Physician Responses to Ambiguous Patient Symptoms

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OBJECTIVE: To examine how primary care physicians respond to ambiguous patient symptom presentations.

DESIGN: Observational study, using thematic analysis within a larger cross-sectional study employing standardized patients (SPs), to describe physician responses to ambiguous patient symptoms and patterns of physician-patient interaction.

SETTING: Community-based primary care offices within a metropolitan area.

PARTICIPANTS: Twenty-three primary care physicians (internists and family physicians).

METHOD: Participating physicians had 2 unannounced SP visits randomly inserted into their daily practice schedules and the visits were audiotaped and transcribed. A coding system focusing on physician responses to concerned patients presenting with ambiguous symptoms was developed through an inductive process. Thematic analyses were then applied to coded data.

RESULTS: Physicians' responses to ambiguous symptoms were categorized into 2 primary patterns: high partnering (HP) and usual care (UC). HP was characterized by greater responsiveness to patients' expression of concern, positivity, sensitivity to patients' clues about life circumstances, greater acknowledgment of symptom ambiguity, and solicitation of patients' perspectives on their problems. UC was characterized by denial of ambiguity and less inclusion of patients' perspectives on their symptoms. Neither HP physicians nor UC physicians actively included patients in treatment planning.

CONCLUSIONS: Primary care physicians respond to ambiguity by either ignoring the ambiguity and becoming more directive (UC) or, less often, by acknowledging the ambiguity and attempting to explore symptoms and patient concerns in more detail (HP). Future areas of study could address whether physicians can learn HP behaviors and whether HP behaviors positively affect health outcomes.

KEY WORDS: medically unexplained symptoms; ambiguity; physician-patient communication; partnering; primary care.

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A middle-aged patient reports concern about symptoms of chest pain. The physician tries to clarify the location and nature of the pain but the discussion only leads to greater ambiguity about the patient's symptoms, which include dizziness and fatigue. The patient is worried.

Physician: And it's been continuous for a whole month?

Patient: Well, it's been getting worse over the last month.

Physician: What's been worse over the last month?

Patient: The sharpness mostly and the dullness gets a little bit. . . .

Physician: And you didn't think it would be a good idea to see a doctor sooner than today for something that has been going on for a month? It didn't cross your mind?

Patient: Do you think this could be serious?

Physician: If it was serious, you'd be dead by now.

Problematic communication between physicians and patients with medically unexplained symptoms (MUS) is common in primary care. Communication difficulties often result in such patients being labeled "difficult," "problem," or "heart-sink."¹⁻⁴ Approximately two thirds of all primary care patients present at some point with symptoms that remain unexplained or ambiguous despite adequate medical work-up.^{5,6} This means that physicians will regularly face these problems during their career. Problematic communication between physicians and patients can negatively affect health and may lead to a variety of negative outcomes, including physician switching,⁷ low adherence to medical treatment, poor control of chronic disease, heightened risk for malpractice litigation,^{8,9} misinterpretation of patients' expectations for treatment,¹⁰ perceived exertion of pressure on physicians to provide medical interventions¹¹ that may, in turn, contribute to heightened health care costs due to overtesting and overreferral,^{12,13} as well as decreased patient satisfaction.¹⁴ The cumulative effect of working with patients with MUS contributes to physician dissatisfaction.^{15,16}

While there is evidence that patients presenting with ambiguous symptoms strain the physician-patient relationship, and that such patients want to understand their illnesses and be understood by their physicians,¹⁷ there is little empirical work demonstrating how physicians attempt to understand and address these complex patients. To elucidate the patterns of communication between primary care physicians and patients with ambiguous symptoms, we conducted an exploratory study analyzing audiotapes and transcripts of medical encounters with unannounced standardized patients (SPs). Our goal was to describe physician behavior and characterize patterns of physician-patient interaction related to medically unexplained or ambiguous symptom presentations.

METHODS

This University of Rochester Research Subjects Review Board (RSRB)-approved (number 08212) study was conducted in a metropolitan area (population 1 million) in the northeast United States as part of a larger cross-sectional study of community-based primary care physicians to examine the relationship between patient-centered care (PCC) and health care costs (Agency for Healthcare Research and Quality R01 HS10610, Ronald M. Epstein, PI). Two hundred ninety-seven internist and family physician members of a local managed care organization (MCO) were contacted; 100 agreed to participate in the study and 93 completed visits with 2 unannounced SPs. Key characteristics of the participating physicians sample were: mean age 45 years; 77% male; and 53% internal medicine. Details of the recruitment are presented

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See editorial by Sach man, p. xxx.

elsewhere.¹⁸ Standardized patients are male and female actors who are trained to portray patients in a realistic and reproducible way such that their communication, symptom presentations, clinical signs, and affect are indistinguishable from those of actual patients in a given setting. SPs have been widely used in evaluating medical student performance.¹⁹ Unannounced SPs have been used in research to evaluate real time performance of practicing physicians in a variety of clinic and hospital settings and with a variety of patient conditions.²⁰⁻²³ Further, SPs correspond more accurately to real physician-patient interactions than chart audit or response to clinical vignettes.^{24,25} SPs in this study were trained for several months using detailed scripts and multiple test interviews before participating in the study.

All participating physicians agreed to see 2 unannounced SP visits (1 male and 1 female in random order) each presenting a different profile: 1) a 48-year-old otherwise physically and psychologically healthy male or female with classic symptoms of gastroesophageal reflux (GERD), including nocturnal chest pain affected by food intake and partially helped by antacids (heartburn case); 2) a 48-year-old male or female with multiple unexplained symptoms, including poorly characterized chest pain, fatigue, dizziness and moderate emotional stress (MUS). All SP interviews were recorded using a digital audio-disk recorder. In order to improve the likelihood that the SP visit was not detected by the physician, audiotaping was selected over videotaping as the tape recorder could be placed unobtrusively. Two days after each visit, a fax was sent to the physician informing them of the recent SP visit and to determine whether, when prompted, the physician could identify the SP.

For the qualitative analysis we selected all physicians who had 2 SP visits that were not detected. We chose nondetected interviews because we felt they would most accurately characterize physicians' interviewing style in their daily practice. This yielded 46 interviews (23 GERD, 23 MUS) by 23 physicians. The methods and sample for this larger study have been described in detail elsewhere.¹⁸ All interviews were transcribed and the study team reviewed both the transcriptions and CD recordings of the interviews.

Data Analysis

The conceptual framework underlying this study was phenomenology,²⁶ which uses an inductive, discovery-oriented method to directly examine a phenomenon or experience, in this case physician-SP interactions, and an iterative process to accurately describe it. Applying this inductive approach to developing the coding system, members of the research team independently first reviewed and discussed 7 sets of physician-SP CD recordings (14 total). Key words and phrases felt to influence the form and quality of the visit were noted and discussed by the team in consensus meetings. Particular attention was paid to physician responses to ambiguous or unexplained symptoms and patient concerns about their symptoms. Coding development continued through this group consensus process until saturation²⁷ was achieved, indicating that no new categories or codes were emerging from the data.

With each revision or addition to the coding system, all previously coded interviews were recoded and checked by a minimum of two researchers on the team. Final versions of the coded interviews were aggregated using Atlas software, generating frequency tables for analyses. Designed for qualitative

research, Atlas.ti software (ATLAS.ti Scientific Software Development GmbH, Berlin, Germany) is used to electronically record and tabulate code frequencies. These tables generated summarized the total number of responses to each coded (13 codes, 49 subcodes) behavior by all physicians.

Analyses of the 46 interviews focused primarily on those codes that were most associated with physician-SP communication about ambiguous or unexplained symptoms and patients' emotional concerns (7 codes and 30 subcodes). These codes met the following criteria: 1) utterances that facilitated or hindered physicians' attempts at communicating with the patient; and 2) utterances expressing patients' ambiguous symptoms and physicians' management of ambiguity. To differentiate key characteristics of this sample of 23 physicians, physicians with the highest and lowest frequency scores in these 7 key codes (4 interviews each) were further compared, employing the method described above.

Once coding was completed, the trustworthiness of the analysis was further triangulated by the use of independent secondary auditors, a family physician and an undergraduate research assistant. The auditors were given 7 randomly selected interviews in the form of CD recordings, transcripts, and code definitions. They were then asked to generate any additional codes that might be missing to further define the physician's behaviors or to delete any codes that might be superfluous in defining physicians' behavior. In this manner, the coding scheme and saturation were confirmed as there were no additions or deletions.

RESULTS

Because the focus of this paper is on how physicians respond to patients presenting with ambiguous symptoms, the thematic analysis focuses on the 23 ambiguous interviews, utilizing the 7 codes (Table 1) that characterized how physicians responded to concerned patients with medically unexplained symptoms. We categorized these 7 domains as "partnering codes" because they best reflected physicians' efforts to engage and connect with the patient, to better understand the patient, clarify the problem, foster a working relationship, and elicit patient input regarding the diagnostic and treatment plan.

Physician Responses to Ambiguity: General Findings

We found 2 distinct styles of practice based on partnering behavior in response to ambiguous patient presentations. We have designated these styles usual care (UC) ($N=13$ physicians) and high-partnering (HP) ($N=10$ physicians). UC physicians averaged <6 partnering responses to ambiguous patient presentations; HP physicians averaged ≥ 15 . We begin with general findings regarding the whole sample of ambiguous symptom interviews ($n=23$).

When confronted with ambiguous symptoms, study physicians almost uniformly either denied ambiguity (13 denials=22%) or coupled acknowledgment of ambiguity with a directive (48 acknowledge/direct=77%). When denying symptom ambiguity, physicians reframed the presentation as if it had an unambiguous meaning.

Patient: (describes vague symptoms of general chest pain)

Doctor A: Your chest pain is caused by gastroesophageal reflux.

Physicians who acknowledged ambiguity usually followed with an explicit directive.

Table 1. Frequency of Partnering Responses

Codes	Definitions	High-partnering Physicians*	Usual Care
Serious/worry	Patient expression of worry/concern regarding medical problem	16	1
Positivity	Physician statement of praise, encouragement, affirmation, or empathy	23	4
Psychosocial stress	Physician directly inquires about psychiatric or psychosocial stress	1	1
Response to patient cues	Physician responds to patient's direct or indirect expression of information about life circumstances or feelings	6	2
Response to ambiguity	Physician acknowledgment of/response to medical problems that are difficult to interpret	22	2
Seeking patient input	Physician effort to include patient in discussion of diagnostic/treatment plan	5	4

*Partnering = verbal behaviors by the physician that are intended to engage and connect with the patient, to better understand the patient, to clarify the problem, to foster a working relationship, and elicit patient input regarding the diagnostic and treatment plan.

Patient: What do you think this is?

Doctor B: I'm not sure what's causing the pain so I think we should do an endoscopy to see if there is an ulcer or a tumor.

Utterances intended to encourage the exploration of symptom ambiguity occurred 3 times in 23 ambiguous symptom presentation interviews. When encouraging further exploration of medically unexplained symptoms, these physicians acknowledged the symptoms' ambiguity and then engaged the patient in further elucidation of the symptoms and their context.

Patient: What do you think this is?

Doctor C: I am not sure what is causing your pain. It's puzzling. Is there more you can tell me about what you are feeling before we try to make a plan?

In 23 ambiguous symptom interviews, physicians' efforts to solicit the patient's perspective during information gathering occurred with the following frequency: physicians sought the patient's questions 15 times, elicited understanding 6 times, and sought agreement 14 times. Physicians sought the patient's perspective during treatment planning 7 times in 23 interviews.

UC and HP Physicians: A Comparison

Similarities. UC and HP physicians initiated questions related to psychiatric or psychosocial distress 1 time each in 23 interviews. UC and HP physicians were also similar in the frequency with which they made direct attempts at shared treatment planning with the patient: UC=4; HP=5. Finally, both groups of physicians were consistently directive in presenting the treatment plan.

Differences. Key differences among UC and HP physicians were related to how they responded to patients' inquiry about the seriousness of the symptoms. HP physicians explicitly addressed patient expressions of worry 16 times as compared to once for the UC group. HP physicians were also more likely to praise or encourage patients regarding their health habits and were generally more positive in their interactions with the patient (HP positivity=23; UC positivity=4).

HP physicians were more likely to acknowledge the ambiguous nature of the patients' symptoms (22 instances) as compared to UC physicians (2 instances). A common HP strategy was to share their thought processes aloud, directly acknowledging that the diagnosis was uncertain and communicating confidence that the problem could be addressed.

Patient: I switched to decaf. I don't know if that made any difference. I started taking a multivitamin. I thought I might be anemic. Hmm, and there were two things I had, a spicy pizza that brought it on once and another time, well, I had something similar again and it didn't happen. And

another time I had celery which I thought was pretty innocuous and that seemed to bring it on but I'm not sure.

Doctor D: Hmmm. Hmmm. Are there any foods that will bring it on consistently?

Patient: Well, like I say, the one time I had this it did bring it on. I had it again and it didn't bring it on.

Doctor D: Hmm, hmm. A mystery, huh?

There were 2 responses to clues²⁸ or cues²⁹ among the UC physicians that the patient may be experiencing life stress or worry, compared with 6 in the HP group.

Patterns. Two distinct patterns of interaction characterized how physicians responded to patients' ambiguous symptoms (Fig. 1). UC physicians, upon hearing the patient's ambiguous symptom presentation and expressions of worry, tended to offer a diagnosis early in the interview, often before completion of the history or the physical exam. After gathering more information about the patient's problem, these physicians then offered more diagnostic options. This sequence typically was followed by an increase in patient questions about the evaluation of the symptom. UC physicians seldom responded directly to the patient's questions or to clues of patient anxiety.²⁸ UC physicians then offered a treatment plan without inviting patient questions or seeking patient understanding. At times, they communicated in ways that ignored patient concerns.

Doctor E: If things get much worse in the meantime, you need to let us know, okay? Do you have questions?

Patient: I guess I was just—um, just been kinda worried that it might be something serious. (4-second pause) So, maybe we're on the right track here?

Doctor E: All right. (laughter) (4-second pause) Okay. Zantac. One pill twice a day. And, um, also sorta pay attention to foods.

HP physicians expressed support in the form of empathy more often and were less likely to offer a diagnostic opinion until later in the interview.

HP Physician:

Patient: (regarding the pain) It's been going on for a while. Hmm, sometimes they can take my breath away.

Doctor G: I'm sorry. That's hard.

UC Physician:

Patient: I've been having these, uh, sharp pains in my chest.

Doctor F: Mm hm.

Patient: And sometimes they're really bad and I'm kinda worried about them.

Doctor F: Uh huh. Mm hm. So how often do you get these pains?

Upon gathering more symptom information and completing the exam, these physicians tended to share their thinking about the problem with the patient, including being willing to

FIGURE 1. Comparison of high- and low-partnering responses to ambiguous symptom presentations. *Continuers are phrases such as “yes” or “uh huh” used to encourage further comment by the patient.

acknowledge not knowing the exact diagnoses among several possibilities.

Doctor H: Well, I don't know how to explain why you're feeling tired and dizzy and just sort of not well. I don't see anything that bothers me. You know, if you had something serious wrong with you, usually it sort of makes itself known after a while.

Patient: Well, I thought it should be, you know, checked out.

Doctor H: Yeah, well, I think it should, so it's good to come in.

HP physicians returned to patient concerns later in the interview (“earlier you mentioned that you were worried . . .”), often picking up on patient clues about possible psychosocial distress. They seemed more comfortable with both the biological and psychosocial domains of the patient's problem, inquiring about them with closed-ended questions (“Have you been depressed?”). Although acknowledging these psychosocial concerns, it should be noted that physicians rarely pursued these issues in depth. Finally, while neither HP nor UC physicians involved the patient in treatment planning, HP physicians were more likely to elicit and respond to the patient's perspective about their symptoms.

Doctor H: (discussing whether or not to order an endoscopy) In your case I'm right on the fence as to whether we should do that or not.

Patient: Okay.

Doctor H: Um, you know, you're a very healthy person. Prior to a year ago, it sounded like you didn't have a lot of esophagitis.

Patient: Right.

Doctor H: Uh, so we can do it one of two ways. We can either do the medication and if you get better with two months of that and it doesn't come back, you know just leave it at that.

Patient: Okay.

Doctor H: Or, we can do the medication and the scope just to make sure there's no injury to the lining. Do you have any strong feelings about that?

Patient: My preference would be to just try the medication without the test. . . .

Doctor H: That's fine.

Two other differences between these groups are worth noting. First, UC physicians did not praise patients as much as HP physicians. For example, HP physicians praised patients for stopping smoking while UC physicians did not. This exemplifies the underlying positivity (see Table 1) that characterized HP physicians.

UC Physician:

Doctor I: So, do you smoke at all?

Patient: Not any more.

Doctor I: Uh huh. When did you quit?

Patient: Uh, this summer it would have been, uh, maybe five years.

Doctor I: Uh huh. Uh huh. Okay.

HP Physician:

Doctor J: Are you a smoker?

Patient: No. Used to be.

Doctor J: How long ago did you quit?

Patient: Oh, about five years ago.

Doctor J: That's great!

Patient: Thanks.

Doctor J: Best thing you could've done for yourself.

Second, HP physicians were also likely to self-disclose,³⁰ usually about their own experience with the patient's symptoms, while low-partnering physicians did not.

Patient: (continuing the sequence above) My preference would be to just try the medication without the test. Just to see if it does help.

Doctor J: Right. And I think it will. I've been treated the same way for this.

DISCUSSION

Control Versus Relationship

In conceptualizing physician-patient interaction, Suchman et al.³¹ and others describe 2 competing paradigms, control and relation. A control paradigm values predictable outcomes, physician-patient hierarchy, and physician capacity to “fix” patients. Physicians within this paradigm may seek to reduce ambiguity in patients presenting with unexplained symptoms by reassuring and advising them on what to do, thereby avoiding or denying ambiguity. A relational paradigm values connection and partnership between the physician and patient, reducing hierarchy and encouraging patient participation in the choice of treatment(s). In a relational paradigm, patients and physicians embrace ambiguity and problem solve together in the context of the patient's illness and life experience.

The behavior of UC physicians was consistent with the characteristics of a control paradigm.³¹ When confronted with uncertainty, these physicians were less likely to respond to patients in ways that encouraged them to share more about their illness experience or their concerns. By contrast, HP physicians followed a more relational paradigm. They displayed more acceptance of the patient's ambiguous symptoms presentation and were more willing to inquire further about the patient's experience and share more openly their own thinking about the patient's problem. In the absence of a more specific

diagnosis, they emphasized the importance of relational process, interacting in a nonblaming fashion and inviting patient input, both key factors in patient "empowerment."¹⁷ On the other hand, UC physicians tended to direct the interview in ways that often overlooked the patient's input in developing a concrete plan of action.

Implications for Health Outcomes for Patients with MUS

The relevance of our findings about physician responses to unexplained or ambiguous symptoms is the link between a partnering or a relational paradigm of physician-patient interaction and patient outcomes. Research has shown that elements of a relational paradigm are associated with greater patient satisfaction¹⁴ and chronic disease outcomes.^{14,32,33} Other studies suggest that more personal and less technically oriented visits are also associated with lower costs³⁴ as well as lower rates of referral.³⁴ More recent research suggests that higher ratings of patient-centered care among patients are correlated with lower rates of diagnostic testing and referrals without negative health consequences.^{18,32}

Fostering Relational Doctoring

We found that partnering was rare in physician-patient interactions in the face of SPs presenting with ambiguous symptoms. In a majority of cases, the interview was physician driven, with the patient conforming to the format established by the physician's questioning. The physician's questions sought to eliminate ambiguity and often created the appearance of clarity when none existed. The physician then recommended a treatment plan and the patient was expected to comply, largely without giving input.

How physicians managed ambiguity was a key variable in distinguishing UC from HP visits. In our study, UC physicians had less tolerance for ambiguity. They responded to it by narrowing their inquiry and offering certainty about what to do next, thereby ignoring patients' expressions of worry and concern, or clues about potential emotional factors. HP physicians acknowledged the ambiguity and shared their thought processes about it with the patient. In this way, HP physicians included the patient in the process of the interview.

Study Limitations

First, the study draws from a small sample of primary care physicians and may not be representative of primary care physicians in general. Second, while we believe that we achieved high verisimilitude using standardized patients, these visits simulated patients with unexplained somatic symptoms. A study of actual patients presenting with these symptoms might reveal differences in the way such symptoms were handled by the study physicians. Third, because we focused on the initial interview with a new patient, physician responses may not reflect their approach when working longitudinally with patients. Fourth, the use of audiotaped interviews limited our capacity to assess nonverbal interactions, often an important contributor to the meaning of interactions between patients and their physicians. Finally, while qualitative analyses afforded us an opportunity to discover differences in physician style, the results are limited in their generalizability to the study physicians. A study based on a larger, more represent-

ative sample which could include such factors as patient and physician race, gender, and ethnicity, for example, would be needed to draw conclusions about primary care physicians in general. Nevertheless, these findings are consistent with related research on physician-patient interaction.^{32,35,36}

Conclusions

This study suggests that HP physicians working from a relational paradigm commonly exhibit the following behaviors: acknowledgment of patients' expressions of worry or concern; praise for patients who behave in ways that benefit their own health; clarification of vague statements by the patient; solicitation of patients' perspectives about their symptoms; and inquiry about patients' understanding of the diagnosis. Of note, even HP physicians did not solicit the patient's active involvement in the treatment planning process.

Based on the findings of this study, specific areas worthy of further examination include physician characteristics (e.g., personality) that contribute to how they manage ambiguity; the effect of physician positivity on patient empowerment and satisfaction; the role of physician empathy in facilitating patient self-disclosure; the effect of physician self-disclosure on physician-patient interaction; the role of partnering behavior during end-of-the-interview treatment recommendations; and the relationship between partnering behavior and cost²⁹ and quality health care outcomes.

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