

## ARTICLE

# Physician dialogues with advanced cancer patients: mostly patient-friendly but often physician-directed

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## Abstract

**Objective:** To explore patient-physician communication with advanced cancer patients, with particular interest in patient-centered communication and any differences between patient interactions with family physicians and oncologists.

**Methods:** *Design:* Unannounced standardized patients (SPs) portrayed cancer patients seeking a first consultation with a new physician. *Population:* 16 community oncologists and 18 community family physicians with undetected, audio-recorded visits. *Analysis and text management:* We generated themes and created a coding system with a discourse analysis-informed approach to the transcripts. We then focused analysis of dialogues in context to refine the coding scheme. Finally, we applied simple descriptive statistics to the codes.

**Results:** Dialogue categories that emerged included: 1) exploring patient perspectives; 2) providing information and 3) engaging patients in decision-making. Ninety-four per cent (32 of 34) encounters contained dialogue with decision-making. About half of these utterances, 48% (n=104), were coded as shared decision-making. Patient-centered utterances comprised 52% of physician speech, while 48% were physician-centered. Physicians utilized predominantly patient-friendly language (no medical jargon) to provide patient education (83%).

**Conclusion:** Physicians were more patient-friendly in their communication than patient-centered; physician-directed exchanges and unshared decision-making were common. Continued medical education and research are indicated to explore and expand patient-centered communication and shared decision-making.

## Keywords

Cancer, patient-centered communication, patient education, person-centered care, shared decision-making

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## Introduction

With cancer causing 25% of deaths in the U.S. [1], managing the care of patients in life-limiting circumstances may tax the communication skills of many physicians. Primary care physicians often perform initial evaluations of new diagnoses and symptoms while interacting to support advanced cancer patients. These physicians will

probably need to be more involved in cancer care, because workforce estimates forecast a shortage of oncologists [2,3]. Patients with advanced cancer frequently engage their physicians (both primary care and oncologists) in difficult conversations around prognosis, treatment choices, need for emotional support as well as end of life concerns. Many physicians lack training and may feel overwhelmed by these conversations [4,5].

Managing advanced stage cancer is demanding for patients and their physicians [6]. High quality communication may boost patients' and physicians' abilities to work together to deal with patients' diseases. Patient-centered communication (PCC) in primary care is associated with improved healthcare outcomes including safety, effectiveness, adherence, efficiency and patient satisfaction [7-12]. PCC is defined as communication that assesses and responds to patient beliefs, emotions, values and preferences; provides patients adequate and accessible education and engages patients in decision-making to the extent that they wish [13].

Evidence has accumulated that PCC is also important in the care of cancer patients [14]. PCC appears to be associated with better care for cancer patients [14]. Cancer patients report more satisfaction, greater self-efficacy and less psychological distress after seeing physicians they rate as attentive and empathic [8]. Cancer patients who discuss end of life issues with physicians tend to accept their diagnosis and choose less invasive and curative treatment options [15]; however, those discussions require a great deal of skill [6]. Research on communication with cancer patients is expanding [16,17].

The preponderance of literature supports the benefits of patient-centered communication. A supportive patient-physician relationship allows for more effective communication of information, expressed patient preferences [18,19] and affective responses. Physician support of the patient's autonomy and participatory role [20] enables shared decision-making. A medical encounter with a trusting [21,22] patient-physician relationship engenders open discussion to gather information from patients including their perspectives, needs [23] and psychosocial context. Such an encounter also provides for reaching agreement and achieving closure. Patients may experience empowerment [24], confidence in their physician, greater satisfaction [8] and improved outcomes [7,13,25-29]. Finally, patient participation may reduce disparities in treatment [30,31] and implement [32-34] patient preferences. However, patient-centered communication may be difficult to employ in practice without training and ongoing support [35,36].

Physician-directed approaches (that may employ biomedical rather than biopsychosocial strategies) allow the physician to maintain a comfort zone for his/her knowledge and skill set [37-39] but control remains with the physician. Physician-centered communication takes place when patient emotions are overlooked, little input is sought from the patient and physicians reserve decision-making responsibilities for themselves. Organizational factors, such as pre-authorization and insurance constraints, electronic health record templates and time pressures may dictate encounters where instrumental tasks take precedence over affective tasks [40]. Thus, physicians may focus on problem definition with a paternalistic approach of "doctor knows best" to achieve what are perceived to be more efficient encounters [41-42]. Physicians often focus on defining problems while patients focus on life impacts of their health conditions and management concerns. Superficial attempts to include patients with a paternalistic tone can reinforce the power

inequity [43] of the relationship, using the "royal we" [44] in pseudo-shared decision-making rather than true patient involvement. This reality is particularly pertinent for more unfamiliar and uncertain situations, such as advanced cancer [45-48], which may cause patients to act on their values and beliefs [49]. The behavior changes that convert physician-directed [36] interactions to collaborative partnerships with patients occur in increments with dedicated training and effort.

In addition, cancer patients vary in their desires for prognostic and end-of-life discussions. Some patients want in-depth information, while others prefer information to be doled out a bit at a time or to receive no information at all [50]. Only about half of elderly cancer patients want an active role in treatment decision-making, making sensitivity to patients' preferences for involvement in decision-making an important component of communication [51]. Communication with the cancer patient requires sensitivity to patient preferences and the ability to respond to the cues cancer patients may use to request or decline information about their care or involvement in decision-making. There is also evidence that patient preferences for decisional involvement are not stable over time [52-53].

Many research efforts explore relationship building, effective communication styles and efficiency in the medical encounter [41]. Exploring patient perspectives is perceived as helpful when addressing health behavior change, underlying feelings or family and cultural factors influencing behaviors. This exploration need not extend visit times and may improve adherence and medical outcomes [54]. Understandable information allows patients to participate in the creation of health plans. Cancer patients want clear information about their health [55]. Collaboration and shared decision-making are believed to be a means to improve the quality of healthcare [56,57].

The purpose of our study was to explore the PCC communication behaviors that enable physicians to respond sensitively to patients' preferences and cues. While PCC variables have been studied extensively in primary care [13,21], it may be that different communication variables are important in the care of cancer patients [17]. Cancer patients face the existential threat of morbidity and death, which means that they present unique technical and emotional challenges to the physicians managing their care. Given the potential high stakes of these encounters for patients, physicians may need to prioritize strategies to explore patients' perspectives, provide understandable education on a complex disease and engage patients in decision-making. Thus, we conducted a study to differentiate physician communication behaviors that may or may not facilitate patient-centered communication with advanced cancer patients.

## Methods

In order to identify these communication behaviors, we conducted a qualitative analysis of transcripts of

physicians interacting with standardized patients (SPs), actors who had been trained to portray stage 4 cancer patients. Such an analysis may lead to a better understanding of communication practices and yield new domains and variables for which measurement instruments can be developed.

## Design

This study describes the dialogues of oncologists and family physicians with undetected first visit standardized patients (SPs) portraying a cancer scenario [58]. Standardized Patient (SP) methodology provides greater internal validity to a physician-patient communication study while sacrificing some external validity. SPs allow researchers to control patient presentation to the physician and thus act as a standardized measurement tool to assess physician communication behavior. SPs acquired covert audio recordings of these visits. The audio-recordings were transcribed *verbatim*. The present analysis was exempted by the University of Rochester research subjects review board as part of a larger study conducted by a team at Purdue University and approved by the Purdue University and the Indiana University (IU) research subjects review boards.

## Physician Sample

The research team at Purdue University recruited 46 practicing physicians, 23 community oncologists and 23 community family physicians between 2006 and 2008. Graduate student research assistants, along with the PI (Dr. Shields), telephoned a total of 36 senior oncologists of whom 24 agreed to meet with a research assistant to explain the study and sign informed consent documents (a 67% response rate). Non-participating oncologists stated that they were too busy to take part or were uninterested in the study. Family physicians were recruited through the Indiana University family physician research network (INET). The team did not have direct access to them as we did with the oncologists. Instead, we sent 150 emails to the IU family physician network. Twenty five expressed interest in the study and 23 consented during personal visits to their office (a response rate of 15%). We have no information on the non-respondents. Physicians provided written informed consent to participate in a study of patient-physician communication. They agreed to have 2 unannounced, covertly audio-recorded standardized patient (SP) visits during the study period. Physicians were reimbursed \$300 to cover the cost of their time. Physicians averaged 48.1 (SD = 9.2) years of age. Seventy-one percent of all physicians were male. There were no significant differences in the demographic variables between the oncologists and the family physicians.

## Standardized Patient Visits

This study used unannounced standardized patients to provide uniform encounters with physicians, avoiding confounding factors such as the Hawthorne effect, case-

mix, mutual accommodation to each others' communication styles and self-selection of physicians by patients [59]. This method allows a focus on the physicians' contribution to communication by holding the patient presentation stable across visits.

Three standardized patients were trained to portray a specific patient role realistically and reproducibly, such that their communication, symptom presentation, clinical signs and affect were indistinguishable from those of actual patients. A detailed clinical biography was developed for a middle-aged man with cancer. Experts on the team in oncology and communication developed the role and an extensive medical record to promote clinical realism and SP reliability.

SPs were coached to give information about themselves in response to questions, but not to volunteer too much unsolicited information. They were instructed to express sad affect and moderate distress if the physician discussed their poor prognosis. SPs were to convey the advanced stage cancer diagnosis was new information to them. Topics routinely addressed included future testing, potential treatment options, pain management and family participation in care and decision-making. Role adherence ratings averaged 92% on a scale developed from the clinical biography and used to train the SPs. For additional study detail, see Shields (2009) [58].

Of the 46 visits with SPs, 20 oncologists and 20 family physicians were successfully audio-recorded. Three weeks after the SP visit, physicians were sent a fax telling them that they had seen an SP in the last month and asking if they had any suspicions at the time of the visit. Five physicians (15%) indicated that they suspected they were seeing an SP at the time of the visit and one audiotape was defective, leaving 34 taped undetected visits for this study. Even though some studies show no differences between communications in detected and undetected visits with SPs [60] to avoid confounders these detected visits were removed from the data set for this study.

## Analysis and text management

Our multidisciplinary team conducted a conversation content analysis of the 34 transcripts, using an iterative process to first generate themes, subsequently create a coding system and finally explore coded dialogue sequences in context to further refine the coding scheme.

Thus, in the first and second stage, all team members read a sub-sample of 10 transcripts (to generate categories or themes relevant to the inquiry). During this phase of immersion crystallization [61] we noted key words and phrases and developed codes related to areas of interest in patient-physician communication. Each transcript was coded by two randomly paired team members. Coding development continued until saturation. With each revision, all previously coded interviews were re-coded by a minimum of 2 researchers. Any differences in coding were brought to the larger group for verification or resolution [62]. Disagreements were resolved by consensus.

Table 1 Dialogue utterances

	All Physicians (N = 34)	Family Physicians (N = 18)	Oncologists (N = 16)
	# (%)	# (mean/MD)	# (mean/MD)
<b>Exploring patient perspectives</b>	425	215	210
Patient Input Elicited	220 (52)	90 (5.61)	130 (6.50)
Physician-Directed	205 (48)	125 (7.17)	80 (4.81)
<b>Providing information</b>	224	100	144
Patient-friendly education	202 (83)	86 (6.44)	116 (5.38)
Medical jargon education	42 (17)	14 (1.22)	28 (1.25)
<b>Decision-Making</b>	218*	74	144
Shared (as patient desires)	104 (48)	24 (3.39)	80 (2.69)
Physician-Directed	114 (52)	50 (3.89)	64 (2.69)

\*All p-values > 0.05

In the third stage, team members reviewed all coded elements in context, using focused analysis of the patient - physician transcribed dialogues "to analyze the kinds of utterances commonly used, their meanings and their effects in the context studied" [61]. This enabled further elucidation of the emergent coding scheme, interpretations of the data and more in-depth understanding of the emergent communicative categories. The dialogue categories that emerged included: 1) exploring patient perspectives; 2) providing patient-friendly information and 3) engaging patients in decision-making to the extent they desire.

All codes were entered into an Atlas ti, (version 5.7.1, 1993-2011, Gmbh, Berlin Program) [63]. Team members again extracted and reviewed all coded elements in context. We also examined coded study variables for their adherence to assumptions of normality and for the presence of outliers. No variables violated the assumptions. Finally, a descriptive analysis was conducted, where after completion of the qualitative inquiry, utterance frequencies within their respective categories, group comparisons and correlations (both descriptive and analytic statistics) were performed.

## Results

While there was variability in the individual encounters with regard to patient physician communication, there were no significant differences between the primary care physicians and oncologists in the coded dialogue categories (Table 1). Dialogue-examples are included

below with encounter numbers each representing unique SP-physician consultations.

### Exploring Patient Perspectives

As defined in the literature and for this study patient-centered interviewing dialogue elicits patient input and focuses on the perspective, values and needs of the patient. In contrast physician-directed interviewing dialogue focuses on the agenda of the healthcare provider and problem-based medicine. In our study, both physician groups used a similar blend of approaches to medicine with both patient-centered (52%) and physician-directed (48%) utterances.

In individual encounters there was a range of 0 to 6 utterances (median 0) that elicited patient input. Dialogues included clarification of the patient's knowledge and desire for information, symptoms and understanding. For example:

#### Encounter 4

*Doctor: Did you get any information about your stage or prognosis and diagnosis?*

*Patient: No it was pretty vague.*

*Doctor: Okay.*

*Doctor: Did you ask him or do you care not to know?*

*Patient: Oh no.*

Encounter 19

*Doctor: So this pain in your chest, that's been, has it just been getting worse of the past couple weeks or what has been going on?*

*Patient: Well, I've been taking more and more pain medicine... to make myself comfortable*

*Doctor: Alright.*

Encounter 38

*Doctor: I am sorry if I have to be the bearer of the message that that lung cancer may not be curable..., I thought you probably already understood that because of the notes that I have, I think it is important for you to know, anybody would want to know I would think, if they got something that would make a difference in some ways in terms of what you are expecting*

*Patient: I appreciate your being candid, I think it helps me to think about it in a different way.... I have been a very positive sort of a person in most of my life and it's been good for me and I can understand what you have explained to me and it gives me something to work on.*

Rather than exploring the patients' perspectives, some physicians seemed to focus on their own agendas. In individual encounters there was a range of 0 to 16 (median 2) physician-directed utterances. With those physicians, dialogues focused on obtaining medical records and performing extensive reviews of systems and family histories that did not seem supportive to patients with advanced cancer. This focus precluded physicians responding empathically to concerns or losses the patient revealed. For example:

Encounter 4

*Patient: What does a stage four mean?*

*Doctor: Stage four means that the cancer has spread outside of the lung, usually to another organ. Like I said it looks like it may have been your bone at that time. With you having back pain I am certainly suspicious that you may still have some cancer there. Unfortunately with lung cancer, we don't do a good job curing that. We have a lot of treatments but the goal of treatment is to deal with symptoms to improve overall survival but we know we can't cure stage four lung cancer. So we can improve the quality and quantity of your life but we can't make it go away. What we need to do today is to get your records from your oncologist in and the radiation oncologist in because like I said it seems like there is some information missing. And then we need to repeat your staging to see where your cancer is now. And one of my concerns is that there is spread of this to your bone.*

Encounter 18

*Doctor: I see here that your mother has lung cancer.*

*Patient: Yes.*

*Doctor: Is she a cigarette smoker?*

*Patient: Yes.*

*Doctor: You lost your wife to breast cancer?*

## Providing Information - Patient Education

We defined patient education using common English words as patient-friendly. This contrasts with patient education about diagnosis or treatment using medical jargon or medical terminology. All physicians in this study utilized patient-friendly education (83% of utterances) more commonly than medical jargon (17%).

In individual encounters there was a range of 0 to 22 utterances (median 5) that provided patient-friendly education. Patient-friendly education involved discussing the medical process, provider roles, patient understanding of their condition, diagnosis, life expectations, cancer staging, treatment options and symptom management using common English words. Physicians incorporated humor, stories, analogies and transparency in their communication with the patient. Offering telephone contact with the patient's daughter and making a tape of the ensuing encounter for the patient to take home were other patient-friendly educational strategies. For example:

Encounter 2

*Doctor: There is some medicine I could give you to help with sleep and some to help you with pain. I need to get more information about your pain medicine too, who you have been getting that from and the drug store that you got your last prescription from and where you have been getting most of those.*

*Patient: Would it be ok if I just had my daughter call you or...?*

*Doctor: Yeah, if she can answer all those (questions)*

Encounter 4

*Patient: Can I have my daughter call you?*

*Doctor: Absolutely. I will give you my card. My phone number is on there. I also have an email so if she wants to email me her number I can just give her a call this evening. It is a little easier for me just to call her during the evening I've marked a few pages. This book is for you. It talks about the treatment and what we would consider a standard treatment*

Encounter 17

*Doctor: I will record it for you because if there are other people in the family they might want to listen and you will be able to take the tape there is no cost to that.*

*Patient: I really appreciate it*

*Doctor: Every time we talk about something serious where we need to make a decision, I put it on the tape. Tell them, please, that they are welcome if they have any question or if they see something on the internet or anything. Let us know and then I can put it on the tape so even if they are not present... hey I saw something on TV... hey I read something what about this ...what about this treatment ...you come with a list and I will give my answer.*

*Encounter 26*

*Patient: I've got a brother that I don't see very often. I've got a son that I see even less, but I've got a bunch of guys that I've been around for a while. We do things together like go to the track or go fishing sometimes or whatever or go to a garden. (since I retired)*

*Doctor: But, you need to...you're going to need to have somebody who one can look out for you if you end up getting medical complications, who will carry out your wishes and say how are they...how you want that to be done, because there may be a time when you may not get to make that decision.*

In individual encounters there was a range of 0 to 7 utterances (median 1), including medical education with medical jargon. These utterances had medical terminology (physician-focused language) without adequate explanation and little discussion of the patient's condition, symptoms, diagnosis or treatment in understandable, common English words. For example:

*Encounter 14*

*Doctor: And then our goal is to put you into remission.*

*Encounter 33*

*Doctor: Um...(reading from patient record) He does have stage four disease. Initially due to the extensive nature of his lung tumor he was thought to be a good candidate for a palliative radiation therapy to the lung tumor.*

*Encounter 39*

*Doctor: So... from what I can tell from your, your reports, it sounds like you have fairly advanced cancer meaning they don't think it's metastasized and it has gone other places, it is in the lymph nodes.*

## Decision-Making

We coded shared decision-making if the dialogue considered the patient's perspective and/or involved defining problems, providing information or presenting options so patients could participate in care decisions. Thirty-two of 34 (94%) encounters contained dialogue

with decision-making. Of these utterances, 48% (n = 104) were coded as shared decision-making and 52% (n = 114) were not shared. In individual encounters there was a range of 0 to 10 utterances (median 3) that included efforts at shared decision-making with patients. Shared decision-making dialogues included efforts to elicit patient preferences regarding timing of care, treatment options and involvement of the patient's daughter. For example:

*Encounter 10*

*Doctor: Now, if you like, not to draw any blood or do anything until I talk to your daughter, she'll call.*

*Patient: I would prefer, yes.*

*Encounter 14*

*Doctor: I think you need to understand your standing and your options.*

*Patient: Well at least now I know.*

*Doctor: You can even decide now what you want to do. I will respect your decision.*

*Encounter 44*

*Doctor: I'm your doctor but it's your body and ultimately the decisions are yours.*

*Patient: Ok.*

Unshared decision-making dialogues did not involve patients directly or demonstrated pseudo-participation by using "we" without eliciting any patient input or preferences. Terminology with "let's..." was friendly, but also lacked patient involvement, for example, "Well I want to check some blood work today. We probably need to do a couple of scans too and see how that's done ..." and "We need to get you in to see an oncology doctor." In individual encounters there was a range of 0 to 17 utterances (median 3) that were coded as physician-directed decision-making.

*Encounter 2*

*Doctor: Have [your daughter] call and talk to my nurse. That will be the first step. We will have those records and then we will have to maybe think about medication choices. We need a little bit more information. ... then I think we need to have you see a cancer doctor and then I will probably primarily be involved with the pain medicines in terms of the narcotics and things.*

*Encounter 10*

*Doctor: I'm going to send the nurse to draw blood from you. And I'm coming back to chat more.*

*Patient: Could I have that done another day?*

*Doctor: the blood?*

*Patient: yea, I want to tell my daughter, you know, uh, what's going on*

#### Encounter 28

*Doctor: we'll take a look at you to see if there's anything we need to do acutely, if not then we'll get a consultation with the radiation oncologist.*

#### Encounter 30

*Doctor: What I plan to do is that bone scan. And I want to do a few labs here.*

*Patient: I don't want to do any labs today because my daughter said to bring everything home and we'll look it over*

## Discussion

We undertook this study to assess encounter-specific variables of patient-centered communication with advanced cancer patients. We identified many domains previously discussed in a review of patient-centered communication in cancer care [17]. In this community sample of oncologists and family physicians, elements of patient education and decision-making were identified in the vast majority (32/34 = 94%) of patient-physician encounters. Over four-fifths of patient education was patient-friendly (83%). A little over half of the utterances were patient-centered, exploring the patient's perspective (occurred in 52% of utterances with 48% being physician centered). A little under half of the utterances included shared decision-making (48% of utterances with 52% being physician-directed). Each utterance of an encounter with complex patients need not include a patient's input. However, little or no inclusion of the patient's perspective in any given encounter might signal a need for further communication training. The lack of any patient perspective or patient inclusion in decision-making in some encounters is more noteworthy since the consent process may have self-selected physicians with some confidence in their communication style with patients. Sound medical advice we believe should include a judicious balance of patient involvement. This proposed balance in communication styles is depicted in Figure 1.

Encounters in the present study appeared almost uniformly kind and caring, with patient-friendly language. We also noted interactions with patients that were warm and encouraging. However, patient-centered communication and efforts to allow patient input for decision-making were mixed. Shared decision-making is influenced by practice settings and patient initiated requests [64]. Early in an encounter, patients may signal [65] the preference of the patient for involvement and collaboration or for a more authoritarian approach by the physician. Discerning patient preference may require active questioning. Eliciting and validating patient concerns may be markers for willingness to discuss emotionally difficult topics [54]. Discussion of treatment options has been shown to convey hope [66]. The present day setting with constraints of time, accountability and

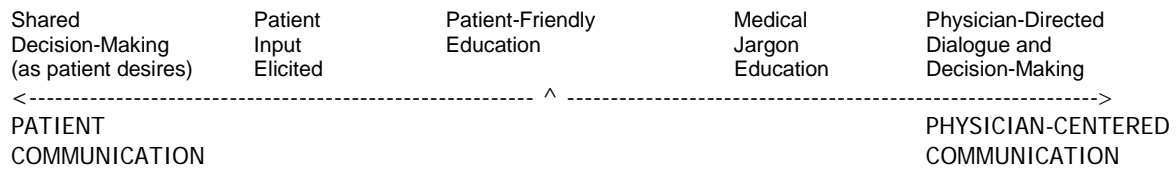
quality monitoring may add roadblocks to engaging in patient-centered communication and shared decision-making [40]. However, patient-centered communication that addresses patients' concerns and values may increase patient acceptance and adherence to guideline-concordant care. Trade-offs between efficiency, accountability and patient-centeredness [67] are not entirely elucidated in the literature and need further evaluation.

Of interest when assessing patient-centered communication behaviors, we found no significant difference between the family medicine and oncology physician groups. On average, the participating physicians finished their formal training around 2 decades ago. Communication training was more prevalent in Family Medicine residencies at this time. The lack of difference between groups may be due to the small sample size, the lack of ongoing support for patient-centered care or it may be that, despite less communication training, oncologists were more comfortable with cancer patients thus overcoming communication training differences.

Our data support a description of the present day practitioner beginning the progression from a more traditional physician-directed to a patient-centered approach, as demonstrated by almost universal patient-friendly talk. However, more needs to be done to move farther along toward patient-centered care and shared decision-making. Reports of progress in truth telling [68], information sharing [69] and shared decision-making [68] are reflected in the literature. These results are encouraging, though further progress is likely to be slow given the paucity of behavior modifying interventions for practicing physicians.

Our study has several limitations. SP methodology has some limitations. SPs may not convey the sense of fear and anxiety that a patient with a life-limiting diagnosis may express. SP presentation may be artificial and not elicit typical physician behavior. Despite these limitations, we think that the benefits of standardizing patient presentation outweigh the threats to external validity. Because of the recruitment strategy and limited response rate, the family physician sample is not fully representative of available Indiana primary care physicians. However, the oncologist sample was more representative because almost all eligible oncologists in the state were included when recruitment began. Participation bias may exist for physicians who agreed to participate in this study, probably in the direction of inflating the sample with physicians who are more comfortable with their communication skills. Initial office visits may not be representative of longitudinal relationships and evolution of communication styles due to limited interaction and familiarity. Communication preferences and needs may also change over the continuum of care. This single first time encounter was a brief snapshot of patient-physician communication with advanced cancer patients. Further insights will be gained from longitudinal research to assess whether interaction patterns change over time. Data are not generalizable from a single, fixed SP role of a middle-aged man with one advanced condition. Cultural differences due to race, economic status

Figure 1 Continuum and Balance of Patient-Physician Communication



Sample Dialogues for each category above:

Shared Decision-Making (as patient desires)	Patient Input Elicited (perspectives, values, needs)	Patient-Friendly Education	Medical Jargon Education	Physician-Directed Dialogue	Physician-Directed Decision-Making
So what I propose to do is...	How are you feeling?	The treatment that sometimes is helpful is...	Our goal is to put you into remission.	What we need to do today is to get your records.	I think we need to have you....
How does that sound to you ?	What is your understanding of....?	I am going to write down a couple of things.	We can treat you under experimental situations...	I see here that your mother has lung cancer. Is she a cigarette smoker?	I 'm going to send the nurse to draw blood from you.
I will respect your decision. Ultimately the decisions are yours	Did you get any information about.....?	Tell your family that their questions are welcome.	some cutting edge medicine that is available...or we can do what is known as the state of the art.		What I plan to do is.....

and literacy may also limit generalizability of the results and conclusions. This study focused solely on verbal skills in written transcripts and did not account for non-verbal communication. Cancer care also involves team work in many healthcare settings. This aspect was not evaluated in our study but further research might elucidate the helpful skill sets for various team members.

## Conclusions

In this study, consultations with undetected SPs portraying cancer patients included discussions about treatment, symptom management and end of life decision-making. When communicating about cancer, physicians in our study were predominantly patient-friendly, but often physician-centered. In this mixed methods study, family physicians and oncologists did not differ significantly with regard to coded variables of exploring patient perspectives, patient-friendly education or decision-making. These complex patient-physician dialogues can be a rich source of information about communication in the healthcare setting.

Additional research should monitor the extent of patient-centered communication with advanced cancer patients. Future research should develop and expand communication skills training programs and interventions to foster increasingly patient-centered communication and to further examine the effect of patient-centered communication on health outcomes.

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