Published in final edited form as:
Patient Educ Couns. 2012 October ; 89(1): 44–50. doi:10.1016/j.pec.2012.04.005.

Why Should I Talk about Emotion? Communication Patterns Associated with Physician Discussion of Patient Expressions of Negative Emotion in Hospital Admission Encounters

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Abstract

Objective—To describe hospital-based physicians' responses to patients' verbal expressions of negative emotion and identify patterns of further communication associated with different responses.

Methods—Qualitative analysis of physician-patient admission encounters audio-recorded between August 2008-March 2009 at two hospitals within a university system. A codebook was iteratively developed to identify patients' verbal expressions of negative emotion. We categorized physicians' responses by their immediate effect on further discussion of emotion - focused away (away), focused neither toward nor away (neutral), and focused toward (toward) - and examined further communication patterns following each response type.

Results—In 79 patients' encounters with 27 physicians, the median expression of negative emotion was 1, range 0–14. Physician responses were 25% away, 43% neutral, and 32% toward. Neutral and toward responses elicited patient perspectives, concerns, social and spiritual issues, and goals for care. Toward responses demonstrated physicians' support, contributing to physician-patient alignment and agreement about treatment.

Conclusion—Responding to expressions of negative emotion neutrally or with statements that focus toward emotion elicits clinically relevant information and is associated with positive physician-patient relationship and care outcomes.

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Practice Implications—Providers should respond to expressions of negative emotion with statements that allow for or explicitly encourage further discussion of emotion.

Keywords

Physician-patient communication; Hospital; Emotion; Empathy

1. Introduction

Research in outpatient settings demonstrates that empathy is a key element in physician-patient communication [1–4]. It encourages discussion of patients' distress [1,5] and is associated with decreased anxiety, increased satisfaction, and improved medical outcomes [6–11]. Despite these benefits, outpatient studies have shown that physicians infrequently respond with empathy to patient expressions of negative emotion [1–3,5,12–15].

Physician-patient communication is an increasingly important quality measure of inpatient care [16]. Hospitalization may be a source of increased emotional distress for patients, and physician empathy may be a key factor in communication in the hospital. The hospitalist model — in which hospitalized patients are cared for not by their outpatient physicians, but by physicians who specialize in inpatient care — now provides care to most hospitalized medical patients in the US, and a rapidly growing number worldwide [17,18]. This model has shown benefits in patient outcomes, quality of care, and education [19,20]; yet, concerns remain about its effects on the physician-patient relationship [21]. The goals of this study were to understand how hospitalists respond to patients' expressions of negative emotion and to identify how different types of responses influence further communication in the encounter.

2. Methods

2.1. Design and setting

We qualitatively analyzed attending physician-patient admission encounters which were audio-recorded between August 2008 and March 2009 on the general medical services at two hospitals within a university system [22].

2.2 Participants

All attending hospitalist physicians at the two hospitals were eligible. Eligible patients were admitted under the care of — but had not yet met — a participating physician and were able to communicate verbally in English and provide informed consent.

2.3. Recruitment and data collection

Physicians were recruited before they attended on the medical service. Patients were identified as they were assigned to participating physicians and approached in the emergency department or hospital room for screening and enrollment. The admission encounter was audio-recorded and professionally transcribed. Before analysis, the research team listened to the audio-recordings and corrected small errors in transcription for all encounters; we did not discover any errors that would have altered the results of our analysis. Physicians and patients completed surveys to assess demographics. The Institutional Review Board at the University of California, San Francisco approved the study; all participants gave written informed consent.

2.4. Analysis

First, all authors working together iteratively developed a codebook to reliably identify instances where patients verbally described experiencing a negative emotional state in the past, present, or future [23,24]. A preliminary codebook was based on previous work and a subset of encounters [1–3,14] and modified in application to another subset. We included direct expressions of emotion, where patients named the emotion they were experiencing, e.g. “I'm scared”, as well as indirect expressions, where patients referred to — but did not name — the emotional state, e.g. “That's the hardest part.”

To assess inter-rater reliability, two coders (KA and JEWC) independently coded a random 20% of encounters; kappa statistics were 0.76 for direct expressions, 0.62 for indirect expressions, indicating substantial agreement [25,26]. All disagreements between the two coders in the double-coded encounters were resolved by consensus among all authors. The two coders then applied the final coding scheme to the remainder of the transcripts, resolving questions by consensus among all authors.

Next, all authors collaborated to create categories describing the physicians' responses to the identified patient expressions **of emotion**. In successive application to the encounters, we modified previously described categories [1–3,5,14] until arriving at a scheme that characterized the observed responses. We were particularly interested to study physician responses from the perspective of whether they specifically encouraged or discouraged discussion of emotion. As such, we categorized responses based on their immediate effect on the discussion of emotion by the patient: 1) away = focused away from emotion, 2) neutral = focused neither toward nor away from emotion, and 3) toward = focused toward emotion (Table 1). When multiple categories were present within one speech turn, we coded the response by the final category, as this was the effect on the discussion. After agreeing on the coding scheme, a single author (KA) applied it to all encounters, resolving questions by consensus among all authors. To assess whether physician response varied by whether the opportunity was direct or indirect, we performed a chi square test, followed by regression modeling to adjust for clustering within patients and physicians, using Stata 11 (StataCorp LP, College Station, Texas).

Finally, we conducted a thematic analysis of how different response types were associated with further communication in the encounters [27,28]. **Three** authors (KA, JEWC, WGA) individually reviewed all encounters that included at least one expression of negative emotion to identify patterns of further communication that were associated with away, neutral, and toward responses. We sought evidence of differences within three domains: understanding the patient (e.g. preferences, goals, and values), the physician-patient relationship (e.g. provision of support by the physician), and clinical care (e.g. agreement about treatment plan and adherence). The three authors then met to identify themes within these domains. **To** ensure methodological rigor and credibility of our findings, **we used** memoing, group discussion, and independent review by **a fourth** author (RMA) [29]. Results from this analysis are presented as themes with exemplar quotations.

3. Results

3.1. Patient expressions of negative emotion

We analyzed 79 patients' admission encounters with 27 physicians (Table 2). Consent rates were 91% for physicians and 66% for patients [22]. We identified 190 instances of patient emotional expression, 58% indirect and 42% direct. The median number of expressions per encounter was 1, range 0–14; 71% of encounters contained at least one expression.

3.2. Physician responses

Table 1 provides examples of physician responses by category: away, neutral, and toward. Percentages of physician responses within each category are shown in the Figure. Responses did not vary by whether the opportunity was direct or indirect. A detailed description of each category and its immediate effect on communication follows.

3.2.1. Responses that focused discussion away from emotion—Physicians responded to 25% of expressions with statements that focused discussion away from emotion. Types of responses included clinical explanations for the distress, attempts to fix the source of distress, or justifications for why a problem occurred. For example, after the physician told a patient that a concerning lesion was found on CT scan, the patient expressed sadness:

> "Well, that's kind of sad news, but what's new, too… Anyways, we'll just have to follow up whatever it is. Is this treatable at all or is it a real-"

The physician provided information to address the patient's question about treatment, but did not acknowledge or explore his sadness.

> "Not to get too far ahead of ourselves because, as you've said … we can't say anything definitively… but if it is kidney cancer – based on the tests we have now — it's just in the kidney and so that is treatable."

The patient did not express sadness again and transitioned to discussion about his urologist.

Responding to expressions of emotion with clinical questions or questions about the subject of the emotion also focused discussion away from emotion. A woman admitted with a gastrointestinal bleed expressed fright at seeing blood in the toilet: "I tried to take a look in there, at the bowl. And I got scared." The physician responded, "*It was red blood?*" The patient then described the characteristics of the blood to answer the physician's question. Physicians also stopped discussion of emotion by changing the topic. A patient admitted with Crohn's disease expressed distress about gas coming out of her vagina.

> PATIENT: That freaked me out.
>
> PHYSICIAN: Yeah, yeah. So that is explained by this connection between your intestine and your vagina. So it seems like the gas is coming from your intestine. … did the gastroenterologist see you yet?
>
> PATIENT: No.
>
> PHYSICIAN: Okay. Now I understand you also – did you have some vomiting?

3.2.2. Neutral responses: Focused neither toward nor away from emotion— Physicians responded to 43% of expressions with statements that focused neither toward nor away from emotion. Neutral responses included one-word replies, such as "right," "okay," or "absolutely" as well as responses in which the physician restated or clarified the patient's words, without specific reference to emotional content. Neutral statements allowed the patient to direct further conversation. Patients often continued emotional discussion after neutral statements. A patient expressed shock about her diagnosis of Hepatitis B and elaborated on it after a neutral statement.

> PATIENT: "Of course not knowing this and all of the sudden you have it, it's a shock."
>
> PHYSICIAN: "Yeah."

PATIENT: “It's like a shock and I don't want to be labeled, you know, you have this…”

3.2.3. Responses that focused discussion toward emotion—Physicians responded to 32% of expressions in a way that focused conversation toward the emotional aspect of the patient's statement. Toward responses included statements of empathy, in which the physician attempted to name, understand, or explore the emotion or show respect or support; as well as sympathy, such as “I'm sorry”, which expressed regret for the patient's distress. Patients usually responded to toward statements with additional discussion of emotion. For example, a woman with lymphoma described her frustration with the mental slowing her illness caused. The physician voiced understanding of her experience and respect for her strength, and she continued to talk about emotion.

PATIENT: “That's the hardest part.”

PHYSICIAN: “Sounds like you've been through a lot…you do lots of things in your life and keep very busy and take care of a lot of people.”

PATIENT: “I'm sorry. I'm not as strong as usually but I fight it all the time. This challenge is very difficult to go through, but I will stay strong and I will keep saying to myself, be strong! Be strong!”

3.2.4. Combined responses: Toward followed by away—Although toward statements usually furthered discussion of emotion, they functioned this way only if the patient was given the opportunity to continue speaking about emotion. When physicians responded with a toward statement followed in the same speech turn by provision of information or a change of topic, the combined statement focused discussion away from emotion. For example, a patient recounted a distressing experience during an ambulance ride. The physician initially responded with empathy, which prompted another expression from the patient. The physician then responded with a combined statement of sympathy followed by clinical information.

PATIENT: And what made it worse was that the ambulance drivers were very rude. And they were screaming at me and telling me, `Oh, you know you can do better than that,' you know. And I was trying to tell them I could not talk. And they just saw me as a faker. And that's what they were sayin' in the ambulance…

PHYSICIAN: Sounds like that was a pretty awful experience.

PATIENT: Yeah. Almost as bad as the embolism.

PHYSICIAN: Wow. Ok. Hmm. I'm sorry about that…so I'm concerned about a couple things. One, yes the blood clot issue…

The provision of clinical information directed discussion away from the patient's distress.

3.3. Patterns of further communication in the encounter by physician response type

Away, neutral, and toward responses were associated with different patterns of further communication in the domains of understanding of the patient, the physician-patient relationship, and clinical care (Figure).

Valuable information about patients' perspectives and concerns about their illness and treatment, the interplay between illness and social and spiritual issues, and goals for medical care frequently followed neutral and toward responses but not away responses. Obtaining information about patients' concerns allowed physicians to address them directly, helping patients to agree with treatment plans. Physician responses that asked a question to explore

emotion were particularly well suited to eliciting patients' perspectives. For example, a patient admitted for ulcerative colitis expressed fear about getting a colonoscopy. By exploring the concern, the physician learned that the patient feared discomfort: "Okay. Are you – are you concerned about the discomfort of the procedure, or finding out what the results are, or what is it that's making you uncomfortable and not feeling good about this?" The patient initially replied discomfort, then revealed that he was "*tired of being hospitalized*." After the physician outlined how tests would be done expeditiously to minimize the length of hospitalization, the patient agreed to the procedure.

Neutral and toward statements also elucidated the interaction between social stressors and patients' illnesses, and allowed patients to discuss sources of social and spiritual support. A patient disclosed the stress she felt from family conflict. Following a series of neutral physician responses, the patient ultimately revealed how she felt the stressful situation contributed to her illness: "Yeah. It might be the reason why this tumor's had such – I mean, the thyroid cancer, had such opportunity to take over." After the physician responded with a statement of respect, the patient revealed how her faith and religious community supported her:

> PHYSICIAN: "… I think that your mind and your … your energy level certainly play into this. And I think you're going to need that strength to fight this."
>
> PATIENT: "Yeah."
>
> PHYSICIAN: "… I hope that we can get some of that energy that is going towards [the family conflict] and focus it on yourself at this point. Because you're gonna need it."
>
> PATIENT: "Absolutely."
>
> PHYSICIAN: "Yeah."
>
> PATIENT: "And, um, in the meantime, my faith has been growing. I, you know, am Catholic since 2006… And the prayer community has really rallied around me."

Neutral and toward responses helped physicians to understand patients' treatment goals, both for the hospitalization, and at the end-of-life for patients with serious illness. In a patient with rectal cancer, neutral and toward responses helped the physician learn that the patient suspected recurrence, and accepted the possibility of death. Additional neutral and toward responses elicited his hopes and fears about end-of-life:

> "I mean, I realized that, when I went through the [cancer treatment], I thought, `Oh gees, you know, I have no peace of mind. I have nothing.' And at least I have that now. And I think I can maintain that … my big worry is really is if we got to a point where it was really painful."

Gathering this information allowed the physician to recommend palliative care consultation to address his concerns and focus treatment on symptom control instead of life-prolongation.

Neutral and toward responses both led to disclosure of valuable information. However, toward responses uniquely conveyed the physician's emotional support, respect, or understanding of the patient, which often led to physician-patient alignment and agreement about treatment plans. In response to a patient's concern about discharge, a physician responded by aligning with the patient's goal.

> PATIENT: If I'm not ready, I don't want to go
>
> PHYSICIAN: Yeah. And we don't want you to go.

In another encounter, empathic and sympathetic statements aligned the physician with the patient after a negative experience with another provider:

> PATIENT: "…Then he went down to my feet and took the blankets off my feet and my legs, to feel my legs and then he left them that way! I said, "Aren't you gonna put the blanket back on my feet?"
>
> PHYSICIAN: "That wasn't a great interaction."
>
> PATIENT: "I told him he was…he had a lot to learn."
>
> PHYSICIAN: "Yeah. I'm sorry about that."

The physician then used additional statements to provide empathy: "…I take responsibility for it. I'm glad you told me, because I'm the supervising doctor so … that's a really important thing for me to know about." After these statements, the patient transitioned to discussing positive aspects of her care: "There's another doctor here, too, and he said several things that were very caring."

The aligning effects of toward statements contrasted with the effect of away statements, which, especially in response to concerns about the healthcare system, distanced the patient and physician. A patient expressed frustration about the delay in seeing the attending and poor interactions with other providers:

> You're the first person, well, besides the female doctor that came in here with the huge chip on her shoulder and quite an attitude…I've been waiting for you to come in because I was told that you were coming in first thing this morning…

The physician responded by justifying why the problem occurred:

> Okay. Well, there are several doctors on the team. And it would be – in a perfect world, we could arrange with you who you ask to speak to first and – as opposed to who comes in second, but –"

The patient responded with a defensive comment: "*But I didn't ask to speak to anyone."* The antagonistic conversation continued until the physician transitioned to the physical exam.

In some instances, provision of emotional support was followed by increased patient agreement to treatment plans. A diabetic patient admitted to the hospital with ketoacidosis wanted to leave against medical advice. The physician explored her concerns, and learned that she didn't care what happened because she felt that no one in her family cared for her. The physician expressed support, "Yeah. Well, I care. I think it's important that we try to work on this together." The patient then agreed to stay in the hospital.

4. Discussion and conclusion

4.1 Discussion

In our qualitative analysis of physician-patient hospital admission encounters, we found that patients verbally expressed negative emotion in most encounters, and that physicians most often responded with statements that allowed or explicitly encouraged continued discussion of emotion. Physician responses that focused discussion away, toward, or neither toward nor away from emotion were each associated with distinct patterns of further communication within the encounters.

We found a higher frequency of patient expression of negative emotion than most outpatient studies [2,3,14,30]. Our patient expression coding system was based on and resembles previous work [2,5], and seems similar in many ways to the recent consensus-developed Verona Coding Definitions of Emotional Sequences (VR-CoDES) [31]. Thus, our results

may represent a true difference in expression rates, possibly related to stress associated with acute illness and hospitalization. Though our coding system for physician responses began with previous work [2,5], we modified it according to our study goal: to specifically describe the effect of physician responses on emotional discussion. A central difference is the neutral category, which we did not find previously described. These more ambiguous responses allowed patients to decide for themselves whether to discuss emotion further, but did not convey physician support and respect as clearly as direct statements. Though they are known linguistically as continuers [32], we chose the term neutral to describe them, as the term continuer has been used to signify empathy in previous coding schemes [1,2].

An interesting finding resulting from coding how responses directed emotional discussion was that responses to the topic of a patient's expression often directed discussion away from emotion. The VR-CoDES highlight this issue by categorizing responses based on whether they provide or reduce space for further disclosure [33]. Further work should explore the effects of how providers respond to the content of emotional expressions, as this occurs so frequently in medical history taking. Another important finding was that empathic or sympathetic statements immediately followed by information or a change of topic stopped discussion of emotion. From one perspective, these combined responses provide empathy [5]. From another, they reduce space for further disclosure [33].

Differences in coding approach limit our ability to compare percentages of physician response types to other studies. However, contrasting our “away” responses with “terminate” or “reducing space” responses suggests that the physicians in our study may have been less likely than those in outpatient studies to focus conversation away from emotion [2,3,13–15]. This could relate to the demographics of our physician sample, younger age and female sex being correlated with higher empathy rates [2,34,35]. It could also relate to decreased perceived time constraints in the inpatient versus outpatient setting, or that physicians focused on building rapport because they were meeting patients for the first time.

Our finding that neutral and toward, compared to away responses, were associated with potentially beneficial patterns of further communication underscores the importance of discussing emotion in the clinical encounter. Neutral and toward responses revealed important information about patients, which physicians used to explicate and tailor their treatment plan. Similar to Suchman and colleague's work [1], we found that physician empathy and sympathy built the physician-patient relationship. These responses aligned the physician and patient, whereas away responses resulted in distance and discord, especially when patients expressed distress about the healthcare system. Further, our data illustrates how physicians' responses to patients' expressions of negative emotion may affect not only the physician-patient relationship, but also the overall care and health of the patient – influencing whether they agree to a diagnostic test, or stay in the hospital. Future studies should assess whether these patterns are associated with patient perceptions of communication as well as medical outcomes.

4.1.1. Limitations—Our study has several limitations. First, we did not study non-verbal communication including facial expression, body language, and paralinguistic aspects. Second, patient and physician behavior may have been affected by recording, though this would not explain the differences in rates of expression of emotion and responses that focused away from emotion between our and other studies of audio-recorded communication. Third, we were unable to record all eligible encounters, mostly due to patients or physicians declining participation. Physicians were most likely to decline participation when they were busy and may have responded more frequently with away responses at those times. Fourth, because we used all encounters to develop the physician

response scheme and describe further communication, we were unable to quantitatively assess reliability for these aspects of our analysis. Finally, we studied only two hospitals in a university system in the United States, limiting generalizability. Additionally, an important unaddressed issue that will require future study is time. Practicing physicians who consider adopting an approach that facilitates the expression of emotion will need evidence that the time costs for doing so add value to their interactions with patients.

4.2. Conclusion

Hospitalized patients frequently expressed negative emotion during physician admission encounters. Neutral and toward responses were associated with patient disclosure of information about social issues, concerns, and goals for care, which physicians used to guide further communication with patients and tailor treatment plans. Empathic and sympathetic responses conveyed support, aligned the physician and patient, and contributed to agreement about treatment plans. Neutral and toward responses may help to build rapport, enhance trust in the physician and healthcare system, and increase adherence.

4.3. Practice implications

Our study adds to the existing evidence demonstrating the importance of providers' responses to patients' emotional expressions, and helps to address questions about how this literature should be applied in practice. Do providers need to respond empathically to every expression of negative emotion? Is a higher percentage of empathic responses better? Our results indicate that it is not necessarily the quantity of neutral or toward responses but how they are used that influences further communication in the encounter. Similar to the work of Branch and Malik [4], our results suggest that rather than trying to respond empathically to every expression of negative emotion, providers instead should maintain an awareness of the differential effects that our responses may have. Then we can strategically use them as tools in our kit: to understand patients better, build trust and rapport, and help patients adhere to treatments. Further, while the use of empathic language alone may be associated with better patient outcomes [7], our results indicate that the effects on gathering information about the patient, building rapport, and increasing adherence may be in part dependent on allowing the patient to talk about their emotion. In order to gain understanding of a patient's perspective, the provider needs to give the patient space to respond [33], rather than using an empathic comment to transition back to clinical discussion. Similarly, our observations suggest that a series of neutral or empathic statements may be required for the patient to feel as if their experience was explored, as evidenced by the patient changing the topic. We suggest that responding to patients' negative emotion be a focus of improving communication in the hospital and other settings, and that these initiatives consider the function of these responses in the overall encounter.

Acknowledgments

We would like to thank the patients and physicians who generously donated their time to participate in this study. Dr. Anderson was funded by the National Palliative Care Research Center and the University of California San Francisco Clinical and Translational Science Institute Career Development Program, which is supported by NIH grant number 5 KL2 RR024130-04. The University of California San Francisco Academic Senate funded study expenses.

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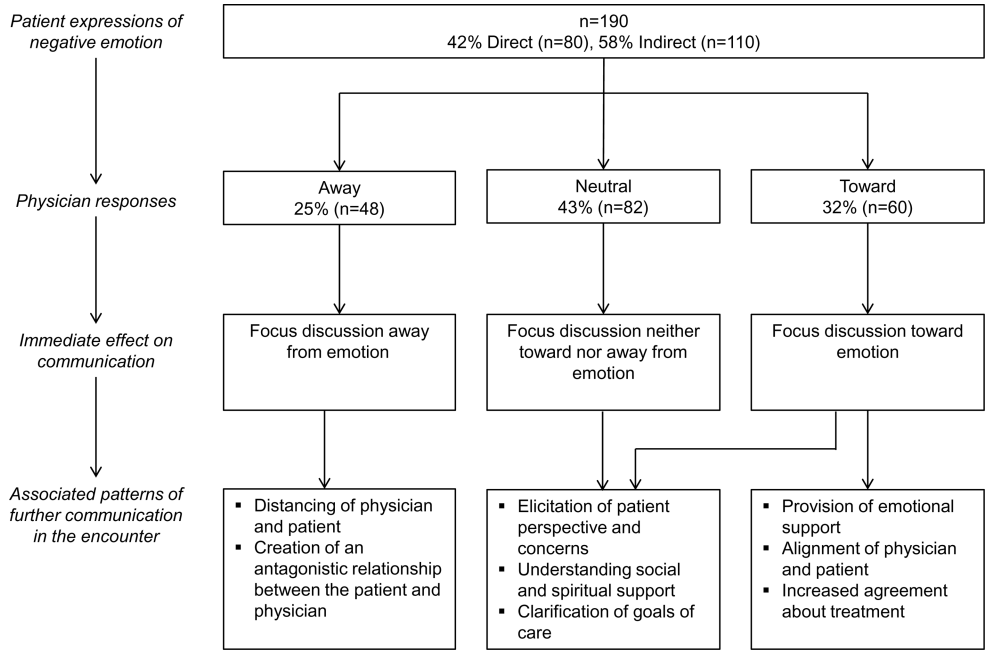

Figure.

Physician responses to patients' expressions of emotion: Immediate effect on communication and associated patterns of further communication. Responses that contained multiple categories were categorized according to the final response.

Table 1

Physicians' responses to patients' expressions of emotion: Response categories and quotation examples.

Away: Responses that focused away from emotion		
Provide Information		
Clinical Explanation	Patient:	"So, the whole this is just real scary and I'm hoping that, in partnership, we're gonna be able to turn it around…"
	Physician:	"Sure. So it's actually pretty straightforward. I think we've made the diagnosis of pneumonia."
Attempt to Fix Problem	Patient:	"It's hard [to quit smoking]".
	Physician:	"Okay. We can get you some counseling and information."
Justification	Patient:	"It's just uncomfortable. You know, the personnel – I can't tell you…"
	Physician:	"Well, it's a very different level of care hospital. I mean they are much more understaffed."
Clinical or Content Question		
	Patient:	"I was just like trying to pee and trying to pee and trying to pee and I prolapsed my urethra. So, it's like gees, it's like one thing after another!"
	Physician:	"So you got Cipro for your UTI?"
Change Topic		
	Patient:	"And every time I think about eating, I think about going to the bathroom and I started crying because my –"
	Physician:	"Okay. Anything else about your Crohn's or this presentation that you think I need to know about."
Neutral: Responses that focused neither toward nor away from emotion		
One Word	"okay," yeah," "mhmm," "sure", "right", "wow," absolutely"	
Clarification	Patient:	"I'm just beset with the symptoms of Parkinson's."
	Physician:	"With what?"
Restatement	Patient:	"I was so devastated when he said that it came back."
	Physician:	"It came back."
Toward: Responses that focused toward emotion		
Empathy		
Name	"…you were worried."	
Understand	"Anytime that someone goes through treatment and it is – the treatment is successful, anytime that cancer comes back is devastating."	
Respect	"But just meeting you, I feel like you are a very strong person."	
Support	"Yeah. Well, I care. I think it's important that we try to work on this together."	
Explore	"Tell me how you knew. You said that you knew [that you were dying]."	
Sympathy	"I'm very sorry to hear about your dad."	

Table 2

Characteristics of participating patients and physicians

Characteristic	Patients n=79	Physicians n=27
Age, years, mean (SD)	54 (19)	35 (5)
Gender, n (%) male	36 (46%)	11 (41%)
Ethnicity, n (%)		
Hispanic	4 (5%)	1 (4%)
Non-Hispanic	75 (95%)	26 (96%)
Race, n (%)		
White	56 (71%)	18 (67%)
Asian	7 (9%)	7 (26%)
Black/African American	8 (10%)	0
Other	8 (10%)	2 (7%)
Encounter location, n (%)		
Hospital A (attendings & housestaff)	65 (82%)	
Hospital B (attendings only)	14 (18%)	
Encounter length, minutes, mean (range)	21 (3–68)	