher satisfaction than those who spoke only Spanish when communicating with their provider and receiving help from office staff. Although both recruitment sites for this study employ only Spanish-speaking providers and staff, their level of proficiency is likely not uniform. This would give bilingual patients a communication advantage during their entire clinic experience—from the front desk to the exam room—regardless of staff members' Spanish proficiency. This might explain why bilingual patients enjoyed greater satisfaction than primary Spanish speakers in our cohort. Alternatively, unobserved factors may play an important role in these domains of patient satisfaction.

We demonstrate that Spanish language preference predicted the highest satisfaction with access in multivariate analysis ($\beta = 5.6$, $P < 0.01$). However, language preference had no significant effect on the other satisfaction domains. Previous studies have found that English language preference predicted the highest satisfaction among Hispanics, and Spanish preference the lowest [8, 9]. The different sites of data collection likely explain the discrepancy between our findings and those from previous research. Previous studies analyzed statewide and health-plan data from hundreds of health centers, where interpretive services or Spanish-speaking providers are relatively rare. Our results likely reflect the relative ease with which Spanish-speaking participants were able to schedule appointments and receive care in a linguistically competent setting, compared to all Spanish speakers across several states.

Health literacy also emerged from our multivariate analysis as a predictor of patient satisfaction. Health literacy is defined as a constellation of skills, including reading and numerical comprehension, that allow patients to

Table 3 Regression results for patient satisfaction by language, beta coefficients (SE)

Domain of patient satisfaction	Language preference		
	English (reference)	Spanish	Bilingual
Access to care	1	5.56 (2.12) ^a	2.58 (2.16)
Promptness of care	1	0.93 (2.58)	4.11 (2.61)
Provider communication	1	-3.19 (2.57)	-0.78 (2.61)
Office staff helpfulness	1	0.35 (2.97)	5.29 (3.01)
Global health care rating	1	1.84 (3.36)	0.84 (3.40)
Global provider rating	1	-1.47 (3.83)	-1.77 (3.86)

^a $P < 0.01$

Table 4 Regression results for patient satisfaction by health literacy^a, beta coefficients (SE)

Domain of patient satisfaction	Health literacy coefficients (SE)	P value
Access to care	0.31 (0.08)	<0.001
Promptness of care	0.21 (0.09)	0.02
Provider communication	0.33 (0.09)	<0.001
Office staff helpfulness	0.37 (0.11)	0.001
Global health care rating	0.32 (0.12)	0.008
Global provider rating	0.46 (0.13)	0.001

^a Measured by S-TOFHLA and expressed as a score from 0 to 36

function in the health care environment [15]. A growing body of research has demonstrated that health literacy influences patients' disease-specific knowledge, health status, and utilization of healthcare services. The impact of health literacy on patient satisfaction, however, has received scant attention in this literature. In our study, the association between health literacy and satisfaction was significant across all domains. Although smaller in magnitude, this effect is consistent with the only previous study to directly address the relationship between health literacy and patient satisfaction [16]. Further research is necessary to clarify the causal pathway linking health literacy, patient satisfaction, and health outcomes.

Interestingly, our patient cohort demonstrated high levels of health literacy, despite having low educational attainment (Table 1). Although there are many possible explanations for this finding, the S-TOFHLA does not help elucidate the relationship between high health literacy and low educational attainment in the study population. However, this observation highlights an important distinction between educational level and health literacy that is well described in previous research. Many studies examining the impact of health literacy on a broad range of outcomes have found significant results even after adjusting for educational attainment [17–19]. Although seemingly related, these factors are not closely correlated. One recent study reported a correlation of 0.37 between health literacy and educational level [16].

It is important to highlight the contribution that this study makes to the existing literature. Previous studies using health-plan and state-level data have identified disparities in satisfaction among Hispanics and Spanish speakers, when compared to whites and English speakers [1, 2, 4, 6, 8, 9]. But these data provide little if no insight into whether the observed disparities stem from systematically poor healthcare quality, inadequate access to interpretive services, or unobserved cultural factors. Our study provides a first attempt to more thoroughly understand the satisfaction disparities in Hispanics. By using local data from two clinics that serve almost exclusively Hispanic patients and provide linguistically competent care, we sought to isolate the effect of language preference on satisfaction. The fact that these clinics provide a similar type

of care allows us to at least crudely account for healthcare quality—a missing variable in larger studies.

We hypothesized that language preference would not predict satisfaction among Hispanic patients who receive linguistically competent primary care. Our results largely support this hypothesis. Comparing our findings to those from previous studies—where Spanish language preference had a strong negative impact on Hispanic patients' satisfaction—suggests that providing linguistically competent health care plays an important role in reducing satisfaction disparities among Hispanics. In order to fully elucidate this relationship, it is necessary to compare Hispanics' satisfaction with care at different levels of linguistic competence, which was not our objective in the current study. Future research that controls more directly for the healthcare quality received by Hispanic patients will help us better understand, and ultimately eliminate the disparities in patient satisfaction observed in this growing population.

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