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Informed and Patient-Centered Decision-Making in the Primary Care Visits of African Americans with Depression

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Abstract

Objective—We examined the prevalence and extent of informed decision-making (IDM) and patient-centered decision-making (PCDM) in primary care visits of African Americans with depression.

Methods—We performed a cross-sectional analysis of audiotaped clinical encounters and post-visit surveys of 76 patients and their clinicians. We used RIAS to characterize patient-centeredness of visit dialogue. IDM entailed discussion of 3 components: the nature of the decision, alternatives, and pros/cons. PCDM entailed discussion of: lifestyle/coping strategies, knowledge/beliefs, *or* treatment concerns. We examined the association of IDM and PCDM with visit duration, overall patient-centeredness, and patient/clinician interpersonal ratings.

Results—Approximately one-quarter of medication and counseling decisions included essential IDM elements and 40% included at least one PCDM element. In high patient-centered visits, IDM was associated with patients feeling respected in counseling and liking clinicians in medication decisions. IDM was not related to clinician ratings. In low patient-centered visits, PCDM in counseling decisions was positively associated with patients feeling respected and clinicians respecting patients.

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DECLARATIONS OF CONFLICTING INTERESTS

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Conclusions—The associations between IDM and PCDM with interpersonal ratings was moderated by overall patient-centeredness of the visit, which may be indicative of broader cross-cultural communication issues.

Practice Implications—Strengthening partnerships between depressed African Americans and their clinicians may improve patient-engaged decision-making.

Keywords

patient-centeredness; informed decision-making; depression; African Americans; primary care

1. INTRODUCTION

Despite having a lower prevalence of depression overall,[1] African Americans in the US are more likely to suffer from persistent and severe depression compared to other racial/ethnic groups.[2] Under-recognition[3] and suboptimal treatment of depression are common among African Americans,[4] including in primary care settings, where most individuals with depression seek help.[5] There are also significant disparities in the quality of mental health treatment across racial and ethnic groups—African-American patients with depression are less likely than their white counterparts to be recognized as depressed[5] and to receive guideline-concordant care.[6,7] African-American primary care patients with depression also experience less rapport-building and discussion about depression than their white counterparts,[8] which could contribute to poorer quality of care and worse depression outcomes.[9] These observations are concerning within the context of national calls to action to provide patient-centered care [10] with emphasis on improving patient experiences, improving population health, reducing costs,[11] and addressing health disparities.[12]

Two overlapping concepts—informed decision making (IDM) and patient-centered care—have been advocated by the National Academy of Medicine and other organizations as key to future improvements in healthcare quality.[13] Moreover, studies suggest that African-American patients with depression receive lower levels of treatment overall, [5,7–9,14], receive less patient-centered care and report lower levels of participation in treatment decisions.[15]

There is some evidence from depression-related simulation studies conducted in the US and UK that physician style (higher vs lower patient-centeredness) affects analogue patients' willingness to discuss depression and treatment options. In one study, participants were recruited to act as analogue patients, that is, to verbally interact with a video doctor *as if they were in an actual visit discussing depression.* The findings suggest that ethnic minority patients under the condition of higher patient-centeredness were more positive about their interactions with the doctor, more comfortable in disclosing their emotional state and rated the doctor's affective demeanor and nonverbal communication skills more positively than when exposed to a lower patient-centered physician. Afro-Caribbean analogue patients were also more likely to endorse counseling as a treatment option than medications when exposed to a higher relative to lower patient-centered simulated doctor. [16] Also notable in both the US and UK findings, patient-centered style had a much stronger effect on analogue patients'

interpersonal ratings of the doctor and their disclosures about depression than the simulated doctors' race or gender.[17]

The current study was designed to further the exploration of the intersection of patient-centered communication and depression-related decision making in primary care visits with African-American patients. We do this by describing the frequency and nature of treatment decisions that meet informed decision making (IDM) criteria and/or include key elements of patient-centered decision-making (PCDM). We also explore how these treatment discussions might affect the way patients and physicians perceive one another in terms of interpersonal attributes such as liking, trust and respect.

Based on prior work, we hypothesize that the majority of depression-related treatment decisions in visits with African-American patients will not meet IDM criteria nor will they commonly include key elements of PCDM. Since treatment decisions are made within the broader context of a medical visit, we hypothesize that the overall patient-centeredness of the medical visit will moderate relationships between PCDM and patients' interpersonal ratings of their doctor. More specifically we expect that PCDM within the context of higher patient-centered visits will not provide any additional benefit in terms of positive interpersonal ratings by patients of their doctors since the rapport reflected in those ratings is likely established more generally; however, PCDM may increase positive ratings by patients in lower patient-centered visits. We expect that doctors' interpersonal ratings of patients will parallel patients' ratings of them, regardless of overall visit patient-centeredness. We hypothesize that IDM may increase positive interpersonal ratings of both patients and clinicians regardless of overall levels of visit patient-centeredness.

2. METHODS

2.1 Study Design and Population

We performed a cross-sectional analysis of data on patients being screened for the BRIDGE (Blacks Receiving Interventions for Depression and Gaining Empowerment) Study, a cluster randomized trial comparing two interventions to improve the quality of depression care for African-American patients in urban community-based primary care settings in Baltimore, Maryland as well as Wilmington and Newark, Delaware.[18] Details regarding clinician and patient enrollment are reported elsewhere.[18] This study included 21 primary care clinicians and 76 of their African-American patients who were positive on a screener for major depressive disorder from the Composite International Diagnostic Interview (CIDI).[19] Clinicians were general internists, family physicians, and nurse practitioners who delivered care at least 20 hours per week. All study patients and clinicians gave informed consent. The study was approved by the Johns Hopkins and MedStar Health Institutional Review Boards.

2.2 Data Collection

On study recruitment days, patients in practices participating in the BRIDGE Study completed a 10-minute depression screening interview in a private room. Those who were positive on the CIDI depression screen completed a written study consent, and a research

assistant arranged for the patient's medical visit to be audio taped. Patients who screened positive for depressive symptoms in clinical sites were called at home within two weeks of their onsite screening to complete a baseline telephone interview as well as the second-stage screen (to determine whether they had a diagnosis of major depressive disorder and met full criteria for the trial). The baseline interview included questions regarding their health status, demographic characteristics, use of health services, and ratings of their most recent primary care visit. Clinicians completed a background form including demographic characteristics, training, and clinical experience, and a post-enrollment visit questionnaire regarding how well they knew the patient, impressions of the patient's health status and ratings of the relationship for each patient whose enrollment visit was audiotaped.

Trained coders assessed communication behaviors by analyzing audiotapes from enrollment visits using three methods described in detail below: 1) a modified version of the Braddock coding scheme for informed decision-making;[20] 2) patient-centered characteristics[21] of decisions, which we describe as Patient-Centered Decision-Making (PCDM) in this study; and 3) the Roter Interaction Analysis System (RIAS), a widely used coding system for the assessment of patient-physician communication.[22]

Coders abstracted the following decision-related information from the recorded visits. Decisions regarding treatment were identified if the clinician (or patient) raised the need to take action. Decision type was classified as medication, counseling, watchful waiting, diagnostic testing, or other based on the contents of the dialogue. For example, "Do you want to try counseling alone first?" or "Does it make you feel any better now that I have told you about the medicine?" IDM and PCDM elements were identified within each decision. For example (nature of the decision), "This has been hanging around for a long time—the sadness…so I think that it might be helpful to get you started on something [medication] for depression." In addition, there could be more than one decision identified within a patient encounter. For example, a physician might suggest medication and through the interaction with the patient also raise counseling as an option. Each decision within the encounter was evaluated regarding its type and IDM and PCDM elements present.

Inter-rater agreement between coders was assessed as to: 1) the same number of decisions identified; 2) the same types of decisions identified (medication, counseling, watchful waiting, diagnostic testing or other); and. 3) the same decisional elements within decisions. Inter-rater agreement among the coders was 83%. Where the audio recording was unclear, or there was a discrepancy in the number, type, or decision elements identified, a third trained coder listened to the tape and discussions continued until the three coders came to consensus.

2.3 Study Measures

Informed Decision-making Elements—Coders evaluated the audiotapes with regard to five IDM elements[20] for which we provide examples from the audiotapes in Table 1. These elements include discussion and assessment of: (1) the clinical issue and the type of decision to be made (e.g., medication, counseling, watchful waiting, diagnostic testing, other); (2) management alternatives; (3) pros (benefits) and cons (risks) of the alternatives;

(4) patient's understanding; and (5) patient's preferred and/or expressed preference. Each element was operationalized as a dummy variable reflecting presence or absence.

IDM was considered complete if each of the first three elements listed above were present; decisions that were not complete but included some decision elements were deemed partial; and, decisions without any of the listed elements were categorized as lacking IDM. For logistic analysis, we dichotomized IDM as complete versus incomplete or lacking.

Patient-Centered Decision-making Elements—Consistent with the literature describing patient attitudes and preferences for depression care [21,23,24], we identified the following as potentially useful elements to reflect patient-centered decision making (PCDM): discussion about lifestyle and coping strategies, including extrinsic spirituality (e.g., church attendance); assessment of the patient's knowledge and cultural beliefs, such as intrinsic spirituality (e.g., believing that faith in God prevents depression); and, discussion of patient's treatment concerns (e.g., side effects, addictive potential of medications, painful nature of counseling, social stigma associated with treatment, and mistrust of health care). Examples of these elements from the audiotapes are found in Table 1. Patient-centered elements present within decisions were tallied on a scale of zero to three. Because few decisions included more than one element, the scale was dichotomized to reflect at least one element as PCDM present and decisions with none of the elements were considered lacking PCDM. We further evaluated the presence of each PCDM element using dummy variables—"present" versus "not present".

Communication Process Measures—We examined overall visit communication using the Roter Interaction Analysis System (RIAS), a validated method of coding clinical communication in which clinician and patient statements are assigned to mutually exclusive and exhaustive code categories. Inter-rater reliability of RIAS coding averaged 0.84 across physician and patient categories.[8] We examined an overall measure of visit patient-centeredness, calculated as a ratio of patient and physician psychosocial and socioemotional exchange relative to biomedical and procedural talk, as used in other RIAS studies.[23,25–29] An in depth discussion of the theoretical rationale for this approach is detailed elsewhere.[30]

Patients' Perceptions of Clinician's Participatory Style—We assessed patients' perceptions of the clinician's participatory style after the encounter using a standard measure in which patients were asked to rate: "If there were a choice between treatments, how often would Dr. (NAME) ask you to help make the decisions," on a scale of 0 to 4 (never=0; rarely=1; sometimes=2; often=3; very often=4).[31]

Patients' Interpersonal Ratings of Clinicians—Patients were also asked to rate on a scale of 1 to 5 (1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree) the following statements: "I like this clinician";[32] "I trust Dr. (NAME) to act in my best interests";[33] and "My clinician has a great deal of respect for me".[33]

Clinicians' Interpersonal Ratings of Patients—After the visit, clinicians were asked to rate on a five-point Likert scale (strongly disagree=1, disagree=2, neutral=3, agree=4,

strongly agree=5) three items parallel to the patients' rating of the physician described above: "This patient trusts me"; "This patient likes me";[32] "I have a great deal of respect for this patient".[34] In addition, physicians responded to the following "My time was well spent during this visit".[35]

2.4 Data Analysis

We summarized demographic and clinical characteristics of the patient population and physician demographics and practice/training characteristics as well as physician self-reported confidence in their ability to care for minority patients.

The prevalence and extent of each IDM and PCDM element were described and compared across decision types using chi-squared tests. We also described the frequency of decision elements and presence of IDM and PCDM as operationalized and noted above. We used regression analyses to examine the associations of patient and clinician demographic variables with IDM and PCDM. Logistic regression was used to explore the relationships of IDM and PCDM with overall patient-centeredness and patient and clinician-reported outcomes, separately for two decision types (medication and counseling), using generalized estimating equations (GEE) to account for clustering of patients within clinicians and adjusting for visit duration. Finally, we examined high versus low visit patient-centered visits and decision type in stratified analysis, adjusted for visit duration, as potential effect modifiers of the association between IDM and PCDM and patients' and clinicians' ratings of care.

Some patients were lost to follow-up within the two weeks after the screening encounter; thus, analyses included responses of only patients for whom we had complete data. A probability of Type I error of less than 0.05 was considered statistically significant for all of the models. SAS® version 9.2 statistical software was used.

3. RESULTS

3.1 Inclusion of Patients and Clinicians

There were 95 patients whose visits with primary care clinicians were audio-recorded. Not all of these patients were recruited into the study; 10 could not be located after the initial screening to complete the baseline interview, 8 refused to complete it, and 1 patient was later determined not to have screened positive for current symptoms of depression. The remaining 76 unique patients had a positive depression screen and were seeing 21 of the 27 clinicians who participated in the trial. There were no statistically significant differences in the mean age, income, employment status, educational level, or gender compositions of those included in this analysis and those in the overall study.

3.2 Characteristics of Patients and Clinicians

Most of the African-American patients in this study were women, high school-educated or less, employed, and insured. The mean depression level (CES-D score) was 24.7 (14.3) (Table 2)—a score of 16 or higher was considered depressed.[36] The 21 clinicians in this study were Caucasian, mostly women, general internists, and board certified. On average,

clinicians had been in practice for 8.5 years. More than half of the clinicians were very confident in their ability to manage ethnic minority patients.

3.3 Frequency and Nature of Decisions

Most of the 169 decisions identified by coders included at least some IDM elements but few met criteria for complete IDM (Table 3). Of the required IDM elements, the nature of the decision was almost always specified and treatment alternatives were discussed about half of the time. However, the third required element, discussion of risks and benefits, was discussed infrequently, in only 15% of decisions. Forty percent of decisions included at least one PCDM element. Discussion of lifestyle and coping strategies was most prevalent, followed by treatment concerns, and knowledge and cultural beliefs. There were no statistically significant associations between patient demographic variables and completeness of IDM or PCDM (data not shown).

Table 3 also displays the frequency of decision types and associated decision elements. The three primary decision types were counseling, medication and watchful waiting, each representing some 30% of decisions. For PCDM, two elements varied by decision type (Table 3). There was a significantly higher prevalence of discussion about lifestyle and coping within counseling decisions relative to medication decisions; in addition, there was more discussion of treatment concerns in medication decisions than counseling decisions. Watchful waiting included a PCDM element in only 8.5% of these decisions and only 2% included all 3 IDM elements. Due to the infrequency of IDM and PCDM in watchful waiting decisions, we focused on medication and counseling decisions in regression analyses.

3.5 Associations between IDM and Interpersonal Ratings

IDM was not associated with overall visit patient-centeredness or visit length for either medication or counseling decisions (Table 4). Table 4 also displays IDM and patient and clinician ratings of each other stratified by high versus low visit patient-centeredness and decision type (medication and counseling). In low patient-centered visits, IDM in medication decisions was not associated with patient ratings, but IDM in counseling decisions was associated with patient liking of the physician. In high patient-centered visits, IDM in both medication and counseling decisions was associated with patient liking of the physician. In addition, in high patient centered visits, IDM in counseling decisions was associated with patient reports of feeling respected, but not of trusting the clinician.

In low patient-centered visits, IDM in both medication and counseling decisions was associated with clinicians rating patients as trusting them and their time as well spent; clinicians also rated the patient as liking them when IDM was present in medication decisions. In high patient-centered visits, IDM was not associated with clinicians' ratings of patients.

3.6. Associations between PCDM and Interpersonal Ratings

Overall patient-centeredness and visit duration were not associated with PCDM (Table 5). In low patient-centered visits, patients were less trustful of the clinician in regard to PCDM in medication decisions, but positive about PCDM in counseling decisions—reflected in

increases in ratings of the clinicians' participatory decision-making style and increasing ratings of trust and feeling respected. In high patient centered visits, there were no associations between PCDM (regardless of medication or counseling decisions) and patient ratings of the clinician.

The relationship between clinician ratings of patients and PCDM differed quite a lot depending on the decision type and overall patient-centeredness of the visit. In low patient centered visits, clinician ratings of patients were negatively related to PCDM in medication decisions (they rated patients as not liking them and not trusting them) but positively related to PCDM in counseling decisions (they reported increasing ratings of respect for patients). In contrast, in higher patient-centered visits, PCDM in medication decisions was associated with positive clinician ratings (patient likes the clinician and the clinician respects the patient), but there was no association between PCDM in counseling decisions and clinician ratings.

4. DISCUSSION AND CONCLUSION

4.1 Discussion

Only 9% of depression-related treatment decisions made by the African-American patients in our study visits could be characterized as meeting three basic elements of IDM; while the nature of the decision was almost always discussed and treatment alternatives were discussed about half the time, risks and benefits were addressed in fewer than 1 in 6 decisions. While we hypothesized that the majority of depression treatment decisions would not meet basic IDM criteria, we had not expected the prevalence to be so low. It is especially concerning how infrequent the discussion of risks and benefits were.

More encouraging were the findings in regard to our newly developed measure of PCDM that included topics of psychosocial and socioemotional concern particular important to African-American patients with depression. Overall 40% of depression treatment decisions included a discussion of at least one of these topics; one-quarter addressed lifestyle and coping strategies, including spirituality and church attendance and 17% discussed treatment concerns of a physical (e.g., side effects and addiction potential) or social and cultural nature (e.g., depression related stigma and mistrust of the health care system). We feel this finding suggests that clinicians are mindful of the patients' social context and its importance for treatment decision making, even if overall medical visit dialogue is not characterized as patient-centered.

Moreover, IDM and PCDM for depression care had significant consequences for the patient-physician relationship and these consequences were moderated by the overall patient-centeredness of the medical visit. As hypothesized, there was no effect of PCDM on patients' interpersonal ratings of the doctor within the context of overall high patient-centeredness for either medication or counseling decisions. We do not interpret lack of effect as problematic; in fact we think patients' interpersonal ratings of their doctor may simply be reflective of the rapport established throughout the visit and not contingent on the short discourse about treatment decisions. In the context of overall low patient-centeredness, patients' interpersonal ratings were positively associated with PCDM, with increases in

ratings of the doctor for participatory decision making, trust and feeling respected in relation to counseling decisions; in this case, the addition of patient-centered topics during the decision discourse may compensate for lower overall visit patient-centeredness. There was one negative association between PCDM and patient ratings of trusting their doctor in regard to medication decisions within lower patient-centered visits. We do not know why this was the case, but it is interesting to note that clinicians' interpersonal ratings of patients were also negative for medication decisions within this context. It is possible that doctors introduced patient-centered elements into medication decisions in otherwise low-patient centered visits when they suspected patient resistance to medication and perhaps recognized a lack of patient trust.

We did not specify predictions in regard to IDM and patients' interpersonal ratings of the doctor; however, we found a greater number of associations in higher relative to lower overall patient-centered visits. Three of the four ratings we examined were positive, and the one negative rating was in regard to patient trust of the doctor associated with IDM in counseling decisions. As noted above, the only other negative patient rating was also about trust associated with PCDM about medication decisions in lower patient-centered visits. Roots of African-American mistrust of the health care system dates back to segregation and unethical withholding of treatment and patients may be particularly sensitive to clinician behavior in this regard. With this background, feelings of being pressured or intruded upon in regard to depression treatment decisions may invoke defensiveness or other such negative perceptions, such as mistrust.[37]

Clinicians' interpersonal ratings of patients were not associated with IDM in higher patient-centered visits; however, there was a positive pattern of associations between interpersonal ratings in lower patient-centered visits in regard to both counseling and medication decisions. Cultural preferences for treatment modalities remain influential in how clinicians and patients engage in depression discussions and how they, subsequently, rate care. Preferences for counseling over medication among African Americans have been well-documented;[38,39] thus, more frequent discussion of treatment concerns in medication relative to counseling decisions identified in this study may reflect astute clinicians' attempts to demonstrate cultural sensitivity. Alternatively, demonstration of concern and respect for a patient's circumstances and an opportunity to work through personal and family "issues", as demonstrated by high prevalence of lifestyle and coping elements in counseling decisions, is consistent with the cultural construct of mental illness in the African-American community[40] and may yield stronger partnerships with patients as well as positive increases in patient ratings. This assertion is supported by increases in patient ratings of trusting and feeling respected by clinicians in counseling decisions with otherwise low patient-centered interviewing. Knowing that racial concordance plays a role in participatory decision-making and patient ratings of care, this approach of addressing socioemotional context may be particularly important for non-African-American clinicians (as represented by the majority of clinicians in this study) for whom broaching the culturally-sensitive topic of depression treatment with patients may be difficult regardless of patient-centered communication.[23]

A strength of this study is that it helps support a small literature regarding depression treatment decision making, responsive to psychosocial and cultural concerns of African Americans. It is the largest study of IDM among African-American patients with depression to date and uniquely explores the role of patient-centered elements within the context of decision-making.

Findings must be interpreted within the context of the study's limitations. First, the small sample size limits the reliability of our estimates, our statistical power to detect differences in several outcomes, and our ability to account for possible confounding by patient gender, age, or educational status or clinician's race. Second, clinicians and patients who agreed to participate in this study may differ from those who chose not to participate, which may bias our findings. Third, this study includes a single geographical region in the United States and the results may not be generalizable to other regions. Moreover, observation in this study is limited to a single visit. Although we take into account overall patient-centeredness, this interaction may not reflect patterns of communication of the patients and clinicians over time. Additionally, patient ratings of clinicians may be affected by recall bias, [41] in that patients were interviewed up to two weeks after the clinical encounter.

4.2 Conclusion

IDM and PCDM were low among African-American patients with depression in this study. Subsequent patient and clinician ratings of care varied by both the type of decision to be made—medication versus counseling—as well as the context of high versus low patient-centered interviewing. For patients already experiencing high levels of patient-centered interviewing, IDM is associated with increased ratings of liking and respect for some decisions. PCDM may improve patients' ratings of choice, trust, and respect in counseling decisions with low patient-centered interviewing, while improving clinicians' ratings of respecting patients.

4.3 Practice Implications

Covering appropriate content for IDM and PCDM may be necessary but insufficient for building partnerships in depression care for African-American patients and their clinicians. In other words, it may not be *what* clinicians say about the treatment plan, but *how* they say it. As generalists, primary care clinicians are positioned to address patients' needed through a more holistic lens, including considerations of social determinants such as financial, psychological, and social stress. Understanding the socio-cultural experiences of socially marginalized populations and how they impact interactions in the healthcare setting may inform efforts to build mutually respectful and truly equipoised partnerships—embodying the best of biomedical and psychosocial perspectives—with clinicians serving as experts in medicine and patients as experts regarding their own lives.

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Highlights

- Few encounters between patients and clinicians met informed decision-making criteria.
- 40% of depression treatment decisions mentioned psychosocial and emotional concerns.
- Clinician interpersonal ratings mirror patient ratings in patient-centered decisions.
- Visit patient-centeredness modified associations with interpersonal ratings.
- Informed and patient-centered decision-making were negatively related to trust.

Table 1

Examples of Informed Decision-Making Elements and Patient-Centered Components

Element	Description	Example
1. Nature of the Decision	Discussion of the decision to be made and/or rationale for clinical treatment	"This has been hanging around for a long time—the sadness…so I think that it might be helpful to get you started on something [medication] for depression."
2. Alternatives	Presentation of treatment options within and/or between categories	"We have a couple of options:…counseling on its own;… counseling and medication…; or medication alone…"
3. Pros and Cons	Discussion of the benefits or consequences of treatment options	"Mainly, they [social workers] can do some on the spot counseling, but they aren't really set up to do long term, longitudinal counseling…"
4. Patient Understanding	Assessing patient's understanding of treatment and options	"Does it make you feel any better now that I have told you about the medicine?"
5. Patient's Role or Preference	Discussion of patient's role in the treatment course and/or acknowledgment of patient preference for one option over another	"Do you want to try counseling alone first?"
Patient-Centered Components		
1. Lifestyle and Coping Strategies	Discussion of spirituality, social support, and/or other coping mechanisms	"Would you feel comfortable talking to your pastor about the things that we are discussing? *Yes.* God puts people in your life for a reason, let them help you. That's what they are there for. If that will help you stay on track with all these things that would be a good thing."
2. Knowledge and Cultural Beliefs	Discussion of cultural beliefs, such as understanding depression as a personal weakness	I don't like taking pills or things like that…you know because I don't really feel that the Lord would need for me to use it for things to get better…that's my point…
3. Treatment Concerns	Discussion of treatment concerns, such as side effects, the addictive potential of medications, social stigma, and mistrust of health care	"When I was going to that doctor, I talked to this one guy that had been taking medication…he looked like he needed to have his medication, like he was addicted to this pill and that scares me."

Table 2

Patient and Clinician Characteristics

Patient Characteristics (N=76)	**Mean (SD)**
Age (years)	47.3 (11)
Household Income	$44,283 ($27,670)
CES-D score	24.69 (14.3)
	Percent
Gender (female)	74
Education	
High School or less	54
Employment	
Working	65
Health Insurance	89
Clinician Characteristics (N=21)	**Mean (SD)**
Age (years)	44.8 (9.3)
Experience at current practice (years)	8.5 (7.3)
	Percent
Gender (female)	59
Ethnicity	
African-American	24
Asian	29
White	48
Internal Medicine	71
Board Certified	71
Very confident in ability to care for minorities[a]	57

[a]Clinicians were asked, “How confident are you in caring for minority patients?” (not at all confident, not very confident, somewhat confident, and very confident). All clinicians in this study reported being “somewhat” or “very” confident.

Table 3

Percent of Decisions with Levels and Elements of Informed Decision-making (IDM) and Patient-Centeredness in Primary Care Visits of 76 African-American Patients with Depression

	All Decisions[a] n=169	**Medication n=50**	**Counseling n=54**	**Watchful waiting n=47**	**p-value[b] (χ^2)**
Extent of IDM (% of decisions)					
No IDM	1.8	0.0	0.0	4.3	0.01
Partial IDM	83.4	76.0	77.8	93.6	
Complete IDM					
including *at least* elements 1,2,3	8.9	24.0	22.2	2.1	
Presence of IDM Elements (% of decisions)					
1. Nature of Decision	97.6	100.0	100.0	95.7	0.11
2. Alternatives	47.9	52.0	68.5	38.3	0.01
3. Pros/Cons regarding alternatives	14.8	24.0	22.2	2.1	0.01
4. Patient Understanding	11.2	16.0	20.3	0.0	0.19
5. Patient Role/Preference	96.5	96.0	100.0	93.6	0.01
Extent of PCDM (% of decisions)					
No PCDM	60.3	38.7	38.9	91.5	<0.001
One element	30.2	41.9	50.0	6.4	
Two elements	9.5	19.4	11.1	2.1	
All 3 elements	0.0	0.0	0.0	0.0	
Presence of Patient-Centered Elements (% of decisions)					
1. Lifestyle and coping strategies					
2. Knowledge and cultural beliefs	25.4	18.0	51.9	8.6	<0.001
3. Treatment concerns	5.9	8.0	9.3	2.9	0.32
	17.8	46.0	13.0	0.0	<0.001

[a] "All decisions" includes medication decisions (n=50), counseling decisions (n=54), watchful waiting decisions (n=47), diagnostic testing (n=16), and other (n=2).

[b] Chi-squared comparisons (and p-values presented) compare IDM, PCDM and individual elements present versus not present by decision type—medication, counseling, or watchful waiting;

Note: Inter-rater agreement=0.83 or 83%

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Table 4

Association of Complete[a] Informed Decision-Making (IDM) with Communication Process and Patient and Clinician Interpersonal Ratings[b] within Medication and Counseling Decisions

	Medication Decisions (n=50)			**Counseling Decisions (n=54)**		
	Mean[c] (SD)	**Estimate β**	**p-value**	**Mean[c] (SD)**	**Estimate β**	**p-value**
Association of Communication Process Measures with Complete Informed Decision-Making[d]						
Patient-centered interviewing ratio	2.17 (2.59)	0.03	0.32	2.44 (2.63)	0.02	0.37
Visit duration (minutes)	24.05 (7.27)	0.01	0.05	24.46 (7.83)	0.01	0.67
Associations of Patients' and Clinicians' Interpersonal Ratings with IDM Adjusting for Visit Duration[e] and Stratified by High or Low Patient-Centered Interviewing Ratio[f]						

	Medication Decisions (n=31)					**Counseling Decisions (n=36)**				
	Mean[c] (SD)	**Low Patient-Centered Ratio**		**High Patient-Centered Ratio**		**Mean[c] (SD)**	**Low Patient-Centered Ratio**		**High Patient-Centered Ratio**	
		β	**p-value**	**β**	**p-value**		**β**	**p-value**	**β**	**p-value**
Patient's perception of clinician's participatory decision-making style: Would DR ask for your input?	3.21 (1.01)	1.10	0.07	0.40	0.52	3.09 (1.22)	−0.46	0.59	0.20	0.64
Patient's interpersonal ratings of clinician										
Patient likes clinician	4.70 (0.26)	0.11	0.62	0.33	0.02	4.60 (0.50)	0.65	<0.01	0.28	<0.01
Patient trusts clinician	4.71 (0.46)	−0.01	0.96	−0.03	0.90	4.69 (0.47)	0.08	0.82	−0.50	<0.01
Patient feels respected by clinician	4.68 (0.48)	−0.09	0.66	0.09	0.56	4.63 (0.49)	0.27	0.35	0.40	<0.01
Clinician's interpersonal ratings of patient										
Patient likes the clinician	3.69 (0.54)	0.41	<0.01	−0.05	0.84	3.61 (0.61)	0.37	0.31	0.53	0.06
Patient trusts physician	3.72 (0.59)	0.97	<0.01	−0.41	0.25	3.67 (0.65)	0.87	0.01	0.07	0.83
Physician respects patient	3.62 (0.86)	−0.01	0.30	0.16	0.64	3.55 (0.87)	−0.90	0.06	0.58	0.07
Time was well spent during the visit	3.66 (0.61)	1.02	<0.01	−0.16	0.53	3.61 (0.66)	0.57	0.03	0.25	0.12

[a]Decisions with complete IDM addressed decision elements: 1=nature of the decision, 2=alternatives, and 3=pros and cons regarding the alternatives. The comparison group includes those not including at least all three of these criteria.

[b]Patient's perception of clinician's participatory style, patient and clinician interpersonal ratings were evaluated as continuous scales.

[c] Mean equals the mean patient-centered interviewing ratio, visit duration, and patients' and clinicians' interpersonal ratings across decisions.

[d] Communication measures were treated as predictors of "complete" informed decision-making. Estimates represent the difference in informed decision making per unit of patient-centered interviewing score and per minute of visit duration.

[e] "Complete" informed decision making was treated as a predictor of patients' and clinicians' interpersonal ratings. Models were adjusted for the duration of the visit. Estimates represent the difference in mean patient rating, or clinician rating score for "complete" versus "not complete" informed decision making

[f] "High" and "low" patient-centered interviewing ratio was established at the median score across medication and counseling decisions.

Table 5

Association of Patient-Centered Decision-Making[a] (PCDM) with Communication Process and Patient and Clinician Interpersonal Ratings[b] within Medication and Counseling Decisions

	Medication Decisions			Counseling Decisions		
	n=50 decisions			n=54 decisions		
	Mean[c] (SD)	Estimate β	p-value	Mean[c] (SD)	Estimate β	p-value
Association of Communication Process Measures with Patient-Centered Decision-Making[d]						
Patient-centered interviewing ratio	2.17 (2.59)	0.06	0.05	2.44 (2.63)	0.05	0.10
Visit duration (minutes)	24.05 (7.27)	0.01	0.53	24.46 (7.83)	0.01	0.76
Associations of Patients' and Clinicians' Interpersonal Ratings with PCDM Adjusting for Visit Duration[e] and Stratified by High or Low Patient-Centered Interviewing Ratio[f]						
	n=31 decisions			n=36 decisions		
	Mean[c] (SD)	Low Patient-Centered Interviewing	High Patient-Centered Interviewing	Mean[c] (SD)	Low Patient-Centered Interviewing	High Patient-Centered Interviewing
		β / p-value	β / p-value		β / p-value	β / p-value
Patient's perception of clinician's participatory decision-making style: Would DR ask for your input?	3.21 (1.01)	−0.72 / 0.25	−0.34 / 0.41	3.09 (1.22)	0.88 / 0.04	0.33 / 0.26
Patient's interpersonal ratings of clinician						
Patient likes clinician	4.70 (0.26)	−0.53 / 0.12	−0.12 / 0.25	4.60 (0.50)	0.20 / 0.24	−0.04 / 0.79
Patient trusts clinician	4.71 (0.46)	−0.41 / <0.01	0.15 / 0.42	4.69 (0.47)	0.62 / <0.01	−0.27 / 0.26
Patient feels respected by clinician	4.68 (0.48)	−0.22 / 0.14	−0.08 / 0.71	4.63 (0.49)	0.39 / <0.01	−0.13 / 0.54
Clinician's interpersonal ratings of patient						
Patient likes the clinician	3.69 (0.54)	−0.41 / <0.01	0.92 / <0.01	3.61 (0.61)	0.03 / 0.89	−0.33 / 0.03
Patient trusts physician	3.72 (0.59)	−0.99 / <0.01	0.54 / 0.29	3.67 (0.65)	0.29 / 0.32	−0.18 / 0.52
Physician respects patient	3.62 (0.86)	−0.01 / 0.73	1.23 / <0.01	3.55 (0.87)	1.39 / <0.01	−0.24 / 0.43
Time was well spent during the visit	3.66 (0.61)	0.29 / −0.38	−0.81 / 0.10	3.61 (0.66)	0.14 / 0.73	−0.19 / 0.22

[a] Patient-centered decision-making was defined as having at least one patient-centered element.

[b] Patient's perception of clinician's participatory style, patient and clinician interpersonal ratings were evaluated as continuous variables.

[c] Mean equals the mean score for patient centered interviewing, visit duration, and patients' and clinicians' interpersonal ratings across decisions.

[d] Communication measures were treated as predictors of patient-centered decision-making (PCDM). Estimates represent the difference in PCDM per unit of patient-centered interviewing ratio and per minute of visit duration.

[e] Patient-centered decision making was treated as a predictor of patients' and clinicians' interpersonal ratings. Models were adjusted for the duration of the visit. Estimates represent the difference in mean patient rating, or clinician rating score for "PCDM" versus "not PCDM".

[f] "High" and "low" patient-centered interviewing was established at the median score across medication and counseling decisions.