Research about the communication between physicians and patients contains information that can help clinicians be better diagnosticians and achieve greater compliance and can lead to improved patient health and satisfaction. We present research results that can be useful for the physician in daily clinical practice.

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Communication between physicians and patients has been the subject of increasing study during the past 20 to 25 years. Many of the insights gained from our research can help clinicians be better diagnosticians and achieve greater compliance and can lead to improved patient health and satisfaction.

This article presents results of original research about physician-patient communication that is useful for clinicians in daily practice. We conducted a literature search in MEDLINE (National Library of Medicine, Bethesda, Md) using the term "physician-patient relations" plus any one of the following: "physicians, family"; "family practice"; "primary health care"; "communication"; and "medical interview." We also examined recent publications that review the present state of knowledge1-4 and examined studies cited in those review articles and books.

Studies that address issues that occur in daily clinical practice and that describe physician communication behaviors clearly enough to allow readers to learn and to use them have been included in this article.

HOW CAN CLINICIANS IMPROVE THEIR HISTORY-TAKING AND DIAGNOSTIC SKILL?

Despite advances in diagnostic procedures, eliciting the patient's history is still the most important part of the diagnostic effort. In previously undiagnosed conditions in internal medicine, the final diagnosis was reached after the patient history in 76% of the cases, after the physical examination in 12% of the cases, and after laboratory investigations in 11% of the cases.5 Moreover, in patients admitted to the hospital with dyspnea, the primary diagnosis was established by patient history in 74% of the cases.6

Research has identified problems in the history-taking part of the patient visit. On the basis of questionnaire data from 5 family physicians and 299 patients, Stewart et al7 concluded that physicians failed to elicit 54% of patients' reasons for consultation and 45% of their worries. Starfield et al8 interviewed 135 patients and their internists or pediatricians and found that the physician and the patient disagreed on the reason for consultation 50% of the time.

The literature has also revealed ways in which some physicians avoid these problems. Beckman and Frankel9 studied the opening segments of visits to general internists and found that physicians usually interrupted the patient's statement of his or her reason for the visit. Patients were allowed to speak for an average of 18 seconds before being interrupted by the physician. Moreover, interruption was effective in preventing patients from completing their account of why they sought a consultation. Of the 52 patients who were interrupted, only 1 patient voiced an additional concern after the interruption.

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Interruption may occur because busy clinicians fear patients will speak too long. The average complete patient statement of reason(s) for the visit took 60 seconds and no patient spoke for longer than 150 seconds (<3 minutes). While this is a substantial proportion of the usual 12-minute consultation, it is time well spent as it increases the chance that the patient will state his or her reason(s) for visiting. Some physician interruptions were statements intended to encourage the patient to continue. However, any statement that encouraged the patient to elaborate on what he or she had just said led to further talk on the same subject and, thus, distracted the patient from voicing other concerns. Examples include repeating what the patient has just said or saying, "Tell me more about that." On the other hand, more neutral utterances such as "mhm mhm" and "I see" encouraged patients to state all of their concerns.

Beckman and Frankel also found that physicians were particularly poor at allowing patients to express their concerns during visits initiated by the physician. In many of these encounters, the physician simply launched into his or her agenda without asking whether the patient had any new concerns. The cost of this approach was observed by Stewart et al., who found that family physicians' knowledge of their patients' problems was greater after visits initiated by the patient. Moreover, 3 months after patient-initiated visits, patients' perception of recovery was greater when the physician was aware of more of the patients' problems.

Failure to elicit all of the concerns of the patient can lead to poorer patient satisfaction, which will be discussed later in this article. In addition, patients may not voice their principal concern right away. When the physician interrupts the patient during his or her description of his or her first concern, the visit is focused on this problem and the principal worry is likely never to be voiced or to be expressed on the way out the door. This failure is particularly likely to apply to psychosocial problems. Burack and Carpenter found that the first complaint of the patient corresponded with the final diagnosis for 76% of somatic disorders but for only 6% of psychosocial ones.

Detection of psychosocial problems is a particularly difficult diagnostic task and one that family physicians face many times a day. Approximately one third of the patients consulting a primary care physician have a psychosocial problem of sufficient magnitude to impair their functioning, well-being, or both. Approximately 50% of these disorders are detected by primary care physicians. While history taking is important in the diagnosis of all disorders, it is the sole tool available to diagnose psychosocial problems.

Certain characteristics of patients make the task of detection harder. Being aware of this may allow physicians to be particularly alert to psychological cues in these patients. Marks et al. found increased detection by British general practitioners in patients who were female; middle-aged; married and living apart from their spouse owing to separation, divorce, or death; unemployed; or of low socioeconomic status. This would suggest that physicians probe more when faced with women and people in difficult social or economic circumstances and are less alert with men and those in apparently easier life conditions.

Psychosocial problems cause many somatic symptoms and patients are likely to present only the somatic symptoms to the physician. In fact, 79% of those with psychological distress present their symptoms in this way and are called "somatizers." However, Bridges and Goldberg found that British general practitioners are particularly poor at detecting psychological disorders in somatizers (50% detection) compared with patients with only psychological complaints (95% detection). Kirmayer et al. made similar observations in family practices in Canada and were able to identify gradations of somatization. In their study, somatizers were divided into 1 of the 3 gradations on the basis of their answers to the following 2 simple questions asked by a stranger (the research assistant): (1) What do you think caused the problem you want to discuss with the doctor? (2) Do you think that troubles or worries could be affecting this problem? "Initial" somatizers were those who presented somatic symptoms but spontaneously identified a psychological contributor. "Facultative" somatizers accepted the possible role of psychological factors when specifically asked. "True" somatizers did not accept any possibility of a psychological explanation for their problem. The rates of detection of psychiatric disorder by family physicians were 51%, 39%, and 30%, respectively, for the 3 grades of somatizers. The low rates of physician detection of initial and facultative somatizers suggest that physicians often did not ask those 2 simple questions.

The news is not all discouraging. Hypochondriacal worry (high illness worry in the absence of serious illness) and a history of multiple medically unexplained symptoms increased physician rates of detection of distress.

What can physicians do to identify more of their psychologically distressed patients? Physicians who are good distress detectors ask open-ended psychological questions based on what the patient has said, make empathic comments, and interrupt less. This leads their patients to give more cues indicative of psychological disturbance. Mothers revealed more of their psychosocial concerns to pediatricians who asked more questions about psychosocial issues, gave more statements of support and reassurance, and engaged in more sympathetic and attentive listening.

The messages from these studies are consistent. Clinicians will only learn all of the patients' reasons for consulting them if they let patients recount them without interruption. It is easy for a statement by a physician to discourage a patient from raising a new concern. Many patients will express psychosocial problems if simply allowed to finish what they have to say; many others respond when asked specifically. Clinicians will get more information from patients if they follow the patient's lead.

**WHAT IMPROVES PATIENT HEALTH?**

There is evidence that patients feel better when they play an active role in their relationship with their phy-
sician. On the most basic level, this means being able to express their concerns and arriving at an agreement with the physician as to the nature of the problem and the treatment plan. Headaches are more likely to be resolved when patients feel they have an opportunity to discuss the problem fully at their initial visit to their family physician. When the patient and the physician agree as to the nature of the problem, a wide variety of symptoms are more likely to be resolved. The belief of the physician in active patient participation is also beneficial. Women with breast cancer cared for by a surgeon who believed that the patient should have the choice between mastectomy and lumpectomy had less anxiety and depression than patients cared for by surgeons who believed that choice of treatment was the prerogative of the physician.

The strongest evidence of the health benefits of particular types of physician-patient communication comes from a group of clinical trials in which patients with hypertension, diabetes, peptic ulcer, or breast cancer were trained to be more assertive with their physicians. Improvements were observed in overall patient health status and in blood pressure, blood glucose level, and chemotherapy-related symptoms for the relevant groups.

WHAT IMPROVES PATIENT COMPLIANCE?

The health of many people with chronic conditions is less than ideal because patients are not compliant with effective treatment. Hall et al., in a meta-analysis, identified physician behaviors associated with better compliance. Patients were more compliant following interviews in which the physician gave more information to the patient. While physicians generally give less information than patients want, physicians are particularly poor at providing information to patients of low socioeconomic status. In his study of encounters between 34 American internists and 314 patients, Watzkin found that physicians engaged in fewer discussions about the effects of medication with patients of lower socioeconomic status.

Hall et al also found that interviews in which physicians made more positive comments or fewer negative comments were associated with higher rates of compliance. Stewart analyzed audiotapes of visits of 140 patients with their family physicians. She found that patients were more compliant when physicians made statements of agreement with the patient, asked for the opinion of the patient, and asked for suggestions or help from the patient. The meta-analysis also revealed that compliance rates were higher when the physician asked a smaller total number of questions, but asked more questions specifically about compliance. Some techniques of asking questions about compliance are more effective than others. Primary care physicians of patients with hypertension were found to use 3 different adherence-monitoring techniques: indirect questions (eg, Have you noticed any changes since you started taking the medication?), simple direct questions (eg, Have you been taking your pills?), and information-intensive strategies (eg, What pills are you taking now?). Followed by detailed questions about names, doses, and frequencies. In this study, these techniques were effective in detecting 0%, 63%, and 80% of the compliance problems, respectively.

WHAT CAN CLINICIANS DO TO IMPROVE PATIENT SATISFACTION?

Patients consistently express an interest in receiving information from the physician and are more satisfied with visits in which more information is given. Watzkin found that physicians underestimated patients' desire for information in 65% of cases and overestimated by a factor of 6.8 the amount of time they spend giving information.

Focusing on the perspective of the patient also improves patient satisfaction. In meta-analysis by Hall et al, behaviors of this type were classified as partnership building. They include following patient leads, asking for the patient's opinion, asking for suggestions, and agreeing with patient suggestions.

It is not enough to simply inquire about the life circumstances and worries of the patient. Forty-six Swedish patients watching a videotape of a visit with their family physician made positive comments about interactions in which personal questions from the physician were followed by affective comments, attentive listening, or open-ended questions based on the statements made by the patient. However, similar questions not followed by any of the previously mentioned responses elicited negative comments.

Satisfaction is also related to having one's requests met and one's worries addressed. The techniques discussed to improve history taking lead to greater patient expression of their concerns and requests. They are, thus, an essential prerequisite to the meeting of these requests and improved patient satisfaction. Simply inviting patients to ask questions can improve satisfaction, even if patients do not actually make more requests. In experimental studies with outpatients of obstetrician-gynecologists, women who received written material encouraging them to ask the physician questions asked the same number of questions as those in the control group. However, the women were more satisfied with their visits and with the quality of the information they obtained. A 2-sentence message from the physician stating the importance of good communication and encouraging the patient to ask questions was as effective as instructions to make a list of questions to take into the office (the instructions were given in the waiting room).

HOW DOES THE SEX OF PHYSICIANS AFFECT THE WAY THEY COMMUNICATE WITH THEIR PATIENTS?

Female physicians communicate with patients differently from their male colleagues. All medical students receive the same training in professional communication skills. However, this training is only one of many influences on the way a person interacts with others. Communications researchers have found that there are important differences in the ways men and women communicate. Male and female physicians dis-
play these same differences. In other words, a lifetime of socialization into male or female ways of communicating is not replaced with a standard "physician" way of interaction by the teaching of physician-patient communication skills in medical school.

Female physicians spend more time with their patients, talk more, engage in more positive conversation, give more information, seek more information from patients, and engage in more partnership building about medical and psychosocial topics. Like other women, they are more interactionally oriented and pay more attention to the relationship and to psychosocial aspects of the complaints than do male physicians. Male physicians are more likely to make statements imposing their views and are more directive at the conclusion of the visit. 33

The same behavior may elicit different responses from patients depending on whether it is performed by a male or a female physician. In a study by Burgoon et al., 34 members of the general public were asked to respond to vignettes. Subjects expected male physicians to use tactics to encourage compliance that were more verbally aggressive than those they expected from female physicians. Moreover, when seeing a female physician, patients were most likely to comply when she used nonaggressive tactics. On the other hand, when the physician was male, compliance was equally good in response to nonaggressive and aggressive strategies, but moderately aggressive strategies were less effective. Burgoon et al postulated that people are most responsive to the exhortations of another when this person acts in an expected manner. Their data suggest that patients have expectations of how men and women will behave and that one's identity as a physician does not override these expectations.

The study by Burgoon et al was not conducted with a clinical population and, therefore, must be interpreted with caution. It does, however, indicate the importance of examining data from male and female physicians separately. In a study by West 35 of actual physicians giving directives to patients, male and female physicians performed in the ways expected by the subjects in the Burgoon et al study. West found that male physicians usually used explicit commands while female physicians usually voiced directives as proposals. In addition, patients of either sex were more likely to give complaint responses to proposals than to commands.

A study of clinical encounters 36 supports these findings and indicates that the sex of the patient is also important. Interruptions of patients by physicians or vice versa were related to lower satisfaction for all combinations of patient-physician sex except for female-female dyads, in which successful interruptions by either improved satisfaction. Partnership talk improved satisfaction in same-sex dyads only.

For male physicians, their male patients were likely to be more satisfied if the physician engaged in partnership building and less satisfied if the physician spoke about psychosocial problems. Female patients were more satisfied with male physicians who made emotionally supportive statements.

In the case of female physicians, male patients were more likely to be satisfied if the physician discussed psychosocial problems. Female patients were more satisfied if the physician engaged in partnership building and discussed psychosocial problems. Satisfaction was lowest with young female physicians regardless of their communication behaviors. This finding suggests that patients still expect a physician to be older and male and that good communication skills cannot completely overcome these patient biases.

CONCLUSION

The consistency of findings across studies allows us to be confident that certain ways of communicating with patients will improve the quality of medical care. These findings are congruent with the models of physician-patient communication developed in the past few years for teaching these skills to medical students and practicing physicians. 37-39 The 3 functions of the medical interview identified by Lazare et al 19 are to determine and monitor the problem(s); to develop, maintain, and conclude a therapeutic relationship; and to carry out patient education and treatment plans.

The literature we have reviewed can help physicians to perform the first 2 functions better. At the beginning of the interview, allow the patient to complete his or her account of the reason for consultation. Encourage the patient to give a complete list. Help patients to reveal psychosocial problems by asking the patient for his or her views of the influence of psychological factors on the complaint. Work to arrive at a common understanding between the physician and the patient as to the nature of the problem and the treatment plan. Remember that most patients want more information than physicians usually give. Giving information requires that the physician make sure that he or she provides information about all areas that an individual finds pertinent. To do this, the physician must ask the patient what he or she wants to know. The physician must also confirm with patients that they have understood what was said. Assertive patients do better than passive ones. Because the physician-patient relationship is an asymmetrical one in which the physician has traditionally set the agenda, most patients need to be invited or encouraged to play an active role in their care.

Patients will be more satisfied with clinicians who try to understand them as whole people and who identify their expectations of the clinician. This is true even if clinicians cannot meet all of their expectations.

The literature on the third function of the medical interview (patient education and treatment planning) is limited. Grueninger et al propose that the efforts of clinicians in this area be guided by existing theoretical models of behavior change. They offer a series of questions and statements devised to identify the stage of readiness of the patient and to address the patient in ways that are stage-appropriate. The efficacy of this approach has yet to be evaluated.
The communication style we describe allows patients to play a more active role in the interaction than occurs in many clinical encounters. This will change the role of the physician as well. While these changes can be uncomfortable at first, there are tangible rewards with patient outcome and satisfaction and, thus, physician satisfaction.

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