

Beyond the Biopsychosocial Model

New Approaches to Doctor-Patient Interactions

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BACKGROUND. The biopsychosocial model has been a cornerstone for the training of family physicians; however, little is known about the use of this model in community practice. This study, conducted in an urban Native American health center, examined the application of the biopsychosocial model by an experienced family physician (Dr M).

METHODS. Interactions between Dr M and 9 Native Americans with type 2 diabetes were audio-recorded following preliminary interviews. Interpretations of the interactions were elicited from Dr M through interpersonal process recall and interpretive dialogue sessions. The author analyzed this data using techniques from interpretive anthropology and narrative discourse analysis.

RESULTS. In a preliminary interview, Dr M described a sophisticated biopsychosocial approach to practice. However, she viewed her actual interactions with these patients as imbued with misunderstanding, mistrust, and disconnection. This occurred in spite of her experience and commitment to providing culturally sensitive primary care.

CONCLUSIONS. Biopsychosocial models of disease may conflict with patient-centered approaches to communication. To overcome difficulties in her practice environment, Dr M adopted a strategy that combined an instrumental biopsychosocial approach with a utilitarian mode of knowing and interacting with patients. The misunderstandings, mistrust, and constrained interactions point to deeper problems with the way knowledge is formed in clinical practice. We need further understanding of the interrelationships between physicians' clinical environments, knowledge of patients, and theories of disease. These elements are interwoven in the physicians' patient-specific narratives that influence their interactions in primary care settings.

KEY WORDS. Physician-patient relations; family practice; Indians, North American; diabetes mellitus, non-insulin-dependent; qualitative methods [non-MeSH]. (*J Fam Pract* 1999; 48:601-607)

For 2 decades the biopsychosocial model has been important for the practice of family medicine.^{1,2} Physicians using this model integrate biological, psychological, social, and cultural domains in solving clinical problems and developing therapeutic strategies.^{3,4} Most writing on the biopsychosocial model has focused on theory development and educational transmission.^{5,6} Little attention has been paid to whether community-based family physicians apply biopsychosocial strategies in their interactions with patients.⁷ This qualitative case study addresses the following question: How does a community-based family physician trained in the biopsychosocial model apply this understanding to interactions with

patients with type 2 diabetes from different cultural backgrounds?

METHODS

FRAMING THE PROBLEM

This study was conducted in a Native American health center located in a multiethnic low-income urban neighborhood. The research focused on 3 interrelated contexts present in all physician-patient interactions: disease, patient, and physician. The significance of disease is often ignored in studies of physician-patient communication. Type 2 diabetes was selected to represent an important problem in family practice from within both biomedical and biopsychosocial paradigms.⁸ Native Americans were selected because type 2 diabetes is a serious concern in their communities, and use of the biopsychosocial model should be particularly important where significant sociocultural differences exist between patients and physicians.⁹ A diverse group of patients was recruited on the basis of duration of disease, tribal background, sex, and prescribed medical regimen (Table 1). Dr M — a white, board-certified family physician with 6 years' experience at this health center — was selected because of her sophisticated understanding of biopsychosocial theory and strong commitment to the health care of urban Native Americans.

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TABLE 1

The Patients: Social and Clinical Markers

| ID | Age | Sex | Tribe | Language | Years with Diabetes | Treatment | No. of Interviews | No. of Interactions |
|----|-----|-----|-----------|-----------|---------------------|-----------|-------------------|---------------------|
| A | 65 | M | Navajo | Bilingual | 2 | Pill | 8 | 7 |
| B | 44 | F | Apache | Bilingual | 10 | Pill | 3 | 6 |
| C | 45 | F | Winnebago | Bilingual | 5 | Pill | 1 | 6 |
| D | 38 | F | Pima | English | 8 | Pill | 2 | 2 |
| E | 44 | F | Shoshone | Bilingual | 2 | Diet | 3 | 2 |
| F | 50 | M | Choctaw | Bilingual | 9 | Pill | 2 | 1 |
| G | 65 | F | Sioux | English | 10 | Insulin | 0 | 2 |
| H | 44 | M | Pima | Bilingual | 11 | Insulin | 2 | 2 |
| I | 42 | F | Navajo | Bilingual | 5 | Pill | 1 | 1 |

PROCEDURE

The overall design for this case study was interpretive.¹⁰⁻¹² This approach to data collection and analysis assumes that meaning is constructed out of subjects' everyday interactions with others and is situated in the particular contexts of their sociocultural activities.^{13,14} The researcher actively interacts with the subjects to describe and interpret their actions, the context of their actions, and the meaning they ascribe to their actions.¹⁵ Within this general design, specific methods were employed for gathering and interpreting data. Interviews with patients explored their understanding of type 2 diabetes, self-care practices, social backgrounds, and relevant life histories.¹⁶ Interviews with Dr M explored her understanding and treatment of type 2 diabetes, concerns specific to diabetes in Native Americans, and views about the context of practice and its relationship with diabetes care. Patient visits for diabetes care with Dr M were audio-recorded and replayed to elicit her interpretation of the interaction using a modification of interpersonal process recall (IPR).¹⁷⁻²⁰ The transcribed interviews, interactions, and IPR sessions were then interpreted using methods adapted from narrative and discourse analysis,²¹⁻²³ interactive ethnography,²⁴ and grounded interpretive research.²⁵ Themes that emerged from the review of the interviews, interactions, and IPR sessions were analyzed with Dr M in interpretive dialogue (ID) sessions. In the ID sessions, the interpretations of specific interactions and IPR sessions were discussed with Dr M to elicit her views about the broader context of the interactions. General interpretations were developed and reviewed in further sessions with Dr M. The process was closed when it appeared that more sessions would add little to the general interpretations of the study.

RESULTS

PRELIMINARY INTERVIEW

In the initial interview, Dr M held that type 2 diabetes in Native Americans had complex biological, psychological, and social causes (Table 2). She emphasized that "as a family practitioner, my outlook is that of a generalist, so I like

to look at as many levels as I can, because I think that is what being a generalist is about." She viewed quality communication as central to multilevel care and saw herself as introducing metaphors into the way patients thought about their bodies to "get them to understand [diabetes] the way" she understood the disease. This approach involved translating her biopsychosocial model of type 2 diabetes into the patient's language to explain how diet, exercise, medication, and glucose monitoring were key self-care behaviors. She considered her strategy successful if her patients "said they would do these things, and they actually did them."

INITIAL INTERPRETIVE SESSIONS

During the IPR and ID sessions, Dr M discussed an array of problems with misunderstanding and distrust in her

TABLE 2

Excerpts from the Preliminary Interview: Themes from Dr M's Biopsychosocial Model of Type 2 Diabetes

Causation: "The levels of causation are so multiple, [so] if you have a political orientation you can focus on one kind of causality, if you have a historical perspective you might focus on another, if you are concerned with the day-to-day treatment of elevated blood sugar you look at another kind of causality. I feel as a family practitioner, my outlook is that of a generalist, so I like to look at as many levels as I can because I think that is what being a generalist is about."

Control: "I think that the idea of control is a doctor thing. I also think that it is a class thing. I think that middle class people think about control and talk about control a lot. And I think that middle class people are often in situations that they can in fact control, and so it is a word that has value. [However] people who don't have money and don't have education are in fact often controlled by the larger culture or by the larger society, and they sense that, they experience it, and so the very word control has a very different feel for them."

Communication: "I feel that every doctor-patient encounter is this anthropological event. I mean there is a doctor culture and there is a patient culture. So when you communicate across that cultural gap, you have to be constantly aware of it and make allowances for it. You and the patient have different sets of things that you take for granted and different sets of things you are concerned about before the conversation begins."

TABLE 3

Misunderstanding and Distrust From Doctor M's Perspective

General misunderstandings: Physician culture versus patient culture produce problems in communication and differences in disease and illness interpretations

Specific misunderstandings: Cultural, sex, and class differences produce problems in communication and differences in disease and illness interpretations

Physician apprehension about interaction: Physician skeptical about information provided by the patient and questions truthfulness of patient

Physician distrust of the patient: Physician believes that the patient is deliberately lying or fabricating information

Physician distrust and suspicion: Physician distrusts the patient, feels manipulated, and doubts therapeutic effectiveness

Physician distrust and detachment: Physician feels repeatedly manipulated by the patient and feels hopeless about any possibility of an effective physician-patient relationship

patient interactions. Although the interactions were problematic for *all* of the study patients, what varied between patients was the intensity and significance of the misunderstanding or mistrust (Table 3).^{*} Dr M talked about feeling manipulated, disbelieving statements, distrusting infor-

^{*}Additional data can be found in an Appendix available on the *Journal's* Web site at www.jfampract.com.

mation, despairing over differences, and even detaching from any expectation of helping a patient she could never trust. She considered her approach constrained by basic value differences with her patients, believing that for many health was not a high priority. This value difference, combined with her perception of fatalism in her patients, caused her to believe it unlikely that she could convince them of the value of her approach. This created a central conflict, because she thought her approach would not work unless her patients accepted its value. Thus, Dr M concluded that she needed to change her patients' values about their health. However, she did not know how to change their values, and she did not know if value change was possible. In one of our final interviews she concluded, "They [the 9 patients in this study] are over there. I'm over here. I feel this absence, this nothingness between us that I don't know how to bridge."

REFRAMING THE RESEARCH PROBLEM

Although it is not surprising that a white physician and Native American patients would have difficulties communicating with each other, what was unexpected was that misunderstanding and mistrust would be problematic between *this physician* and *these patients*. Characteristics of both the patients and the physician selected for this study made it much more likely that gaps

TABLE 4

Interpretive Dialogue with Dr M**A. Dr M's Story About Patient C**

"Patient C is a well-known character in the community. She's alcoholic, and although she has actually been sober for 8 months or so ... there have been times when she was out of control drinking. She's a street person who hustles her street change, causes scenes on the street, gets into fights on the street, lives, as she puts it, outside. She's married to a black guy who is very much a street person. He drinks heavily, and I've seen him in a couple of street scenes. They appear to be pretty devoted to each other."

"When I first diagnosed her [Patient C] with diabetes several years ago, I felt at that time that it was pointless to treat her. Because my experience with her, and what I had heard of other practitioners with her, was that I felt that her life was so extremely chaotic ... that it seemed to me that the keystones of diabetic therapy — diet, exercise, medication, self-care on multiple fronts — that none of that was reasonably possible with this woman."

"About a year or so ago when she expressed more interest in taking care of her diabetes, and also because (laughing) I knew I was being watched in terms of her care (referring to this study), I thought well maybe I've presumed too much about her inability to do the self-care stuff."

B. Tensions in Practice for Dr M

"When patients say to me, 'Do you think stress might be doing this?' I have 2 responses. First, stress can raise blood sugar; it may be part of it. I reassure them about it, but then I get them back onto what I think is the more important issue. That is their weight, their activity, and their diet. Sometimes I will reassure them about stress, and then I'll use it to try to find out what they are talking about, you know. What stress do they mean? Sometimes they make a comment like that hoping that will be the ticket so that it will be okay to talk about their husband's suicide, or their bouncing checks, or their fears about their son's drinking, or you know, whatever the deal is. But often in diabetic clinic, I don't take the opportunity because of the time pressure. And I'm absolutely sure that I miss a lot of opportunities to figure out what's going on with my patients because I feel this pressure and this desire not to open a can of worms ... I know our family medicine training has emphasized the importance of listening to this material, but so much of it is not medical stuff; it's not stuff that I can affect."

C. Dr M's Reflections on the Fourth Recorded Interaction with Patient C

"Because several times after I started prescribing medications I talked to her about taking the medicines and she did assure me that she was taking them, I thought that maybe I had really misjudged the situation and that she really was more into it. Then last time when she said the thing, 'Oh, I've never taken the medications,' I felt surprised, despairing even, just thinking that, you know, she can't even take the medicine, she's really unlikely to, I mean that's the simplest thing, in a sense, that we ask the diabetics to do. I figured, oh, this is hopeless."

TABLE 5

Transcription of Fourth Recorded Interaction Between Dr M and Patient C

Dr M: How is it going takin' your medicine?

Patient C: I think I better tell you the truth; I've never taken them.

Dr M: And when you say never, you mean ...

Patient C: Never, none of the other kind, none of the other kind.

Dr M: So you've never taken any of the diabetes medicine. And why is that?

Patient C: Because I'm scared, and I don't know if I tried to, oh yuh, one time I did take, uh, the first one, that Micro something. (Dr M: hm, hmmm) I started that, but I never really felt good.

Dr M: You know, that's interesting that you are scared to take the medicine. Some people are scared not to take their medicine, they worry that if they don't take it they might get sicker.

Patient C: Yuh, I'm scared because, uh, I've been seeing the, uh, the medicine man, and he says don't take it. (5-second pause) But he says, he didn't say that to me, he said that to another lady that was diabetic.

Dr M: Well, I've never heard that; I've never heard of a medicine man who said don't take your diabetes medicine.

Patient C: But he said to her to go and check up on this stuff, and oh, he did say to another one besides.

Dr M: Well, what did the medicine man say to you?

Patient C: Nothing.

Dr M: So, he didn't say don't take your medicine.

Patient C: Not to me; I heard him say it to another diabetic, so I was copying her.

Dr M: Well, I think you need to find out for yourself what you need to do (Patient C: But...) not what somebody else needs to do ... My feeling as a doctor is that you do need to take your medicine. And —

Patient C: [But which] one for real, because I've never really took none.

in communication could be bridged. The patients were all bicultural and fluent in English. The study was situated in an urban environment, decreasing the likelihood of a more unified cultural understanding that might be present in an isolated rural Native American community.²⁶ Dr M was aware of potential problems in communication with patients from different cultural and class backgrounds. She spoke of carefully translating medical information into the language of the patient and was knowledgeable about historical and political aspects of relations between Native Americans and whites and their relevance to the care of patients in her practice. The problems of mistrust and misunderstanding that emerged in this setting required further interpretation of the way Dr M's knowledge of person, disease, and clinical context were interrelated and in the background during her patient interactions.

KNOWLEDGE OF PATIENTS

Dr M perceived that knowing patients well was "the single greatest thing" in her interactions with them. "I really have a lot of trust that my patients will red-flag those problems that are serious. I don't have that with all my patients, but if I know a patient well, then I'll trust that he won't let it go if it's important." "Knowing a person" and "trusting a person" was not a conscious aspect of her decision-making

process but an awareness that framed her stance toward each interaction. Dr M interpreted a patient's story out of her own constructed story about the patient. Her interaction with Patient C is presented in this paper, but she had a story to tell about every patient involved in this study (Table 4A).

KNOWLEDGE OF DISEASE

Dr M's multilevel understanding of diabetes produced tensions in her clinical practice. These are exemplified in her views of the relationship between stress and diabetes care (Table 4B). In any given interaction, she needed to make decisions about what aspects of the disease required focus. Dr M developed an approach for determining what was important in particular situations. By "knowing a patient well from a medical perspective" she felt that she could very quickly assess what needed attention. This often meant directing the patient away from problems like stress and toward issues like exercise, diet, and medications, which were "the cornerstones of diabetic care" for Dr M. In this manner, she focused on the aspects of the disease she thought she could affect.

KNOWLEDGE OF CLINICAL CONTEXT

Dr M described a web of problems in her clinical context that constrained her interactions with patients. Every day she contended with numerous barriers to patient care created by a medical care system that ignored the health concerns of the poor. Chronic staffing and resource problems within the health center created situations where she spent a large proportion of her time away from direct patient care. Within this context, she developed an approach to make the most efficient use of her time with patients.

DR M AND PATIENT C: A CYCLE OF HOPELESSNESS

Although interactions with all of the patients were used in developing these interpretations, the findings from a crucial discussion with Patient C show the way detachment emerged in practice for Dr M. In the fourth recorded interaction between Patient C and Dr M (Table 5), Patient C first told Dr M that she was not taking her prescribed medicine. Dr M interpreted this revelation as shown in Table 4C. Although Patient C's truth telling could have opened up the relationship, instead it confirmed Dr M's previous beliefs about Patient C. Within Dr M's practice constraints, Patient C was viewed as a chaotic, noncompliant alcoholic, and thus Dr M's time could be more effectively spent by detaching from Patient C and attending to other patients she might change. In contrast to Dr M's constructed reasons explaining Patient C's elevated blood sugars, Patient C tells a different story about her personal struggles with alcohol and diabetes while living in poverty. Patient C's interview was conducted a few months after she moved from the streets to a low-income apartment and 3 months *before* the fourth recorded interaction (Table 6).

Patient C distrusted the "white man's medicine" and was preparing to tell Dr M about her reluctance to take the medicine. Patient C's belief that some physicians "care" suggests that she valued attributes of a physician separately from their approach to illness. Although Patient C's honesty may have opened up the possibility for dialogue about differing interpretations of diabetes illness experience and self-care, Dr M's stance blocked her ability to enter into the very dialogue needed to potentially reconstruct the relationship with this patient.

PATIENT-SPECIFIC NARRATIVES: STORIES ABOUT PEOPLE, DISEASE, AND CLINICAL CONTEXT

Dr M implicitly used patient-specific narratives as powerful instruments to identify aspects of patients' illness experiences that she considered clinically important and potentially manageable. To construct her story about a patient, Dr M combined narratives gathered from her cumulative interactions with a patient in the health center; her interactions with people in the community, and her discussions with others working at the health center. In addition, the stories were broadened by Dr M's patient-specific application of disease theory and the particular pressures of her practice environment.

DISCUSSION

Important theoretical models for primary care physician-patient relationships include sustained partnership, patient-centered care, and enhanced autonomy.²⁷⁻²⁹ Although they advance somewhat different theoretical

claims, each of these models emphasizes knowing the "whole person," fostering empathy and trust, and engaging in shared decision making. With a focus on "the patient" or "the relationship" in these models, "disease" is often marginalized or considered only as an important outcome variable for measuring the impact of physician-patient interactions.³⁰ In contrast to patient- or relationship-centered models, the biopsychosocial model is frequently assumed to combine a holistic understanding of disease-illness processes with attention to the primary care relationship. This study demonstrates that biopsychosocial models of disease may actually conflict with patient-centered approaches to communication.

Biopsychosocial models are integrated theories of disease, not models for physician-patient interactions in family practice. There are at least 2 distinct strategies for working with biopsychosocial understandings of disease. In an instrumental approach, the family physician strives to change the patient's perspective to adapt to the physician's biopsychosocial understanding of disease and illness care. In a dialogical approach, the family physician interacts with the patient to understand the biopsychosocial disease and co-construct the approach to illness care over time. Both strategies can claim to be directly applying biopsychosocial models, and both might be successful in various clinical contexts. In this study, Dr M took the first approach and found herself left with an unbridgeable gap in communication.

The misunderstandings, mistrust, and constrained interactions found in this study point to deeper problems with the way knowledge is formed in clinical practice. Physicians construct their understanding of disease in

TABLE 6

Interview with Patient C: Patient C's Own Illness Narrative

Alcoholism and Diabetes: "I have had pain in my foot. I've known that for years. But when you're an alcoholic you don't feel nothing. You don't even care about other people's feelings. You're dead to outer reality. I quit for some years ... and then ... I met my husband, and then I started drinking again. He's a black man, and he's been in Vietnam. And he has pressure that's in his head that's deeper than I have ... This pressure is even in his sleep. So ... I just drank with him. Until I found out that this diabetes is a killer. It's a slow turtle killing thing, but it's gonna getch you. Not as effective and real quick like an emergency thing. I can't run to the County Hospital and say, 'My hand is tingling, and I don't feel good!' They don't think that's an emergency. So, I just have to believe in what I believe in and learn the way I know how. I have taken some nurse's aide courses, and to me I think that's educating me, and there's a lot of points that I don't believe in."

Control of Diabetes: "I don't believe that they are healing anybody, you know. It's like therapy ... you have to just go and talk about it and get your life pattern into a position where you can be comfortable, but you can't get out of it and say 'Hey, I'm gonna get cured.' You have to believe that it's just the way it is. And it's kind of scary, especially if you know just a little cut can get really ugly if you're not in the right sanitary lifestyle. Like me, I was living on the street for 2 years until just last month, and I knew I was diabetic."

Diabetes Self-Care: "You keep your socks clean, and you keep anything close to you, even if you don't have a very glamorous outfit, and stuff, you still keep what you have clean that's next to you, and you walk a lot ... and you just can't look at everything you eat, just don't do it greasy for the cholesterol, or sugary, for the pancreas because it will stop on you, and you just watch out, and you just get up and move."

Communicating with Doctors: "Doctors are okay, everybody has their job, and when you really get down to it, the doctors have to be caring to you. ... I believe their profession is good; they do help people. I'm just scared of them ... It's like with the white man's medicine, I don't trust it you know, I've been meaning to tell this to Dr M, but I don't take her medicine. I mean, I'll grab it when she gives it to me, but then I won't take it because it isn't a cure for this. There isn't a cure for this."

individual patients through patient-specific narratives that combine knowledge of disease, patients, and clinical context. These narratives may gain richness, depth, and complexity over time, but they may also become static forms of representation. Knowledge of the illness experience of patients with chronic diseases like type 2 diabetes is expanding; however, our understanding of the practice experience of primary care physicians is limited.³¹⁻³³

Recent use of direct observation of family physicians has provided a more thorough knowledge of "the black box" of community-based practice.^{34,35} This paper seeks to add to that literature by offering an in-depth multimethod qualitative approach for studying physician-patient interactions. Techniques using pre- and postencounter rating instruments cannot grasp what actually happens in interactions. Quantitative content or process analysis of physician-patient interactions cannot fully address the relationship between context and meaning in these interactions.³⁶⁻³⁹ However, the depth of meaning and context provided by qualitative studies in general and discourse analysis in particular are frequently dismissed because of concerns about generalizability.^{40,41}

Critics might argue that the findings from this study derive from the practice of an uncaring physician and should not be generalized to the theoretical and practice issues drawn in the analysis. The evidence points in the opposite direction in regard to the integrity of Dr M. Although mistrust and misunderstanding were important issues to explore in Dr M's interactions with patients, this was not immediately apparent from the content of the interactions themselves. This study required Dr M's honesty and willingness to engage in the difficult process of disclosure and self-reflection over a busy 1-year period of clinical practice.

LIMITATIONS

Sampling strategies were used to address the generic critique of generalizing from a single case. The practice site was chosen to be exemplary of a community health center in a challenging low-income, urban, cross-cultural setting. The physician was selected to be an exemplary representative of a community-based clinician, and the patients were recruited to provide a sample of Native American adults with diabetes with varying degrees of social and cultural differences from the physician. If problems of distrust and misunderstanding exist in this setting, then similar patterns are likely to exist in other low-income cross-cultural contexts. Finally, this form of qualitative research allows the reader to judge the relevance of the findings to their own context.⁴² Are the problems Dr M described in her interactions with these patients understandable? Physicians may ask themselves: Am I getting through to this patient? Is this patient manipulating me? Is this patient telling the truth about their adherence to the regimen I have recommended? Do I have anything to offer this patient? Is there an unbridgeable gap in communication, or has the approach taken toward care of this patient been

narrowed by an instrumental understanding of the person, the disease, and the context of care?

The organization of practice and the underlying structure of knowledge construction and use can create conflicts between the intentions of physicians and their actions in clinical practice.⁴³⁻⁴⁵ To understand and meet this challenge, we need further research of community-based physician-patient interactions that brings together theoretical and empirical forms of inquiry. Theoretical models, derived from ethics and the philosophy of medicine, seldom incorporate practice-based empirical study, while empirical work on physician-patient interactions frequently demonstrates a very limited attention to important theoretical concerns.⁴⁶⁻⁴⁹ Study of patient-specific narratives can bring together literature on biopsychosocial models, physician-patient interactions, patient illness narratives, physician self-awareness, and the organization of primary care practice. Further qualitative research should examine the way patient-specific narratives are developed by physicians practicing in different clinical environments and explore the interrelationships between patient-specific narratives and the content and quality of physician-patient interactions.

CONCLUSIONS

To apply biopsychosocial disease models in practice, physicians construct stories about patients as persons. These patient-specific narratives may be opened up or constrained by clinical context, and they both frame and are framed by physicians' approaches to disease in particular interactions. To advance our use of integrated disease models, we need further study of the way patient-specific narratives are constructed in clinical practice. Application of integrated models of disease and construction of stories about patients may involve problems of misunderstanding and mistrust by either the patient or physician. The presence of these factors does not necessarily close off the possibility of meaningful and effective physician-patient interactions. The challenge is to strive to recognize misunderstanding and mistrust and to develop new strategies for reconstructing problematic interactions in community-based family practice.

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