

Assessing Residents' Behavioral Science Skills: Patients' Views of Physician-Patient Interaction

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Although residents' interactive skills within the physician-patient relationship are important in behavioral science training, these skills are often difficult to define and even more difficult to evaluate. Evaluation of these skills through direct observation by faculty miss the patient's perspective. Scales that have been developed to obtain the patient's perspective have generally been based on the researcher's definition of what is important in the physician-patient interaction, and few of these studies have adequate reliability and validity information. This study was conducted to identify physician behaviors that patients themselves consider to be important in the physician-patient interaction and then to develop a reliable, valid scale to evaluate residents' ability to perform these skills.

Several factors were identified as important to patients in the physician-patient interaction, including being informed about their examination, treatment, and diagnosis, being treated by the physician in a respectful manner, and having the physician listen to their concerns and take their individual needs into consideration when prescribing treatment. A reliable and valid questionnaire was developed that can be used to assist faculty in assessing residents' skills in this area from the patient's perspective.

A major focus of behavioral science training in family practice concerns the physician-patient relationship. This emphasis is appropriate, for it has been acknowledged from the time of Hippocrates that the physician's manner can often be as healing as the drugs he or she dispenses.¹

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Although the importance of the physician-patient relationship has been recognized for many years, little has been done in medical education explicitly to train physicians in the art of medicine. The art was frequently left to observation of role models or to trial-and-error learning. With the advent of family practice residency training programs, however, a serious commitment was taken toward training physicians in the interpersonal aspects as well as the biomedical aspects of patient care.

Studies of patient satisfaction have shown that

the most common criticisms by patients of their health care concerned the quality of the physician-patient relationship and the physician's lack of personal interest in the patient.^{2,3} Consequences of dissatisfaction with the physician-patient relationship have been linked to a lack of continuity of care, medical malpractice suits, and noncompliance with the therapeutic regimen. Various studies report noncompliance rates of patients with the medical regimen ranging from 15 to 93 percent.^{4,5} Noncompliance has been increasingly linked with aspects of the physician-patient relationship.^{6,7}

Defining Aspects of the Physician-Patient Relationship

Several studies have attempted to define the concept of rapport within the physician-patient interaction. Kaufman⁸ and Headlee⁹ defined rapport operationally in terms of basic etiquette, with the physician showing the patient respect and compassion. Other researchers have defined rapport in the physician-patient relationship in terms of factors that increase or decrease patient satisfaction with the interaction, such as impersonal care, lack of continuity of care, or feeling of being treated like an inanimate object.¹⁰ Still others feel factors contributing to a satisfactory physician-patient relationship involve ease of communication between the physician and the patient or the amount of time spent with the patient.¹¹ Others speculate that patients, to be satisfied with the physician-patient relationship, want sympathetic attention, clear communication about their condition and treatment, and concern for themselves as persons.¹²

In an attempt to evaluate patient satisfaction with the physician-patient interaction, numerous scales have been developed.^{13,15} Such scales could be useful for faculty in identifying those areas of patient satisfaction that can be enhanced by teaching residents certain interactive skills. In addition, such scales could help provide residents with feedback regarding patient perceptions of the care they receive. However, there are several inherent problems in the use of the scales currently available.

In studies correlating patient satisfaction with various aspects of health care, different scales have been constructed intuitively by the re-

searcher rather than constructed through patient input regarding what is important in the physician-patient relationship.¹⁶ In most studies, neither validity nor reliability information is available for these scales.¹⁷

Identifying what is important to patients in the physician-patient relationship rather than what faculty or researchers think is important may help faculty teach residents skills that are of more consequence in enhancing the physician-patient relationship. The patient may provide a perspective empirically independent from perspectives of researchers and faculty members. In addition, a reliable, valid instrument based on physician behaviors patients consider important could be an invaluable tool for evaluating residents' interactive skills and for giving feedback to residents regarding interpersonal skills as patients view them. The purpose of this study was to develop such a scale.

Methods

The development of the physician-patient interaction scale involved three stages.

The first stage explored physician behaviors that patients considered important for satisfactory physician-patient interactions, as well as those physician behaviors that contribute to patient dissatisfaction. In this step, a potential pool of patients was contacted from a list of 100 patients who were part of the Consumer Advisory Council of the Family Practice Center. These patients function as regular representatives of the Family Practice Center general population. The Consumer Advisory Council advises the Family Practice Center concerning aspects of patient care received. From this pool, 22 representative patients were selected, consisting of 8 men and 14 women. They ranged in age from 20 to 75 years, and their educational level ranged from 10th grade to doctoral degrees.

Patients in this group were interviewed in their homes. Asked to imagine a typical visit with a physician, they were then given unfinished prompting sentences covering different aspects of the physician-patient interaction. These sentences related to physician behavior in all aspects of the

physician-patient interaction, including the physician entering the examining room, listening to the patient's problem, conducting the examination, giving the patient diagnosis, prescribing treatment, and closing the interaction. In addition, two prompting sentences regarding physician behavior were given. Two examples of such general prompting sentences are "I especially like it when my doctor . . .," and "I don't like it when my doctor . . .". Patients were asked to generate as many positive as negative descriptions of physician behaviors as possible for each aspect of the physician-patient interaction.

The 1,540 descriptions of patient-generated preferred and not-preferred physician behaviors were then placed in 80 categories according to coding guidelines proposed by Rosenberg and Sedlak.¹⁸ The reliability of the categorization procedure was assessed by having a second judge categorize a 10 percent random sample of behaviors. Interrater reliability as measured by Cohen's kappa coefficient was found to be .81, indicating 81 percent agreement between judges beyond that which could have occurred by chance.

In the second stage of the study, an additional 30 patients were again selected from the same pool used in stage 1 of the study. This sample consisted of 20 women and 10 men ranging in age from 20 to 74 years and with education level ranging from 8th grade to doctoral degrees. Each patient was again interviewed at home. Patients in this group were asked to rate the 80 categories of physician behavior by preference on a nine-point scale from most preferred to least preferred physician behavior. Preference ratings were analyzed through Alscal, the multidimensional scaling program that is available through the Statistical Analysis System.

The third stage of the study consisted of administering the Physician-Patient Interaction Scale to family practice patients to determine reliability and validity of the scale. This sample consisted of those 115 family practice patients completing the questionnaire after they had seen their physician. Those patients who participated in stage 1 or 2 of the study were excluded. All patients were regular patients at the Family Practice Center and were representative of the family practice population, except for age, with the sample somewhat younger than the family practice population as a whole. Several analyses were conducted on the data to obtain reliability and validity of the instrument.

Test-retest reliability was assessed by having 23 patients complete the scale on a subsequent follow-up visit. Internal reliability was measured by Cronbach's alpha, with convergent and concurrent validity also assessed. Convergent validity was found by correlating the scale scores with scores on the Medical Interview Satisfaction Scale,¹⁹ which was chosen because it is the best available measure of physician behavior that reports validity and reliability coefficients. Concurrent validity was assessed by correlating the Physician-Patient Interaction Scale scores and patients' reported intention to return to the physician for future health care.

Results

Two major dimensions considered important by patients in the physician-patient interaction were identified through the multidimension-scaling analysis. The first dimension, interpreted as general health care delivery, included positive and negative aspects of physician behavior. The second dimension, interpreted as inappropriate interpersonal communication, was described either by absence of communicative interaction (eg, "the doctor went straight to the medical problem without first greeting me") or by surplus of communicative interaction (eg, "the doctor asked questions that were too personal").

The complete scale consists of a listing of 17 physician behaviors patients identified as key factors of importance in the physician-patient interaction. Although previous research has shown that patients were more concerned with the psychosocial aspects of health care,^{20,21} this study indicates that patients also demonstrated concern about the technical skills of their physician. Patients in this study did not, however, tend to discriminate between technical and interpersonal aspects of health care; rather they embedded such skills within the general context of health care. In other words, patients perceived technical skills as an integral part of health care that contributed, along with information exchange and interpersonal and social skills, to comprehensive health care.

Patients viewed positively the provision of information by the physician regarding their treat-

ment and information given to them during the physical examination. Absence of these behaviors was viewed negatively by the patients. Patients considered important professional and respectful treatment by the physician and also viewed positively physician behaviors that made the patient feel he or she could talk about any problem. Physicians' behaviors indicating that the physician was paying attention to the patient were also viewed as positive factors in the physician-patient interaction.

Some physician behaviors noted in the literature as being associated with patient satisfaction were not considered important to the physician-patient interaction by patients in the current study. For example, small talk to put the patient at ease or talk about issues other than the presenting problem were not included in the two interpreted dimensions, suggesting that patients do not consider such behavior necessarily important for satisfaction with the physician-patient interaction.

The second part of the study assessed the reliability and validity of the scale developed. Reliability measures the stability of test scores. Test-retest reliability was .76, and internal reliability, as measured by Cronbach's alpha, was .85, indicating that 85 percent of the total variance of the scale scores is composed of true score variance, while 15 percent is error variance.

Validity measures indicate the extent to which the scale truly measures patient satisfaction. Convergent validity was .74. Concurrent validity was also supported in that there was a high positive score between scale scores and patients' reported intention to return to their physician for future health care ($r = .73$), suggesting that the satisfied patient, as evidenced by scale scores, intends to return, whereas the dissatisfied patient does not intend to return for future health care.

Discussion

This study served to construct a reliable, valid scale based on physician behaviors patients considered most important in the physician-patient interaction. This scale can be used to assist faculty in determining which interactive skills might be of particular importance to teach residents as part of

behavioral science training and to provide a reliable, valid measure that can be used in evaluating residents' performance.*

The observation by faculty of resident behavior in the physician-patient interaction can provide valuable information in evaluating residents' interactive skills and in providing feedback to residents regarding their skill level. It should be remembered, however, that faculty are still only third-party observers, unaware of the patient variables contributing to the interaction. Faculty can empathize with the patient's position to a limited extent. Only the patient can determine how well the interaction with the physician meets his or her needs. Including the patient's point of view is crucial. Until recently patients had been regarded as incapable of evaluating professional performance. Patients do, however, have definite expectations of their contacts with physicians. When these expectations are not met, the disappointment often appears to center on the manner in which services are provided rather than on the services themselves.

The results of this study indicate that patients are concerned with technical as well as interactive skills of their physician. They view them, not separately, but as combined in providing satisfactory health care. This finding only reinforces the importance of integrating behavioral science teaching into the total curriculum of family practice rather than viewing it as a separate entity in providing quality health care to patients. Every interaction with the patient uses behavioral science skills. As faculty become more aware of those behavioral science skills that are core to the physician-patient interactive process and as faculty employ reliable, valid means to measure those skills, residents graduating from family practice residency programs will be even better equipped to provide the art as well as the science of medicine. The scale developed in this study provides one means toward this end.

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*Copies of the scale are available from the authors upon request

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