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Are There Racial Differences in Patients' Shared Decision-Making Preferences and Behaviors among Patients with Diabetes?

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Abstract

Background—In the United States, African Americans are more likely to experience lower quality patient/provider communication and less shared decision making (SDM) than whites, which may be an important contributor to racial health disparities. Patient factors have not been fully explored as a potential contributor to communication disparities.

Methods—The authors analyzed cross-sectional data from a survey of 974 patients with diabetes seen at 34 community health centers (HC) in 17 midwestern and west-central states. They used ordinal and logistic regression models to investigate racial differences in patients' preferences for SDM and in patients' behaviors that may facilitate SDM (initiating discussions about diabetes care).

Results—The response rate was 67%. In bivariate and multivariate analyses, race was not associated with patient preference for a shared role in the 3 measured SDM domains: agenda setting (odds ratio [OR]: 1.13 [0.86, 1.49]), information sharing (OR: 1.26 [0.97, 1.64]), or decision making (OR: 1.16 [0.85, 1.59]). African Americans were more likely to report initiating discussions with their physicians about 4 of 6 areas of diabetes care—blood pressure measurement (66% v. 52%, $P < 0.001$), foot examination (54% v. 47%, $P = 0.04$), eye examination (57% v. 46%, $P = 0.002$), and microalbumin testing (38% v. 29%, $P = 0.01$)—but not HbA1c testing (39% v. 43%, $P = 0.31$) or cholesterol testing (53% v. 51%, $P = 0.52$). In multivariate analysis, African Americans were still more likely to report initiating conversations about diabetes care (OR: 1.78 [1.10, 2.89]).

Conclusions—The authors found that African Americans in this study preferred shared decision making as much as whites and were more likely to report initiating more discussions with their doctors about their diabetes care. This research suggests that, among diabetes patients receiving care at community health centers, patient preference or patient behaviors may be an unlikely cause of racial differences in shared decision making.

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Keywords

randomized trial methodology; risk factor evaluation; population-based studies; scale development/validation

Patient-provider communication is an important part of quality health care, and research links it to positive health outcomes.[1,2] In the United States, African Americans are more likely to experience lower quality patient-provider communication, a phenomenon that may contribute to racial health disparities.[3–8] For example, in a study by Cooper-Patrick and others,[3] African American patients were less likely to report that their physicians engaged them in shared decision making than white patients, a finding that persisted after accounting for sociodemographic variables and duration of the patient-provider relationship. In an analysis of audiotaped outpatient clinical encounters, researchers gave physicians higher ratings in 3 of 4 domains of communication quality (responsiveness, respect, and listening) in visits with white patients compared to visits with African American patients, and patient ratings of communication and overall satisfaction with the visit were significantly higher for white patients.[5]

The reasons for communication disparities have not been fully explored, and little research has explored potential patient contributors, such as patient involvement in shared decision making (SDM), a process wherein patients actively contribute to the information-sharing and decision-making process with their providers. Patients who share in decision making have more efficient clinic visits (words per minute) and are less likely to switch providers.[9,10] Shared decision making is also associated with improved diabetes control, lowered blood pressure, and other positive health outcomes.[1,2,11]

We chose to explore SDM among diabetes patients for several reasons. First, individualized diabetes care requires ongoing treatment decisions, and consequently, diabetes management and control may be particularly sensitive to patient-provider decision-making patterns. Second, significant racial disparities exist in diabetes outcomes. African Americans have worse diabetes control, more diabetes complications, and higher diabetes-related mortality than do whites.[12,13] Consequently, understanding and addressing inequities in shared decision making among patients with diabetes has the potential to reduce diabetes-related health disparities. In this study, we sought to determine whether racial differences exist in patient *preferences* for shared decision making as well as patient *behaviors* that may facilitate SDM.

METHODS

Data and Subjects

We used data from a cross-sectional survey of patients from 34 community health centers (HCs) in 17 midwestern and west-central states. All HCs were part of the Health Disparities Collaboratives (HDC), a quality improvement (QI) project sponsored by the Health Resources and Services Administration’s Bureau of Primary Health Care (BPHC) that began in 1998 and uses rapid Plan, Do, Study, Act (PDSA) cycles to implement the MacColl chronic care model and provides BPHC-supported infrastructure such as regional coordinators and information technology support.[14,15] In 2001, HCs were randomized into a “standard HDC arm,” which continued the QI projects of the HDC, or a “high-intensity arm,” which continued the QI projects and also received additional organizational support and training for patients (patient empowerment) and physicians (patient-provider communication and facilitating behavioral change).[15]

In 2002, a cross-sectional survey was administered by telephone to health center patients who had at least 1 health center visit within the preceding year, using a random list generator to select study participants from patients identified as having diabetes (ICD-9 codes 250.00–250.91).[16] Sixty-seven percent of contacted patients agreed to participate in the study (n = 1483). From this study population, we included 974 patients (66%) who self-reported their race/ethnicity as black/African American or white/Caucasian and completed survey items about shared decision-making preferences and behaviors. We excluded 458 patients reporting their race/ethnicity as Asian/Pacific Islander, Hispanic/Latino, Native American, or “other.” Fifty-eight patients who met the inclusion criteria were excluded because of missing data for the dependent variables.

Variable Definitions

We defined decision-making preferences using the Patient-Practitioner Orientation Scale (PPOS), an instrument that measures attitudes and preferences about patient-provider communication and shared decision making.[17–19] In psychometric testing, the PPOS was found to have internal reliability (Cronbach’s alpha of 0.81 and 0.79 for its 2 subscales), content validity, and construct validity (e.g., convergent validity with patient satisfaction) and has been studied in samples with high proportions of racial/ethnic minorities.[17–19] We used PPOS items that measure attitudes about roles: 1) “The doctor is the one who should decide what gets talked about during a visit,” 2) “Patients should rely on their doctor’s knowledge rather than find out about their conditions on their own,” and 3) “I prefer to leave decisions about my medical care up to my doctor.” These items address 3 important SDM domains in the outpatient setting, as described by Charles and others[20]: agenda setting, information sharing, and decision making. Patient responses were categorized into having “passive,” “neutral” (neither passive nor shared), or “shared” preferences, using a 6-point Likert scale (1 = *strongly agree* to 6 = *strongly disagree*).

We defined SDM behaviors based on patient self-report of initiating discussions with their physician regarding the following diabetes care measures using a 6-item instrument (with dichotomous responses) that asked, “In the past 12 months, have you started a discussion with your doctor about …”: glycosylated hemoglobin (HbA1c) testing, urine microalbumin testing, cholesterol testing, blood pressure monitoring, foot examinations, and eye examinations. We used self-reported information-seeking behaviors as our measure of SDM behaviors for diabetes care for two reasons: 1) the information-sharing domain may have the most salience to patients of all the SDM domains,[21] and 2) information provision (through increased patient understanding) is associated with improved diabetes care and self-management.[22] The 6 diabetes care measures in the instrument reflect 1) the “ABCs” of diabetes management—*A*1c, *B*lood pressure, and *C*holesterol—which are key to reducing diabetes complications[23] and 2) screening tests for serious and well-known diabetes complications—leg amputations (foot exams), kidney failure (microalbumin testing), and blindness (eye exams).[24] A single composite score was created (Cronbach’s alpha = 0.85), with scores of >3 defined as active SDM involvement, based on the distribution frequencies of patient responses.

Race was defined as the self-reported response to the query, “What do you consider to be your racial/ethnic group?” Self-reported race/ethnicity is the generally accepted approach to identifying patient race and has been recommended by the Institute of Medicine.[25] Self-reported health status was measured by a single item from the Medical Outcomes Study 36-item short form (SF-36) that has been used extensively in diverse patient populations (including diabetes patients) and settings and has been validated to predict mortality.[26,27] The variable “known by physician” was defined based on the Likert response to the query, “How well do you feel your doctor knows you?” (with responses ranging from *not at all* to *very well*). Cut-points for the categorical variables were based on the distribution frequencies of the response items.

Data Analysis

We first conducted descriptive analyses of the study population and health centers, using patient survey data and information from chart reviews and organizational surveys described in prior work,[14] and stratified the data by race. We then examined the frequency distributions of responses to the PPOS questions that probe patient preferences for shared decision making and compared distribution frequencies by race using chi-squared testing. We also examined bivariate associations between patients' SDM preferences and patients' self-reported behaviors that may facilitate SDM (dependent variable), race (primary independent variable), and the following covariates, which were selected based on existing literature supporting their associations with shared decision making: age, gender, education, marital status, self-reported health status, number of years as a health center patient (as a proxy for duration of the patient-provider relationship), and how well the patient is known by his or her physician. In addition, we included trial status (standard HDC arm v. high-intensity arm) as a predictor variable in our model.

Finally, we conducted multivariate regression models examining the association between the dependent variables and self-reported race, controlling for other covariates and clustered by site. We retained all of the covariates in the models regardless of statistical associations because of their conceptual significance. We used ordinal regression models for patient preferences for decision-making style (passive, neutral, or shared) and logistic regression models for patient-initiated discussions about diabetes care. We used STATA 9.0 for all analyses and defined statistical significance as $P \leq 0.05$.

RESULTS

There were 974 patients in our study sample; approximately two-thirds of patients were white (65%), and one-third were African American (35%) (Table 1). Two-thirds of the sample comprised women (68%), most of the patients had a high school diploma or less (73%), and approximately half (55%) rated their health as "good" or better. African Americans in our study were more likely to be female, less than 65 years of age, unmarried, and have a high school diploma or less. On the basis of chart information of randomly selected diabetes patients at the health centers, 25% of patients were insured by Medicare, 16% received Medicaid insurance, and approximately one-third were uninsured.[15] Approximately half of the health centers were located in urban settings and half in rural environments.[15]

Patient Preference for Shared Decision Making

Patients in our study expressed preferences that spanned the entire range of decision-making roles ("strongly agree" with shared to "strongly agree" with passive) in each SDM domain (agenda setting, information sharing, and decision making; Table 2). Patients tended to feel "moderately" or "strongly" about decision-making roles, and there were no statistically significant differences by race in the bivariate analyses. For example, approximately one-third of patients "strongly agreed" with shared roles in agenda setting (29% for whites, 39% for blacks) but "strongly agreed" with passive roles in information sharing (40% for both whites and blacks) and decision making (36% for whites, 46% for blacks). There were no statistical differences in the frequency distributions of the Likert responses between African Americans and whites (Table 2).

In the multivariate analysis, race was not associated with shared decision making in any of the 3 SDM domains—agenda setting (odds ratio [OR]: 1.13 [0.86, 1.49]), information sharing (OR: 1.26 [0.97, 1.64]), or decision making (OR: 1.16 [0.85, 1.59]) (Table 3). Covariates that were significantly associated with preferring a more shared role included female gender, higher education, younger age (being 65 years old or younger), and patient report of being less well known by his or her physician. For example, men had approximately two-thirds the odds of preferring an active role in setting the agenda for the clinic visit (adjusted OR: 0.66 [0.53, 0.83]), and persons older than 65 years had approximately one-third the odds of preferring a more active role in information sharing (adjusted OR: 0.35 [0.19, 0.64]) when compared to persons aged 18 to 39 years. Those with at least some college had more than twice the odds of preferring an active role in making decisions (adjusted OR: 2.42 [1.65, 3.55]).

Patient Information-Seeking Behaviors That May Facilitate Shared Decision Making

Patients reported initiating the following discussions in the prior year about diabetes care: blood pressure measurement (57% overall; 66% blacks, 52% whites; $P < 0.001$), foot examination (50% overall; 54% blacks, 47% whites; $P = 0.04$), eye examination (50% overall; 57% blacks, 46% whites; $P = 0.002$), HbA1c testing (41% overall; 39% blacks, 43% whites; $P = 0.31$), microalbumin testing (32% overall; 38% blacks, 29% whites; $P = 0.01$); and cholesterol testing (51% overall; 53% blacks, 51% whites; $P = 0.52$).

We also used a single composite measure of patient information-seeking behaviors that may facilitate shared decision making. In the bivariate analysis, significant positive associations were found between reporting initiating discussions about diabetes care and African American race ($P = 0.01$), higher education ($P = 0.05$), and patient report of being well known by his or her physician ($P < 0.0001$) (Table 4). In the multivariate analysis, variables that were significantly associated with reporting initiating a discussion about diabetes care included African American race (OR: 1.78 [1.10, 2.89]) and patient report of being well known by his or her physician (OR for “very well known”: 2.08 [1.43, 3.03] v. other categories combined) (Table 4).

DISCUSSION

In the report *Crossing the Quality Chasm,* the Institute of Medicine[28] identifies patient-centeredness and equity as essential components of health care quality. Shared decision making is an important component of patient centeredness, and there is evidence that racial inequities exist in SDM between patients and their physicians.[3] Race may potentially affect shared decision making in several ways: racial differences in patient SDM preferences or behaviors, racial differences in provider SDM preferences or behaviors, and aspects of the patient-provider relationship (e.g., patient mistrust, cultural discordance, provider bias). Because of the dyadic nature of shared decision making, patient behaviors to engage in SDM must be accurately interpreted as well as reciprocated by physicians in order for SDM to fully occur.

To date, there has been little research into racial differences in patient factors related to shared decision making. To our knowledge, this is the first study to examine racial differences in decision-making preferences among patients with diabetes. Our research suggests that African Americans with diabetes may be as likely as whites from a similar social class to want to participate in 3 key SDM domains measured in this study—agenda setting, information sharing, and decision making. This is an important finding for several reasons.

First, diabetes is a chronic disease that requires ongoing treatment decisions and daily self-management. There is evidence that patients who share in the decision-making process may have greater diabetes self-efficacy, participate more in diabetes self-management, and may be more likely to adhere to plans of care.[22] Such factors may account for the higher levels of diabetes control among patients who share in the decision-making process with their physicians.[2] Consequently, enhancing SDM among African Americans may be a significant mechanism for reducing diabetes health disparities. Our results are fundamentally important to efforts aimed at encouraging SDM among African Americans, such as the development and uptake of decision aids and patient empowerment interventions. Second, our study is important because it provides additional information about SDM preferences among vulnerable populations. For example, persons with lower levels of education were shown to be more likely to prefer passive roles. Prior research shows that people from lower levels of socioeconomic status (SES), who generally have lower levels of education, prefer such roles.[29] It is reassuring that race does not appear to predict such preferences, at least among patients with diabetes. Levinson and others[30] conducted a national study of US households and found that African Americans and whites had similar preferences for obtaining medical knowledge and reviewing treatment options with their physicians, but African Americans were more likely to defer actual treatment decisions to their physician. In contrast, we found that African Americans were *just as likely* as whites to prefer a shared role in each of the 3 domains, including making treating decisions (adjusted OR: 1.15 [0.82, 1.61]). The reasons for the differences between the 2 studies are unclear but may reflect clinical differences in the patient population. Although both study populations had similar characteristics regarding age, gender, and education, all patients in our study had at least 1 chronic disease (diabetes), unlike the participants in the study by Levinson and others. Because patients with chronic disease are more likely to prefer an active role in clinical decision making,[29] the African Americans in our study may have been more active than those in the study by Levinson and others. In addition, all of the persons in our study were patients with at least 1 visit to their physician in the prior year, and this may have selected a population who was generally more proactive about their health than those in a community-based sample. Finally, it is also possible that our patients' decision-making preferences were influenced by experiences within the community HCs. Because HCs have a mission to provide care for medically underserved populations, such centers may have an organizational culture that facilitates the involvement of vulnerable patients in their own health care decisions.

In addition to patients' expressed *preferences* for shared decision making, we were interested in whether there were racial differences in patients' *behaviors* that may facilitate SDM, such as active information seeking. To our knowledge, this is the first study that explores this issue. Our study suggests that African Americans with diabetes may be *more likely* to start discussions with their physicians about their health care. African Americans were more likely to report starting discussions about 4 of the 6 queried areas of diabetes care (blood pressure, microalbumin, eye exams, foot exams) but not lipid testing or HbA1c testing. Blood pressure measurement had the strongest statistical association with race, which may reflect the effectiveness of public health campaigns at educating racial/ethnic minorities about the importance of blood pressure control.[31,32] When all 6 measures were combined into a single composite item, African Americans had a 78% higher odds (OR: 1.78 [1.10, 2.89]) of reporting initiating discussions with their physicians about their diabetes care. However, it is not currently known whether patient-initiated health care discussions are sufficient to enhance all aspects of shared decision making.

It is not clear why African Americans and whites had similar preferences for shared decision making, yet African Americans were more likely to report asking questions about their diabetes care. It is possible that the African American patients in our study had greater self-efficacy than white patients and were more able to act upon desires for a shared role.

Because patient self-efficacy was not measured in this study, no conclusions can be drawn about this possible mechanism. However, a study of racially diverse patients receiving care at a safety net hospital found no differences in diabetes self-efficacy between African Americans and whites,[33] suggesting that differences in self-efficacy may be unlikely causal mechanisms for observed racial differences in our study.

An alternative explanation is that the African Americans initiated diabetes care discussions more often than whites in response to physician behavior. Physicians may have spent more time discussing diabetes care with white patients, thereby decreasing the need for such patients to initiate discussions themselves. Studies have also found that physicians are less likely to deliver information and discuss treatment plans and preventive health care (but are more likely to ask about substance abuse and medication adherence) with African American patients and those from lower socioeconomic classes than more advantaged patients, even in the same clinical care setting.[34–36] Primary care physicians are also more likely to use "narrow biomedical" communication patterns (which have a restricted focus and are characterized by physician-dominant talk), in comparison to "biopyschosocial" communication patterns (characterized by more collaboration with patients and less physician verbal dominance), with African American patients in comparison to white patients.[37] Thus, in our study, it is plausible that physicians may have engaged African American patients in SDM regarding their diabetes care to a lesser degree than white patients. If so, it is unclear whether information-sharing behaviors (i.e., active information seeking) by African American patients were sufficient to achieve shared decision making in other domains.

Our research suggests that, among African American diabetes patients receiving care at community health centers, patient preference or patient behaviors may not be the cause of racial differences in shared decision making. Exploring potential provider barriers to engaging such patients is an important area of future work. It is possible that physicians have misconceptions about African Americans' SDM preferences, particularly given that rates of diabetes self-management may be lower among this population. Cultural and communication barriers may also pose challenges to SDM between African American patients and their physicians.[38] And finally, provider bias (conscious or unconscious) may affect physician communication styles and behaviors[39] and limit opportunities for shared decision making among African American patients with diabetes.

Although our primary goal was to explore racial differences in SDM preferences and behaviors, it is important to note trends overall. Although the majority of patients in our study wanted to help set discussion agendas, they generally preferred to rely on their doctors' knowledge about medical diagnoses and leave final decisions about treatment to their physicians. However, there were sizable proportions of patients who felt strongly about having either shared or passive roles. Identifying and empowering those patients who want to play active roles in their care may be an important mechanism for improving health outcomes for such patients, particularly those more likely to have lower health indices at baseline, such as racial/ethnic minorities.

In addition, our findings support existing literature about the associations between increased SDM preferences and behaviors with female gender, younger age (being 65 years old or younger), and higher educational attainment. African American patients in our study were more likely to be female and younger but were less well educated than their white patient peers.

Our study has several limitations. First, we measured patient information-seeking behaviors based on self-report, which may have affected the accuracy of this measure and also be susceptible to recall bias. In addition, we do not have demographic information (e.g., race) about patients who chose not to participate in the study, which makes our findings susceptible to selection bias. Third, because odds ratios may overstate differences when an event is not rare, our findings may overstate the racial differences in information-seeking behaviors. It is also important to note that our data are cross-sectional in nature, and consequently, causal relationships cannot be inferred from our study. Although our findings suggest that patient factors are not significant contributors to disparities in shared decision making, we did not assess nonpatient (i.e., physician) factors. Last, all patients received care in midwestern or west-central states in the United States, and our findings may not be generalizable to patients in other regions.

Nonetheless, our study has several strengths. First, all patients received care at a community health center. Such centers provide a disproportionate amount of care to racial/ethnic minorities and provide the majority of primary care services for medically underserved populations. Consequently, exploring care within such centers is important to understanding health disparities. Second, we were able to adjust for several important sociodemographic factors, patient-provider relationship measures, and clinical factors that may affect patient preferences and patient behaviors related to shared decision making.

In summary, we found that, among diabetes patients receiving care at community health centers, African Americans preferred shared decision making as much as whites and were more likely to report initiating discussions with their doctors about their diabetes care. Our findings are important in light of existing evidence that racial/ethnic minorities in general, including African Americans, have lower quality communication with their physicians and less shared decision making. Such communication disparities may be an important contributor to health disparities, particularly in chronic diseases such as diabetes. More research is needed to better characterize SDM behaviors and potential racial differences that may exist among them, as information-seeking behaviors may be insufficient to ensure full sharing in the decision-making process. In addition, future research should further identify and address patient barriers, particularly physician-based barriers, to shared decision making among African Americans.

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Table 1

Patient Characteristics from a Multisite Study about Shared Decision-Making Preferences and Information-Seeking Behaviors at 34 Community Health Centers (*N* = 974)

	Total, %	Whites, %	African Americans, %	*P* Value
Age (mean [y], SD)	58 (12.8)	59 (53)	57 (64)	0.014
18–39	8	8	7	
40–65	61	58	68	
>65	31	35	25	
Gender				0.001
Female	69	65	75	
Marital status				<0.001
Married/living as married	41	46	31	
Divorced/widowed/separated	44	44	44	
Never married	15	10	25	
Education				<0.001
Some high school or less	33	29	41	
High school graduate	40	40	40	
Some college	19	20	15	
College graduate or higher	8	10	4	
Self-reported health status				0.04
Excellent/very good	16	17	15	
Good	39	38	39	
Fair	33	31	37	
Poor	12	14	9	
Years at health center (mean, SD)	9.0 (8.8)	9.4 (9.4)	8.3 (7.6) 0.08	0.08
Insurance status[a]				
Medicare-Medicaid dual eligible	7			
Medicare	25			
Medicaid	16			
Private	14			
Other	7			
No insurance	31			
Health center geographical location[a]				
Rural	53			
Urban	47			

[a] See Chin and others.[15]

Table 2

Racial Differences in Patient Preferences for 3 Shared Decision-Making (SDM)[a] Domains from a Multisite Study at 34 Community Health Centers (*N* = 974)

	Total (*N* = 974), *n*, %	**Whites (*n* = 629), *n*, %**	**Blacks (*n* = 345), *n*, %**	***P* Value**
Agenda setting				0.09
Strongly disagree	315 (32.3)	179 (28.5)	136 (39.4)	
Moderately disagree	196 (20.1)	141 (22.4)	55 (15.9)	
Slightly disagree	99 (10.2)	72 (11.5)	27 (7.8)	
Slightly agree	82 (8.4)	57 (9.1)	25 (7.3)	
Moderately agree	111 (11.4)	79 (12.6)	32 (9.3)	
Strongly agree	171 (17.6)	101 (16.1)	70 (20.3)	
Information sharing				0.15
Strongly disagree	152 (15.6)	85 (13.5)	67 (19.4)	
Moderately disagree	110 (11.3)	72 (11.5)	38 (11.0)	
Slightly disagree	79 (8.1)	48 (7.6)	31 (9.0)	
Slightly agree	74 (7.6)	51 (8.1)	23 (6.7)	
Moderately agree	172 (17.7)	123 (19.6)	49 (14.2)	
Strongly agree	387 (39.7)	250 (39.8)	137 (39.7)	
Decision making				0.66
Strongly disagree	90 (9.2)	51 (8.1)	39 (11.3)	
Moderately disagree	120 (12.3)	84 (13.4)	36 (10.4)	
Slightly disagree	65 (6.7)	45 (7.2)	20 (5.8)	
Slightly agree	59 (6.1)	31 (4.9)	28 (8.1)	
Moderately agree	252 (25.9)	189 (30.1)	63 (18.3)	
Strongly agree	388 (39.8)	229 (36.4)	159 (46.1)	

[a] SDM domains measured by Likert responses to the following items: 1) agenda setting: “The doctor is the one who should decide what gets talked about during a visit”; 2) information sharing: “Patients should rely on their doctor’s knowledge rather than find out about their conditions on their own”; and 3) decision making: “I prefer to leave decisions about my medical care up to my doctor.”

Table 3

Variables Associated with Patient Preferences for 3 Shared Decision-Making (SDM) Domains[a] from a Multisite Study at 34 Community Health Centers ($N = 974$)[b]

Variable	Agenda Setting	95% CI	Information Sharing	95% CI	Decision Making	95% CI
Race						
White	1.00		1.00		1.00	
African American	1.13	(0.86, 1.49)	1.26	(0.97, 1.64)	1.16	(0.85, 1.59)
Gender						
Female	1.00		1.00		1.00	
Male	0.66	(0.53, 0.83)***	0.69	(0.52, 0.93)*	0.58	(0.41, 0.82)**
Age, y						
18–39	1.00		1.00		1.00	
40–65	0.99	(0.64, 1.51)	0.75	(0.48, 1.2)	0.91	(0.52, 1.60)
>65	0.40	(0.23, 0.67)***	0.35	(0.19, 0.64)***	0.47	(0.26, 0.86)*
Marital status						
Married	1.00		1.00		1.00	
Unmarried	0.82	(0.65, 1.03)	0.97	(0.69, 1.36)	0.78	(0.58, 1.05)
Education						
≤ High school	1.00		1.00		1.00	
≥ Some college	1.96	(1.41, 2.74)***	2.13	(1.47, 3.09)***	2.42	(1.65, 3.55)***
Health status						
Good/excellent	1.00		1.00		1.00	
Fair/poor	0.93	(0.7, 1.25)	0.87	(0.66, 1.13)	0.98	(0.75, 1.27)
Known by physician						
Very well	1.00		1.00		1.00	
None-moderate	1.16	(0.89, 1.51)	1.36	(1.03, 1.8)*	1.51	(1.24, 1.84)***
Years at health center						
1–3	1.00		1.00		1.00	
>3	1.03	(0.75, 1.41)	0.91	(0.64, 1.31)	0.88	(0.70, 1.10)
Research trial status[c]						

Variable	Agenda Setting	95% CI	Information Sharing	95% CI	Decision Making	95% CI
Standard HDC arm	1.00		1.00		1.00	
High-intensity arm	1.33	(0.96, 1.85)	0.87	(0.65, 1.15)	1.16	(0.9, 1.5)

[a] SDM domains measured by Likert responses to the following items: 1) agenda setting: “The doctor is the one who should decide what gets talked about during a visit”; 2) information sharing: “Patients should rely on their doctor’s knowledge rather than find out about their conditions on their own” and; 3) decision making: “I prefer to leave decisions about my medical care up to my doctor.”

[b] Each predictor variable in the table is adjusted for all other variables. Odds ratios reflect ordinal categories of passive, neutral, and shared.

[c] Standard Health Disparities Collaborative (HDC) arm uses quality improvement to improve chronic care delivery. The high-intensity arm includes the standard intervention and *additional* organizational support and training for patients (empowerment) and physicians (communication and facilitating behavioral change).

[*] $P < 0.05$.

[**] $P < 0.01$.

[***] $P < 0.001$.

Table 4

Self-Reported Patient Information-Seeking Behaviors from a Multisite Study at 34 Community Health Centers ($N = 974$)

	Percent of Patients Reporting High Rates of Initiating Discussions with Providers about Diabetes Care[a]	Bivariate P Value	Adjusted Odds Ratio[b]
Race		0.01	
Non-Hispanic white	37		Referent
African American	47		1.78 (1.10, 2.89) *
Age		0.61	
18–39	44		Referent
40–65	40		0.67 (0.36, 1.25)
>65	38		0.69 (0.35, 1.34)
Gender		0.68	
Male	42		1.01 (0.7, 1.45)
Female	40		0.99 (0.69, 1.43)
Marital status		0.91	
Unmarried	41		0.82 (0.58, 1.17)
Married/living as married	40		1.22 (0.85, 1.72)
Education		0.05	
High school graduate or less	38		Referent
Some college or higher	46		1.27 (0.87, 1.84)
How well known by doctor		<0.001	
Not at all/somewhat/moderately	33		0.48 (0.33, 0.7) **
Very well	45		2.08 (1.43, 3.03) **
Self-reported health status		0.64	
Fair/poor	40		1.15 (0.82, 1.61)
Good/very good/excellent	41		1.15 (0.82, 1.61)
Number of years at health center		0.23	
≤3 years	37		Referent
>3 years	42		1.09 (0.75, 1.58)
Research Trial Status[c]			
Standard HDC Arm			1.00
High Intensity Arm			1.01 (0.41, 2.45)

[a] Based on patient-initiated discussions with their provider about 6 diabetes-related care activities (testing for HbA1c, cholesterol, and microalbumin; measurement of blood pressure; examinations of feet and eyes); variable dichotomized as 0–2 v. 3–6 positive responses.

[b] Odds ratios adjusted for all other covariates in the table.

[c] Standard Health Disparities Collaborative (HDC) arm uses quality improvement to improve chronic care delivery. The high-intensity arm includes the standard intervention and *additional* organizational support and training for patients (empowerment) and physicians (communication and facilitating behavioral change).

* $P < 0.05$.

** $P < 0.001$.