Soliciting the Patient's Agenda
Have We Improved?

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D URING THE 1980s, RENEWED interest in the patient-physician relationship and the availability of more sophisticated audio and video technology allowed investigators to explore medical discourse in unprecedented detail. One of the most frequently quoted studies from this period (Beckman and Frankel[1]) suggested that patients, asked to describe their concerns by a physician, were most often redirected after the first expressed concern and after a mean time of only 18 seconds.[1] Additionally, in only 1 of 52 visits did redirected patients return to their agenda and complete their offering of concerns. As a result, the authors postulated that practitioners often pursued a concern without knowing what other issues the patient might wish to discuss or if the pursued concern was the most important one. Although Beckman and Frankel used the term *interruption* to describe this behavior, we prefer the term *redirection* to indicate verbal interventions that directed the focus of the interview before the patient had completed an initial statement of concerns. Since others had found that patients, if given the opportunity, have an average of 3 concerns per office visit,[2,3] the chance of ignoring important issues and creating less efficient visits seemed realistic.

Most texts on the medical interview have advocated an interviewing approach that solicits patients' reasons for seeking care and encourages the practitioner to listen until all concerns have been elicited.[4-8] This component of the medical interview, sometimes called the "survey of problems"[8] or "agenda setting,"[6] precedes more focused open-ended and closed-ended questions used to clarify further each concern. Although the original research by Beckman and Frankel found the agenda setting rarely completed, a number of concerns challenge whether the initial findings are generalizable. First, 81% (n = 60) of the visits were with internal medicine residents. Second, the sample size was small (n = 74 visits and patients). Third, the practitioners worked exclusively in an urban inner-city practice.

To address these concerns, the current study was designed to extend the re-

Context Previous research indicates physicians frequently choose a patient problem to explore before determining the patient's full spectrum of concerns.

Objective To examine the extent to which experienced family physicians in various practice settings elicit the agenda of concerns patients bring to the office.

Design A cross-sectional survey using linguistic analysis of a convenience sample of 264 patient-physician interviews.

Setting and Participants Primary care offices of 29 board-certified family physicians practicing in rural Washington (n = 1; 3%), semirural Colorado (n = 20; 69%), and urban settings in the United States and Canada (n = 8; 27%). Nine participants had fellowship training in communication skills and family counseling.

Main Outcome Measures Patient-physician verbal interactions, including physician solicitations of patient concerns, rate of completion of patient responses, length of time for patient responses, and frequency of late-arising patient concerns.

Results Physicians solicited patient concerns in 199 interviews (75.4%). Patients' initial statements of concerns were completed in 74 interviews (28.0%). Physicians redirected the patient's opening statement after a mean of 23.1 seconds. Patients allowed to complete their statement of concerns used only 6 seconds more on average than those who were redirected before completion of concerns. Late-arising concerns were more common when physicians did not solicit patient concerns during the interview (34.9% vs 14.9%). Fellowship-trained physicians were more likely to solicit patient concerns and allow patients to complete their initial statement of concerns (44% vs 22%).

Conclusions Physicians often redirect patients' initial descriptions of their concerns. Once redirected, the descriptions are rarely completed. Consequences of incomplete initial descriptions include late-arising concerns and missed opportunities to gather potentially important patient data. Soliciting the patient's agenda takes little time and can improve interview efficiency and yield increased data.

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sults of the original study by Beckman and Frankel to answer the following questions. First, 12 years after recognizing that physicians take control of the content of the interview too early in the visit, did behavior change? Second, are the patterns of behavior different in seasoned family physicians? Finally, how are solicitations for additional concerns handled throughout the remainder of an office visit?

METHODS

Between June 1995 and July 1996, 300 visits to 29 board-certified family physicians were audiotaped and transcribed. After securing consent from both physician and patient, the recording was accomplished by placing a microphone or minicasette recorder in the examination room. To be included in the study, audiotapes had to include the first physician utterance and continue until the participants left the room. Regardless of the reason for the visit, all patients on the physician's schedule were invited to participate by a trained research assistant who explained that the study was being conducted to better understand how physicians interview their patients. An attempt was made to recruit 10 patients per physician. Physician encounters were recorded in 1 or 2 days. Information collected from patients included age, sex, and reason for the visit.

Physicians were selected from a convenience sample of practitioners from 2 sources: the county membership list of family physicians practicing in north central Colorado and a list of fellowship-trained family physicians in the United States and Canada generated by the Family Working Group of the Society of Teachers of Family Medicine. Sixty-two potential physician participants were sent a letter of invitation and contacted by telephone to explain the project. As part of the informed consent, physicians were told that the purpose of the study was to better understand medical interviewing. Demographic information collected from the physicians included years of practice, reported number of patients seen in a half day of practice, sex, and postresidency fellowship training.

Characteristics of the study visits collected included the following: length of visit (defined as opening utterances of either participant until participants left the room or one of the participants clearly terminated the discourse) and reason for visit (patient-initiated, preventive, or physician-initiated.)

The project was approved by the IRB Committee of Poudre Valley Hospital, Fort Collins, Colo.

Interview transcripts were analyzed using a method described by Beckman and Frankel.[1] The coding process involved several steps. First, the physician solicitation(s) were defined as an open-ended request for the patient's problems or reason for visit. Examples include, "How can I help you?", "What brings you in today?", or "Anything else?". Placement was coded as (1) the "opening of the visit" or (2) "later." The opening of the visit consisted of the initial greeting through pursuit of 1 specific concern. Visits in which no physician solicitation was made were coded into a "no-solicitation" category.

Next, for interviews in which a solicitation occurred, the patient's response was coded as "completed" or "not completed." An opening was coded as completed if any of the following occurred: (1) a patient made a statement of completion (eg, "That's it"), (2) a concern-related question was asked of the physician ("Is my chest pain serious?"), or (3) a negative response to a physician query about completion was made ("Anything else?" - "No").

Noncompleted sequences were coded when the physician disrupted the patient's statement or initiated discussion of a specific topic without determining if the patient's initial statements of concerns were indeed completed. As in the study by Beckman and Frankel,[1] the reasons for noncompletion were coded as (1) "closed question" ("When does the chest pain come?"), (2) "elaborator" ("Tell me more about your pain"), (3) "recompleter" (stroking beard, "chest pain"), or (4) "statement" ("That sounds serious"). Elaborators often are focused, open-ended inquiries. Although designed to facilitate patient disclosure, they

have the effect of directing the discussion toward a particular concern. Statements and recompleters can be similarly focused. Our coding system distinguished these focused questions and statements from nondirective, open-ended inquiry ("Tell me more" or "Anything else?") that was hypothesized to reduce the risk of missing unstated concerns. After allowing the patient to describe the full range of concerns, the physician would then be expected to explore further using elaborators, recompleters, closed-ended questions, and statements.

Also measured were the time in seconds for each postsolicitation sequence, the number of concerns expressed by each patient in each sequence and the interview, and the number of solicitation sequences per interview.

To assess interrater reliability, 30 transcripts were coded independently by both raters, and a κ statistic was calculated. Data were analyzed by using both descriptive and inferential methods. Descriptive statistics were used to present demographic data and describe the frequency of occurrence of the communication variables described. A χ^2 test was used to assess the association between nominal variables. The t test was used to assess the difference in length of patient response time to solicitations in completed and noncompleted visits and the relation between physicians' training status and complete agenda setting. The Pearson coefficient was used to assess the correlation between number of solicitations and number of patient concerns expressed, and the association between complete agenda setting and physician experience.

RESULTS

The initial consent rate of physicians to participate was 52% (32/62). After initial physician agreement, the participation rate of patients was 85% and physicians, 91% (3 consenting physicians did not complete data collection.) The majority of the physicians were men (79.3%), had a mean of 9.8 years of experience, and saw a mean of 11.3 patients per half day session. Nine had com-

pleted fellowship training in family therapy and communication skills. Twenty (69%) practiced in semirural Colorado, 1 (3%) in rural Washington, and 8 (27%) practiced in urban settings in the United States and Canada. The majority of the patients were women (56.4%) with an average age of 34.1 years. The mean visit length was 15 minutes, 0 seconds. The reason for the visit included patient-initiated visits (eg, acute care, new patient with chronic problems [51%]), physician-initiated visits (eg, follow-up to check medication, obstetrics, chronic illness [24%]), and preventive (eg, annual examination, well-child care [25%]).

Of the 300 audiotapes recorded, 36 were omitted from analysis because of a delay in starting the tape recorder or poor audio quality. The remaining 264 transcripts formed the corpus for further analysis. The κ statistic was .66 (agreement on 26 of 30 transcripts) suggesting moderately high agreement beyond chance between raters independently coding for completion vs noncompletion of patient concerns.

In these 264 visits to experienced family physicians, the physician solicited the patient's concerns in 75.4%. In the remaining 24.6%, no solicitation was made. The distribution and placement of solicitations is shown in **TABLE 1**. In 79% (n = 157) of interviews with solicitation, the physician asked the patient for his or her concerns either once or multiple times only at the beginning of the visit. In 21% (n = 42) of these visits with solicitation, the physician asked the patient for additional concerns later in the interview.

Patients completed their statement of concern(s) in only 74 (28.0%) of the interviews. Causes for noncompletion of patients' statements are found in **TABLE 2**. The most frequent barriers to completion were closed-ended questioning (28.4%), absence of solicitation (24.6%), and physician statement (14.0%).

As shown in **TABLE 3**, the number of physician solicitations was positively associated with the number of concerns expressed by the patient (R_{262} = .42, P<.001). The mean number of concerns initiated

by the patient was 1.23 (this figure does not include concerns initiated by the physician, eg, "You're here to check on your throat?"). The mean number of concerns per nonsolicited visit was 0.83, compared to 1.37 concerns in solicited visits (t_{262} = 3.09, P = .002). For completed visits, the mean number of concerns expressed was 1.30, while in noncompleted visits, the mean number of concerns expressed was 1.17 (t_{262} = 0.80, P = .43). Visit length was not associated with completion status (15 minutes, 18 seconds and 14 minutes, 52 seconds for completed and noncompleted visits, respectively) (t_{226} = 0.24, P = .81). However, the relationship between the number of concerns expressed and visit length was statistically significant (F_7 = 10.36, P<.001).

The mean time available to patients to initially express their concerns before the first physician redirection was 23.1 seconds. Most redirections (76%) occurred after the first concern. The point of first redirection and time to redirection in relation to concerns is shown in **TABLE 4**.

Following the initial redirection, the patient went on to state 1 or more additional concerns in 33% (45/137) of the interviews. The physician made 1 or more additional solicitations in 21% (29/137) of the interviews and, despite the

redirection, the patient concerns were eventually completed in 8% of the visits. When the additional time for postredirection patient statements of concerns is included, the mean total time available for patients to identify their concerns was 26.2 seconds per interview.

Completed and noncompleted statements took approximately the same time (23.8 vs 27.7 seconds, P = .14).

Patients spontaneously initiated a new concern after the completion of the history portion of the visit in 20.1% (N = 53) of the visits (both completed and noncompleted). The vast majority of concerns were new medical questions directed to the physician. Late concerns were more common when no solicitation occurred compared with visits where a solicitation for concerns was made 1 or more times (34.9% and 14.9%) (χ^2 = 12.07, P = .001). Late-arising concerns tended to be less frequent in completed openings (15.8%) compared with noncompleted openings (22.7%), although the difference was not statistically significant (P = .21).

Individual physicians differed in their tendency to allow patients to complete their statement of concerns, ranging from

Table 1. Frequency of Physician Solicitations of Patient Concerns

	No. (%)
Solicitation	
Once, at opening only	124 (47.0)
Multiple, at opening	33 (12.5)
Multiple, at opening and later	25 (9.4)
Multiple, only later	4 (1.5)
Once, only later	13 (5.0)
Total	**199 (75.4)**
No solicitation	65 (24.6)

Table 2. Physician Responses to Patient Initial Statement of Concerns

Response	No. (%)
Patient concern completed	74 (28.0)
Patient concern not completed	
No solicitation of concerns	65 (24.6)
Redirection by closed question	75 (28.4)
Redirection by elaborator	1 (0.4)
Redirection by recompleter	7 (2.7)
Redirection by statement	37 (14.0)
Undetermined*	5 (1.9)
Total	**264 (100.0)**

*Audiotape ended before completion of interview.

Table 3. Physician Solicitations and Associated Number of Concerns Expressed by the Patient*

Solicitations, No.	Interviews, No.	Median No. (Range) of Concerns Expressed
0	65	0.0 (0-4)
1	136	1.0 (0-4)
2	48	1.0 (0-8)
3	8	1.5 (0-2)
4	5	4.0 (2-5)
5	2	5.0 (4-6)

*Concerns initiated by the physician are not included.
  R = .4199, P<.001.

Table 4. Relationship Between First Redirection and Elapsed Time for the 136 Redirected Opening Statements

Concerns Expressed Before Redirection, No.	Encounters, No.	Mean Elapsed Time to Point of Redirection, s
0	19	2.4
1	104	23.9
2	11	31.4
≥3	2	129.5

0% to 75% of each physician's set of interviews. The likelihood that a physician allowed patients to complete their initial statement of concerns was not associated with years of physician experience, number of patients seen per clinic day, physician sex, patient sex, or the physician's familiarity with the patient. Fellowship training, however, was associated with agenda setting. Fellowship-trained physicians allowed patients to complete their initial statements of concerns more often than the other physicians (mean, 44% of interviews completed per physicians vs 22% per physician, respectively) ($t_{27} = 2.71$, $P = .012$). Although the likelihood of physician solicitation was not associated with the type of visit, complete agenda setting occurred more frequently during preventive visits (47%) than visits for acute or chronic problems initiated by the patient (20%) or the physician (28%) ($\chi^2_2 = 15.16$, $P = .001$).

COMMENT

Physicians commonly redirect and focus clinical interviews before giving patients the opportunity to complete their statement of concerns. The relatively low frequency (28%) with which experienced physicians solicited the patient's complete agenda is similar to the finding (23%) of Beckman and Frankel[1] 12 years earlier among resident physicians. Incomplete agenda setting was associated with fewer patient concerns, late-arising concerns, and missed opportunities to gather potentially important patient data. Once the discussion became focused on a specific concern, the likelihood of returning to complete the agenda was very low (8%).

The average length of time given patients to itemize their concerns before the first redirection (23.1 seconds per interview) was 28% longer than the 18 seconds reported by Beckman and Frankel.[1] When the entire visit is considered, patients had over 26 seconds to present their agenda of concerns. Although 26 seconds may seem inadequate, it is noteworthy that patients who initiated 1 or more concerns and were given the opportunity to complete their concerns used

an average of only 32 seconds. Given the relatively small proportion of the interview needed to clarify the patient's concerns, the related decreased likelihood of late-arising concerns and the difficulty of exploring new concerns late in the visit, our data support complete agenda setting as an efficient manner to open the medical encounter.

Specific physician behaviors that prevented the complete identification of patient concerns included failing to solicit the patient's agenda (24.6%) and asking a closed-ended question following a solicitation (28.4%). Conversely, the physician behavior associated with soliciting the complete patient agenda was a continued query for additional concerns (eg, "Anything else?"). Additional solicitations often revealed additional patient concerns (Table 3). While some physicians may avoid eliciting multiple concerns due to fear of extending the encounter, unexpressed patient concerns may lead to a prolonged investigation of a concern hypothesized to be the "chief complaint," but in reality was the second most important problem. Multiple solicitations early in the visit may enhance the efficiency of the interview by decreasing late-arising concerns, allowing the physician and patient to prioritize problems at the outset to make the best use of their time and minimize implicit assumptions of what the patient wants to discuss.

Fellowship-trained physicians solicited a complete listing of concerns more frequently. This finding, while not surprising, confirms that practitioners with advanced training in counseling and communication skills conduct interviews differently than their cohorts. The opening solicitation of patient concerns often was characterized by an open-ended question followed by nondirective facilitating utterances (eg, "Uh-huh" or "What else?"). Having heard the patient's agenda, the multiple concerns were then explicitly prioritized with the patient.

Identification of the spectrum of patient concerns has obvious importance. However, physicians' time is limited[9] and it may not always be desirable or necessary to solicit an exhaustive list of patient concerns rigidly at the opening of

the interview. Patients may defer emotionally laden topics until the trustworthiness of the physician is better known or until the physician brings up the topic.[10] Sex differences and cultural values may interfere with some patients' willingness to verbalize concerns at the opening. Additional concerns may not occur to the patient until later in the interview. Also, physicians vary in their style. One style that seemed useful was to follow each open-ended solicitation with a focused open-ended question (eg, "Tell me more about the leg pain"), then revert back to another open-ended solicitation (eg, "Anything else?") before moving into closed-ended questioning and the examination. This style of interspersing agenda-setting solicitations with focused questions occurred in 34 interviews, the majority (71%) of which were conducted by fellowship-trained physicians. In such cases, the coding system labeled the focused, open-ended questions as redirections when, in fact, the interviewing style provided subsequent opportunities for the patient to express an additional concern later on. Despite this weakness in the coding system, the procedure was used to make a direct comparison to the study by Beckman and Frankel. These variations used by experienced physicians suggest that models of medical interviewing should allow for flexibility in structure if desired outcomes of a complete agenda and adequate problem definition are achieved.[11]

Two aspects of this study warrant further comment. We use the term *redirection* to indicate the physician began directing the focus of the interview before determining whether the patient completed an initial statement of concerns. Redirection has the same meaning as *interruption* in the original article by Beckman and Frankel. Second, patients often had further opportunities to describe their concerns in response to focused physician questions. The length of time reported in this study pertains to the agenda-setting portion of the interview and should not be interpreted as the total time available for the patient to describe his or her concerns in more detail.

The study is limited by exclusive reliance on transcripts of verbal data. We did not code nonverbal cues, such as posture or facial expression that may have informed the physician that the patient had completed his or her agenda. Also, the coding system did not distinguish cues such as inflection, tone of voice, or pauses in communication. Reactivity to audiotaping may have altered physician and patient behavior. For example, physicians may have been more attentive to patients knowing that they were being audiotaped. There are data, however, to suggest the effect of taping on patient-physician interaction is minimal.[12] We did not determine whether physicians had information from charts or office staff that might have influenced the need to obtain an agenda directly from the patient. Although it is common practice for a medical assistant or nurse to elicit patients' concerns before seeing the physician, this does not eliminate the need to solicit additional patient concerns during the visit. Finally, physicians who agreed to participate may have differed from nonvolunteering physicians, possibly biasing the results.

The tendency of experienced family physicians not to solicit the patient's complete agenda is similar to the finding of Beckman and Frankel 15 years ago. Despite concern that a patient-centered approach will take more time, our study further reinforces that soliciting all of the patient's concerns does not decrease efficiency. Using a simple opening solicitation, such as "What concerns do you have?," then asking "Anything else?" repeatedly until a complete agenda has been identified appears to take 6 seconds longer than interviews in which the patient's agenda is interrupted. Agenda setting is a teachable and learnable skill[13,14] that deserves emphasis and reinforcement.

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