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Physician Facilitation of Patient Involvement in Care: Correspondence Between Patient and Observer Reports

Leslie R. Martin, PhD; Kristina H. Jahng; Carol E. Golin, MD; M. Robin DiMatteo, PhD

The authors surveyed 128 patients with type 2 diabetes mellitus (1) to evaluate the congruence between patients' and observers' perceptions of physicians' facilitation of patients' involvement in care and (2) to identify which physician behaviors were most closely related to patients' perceptions that their doctors encouraged them to be involved in their care. The patients reported the degree to which they perceived that their physicians encouraged their involvement in the medical care process. Raters blind to the study hypotheses coded audiotapes of the physician-patient interactions. Pearson's r and simultaneous multiple regression used to address the study questions indicated a small to moderate, but statistically significant, association between patients' perceptions and observers' reports concerning the physicians' levels of facilitation. Open-ended questions, responding to patient questions, and offering fewer alternatives were all associated with the patients' positive reports of physician facilitation.

***Index Terms**: cooperative behavior, patient participation, physician-patient relations*

When patients collaborate effectively with their physicians and other medical care providers, the likelihood of a number of positive outcomes increases. Patients who participate in their medical care are generally more adherent, more satisfied, and enjoy better health-related quality of life than those who do not.[1–12] Communication and collaboration in the medical encounter may be among the most important determinants of positive outcomes in healthcare.[2,3] Given the nature of these positive associations, collaborative medical interactions are generally desirable, and steps to enhance collaboration in the medical encounter are often encouraged.

Although physicians and other providers might take many steps to facilitate patients' involvement in their own care, it is unclear which actions are effective or whether all are equally effective. In addition, patients may perceive their physician's various behaviors differently. In previous research, Martin and associates[13] have suggested that when patients perceive that their provider has facilitated or encouraged their involvement in treatment, the patients are more satisfied with their care and more adherent to medical recommendations. Thus, interventions that target specific aspects of physicians' behavior that increase patients' sense of involvement in their own care are needed. The best method for measuring patient perceptions is, of course, to ask patients how they feel.[14,15]

***Dr Martin** and **Ms Jahng** are with Department of Psychology, La Sierra University, Riverside, California; **Dr Golin** is with the Division of General Internal Medicine and the Sheps Center for Health Services Research at the University of North Carolina, Chapel Hill; and **Dr DiMatteo** is with the Department of Psychology at the University of California, Riverside.*

Programs to improve the partnership-building skills of healthcare providers, however, have typically focused on increasing or decreasing various behaviors (eg, decreasing the number of interruptions or increasing the number of open-ended questions) with little regard for targeting changes that alter patients' perceptions. Information about which physician behaviors patients experience as facilitating their involvement may be useful for developing more effective interventions to enhance provider communication skills. Our purposes in conducting this study were (1) to evaluate the congruence between patient and observer perceptions of physician behaviors that invite patient collaboration, and (2) to identify specific physician behaviors that are most closely related to patients' impressions that their doctors facilitate their involvement in care. The appropriate institutional review boards approved our research protocol and all procedures were in accordance with the ethical standards of the 1983 revision of the Helsinki Declaration of 1975.

METHOD

Sample

Our sample comprised 128 (62% female) patients with type 2 diabetes mellitus whom we recruited from the resident-run general medicine clinic at a large southern California teaching hospital. We identified potentially eligible patients prospectively from clinic rosters and used a stratified sampling procedure to ensure that we had adequate numbers of patients in each demographic category (age, ethnicity, sex) for each provider. For this sampling procedure, we used a computer program with a standardized algorithm that calculated an imbalance score for each prospective patient, given the demographics of patients already assigned to their physician, thus minimizing the imbalance of patient characteristics for each physician. The ethnic distribution of the 128 patients was Latino, 44.5% (n = 57); African American, 32.0% (n = 41); White, 12.5% (n = 16); Asian 10.9% (n = 14). Patients ranged in age from 28 to 78 years; 33% interacted with their physicians in Spanish and 67% in English. Fifty individual physicians (40% female) cared for this group of patients, of whom nearly 70% reported only fair-or-poor health.

Procedures

We used a structured interview technique to collect demographic information and determine patients' perceived levels of physician facilitation (FPI). Individuals trained according to a standardized protocol for approaching and interviewing patients conducted interviews privately in the patient's preferred language (English or Spanish), and Spanish interview protocols were translated using standard translation/back-translation techniques. Interactions between patients and their doctors were recorded on audiotape and analyzed by trained raters who were blind to the study questions and had no information about patients' backgrounds or FPI scores. The audiotape raters used 2 types of ratings—tallies and global (subjective) assessments. For statistical evaluation of patient-observer congruence, we used Pearson's r to test associations between patients' perceived facilitation scores and the raters' subjective assessments. In addition, we used simultaneous multiple regression to analyze the relative importance of physician behaviors to patient perceptions, with patient perceptions being the dependent variable and 8 items from the tally sheet being the independent variables.

Measures

FPI Scale. The FPI Scale[13] is a 9-item scale that assesses the degree to which a patient feels that his or her physician actively encourages doctor-patient collaboration in medical care. The response format is a 6-point Likert-type scale that ranges from *none of the time* to *all of the time*. Respondents indicate the degree to which each of the 9 statements is true in their experience (Appendix A). Alpha reliability in this sample was .93.

Facilitative behavior tallies. We audiotaped each physician-patient interaction and used these recordings to quantify facilitative behaviors in 2 ways: (1) by tallying the physician's oral comments during the interaction and (2) by having the raters note the nature of the interaction. Occurrences tallied were (1) solicitation of patient opinion; (2) open-ended question; (3) closed-ended question; (4) response to patient question; (5) positive interruption, which encourages patient to elaborate along the same line of thought; (6) neutral interruption, which does not hinder patient's flow of speech (includes back-channeling); (7) negative interruption, which serves to dominate or redirect the flow of conversation; (8) offers alternatives or choices to the patient (Appendix B). Two trained coders rated each audiotape. Interrater reliability was .83.

Global ratings of facilitation. Audiotape data may provide an incomplete picture of the physician-patient interaction when the behaviors being assessed are subtle.[16,17] This may be particularly true when raters are tallying behaviors as a means of evaluating qualitative aspects of an encounter. Thus, we also employed global assessments of physicians' facilitative behaviors. After the raters listened to the entire interaction carefully and counted behaviors, they submitted their tally sheets, then completed a 14-item questionnaire concerning their overall impressions of various aspects of the encounter. We derived the items from a review of

empirical literature on physician-patient communication. Responses were on a 10-point Likert-type scale (Appendix C). Two trained coders rated each audiotape. Interrater reliability was .78.

We then subjected these 14 items to principal component factor analysis. On the basis of a visual examination of the scree plot, as well as on the weakest lower bound criterion of minimum eigenvalues equal to 1.0, we retained 2 factors. The first factor, which explained 45% of the variance, included items 1, 2, 4, 11, 12, 13, and 14. The alpha reliability for these 7 items was .88. We labeled this group "global facilitation" because it consisted of both relatively concrete items (eg, responding to patient queries) and relatively abstract items (eg, demonstrating warmth toward the patient). The second factor, which explained 16% of the variance, included items 3, 7, 8, 9, and 10. The alpha reliability for these 5 items was .71, and we labeled the group "patient control" because the items indicated a high degree of patient control in the encounter, along with relative passivity on the part of the physician. The individual items and their factor loadings are presented in Table 1.

RESULTS

In this sample, the physicians most frequently used closed-ended questions (eg, "And were you able to cut down to one piece of toast in the morning?"), with neutral interruptions (back-channeling) occurring nearly as often. Open-ended questions (eg, "So, tell me how you dealt with that.") also occurred often, although only at about one third the rate of closed-ended questions and half the rate of neutral interruptions. Solicitations of patient opinions and offering alternatives occurred relatively infrequently. Means and standard deviations for each of the tallied behaviors are listed in Table 2.

Our first goal in conducting this study was to evaluate the degree of congruence between patients' and observers' perceptions of the physicians' facilitation of patient involvement. The correlation between patient-reported FPI and the global facilitation composite was .238 ($p < .01$), whereas the correlation between FPI and the second composite factor (patient control) was not statistically significant ($r = .05$, $p > .27$). These findings indicate that the patients' perceptions that their physicians facilitated their active involvement were moderately and significantly associated with similar perceptions on the part of outside observers. Physicians who appeared passively to allow patients to run the interactions did not receive higher FPI ratings from those patients.

The second question we addressed in this study was, "What is the relative importance of a number of varied physician behaviors to patient perceptions of facilitation?" To address this question, we conducted a simultaneous multiple regression in which the FPI was the dependent variable, and the 8 variables from the tally sheet served as predictors. Of these 8 predictors, asking open-ended questions was most closely associated with greater patient perceptions that their doctor facilitated their participation ($\beta = .49$, $p < .001$), accounting for 35% of the variance in patient FPI reports. Higher levels of consistent responding to patient questions ($\beta = .22$, $p < .01$) and offering fewer, not more, alternatives

TABLE 1. Factor Loadings for Items in the Physician–Patient Interaction Scales

Item	Global facilitation	Patient control
1. Treated like adult	**.75**	.28
2. Physician encouraged involvement	**.56**	.27
4. Responsive to patient concerns	**.69**	.17
11. Warmth of physician	**.83**	–.13
12. Interpersonal style attentive	**.88**	–.02
13. Comfort level of the patient	**.77**	–.33
14. Physician likes patient	**.83**	.20
3. Asked for patient opinion	.16	**.49**
7. Physician not dominant	.23	**.57**
8. Patient not dominant	–.08	**–.75**
9. Physician not submissive	–.22	**–.69**
10. Patient not submissive	.27	**.47**
5. Physician didn't interrupt†	.19	.10
6. Physician didn't fail to answer†	.32	.35

Note. Number of encounters = 128; factor loadings are shown in bold-face type; †unused items.

TABLE 2. Descriptive Statistics for Tallied Behaviors/Physician–Patient Interaction

Behavior	*M*	*SD*
Solicits patient opinion	0.34	0.83
Open-ended question	10.27	10.99
Close-ended question	35.85	21.64
Patient asks question	5.81	4.81
Physician responds to question	5.33	4.40
Positive interruption	4.12	4.56
Neutral interruption	22.20	22.60
Negative interruption	4.37	4.88
Alternative offered	1.89	1.34

Note. Number of encounters = 128.

to patients ($\beta = .21$, $p < .01$) were also associated with higher FPI scores. Eliciting patient opinions; asking close-ended questions; and interrupting positively, neutrally, and negatively all failed to predict FPI reports.

COMMENT

Our findings indicated that although patients' reports of the level of facilitation during their medical visits were significantly correlated with others' ratings of the audiotaped interactions, the effect size was rather small. This finding is not atypical because indicators of the congruence between patient and observer reports regarding other aspects of medical interactions are often low.[18–21] In addition, our findings showed that patients did not necessarily perceive that their involvement was being facilitated when their physicians played a passive role and allowed them to take charge. We found no association between the patient-reported FPI and the observer-reported patient control dimensions.

Asking open-ended questions and being responsive to patients' questions were the 2 most important things for physicians to do to make their patients feel that their involvement was welcome. We found it interesting that patients also felt involved when their physicians offered them *fewer* alternatives regarding their care. This was surprising because, by offering alternatives, physicians were actively bringing patients into the decision-making process. Because our sample consisted of chronically ill patients with poor self-reported health, their being offered a number of alternatives might have created confusion or worry rather than fostering feelings of control and personal responsibility. If this was the case, this particular finding might not generalize to healthier groups of patients without chronic illness. It might also be that offering more alternatives made people feel that their doctor was shifting too much responsibility to them. This is consistent with research showing that, even when patients want to have some input regarding their care, they do not want to maintain full responsibility for treatment decisions.[22,23] It is also possible that physicians offered more alternatives when their relationship with the patient was already problematic or when relationships were relatively new and patients and physicians had developed little sense of partnership. During interactions between doctors and patients with a longer or more positive history, physicians might have offered fewer alternatives because a strong partnership might have already existed. That might have been reflected in the relatively higher FPI scores the patients reported.

Our findings in this study suggest that interventions that focus on teaching doctors to ask more open-ended questions and to respond to all patient queries will probably result in the greatest perceptions of facilitation on the part of patients. Physicians who exhibit a passive role and allow their patients to control the interaction or provide countless alternatives to their patients might be doing so in an effort to be collaborative. Our findings show, however, that this may have an effect opposite to what was intended. Patients with more control and numerous alternatives did not feel more involved in a collaborative partnership. In fact, some felt less involved. Of course, physicians must interact with patients in a natural manner that is comfortable for them, and all of the predictors of FPI that we examined are theoretically meaningful indicators of encouraging involvement. In terms of the effect on patients, however, all are not equal. It makes good sense to focus energies toward improving physician performance of those approaches that will yield the most significant results.

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NOTE

For comment and further information, please address correspondence to Leslie R. Martin, PhD, Department of Psychology, La Sierra University, 4700 Pierce Street, Riverside, CA 92515-8247 (e-mail: lmartin@lasierra.edu).

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APPENDIX A

The Facilitation of Patient Involvement Scale

Please indicate how often your physician typically does the following things.

Response format: *none of the time, a little of the time, some of the time, a good bit of the time, most of the time, all of the time.*

1. My doctor gives me all the information that I need to make the decisions that are right for me.
2. My doctor ignores my opinion about treatment options. (–)
3. When prescribing a new medication, my doctor asks if I have any questions about the medication(s) and possible side effects.
4. My doctor discourages my questions. (–)
5. My doctor explains all the treatment options to me so that I can make an informed choice.
6. My doctor strongly encourages me to express all of my concerns about the prescribed treatment.
7. My doctor discourages me from expressing my personal opinion about my medical condition. (–)
8. My doctor's office staff makes it hard for me to be involved in my own medical care. (–)
9. My doctor makes it difficult for me to communicate my concerns about treatment decisions. (–)

APPENDIX B

Coder ID_____ Patient ID_____ Physician ID_____ Tape #____

1. Indicate below (with one tally mark) each time the physician asks for the patient's opinion.
2. Indicate below (with one tally mark) each time the physician asks the patient a question. Place the tally mark in the appropriate column for each case.

Open-ended question	Close-ended question

3. Indicate below (with one tally mark) each time the patient asks the physician a question. If the physician responds to the question, X the tally mark.
4. Indicate below (with one tally mark) each time the physician interrupts the patient. Place the tally mark in the appropriate column for each case.

Positive interruption (facilitates)	*Neutral*	*Negative interruption (dominates)*

5. Indicate below (with one tally mark) each time the physician offers an alternative to the patient (alternative treatment, alternative medication, alternative approach, etc).

APPENDIX C

1. After listening to the entire interaction, would you say that the patient was treated like an adult?

1	2	3	4	5	6	7	8	9	10
not at all									completely

2. After listening to the entire interaction, would you say that the physician actively encouraged the patient's involvement?

1	2	3	4	5	6	7	8	9	10
not at all									very much so

3. *Without* looking back at the actual tally (count), how often

would you say that this physician asked for the patient's opinion?

1 2 3 4 5 6 7 8 9 10
never — often

4. *Without* looking back at the actual tally (count), how responsive would you say that this physician was to the patient's questions and concerns?

1 2 3 4 5 6 7 8 9 10
not at all responsive — very responsive

5. *Without* looking back at the actual tally (count), how much would you say this physician interrupted the patient?

1 2 3 4 5 6 7 8 9 10
a great deal — not at all

6. *Without* looking back at the actual tally (count), how often would you say that this physician failed to answer a question posed by the patient?

1 2 3 4 5 6 7 8 9 10
very often failed — never failed

7. After listening to the entire interaction, how dominant would you say that the physician was?

1 2 3 4 5 6 7 8 9 10
very dominant — not at all dominant

8. After listening to the entire interaction, how dominant would you say that the patient was?

1 2 3 4 5 6 7 8 9 10
very dominant — not at all dominant

9. After listening to the entire interaction, how submissive would you say that the physician was?

1 2 3 4 5 6 7 8 9 10
very submissive — not at all submissive

10. After listening to the entire interaction, how submissive would you say that the patient was?

1 2 3 4 5 6 7 8 9 10
very submissive — not at all submissive

11. Overall, how would you rate the interpersonal warmth of the physician?

1 2 3 4 5 6 7 8 9 10
very cool — very warm

12. Overall, where would you place this physician in terms of his/her interpersonal style?

1 2 3 4 5 6 7 8 9 10
distant — attentive

13. Overall, how would you rate the interpersonal comfort level of the patient?

1 2 3 4 5 6 7 8 9 10
nervous anxious — relaxed comfortable

14. Overall, how much would you say that this physician likes the patient?

1 2 3 4 5 6 7 8 9 10
not at all — very much