Missed Opportunities for Interval Empathy in Lung Cancer Communication

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Abstract

**Background**—Empathy is important in patient-physician communication and is associated with improved patient satisfaction and adherence to physicians’ recommendations.

**Methods**—To evaluate empathic opportunities and physician responses, we conducted a qualitative thematic analysis of 20 audiorecorded, transcribed consultations between patients with lung cancer and their thoracic surgeons or oncologists, from a larger observational study of 137 patients in a Veterans Affairs hospital in the southern United States. Using qualitative analysis, we collaboratively developed themes and subthemes until saturation. Then, each transcript was coded, using grounded theory methods, until consensus was achieved, counting and sequentially analyzing patient empathic opportunities and physician responses.

**Results**—Subthemes regarding patients’ statements about lung cancer included (1) morbidity or mortality concerns, (2) cancer-related symptoms, (3) relationship to smoking, (4) decisions about treatment, (5) beliefs about or mistrust of medical care, (6) factors limiting ability to treat cancer, and (7) confusion regarding cancer status and treatment. We identified 384 empathic opportunities and found that physicians had responded empathically to 39 (10%) of them. Otherwise, physicians provided little emotional support, often shifting to biomedical questions and statements. We defined this phenomenon as missed opportunities for “interval empathy.” When empathy was provided, 50% of these statements occurred in the last one-third of the encounter, whereas patients’ concerns were evenly raised throughout the encounter.
Conclusions—Physicians rarely responded empathically to the concerns raised by patients with lung cancer, and empathic responses that did occur were more frequently in the last third of the encounter. Our results may provide a typologic approach to help physicians recognize empathic opportunities and with further development may aid in improving physicians’ communication skills.

In their communication with physicians, patients frequently produce potential or explicit empathic opportunities. However, previous research found that physicians responded to empathic opportunities in 38% of surgical cases and in 15% to 21% of primary care cases. Empathy is an important element of effective communication between patients and physicians and is associated with improved patient satisfaction and compliance with recommended treatment. Patients who are more satisfied with the communication in their medical encounters have improved understanding of their condition, with less anxiety and improved mental functioning.

Responding to the emotional needs of patients can be challenging for physicians. Physicians consistently include patients’ expressions of strong negative feelings, including anger, sadness, and fear, among their most difficult encounters, rarely employing empathy in response. Physicians often start medical school with empathy for their patients but during medical training learn detachment, often not recognizing their own or their patients’ emotions, perhaps in order to cope with time constraints or sadness from human tragedies. Even after years in medical practice, physicians’ use of empathic responses is infrequent. Taped encounters of experienced surgical and medical oncologists revealed no expressions of empathy 37.5% of the time, on average responding with only 1.0 to 1.5 expressions of empathy per encounter. Yet medical licensing and review boards and medical training institutions consider these to be key skills. A recent study found that decreased scores in patient-physician communication, which included responding to patient concerns, were associated with increased complaints to medical regulatory authorities.

Nevertheless, it is not clear why empathic responses are an infrequent part of physicians’ communication. One possibility is that these opportunities are not recognized because physicians are focused on other tasks (eg, making diagnoses, determining treatment recommendations). Classification of empathic opportunities may provide a typologic approach that can serve to alert and help physicians to identify empathic opportunities. This typologic approach may be one way to help physicians learn to respond empathically to patients. In addition, classifying empathic opportunities and responses would allow the examination of differences according to physician or patient characteristics or other factors. Black patients have been noted to have lower levels of patient participation than white patients in cancer communication, the reasons for which are not clear. In addition, reconciling conflicting illness beliefs and representations between clinicians and patients has been described as important in the care of patients with cancer, as can occur when patients identify with a non-Western medical model. Few studies have developed a typologic approach to classify types of empathic opportunities. We sought to classify empathic opportunities and physicians’ empathic responses and to evaluate the frequency of these statements according to physician and patient characteristics. We conducted an in-depth exploration of empathic opportunity statements and physician responses in a population of patients presenting for initial treatment recommendations for lung cancer. In medical encounters for a life-threatening condition (eg, lung cancer), we expect that there are more empathic opportunities than in encounters for many less severe conditions. Moreover, empathic responses may be more important in this setting.
METHODS

SUBJECTS
Eligible patients had biopsy-confirmed lung cancer or a pulmonary mass requiring surgical diagnosis and were seen from April 2001 through March 2004 at a large Veterans Affairs (VA) hospital in the southern United States. Patients were recruited in oncology and thoracic surgery clinics as part of a previously described observational cohort of 137 audiorecorded medical interactions.19 Patients with lung cancer were identified at diagnosis from pathology reports, and patients with pulmonary nodules requiring surgical diagnosis were identified at a weekly multidisciplinary conference where all cases of lung cancer and suspicious pulmonary nodules were presented. The institutional review boards for Baylor College of Medicine (Houston, Texas), the University of Illinois at Chicago, and Rochester General Hospital (Rochester, New York) approved the study, and all patients and physicians provided informed consent to participate in the research.

DATA
We selected 20 medical encounters using convenience sampling: 10 encounters with black patients and 10 with white patients, 5 of each with the highest and lowest active patient participation. Active patient participation was previously defined as patients’ verbal behaviors that can influence physician behavior, treatment decisions, and perceptions of the patient and was derived from audiorecordings and transcripts of each visit.20,21 Patients’ race was determined by patient self-report. The patients’ mean (SD) age was 65 (11.7) years, and all patients were male. We excluded interactions in which the patient brought a companion to the visit. Selected patients consulted with 1 of 9 physicians (3 in oncology and 6 in thoracic surgery; 3 were female, and 6 were male). Interaction length was measured by counting patients’ and physicians’ statements. The mean (SD) length of the interaction was 326 (193) statements (range, 64–674 statements).

STATISTICAL ANALYSIS
We conducted a qualitative, thematic analysis of these 20 medical consultations. During coding of transcripts, we were blinded to participation ratings and race. Before coding began, all individually identifying data about patients and physicians were removed from transcripts. We used an iterative process to create a coding system for the physician and patient communicative statements. Key words and phrases that influenced the form and nature of the visit were noted and discussed by the team in consensus meetings. Coding development continued until saturation was achieved, that is, no new codes emerged from examining additional transcripts.20,21 Then each transcript was coded and discussed by 2 of us, with any differences in coding brought to the third author for further discussion and resolution (the authors’ roles in this process were rotated).21 A phenomenologic method was used to analyze visit transcripts, employing an inductive, discovery-oriented approach to examine a behavior or experience of interest.20 Because one of the goals was to better understand reasons for racial disparities in patient participation, after all the interviews were coded and analyzed, the data were taken to a key informant in the black community for the purpose of triangulation.22 No additional themes or subthemes were identified after consultation with the key informant; however, the informant noted the importance of watching for spirituality to be addressed in cancer discussions in this population.

In addition to inductive qualitative coding, we simultaneously coded the transcripts for patients’ statements that were empathic opportunities and physicians’ statements that were empathic responses, using sequence analysis, and counted the frequency of these behaviors.23 We identified and coded (1) empathic opportunities, defined as patients’ statements that included an explicit description of emotion; (2) potential empathic opportunities, defined as
patients’ statements or clues that in our opinion indicated that an underlying emotion was unstated; (3) physicians’ empathic responses, defined as physicians’ statements that explicitly recognized patients’ emotions; and (4) missed empathic opportunities, defined as physicians’ statements that were not empathic, that terminated the empathic opportunity, or that acknowledged or echoed the patients’ statements but did not include communication reflecting the physicians’ recognition of emotion back to the patient.1,2 In our analysis, we first identified patients’ statements that were empathic opportunities or were potential empathic opportunities. We then analyzed subsequent physicians’ statements to identify whether the physician provided an empathic response or instead missed the opportunity for an empathic response. Finally, we divided the encounters into thirds by length and counted the number of empathic opportunities and physicians’ empathic responses in each third.

RESULTS

We coded the patient-physician communication in this sample of 20 medical encounters into 3 themes that included (1) patients’ statements about impact of lung cancer, (2) patients’ statements about lung cancer diagnosis or treatment, and (3) patients’ statements about health system issues affecting their care. Each theme contained 2 to 5 subthemes (Table).

EMPATHIC OPPORTUNITIES

Patients often made statements that raised or alluded to concerns, emotions, or stressors and that we categorized as either empathic opportunities or potential empathic opportunities. These empathic opportunities were identified 384 times with a range of 2 to 42 opportunities per encounter (median, 18 opportunities). Our classification of these empathic opportunities and the frequency of the empathic opportunities and physicians’ empathic responses are shown in the Table, according to 11 subthemes.

THEMES

Sixty-one percent of empathic opportunities were classified within the theme of patients’ statements about the impact of lung cancer (Table). Patients’ morbidity and mortality expectations and concerns were the most commonly coded empathic opportunity, which hinted at fears, worries, and existential concerns and comprised 32% of overall empathic opportunities (n=124) (Table). The remaining 3 categories within the theme of patients’ statements about impact of lung cancer comprised an additional 29% of empathic opportunities. These subthemes include symptoms related to cancer, relationship to smoking, and beliefs about or mistrust of medical care. Patients expressed concerns about the potentially disfiguring effects of surgical treatment and how long they might live. In response, physicians expressed the difficulty of making prognostic predictions, focused on biomedical information, and did little to recognize or address patients’ stated fears or to explore patients’ clues hinting at potential fears, concerns, and uncertainties (Figure 1).

Some patients’ statements expressed a recognition that cigarette smoking was the probable etiology of their lung cancer. However, physicians did not recognize these statements as empathic opportunities, that is, as opportunities to validate and normalize patients’ emotions (eg, guilt) and beliefs caused by a potentially self-inflicted illness. Instead, physicians often implicated persistent smoking and resulting comorbidities in the inability to treat some of these patients with cancer (Figure 2). In 8 of the 20 interviews, physicians used blaming words about smoking in association with the inability to treat the patient or the presence of the lung cancer, such as “your smoking’s done a number on your lungs.”

Patients’ beliefs about or mistrust of medical care were at the root of 4% of statements classified as empathic opportunities. Physicians’ responses did not recognize and even disregarded
patients’ belief models. For example, a black patient expressed a strong opinion regarding a decision about surgery. However, the physician’s response did not recognize or acknowledge the patient’s concern, but instead the physician terminated the empathic opportunity and proceeded with plans for a preoperative workup (Figure 2).

Patients’ statements about lung cancer diagnosis or treatment comprised 31% of empathic opportunities (Table). Patients used brief narratives (Figure 2) to tell the story of their diagnostic experiences and described difficulty understanding or coping with a diagnosis of cancer and the staging workup. Patients’ statements that reflected difficulty in making treatment choices and the complexity of accessing health care were also subthemes classified as empathic opportunities (Table). Physicians’ verbal responses included giving patients the news of or confirming the cancer diagnosis and ability or inability to treat the cancer. Physicians provided little or inadequate emotional support or clarification of confusion or uncertainties, quickly shifting to biomedical questions and statements.

EMPATHY PROVIDED

Although opportunities for empathy occurred from onset to conclusion of these encounters, physicians did not routinely provide *interval empathy*, which we define as providing empathic responses throughout the consultation. The types and subtypes of physicians’ empathic responses (n=39 of 384 opportunities [10%]) are noted in the Table. With a mean of less than 2 empathic physician responses per encounter (range, 0–8 responses), empathy was an infrequent occurrence. Physicians responded empathically more often to empathic opportunities that were coded as health care system issues (n = 9 [23%]) and to those coded as difficulties with making decisions about treatment (n = 8 [21%]). Less than 10% of empathic opportunities coded as morbidity and mortality expectations and concerns in relation to lung cancer were addressed with an empathic response, although this was the most frequently raised type of concern (9 of 124 opportunities). There was no significant difference in the proportion of empathic responses from physicians to black patients compared with white patients (22 of 174 vs 17 of 210 [12.6% vs 8.1%; \( P > .10 \)), but oncologists were more likely than surgeons to respond empathically (13.7% vs 6.4%; \( P = .02 \); 27 of 197 vs 12 of 187; 11 vs 9 encounters).

In an analysis examining when physicians’ empathic responses occurred in the encounter, we noted that 30% occurred in the first third of the encounter, 20% in the second third, and 50% in the last third. Thus, half the empathy was provided toward the conclusion of the encounter. Patients, however, raised empathic opportunities evenly throughout the encounters, with about 36% in the first third, 31% in the second third, and 33% in the last third.

Physicians with empathy generally responded more consistently when patients presented concrete and positive, rather than abstract or negative concerns:

**Patient:** “I’m fighting it.”

**Physician:** “That hope, that optimism is what is going to get you through this treatment” (Encounter 8).

On the one hand, we did not notice prolonged patient responses to empathic statements from physicians. When empathy was provided, the responses from patients ranged from 1 to 2 words up to 1 sentence. On the other hand, we did notice that when empathy was not provided, some patients repeatedly attempted to have these needs addressed by creating additional empathic opportunities.
COMMENT

In this set of encounters, physicians rarely responded empathically to statements of patients with lung cancer regarding morbidity or mortality, symptoms, or treatment limitations. We found numerous missed opportunities to recognize and possibly to ameliorate patients' concerns. When physicians offered empathic responses, half occurred in the latter third of these encounters, notwithstanding the presence of opportunities throughout the encounters. Physicians seemed more likely to offer an empathic response when the patient was lamenting a difficulty with the health system or a difficulty making decisions about treatment. In addition, we found that physicians' empathic responses occurred in similar proportions with both black and white patients, but that oncologists were more likely than surgeons to give an empathic response to an empathic opportunity. Nonetheless, our data add to a growing literature that physicians' use of empathy in medical encounters is limited. Furthermore, our data suggest that empathic responses can be brief and may not notably lengthen encounters, and if empathic opportunities are not addressed, physicians will get another chance and sometimes several more chances to respond empathically. We suggest that particularly when communicating with patients who have a life-threatening illness, physicians consider providing empathy earlier and at intervals throughout the encounter (interval empathy) to explore and validate patients' needs and concerns and build understanding to allow progressive establishment of rapport and trust. Effective handling of empathic opportunities can include phrases such as: "I can imagine how difficult that is," "Sounds like what you're telling me is …" or "It sounds like you were really frightened when you got that news about the cancer."

Our findings are consistent with results of other studies that have reported that primary care physicians, oncologists, and surgeons infrequently use empathic responses. Nevertheless, it is surprising that our data had a lower frequency of empathic responses (10%) to clues from patients with a life-threatening cancer compared with those of prior studies of empathy provided by primary care physicians (21%), oncologists (22%), and surgeons (38%). In particular, our data had a lower frequency of empathic responses from surgeons than these other studies reported. Our data also indicated that empathic clues during the beginning and middle of the encounter were less likely to be addressed. It is possible that a low frequency of empathic responses early in the encounter, perhaps when they are most valuable and when relationship-building is thought to occur, is associated with patient production of empathic clues later in the encounter as patients continue to seek validation and support. Overall, physicians' low rate of response to empathic opportunities by patients in this study seems to represent a pattern in which physicians provide too little empathy, too late in the encounter.

Physicians may not respond empathically to the empathic opportunities presented by their patients for a number of reasons. First, in a busy clinic, physicians may believe that there is no time for empathic responses. Our data and those from other studies suggest that patients did not respond excessively when empathy was provided and suggest that visits with missed opportunities may be longer than visits with an empathic response. Second, physicians may not recognize empathic opportunities, perhaps because they are busy attending to other tasks (eg, diagnosis). Alternatively, physicians may consciously avoid responding empathically to some patient concerns. For example, patients' morbidity and mortality concerns can be particularly difficult for physicians to address. This difficulty may be related to limited cure potential that results in a sense of failure and/or identification with the patient that is difficult for the physician to acknowledge or express and may raise within the physician awareness of his or her own vulnerability to illness and mortality. Clinicians may manage this sense of failure by blaming patients' behavior or seeing it as "just" for those who have cancer and other conditions or situations. Conversely, physicians may falsely assume that a long biomedical response is reassuring. Instead, focusing on the patient, allowing spiritual and mortality concerns to be voiced (perhaps particularly important for black patients),
and responding empathically may facilitate patients’ ability to listen to brief biomedical explanations. Third, physician burnout and distress has also been associated with decreased provision of empathy; yet, paradoxically, studies suggest that providing empathy is one way to prevent burnout, reduce physician stress, and make medical practice more rewarding. Finally, physicians may believe that some patients (e.g., VA hospital patients, in our study) are stoic and would not welcome empathic responses, hence causing a lower empathic response rate in our study. However, our data suggest that these patients present empathic opportunities at rates similar to those from other studies and responded positively when empathy was provided.

The current study adds to the literature evaluating empathy in physician-patient communication and is one of the first, to our knowledge, to focus on the types of empathy patients produced. Our focus on patients with lung cancer provided a rich sample from which to code patients’ empathic opportunities. In addition, our focus on classifying the empathic opportunities raised by patients differs from many studies and provides a starting typologic approach that, with further development, may assist physicians in identifying patients’ empathic opportunities.

Our results should be interpreted in the context of several limitations. First, because we used transcripts of medical encounters, we were not able to account for nonverbal behaviors (e.g., voice tone and body language) that may have communicated empathy. Second, we do not know whether empathic responses are best provided in response to patients’ clues or in response to other opportunities that we did not evaluate (e.g., situational opportunities without a patient clue such as cancer, untreatable cancer, or uncertainty). Third, the study was conducted in a selected set of encounters between patients with lung cancer and their physicians at 1 hospital, and the communication behaviors may not generalize to other patients, other physicians at the clinics studied, or to other clinics. Although we believe that empathic responses should respond to patients’ emotional needs, it is possible that patients who have more difficulty expressing emotional responses to taxing diseases such as cancer should receive encouragement to do so from their physician; hence, the need for empathy may be even higher than reflected by the number of empathic opportunities identified in our study. Finally, our list of themes and subthemes may not represent fully and may differ in frequency from those of patients with other conditions or in other health care settings.

Our data document limited physician response to empathic opportunities raised by patients, and we define a typologic approach of empathic opportunities that might be an aid to physicians in formulating responses. We suggest the use of interval empathy to respond to empathic opportunities offered by patients periodically throughout the encounter, particularly in encounters with patients with life-threatening conditions who may be most likely to raise multiple empathic opportunities. Use of this communication skill may allow increased understanding and progressive rapport and trust with patients. Fortunately, studies indicate that expressing empathy can be taught and that these statements can be brief and powerful, not prolonging the encounter or necessarily changing a physician’s style. Future studies are needed to evaluate from the patients’ perspective which physician behaviors and statements communicate empathy and how these are efficiently applied to build relationships and improve encounters.

Acknowledgements

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REFERENCES


Arch Intern Med. Author manuscript; available in PMC 2009 May 7.
**Morbidity or mortality concerns (2 examples)**

Patient: “To be able to work with just one [lung]?”

Physician: “Yeah. I mean, that will give us an idea if you can work with one. Because that’s most likely what’s gonna’ happen if you go for surgery. Most likely the whole lung will need to come out. All right?”

Patient: “Okay. That’s the darkest picture.”

Physician: “Yeah. That’s the darkest and the most likely.” [Encounter 1]

Patient: “I don’t know what the average person does in just two years, three years, a year?”

Physician: “I think that . . . you certainly could live two or three years. I think it would be very unlikely . . . But I would say that an average figure would be several months to a year to a little bit more. [Encounter 2]

**Relationship to smoking**

Patient: “No, sir, I’ve never had a heart attack. Supposedly, I worked very hard when I was a young man, young boy. I was doing a man’s labor and I was always told I had a good strong heart and lungs. But the lungs couldn’t withstand all that cigarettes . . .”

Physician: “Yeah.”

Patient: “. . . asbestos and pollution and second-hand smoke and all these other things, I guess.”

Physician: “Do you have glaucoma?” [Encounter 3]

**Beliefs about or mistrust of medical care**

Patient: “Well, I’m not gonna have the operation.”

Physician: “You don’t want to have an operation?”

Patient: “No. I can’t.”

Physician: “Who told you that?”

Patient: “Nobody, but they told me if they open you up, if you’ve got cancer, once they open you up, you get poisoned.”

Physician: “That’s nonsense . . .” [Encounter 4]

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**Figure 1.**
Selected quotations coded as patients’ statements about the impact of lung cancer. All exchanges are from different encounters and any identifying features have been modified.
Factors limiting ability to treat lung cancer

Patient: “It's on the bottom of my lung . . . It's about as big as a golf ball . . . they want to see if they can get another doctor to see if they can cut it out or . . .”

Physician: “When you breathe, you barely get a quart . . . It's a little bit more than a quart and that is too low . . . The amount of disease you have is normally treated with surgery. That would be the first treatment option. But they cannot operate on you because you will not have enough lungs to live with.” [Encounter 5]

Confusion regarding cancer diagnosis, prognosis, and treatment

Patient: “Then all of a sudden, it's cancer or it's not cancer. I don’t know what it is 'cause you don’t know what it is. Nobody knows what it is and it's scary. It's very, very scary and I can’t believe that he looked at that for 10 minutes and came back and said, ‘Okay, this is what we’ve got to do.’ I know you want to do the lesser of two evils, ‘cause that's what I want to do; it's just real, real, real confusing.”

Physician: “There's different treatments for cancer . . .” [Encounter 6]

Decisions about treatment

Patient: “Well, I guess [I'll] just take medicine for the pain.”

Physician: “You’d rather do that and not take any chemotherapy or radiation treatment?”

Patient: “‘Cause I feel good now.”

Physician: “That's certainly a reasonable choice. I just want to tell you that if we don't treat the cancer, it's going to start to grow, or it will continue to grow and it's going to cause you more pain and more problems as time goes on . . . You'll probably live longer, if we treat it.” [Encounter 7]

Circumstances of lung cancer diagnosis (2 examples)

Patient: “I fell on my shoulder here, really messed it up good. And this . . . then this immediately exacerbated this cough that I had. I mean this coughing, it's just damn near paralyzed me. They did an X-ray of my shoulder and they wanted one of my chest because I had this cough. And that's when they found this.”


Patient: “But this is kind of overwhelming, you know, with the other cancers, too. I also got 3½ cm [aortic] aneurysm. . . . I’ve had anxiety problems before. I go to the [mental health clinic] . . .”

Physician: “Okay.” [Encounter 9]

Figure 2.
Selected quotations coded as patients’ statements about lung cancer diagnosis or treatment.
# Table
Categories and Frequencies of Empathic Opportunities and Physicians’ Responses

<table>
<thead>
<tr>
<th>Theme and Subtheme</th>
<th>Missed Empathic Opportunities</th>
<th>Empathic Responses</th>
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