

Impact of Divergent Evaluations by Physicians and Patients of Patients' Complaints

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SYNOPSIS

Physicians' estimates of patients' anxiety, discomfort or pain, and activity limitation were compared

RECENT STUDIES OF THE EFFECTS of physicians' interpersonal skills on patient satisfaction and compliance with treatment recommendations have revealed that patients are most likely to commit themselves to the therapeutic relationship when the physician projects a caring and understanding image (1-4). Likewise, patients whose physicians explain drug regimens in detail are more likely to comply with their prescriptions than patients who do not receive such instruction (5-6). Questionnaires have been administered to measure patients' perceptions of their physicians' interpersonal skills, and several authors have examined how effectively physicians achieve mutual understanding with their patients, especially with regard to taking medication (7-8).

We present the results of a study based on similar questionnaires completed by physicians and their patients. The answers revealed how well the physicians sensed their patients' anxiety, discomfort, and activity limitation at the time of the visit. The disparity between the physicians' and the patients' reports on these three issues was measured. The

with reports by their patients on the same dimensions. The data were collected as part of a series of quality assessment studies at a prepaid group practice serving 19,000 people in a Mid-Atlantic metropolitan area. Analysis of the data showed that physicians underestimated the three dimensions 35 percent of the time and that activity limitation was the dimension most often underestimated. Patients whose physicians correctly estimated their discomfort or pain were more likely to receive prescriptions than patients whose physicians underestimated their discomfort or pain. Patients whose physicians underestimated their activity limitation were most likely to report dissatisfaction with the treatment given.

The results are consistent with a growing body of evidence suggesting that physicians who show concern about their patients and a desire to understand their problems establish better therapeutic relationships.

results were then compared with the physicians' prescribing behavior and the patients' reported satisfaction with their treatment. The relationships between the prescription given and patient satisfaction, as well as differences between the patients' and the providers' reports of discomfort or pain, anxiety, and activity limitation, were explored.

Methods

The research was conducted as part of an ongoing review at a prepaid medical plan site serving about 19,000 people in a Mid-Atlantic metropolitan area. The study groups comprised 1,367 patients who had visited the Department of Adult Medicine (N = 785) and the Department of Urgent Care (N = 582) during a 2-week period in October 1975. These two departments were chosen because they provide a balance of chronic and acute illnesses.

The total population served by the prepaid plan was relatively young (75 percent were in the 20-49 year age group) and nearly equally divided between

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males and females. The study group did not differ significantly in age, sex, or diagnostic distribution from that of the total population served by the plan. In both departments, females were greater users of medical care. More than 60 percent of the visits to both departments lasted between 10 and 15 minutes; visit duration was unrelated to the patient's sex.

Three instruments were used to collect data at the time of the visit: an encounter form filled out by the patient, a questionnaire about the visit also filled out by the patient, and a provider form completed by the physician. An encounter form was completed for all visits made to the two departments during the study period, and more than three-fourths of the patients making the visits completed the questionnaire (table 1). The retrieval rate for the provider forms was somewhat higher for Adult Medicine (87 percent) than for Urgent Care (74 percent); it was 83 percent for both departments combined. Finally, when a 50 percent random sample

(688 patients) was telephoned a week after the visit and asked to participate in a followup interview, three-fourths (515) agreed.

On the encounter form, the patient was asked to describe the circumstances of the visit, including the diagnosis, duration of condition, kind of visit (initial, followup, and so forth), any special procedures done, and disposition of the case. On the visit questionnaire, the patients indicated the amount of anxiety, discomfort or pain, and activity limitation they experienced because of the complaint for which they were seeking treatment. Patients rated the degrees of the three dimensions on a scale providing four options, namely, none, some, considerable, or extreme.

On the provider form, physicians recorded whether medication was prescribed and whether a followup visit was requested. They also estimated the patient's level of anxiety, discomfort or pain, and activity limitation due to the condition that prompted the visit. In rating their patients on these dimension, physicians chose one of three response codes, namely, 1—none, 2—some, or 3—considerable or extreme.

In the telephone survey of the 515 patients, information was obtained on their satisfaction with their visits. The patients were asked how satisfied they were with the way their physicians had answered their questions, with the interest that the physicians had expressed in them, and with the explanations that they had been given about their problems. Patient satisfaction was measured on a standard 4-point scale ranging from very satisfied to very dissatisfied.

Table 1. Response rates and number of persons in samples, by data source

Data collection instrument and data source	Sampling frame ¹	Adult Medicine		Urgent Care		Both departments	
		Percent responding	Number in sample	Percent responding	Number in sample	Percent responding	Number in sample
Encounter form filled out by patient.	All visits.	100	785	100	582	100	1,367
Questionnaire about visit completed by patient.	All visits.	76	595	76	454	77	1,049
Provider form filled out by physician.	All visits to Adult Medicine plus 50 percent sample of visits to Urgent Care.	87	683	74	214	83	897
Telephone followup of patient.	50 percent sample of all visits.	76	297	75	210	75	515

¹ "All visits" means all visits during the 2-week study period.

Table 2. Percentage of providers who underestimated, overestimated, and correctly estimated their patients' degree of discomfort or pain, anxiety, and activity limitation at time of visit

<i>Dimension and medical department</i>	<i>Percentage under-estimating</i>	<i>Percentage over-estimating</i>	<i>Percentage correctly estimating</i>
Degree of discomfort or pain:			
Adult medicine (N = 368)	21.2	14.4	64.4
Urgent Care (N = 120)	36.7	3.3	60.0
Both departments (N = 488)	25.0	11.7	63.3
Degree of anxiety:			
Adult Medicine (N = 361)	20.5	18.3	61.2
Urgent Care (N = 120)	37.5	11.8	50.8
Both departments (N = 481)	24.7	16.7	58.6
Degree of activity limitation:			
Adult medicine (N = 363)	53.4	5.3	41.3
Urgent Care (N = 116)	64.6	9.5	25.9
Both departments (N = 479)	56.2	6.2	37.6
All 3 dimensions combined:			
Adult Medicine	31.7	12.7	55.6
Urgent Care	46.2	8.2	45.6
Both departments	35.6	11.5	53.2

In the analysis of the data, cross-tabulations, zero-order correlations, and multiple discriminant analysis were used. In multiple discriminant analysis, a regression equation is used in which a dependent variable represents membership in a particular group—for example, people receiving or not receiving prescriptions. The statistic used for judging the importance of a discriminant function is its associated canonical correlation. The overall canonical correlation shows how closely the discriminant function and the particular group variable are related. A standardized canonical discriminant function coefficient is reported for each group of variables in the discriminant functions. These coefficients are derived in standard form (between 0 and 1) and represent the relative contribution of their associated variables to that discriminant function. The interpretation is analogous to the interpretation of beta weights in multiple regression analysis (9-10).

Results

Table 2 shows the relationship between the providers' and the patients' estimates of the three dimensions—the amount of discomfort or pain, anxiety, and activity limitation associated with the patients' presenting problems. Only those cases are

included for which paired estimates by both the patient (on the visit questionnaire) and the physician (on the provider questionnaire) were available for each of the three dimensions. Excluded are all patients and providers to whom the questions did not apply (for example, those receiving well-care or routine examinations), as well as those who for varying reasons refused to answer the questions or whose responses were recorded as "Don't know" or "Can't decide." Because the response categories differed slightly for patients and providers (see Methods), we combined those patients who said their symptoms were "Moderate" with those who said they had "Some" symptoms in order to make the patients' scale comparable with the providers' scale.

Overall, as table 2 shows, providers' estimates agreed with those of their patients more than half (53 percent) of the time. However, in more than a third (35 percent) of their assessments of patients' presenting problems, providers underestimated their patients' perceptions of the effects of the problems. In less than 12 percent of all the cases we examined, did providers overestimate their patients' degree of discomfort or pain, anxiety, and activity limitation.

There were, however, substantial variations between providers' and patients' estimates, both by department (Adult Medicine and Urgent Care) and by each of the three dimensions. Providers' underestimates were much more common for Urgent Care cases (6 percent) than for Adult Medicine (32 percent), as was true for each of the three dimensions. Underestimation was most common for activity limitation; this dimension was underestimated in nearly two-thirds of the Urgent Care visits and more than half of the Adult Medicine visits. Also, providers made the fewest correct estimates of this dimension (only 41 percent of their estimates in Adult Medicine visits and 26 percent in Urgent Care visits were correct). Although a greater proportion of the providers' estimates of discomfort or pain and of anxiety were correct than of activity limitation, the proportion of correct estimates of these dimensions was somewhat smaller in Urgent Care visits than in Adult Medicine visits.

Discriminant analyses were then used to compare the providers' estimates with their subsequent prescriptions and their patients' reported satisfaction with the visit. In these analyses, the receipt of a prescription (Yes or No) was one dependent variable, and patient satisfaction with the questions answered ("Very satisfied" versus all other categories) was the other. By a stepwise selection procedure, it was

possible to identify only those independent variables that had the maximum discriminating power to explain change in the dependent variables. Of the many independent variables considered (including duration of visit, routine examination, initial visit for the problem, kind of medical department, and provider), the patient's reported degree of discomfort or pain, the physician's estimate of the discomfort or pain, and having a respiratory disease were the three variables with the greatest power of discrimination in predicting which patients would receive prescriptions (overall canonical correlation 0.33, $P < 0.001$). A high level of discomfort or pain reported by the patient and a high physician estimate of patient discomfort or pain led to a prescription. The discriminant analysis of the patients' satisfaction with the questions answered revealed that patients who reported more anxiety than others at the time of the visit were typically dissatisfied with their treatment (standard discriminant function coefficient = 0.49), as were those patients whose physicians underestimated their anxiety levels (standard discriminant function coefficient = 0.26).

Discussion

Physicians' understanding of patients' feelings, particularly anxiety and pain, has significant implications for prescribing. As our research showed, physicians who perceived their patients as being in pain or discomfort tended to give them prescriptions. This result may suggest that in some cases physicians who do not readily note a patient's discomfort may omit prescriptions when they are needed. Likewise, patients in pain or discomfort who fail to sufficiently demonstrate their distress to physicians may not receive medication. In addition, patients who exaggerate their discomfort may lead physicians to prescribe unnecessary medication. Because of the influence that physicians' estimates of patient discomfort have on prescribing behavior, these estimates deserve more study.

The observation in our study that the less satisfied patients tended to report more anxiety than satisfied patients and that their physicians tended to underestimate the degree of their anxiety was not unexpected. Anxious patients may look for a treatment relationship in which the physician's involvement is paramount. For them, the physician may become the drug (11). When the physician shows insufficient interest, perhaps by underestimating anxiety, such patients feel dissatisfied with their treatment.

Although physicians were poorest at estimating the degree of activity limitation associated with their patients' problems, this deficiency apparently did not affect their prescribing behavior or their patients' satisfaction. Nonetheless, this deficiency may deter physicians from using needed rehabilitative services and completing required disability forms.

Certain limitations of our data make widespread generalizations based upon them inadvisable. First of all, the study subjects were not a representative patient population because a majority of them were middle class and middle aged. Second, it may be argued that the agreement of physicians' assessments of patient's anxiety, discomfort, and activity limitation with the assessments of the patients themselves has questionable significance. Patients (especially those in the Urgent Care Department) may exaggerate the level of their distress, in which case physicians' estimates may better reflect the patients' real diagnostic needs than the patients' reports of their ailments.

Moreover, the reliability of physicians' estimates of patients' distress may vary considerably, depending on their patient loads, demands on their time, and their interpersonal sensitivity. Thus, the validity and reliability of both physicians' and patients' reports is an area in need of more research. Third, the usefulness of measures of satisfaction needs to be more fully demonstrated. It would be desirable to gauge patients' satisfaction immediately after a visit as well as a week later. Fourth, our study would have been more complete if the patients' expectations had been recorded at the time of the visit but before they saw the physician.

Nevertheless, the results of this study are generally consistent with those reported in related literature. A growing body of evidence suggests that physicians who exhibit concern for their patients and a desire to understand their problems can establish more successful therapeutic relationships than those who do not (12). The patients of such physicians tend to doctor-shop less (1) and to report greater satisfaction with the care provided (13).

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Attitudes of Faculty Members of Schools of Public Health Toward Public Service

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SYNOPSIS

Public service has long been considered one of a traditional triad of academic functions—teaching, research, and service. Yet even in schools of public health, where service is purported to be an integral component of the institution's mission, faculty generally do not accord as high a value to service performance or approach it with the same degree of commitment as they do research and teaching.

A study was conducted to examine faculty perceptions and attitudes toward the service function and its relationship to teaching and research within schools of public health. The data were taken from a mailed questionnaire survey of 20-30 faculty members in each of 20 schools of public health in the United States. The response rate was 71 percent, or 387 returned questionnaires.

Respondents generally felt that the greatest value of service lies in its potential for enhancing the image and prestige of the school, and in the fulfillment of the community obligation of the institution. The possibility that service might bring about improvements in faculty research and teaching, or improvements in health services and public health, was rated significantly lower. Thus, respondents did not view service as useful for its contribution to their own careers or to public health practice as much as they regarded it as a beneficial contribution to the reputation of the institution. This view undermines the traditionally held notion that public service either benefits a particular constituency outside the school or enhances the professional development of faculty members themselves.

PUBLIC SERVICE HAS LONG BEEN CONSIDERED ONE of a triad of academic functions along with teaching and research. Mission statements of universities almost universally embrace all three. Accrediting

bodies expect to see some evidence of the service capability and contributions as part of academic qualifications. Although this expectation applies to institutions of higher learning generally, service is