

Purpose of the Medical Encounter: Identification and Influence on Process and Outcome in 200 Encounters in a Model Family Practice Center

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This study concerned two questions: Why does the patient come to the physician? And, how does patient-physician agreement as to the primary purpose affect the process and outcome of the medical encounter? Separate interviews of patients and physicians following 200 medical encounters revealed a preponderance of visits for continuing care, a paucity of visits for social and emotional problems, and a number of visits in which "concern" as the patient's primary purpose was misperceived by the physician. There was no statistically significant relationship when agreement (or lack of agreement) between patient and physician as to the purpose of the encounter was compared with patient age and sex, number of previous visits of the patient to the physician, and subsequent patient-physician agreement as to the diagnosis, prognosis, therapy, and satisfaction. There was also no statistically significant relationship when patient-physician concordance as to visit purpose was compared with education level of the patient or with physician perception of the patient's intended compliance. In both concordance and non-concordance groups, physicians underestimated both patient satisfaction with the encounters and intended compliance.

This paper describes a study of various aspects of the covert agendas that may or may not be addressed during the physician-patient encounter, beginning with the first step in the history of any patient, what Balint called "proposing an illness to the doctor."¹ After-visit questionnaires administered simultaneously to patient and physician concerned: (1) why patients come to physicians; (2)

how often physicians and patients agree concerning the primary purpose of the medical encounter; (3) how such agreement (concordance) influences other aspects of the patient-physician interaction.

Literature Review

In 1961 Yudkin told of six children with coughs and described "the second diagnosis," the often unconsidered answer to the question: Why did the patient come to the doctor?² Korsch et al reported in 1968 that patient expectations and main worries were usually (65 percent and 76 percent of instances, respectively) not specifically mentioned

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Table 1. Distribution: Purpose of the Medical Encounter as Perceived by Patient and Physician

| Purpose | Patient Perception | Physician Perception |
|------------------------|--------------------|----------------------|
| Continuing care | 91 | 96 |
| Administrative purpose | 5 | 6 |
| Physical problem | 53 | 68 |
| Emotional problem | 7 | 6 |
| Social problem | 1 | 4 |
| Concern or worry | 41 | 17 |

to the physician.³ In a 1976 analysis of physician-patient encounters, Barnlund concluded that "very little" is known about communication between medical personnel and patients, citing a dearth of institutionally based research.⁴

McWhinney has proposed a taxonomy of patient behavior consisting of "mutually exclusive" categories for which purpose may be inferred, and McCormick has described use of such categorization in problem differentiation.^{5,6}

Is the purpose of the visit influenced by demographic variables? There seems to be little general agreement in the literature. In a study of a rural Kentucky community, Smith and Kane reported that while demographic variables influence the level of health knowledge and hence the ability to perceive the seriousness of medical symptoms, these factors did not appear to affect *symptom* perception to a significant degree.⁷ Snyder et al studied misunderstandings in physician-patient communications, concluding that age and sex had no influence but that the number of years in formal education completed by the patient had a direct relationship to the number of misunderstandings.⁸

The literature contains scant agreement about what comprises the process and outcome of the medical encounter, and even less on how one can measure these entities. McKusick and Magraw, elaborating on Bradford Hill, have proposed that the practice of medicine resolves itself into seeking the answers to three main questions^{9,10}:

1. What is wrong? (Diagnosis)
2. What is going to happen? (Prognosis)
3. What can be done? (Therapy)

The search for the answers to these three questions and their subsequent communication to the patient were selected for study as representing the process of the medical encounter. Patient satisfaction and expectation of compliance were selected as determinants of outcome. Francis et al found that patient satisfaction is increased when expectations from the physician are met, and that "compliance is correlated with and perhaps influenced by patient satisfaction."¹¹

Method

The study began with the hypothesis that identification of the primary purpose of the visit influences the process and outcome of the medical encounter. Based upon review of the writings of McWhinney, Frank, and McCormick, paired questionnaires were developed. During pretesting and internal validation of the instruments, an initial 15 possible purposes were consolidated to reflect six categories of patient purpose^{5,6,12}:

1. Continuation of health care/health maintenance
2. Fulfillment of administrative obligation
3. Care of a physical problem
4. Care of an emotional problem
5. Care of a social problem
6. Alleviation of concern, worry, or fantasy

The questionnaires were completed by patients and resident or faculty physicians immediately following medical encounters at the Bowman Gray School of Medicine Family Practice Center. Patient-physician dyads to be questioned were selected on a random basis and were first informed of their selection when presented with questionnaires following the visit. Parental response was recorded for patients aged 12 years or less.

Both members of the physician-patient dyad were asked to identify the purpose of the visit, as well as the diagnosis, prognosis, and therapy. The patient's questionnaire also elicited demographic data including patient age, sex, and education, and a nominal rating of his satisfaction and intended compliance. The physician's questionnaire included the physician's status as house officer or faculty member and his perception of the patient's satisfaction and intended compliance.

Results

Responses were obtained from 200 patient-physician encounters. Fourteen patients and three

physicians refused to fill out the forms. Not every participating patient or physician completed every item on the questionnaire. The maximum response rate for data reported was 199/200 (for the question concerning sex of patient) while the minimum response rate was 160/200 (the question concerning prognosis proved inappropriate for some encounters or confusing to some patients). No age/sex/race/educational level group predominated among patient non-responders.

Distribution: Primary Purpose of Encounter

Table 1 lists the distribution of encounter purpose as stated by patient and physician. According to patients, most visits (46.5 percent) were for continuing health care, including health maintenance, follow-up visit, prenatal care, and prescription refills. Seven patients (3.5 percent) came for care of emotional problems and this purpose was correctly perceived by the physician in four instances. Only one patient reported coming primarily for treatment of a social problem and this was recognized by the doctor. In three additional instances, physicians believed that social reasons represented the primary purpose, but the patients perceived the encounter as concerning a worry or concern (N=2) or emotional problem (N=1). In 29 encounters, patient concern or worry was misperceived by their physician as a physical problem (N=16), continuation of care (N=10), a social problem (N=2), or an administrative obligation (N=1).

Physician and patient were considered in concordance when both indicated the same category as their single choice reflecting the primary purpose of the visit. The total numbers of patient-physician dyads in concordance and non-concordance are listed in Table 2.

Demographic Variables

Forty-five male and 154 female patients were interviewed (this item was not completed on one patient questionnaire) which may be compared to a Family Practice Center population of 39.4 percent males and 60.6 percent females. The median patient age was 39.4 years with a minimum age of 1 year and maximum age of 84 years. Comparison of age/sex distribution of the sample group and the Family Practice Center population showed no more than ten percent variance; the maximum

Table 2. Patient-Physician Concordance of Primary Purpose of Encounter

| | Cases | Percent |
|-----------------|-------|---------|
| Concordance | 137 | 69.5 |
| Non-concordance | 60 | 30.5 |

value was for women aged 26-35 years in the sample group, which may represent greater utilization of medical services during "working hours" by this group. There was no statistically significant relationship between patient sex or age and patient-physician concordance of primary purpose.

Patient education level was recorded utilizing a standard scale ranging from "less than seven years of schooling" to "professional degree." All categories were represented in the sample population, the mode being high school graduate. Comparison of the two groups—concordance and non-concordance as to primary purpose of the encounter—revealed a higher patient education level in the group with patient-physician concordance (P value = 0.048 by t test).

The physician population studied included 8 faculty physicians and 30 family medicine residents; responses were obtained from all but two members of this group (one faculty and one resident physician).

Medical Variables

In the concordance group, the patients had an average of 4.76 previous visits with physicians and in the non-concordance group, 4.31 previous visits. The study revealed no statistically significant relationship between the number of prior encounters of patient and physician and their likelihood of agreeing upon the primary purpose of the encounter (P value = 0.647 by t test).

Data comparing successful elicitation of primary purpose among house officers and faculty are presented in Table 3. Statistical analysis revealed no significant differences among house officers of various years and faculty in determining the purpose of the patient's visit.

| | R I | R II | R III | Faculty | Totals |
|-----------------|-----------|-----------|-----------|-----------|------------|
| Concordance | 24 | 33 | 32 | 48 | 137 |
| Non-concordance | 6 | 16 | 16 | 22 | 60 |
| Totals | 30 | 49 | 48 | 70 | 197 |

P=0.5979, chi-square test
R I, R II, R III=1st, 2nd, 3rd year residents

| | Diagnosis | Prognosis | Therapy |
|------------------------------|-----------|-----------|---------|
| Concordance | 3.9148 | 3.5339 | 3.6124 |
| Non-concordance | 3.8644 | 3.2695 | 3.4327 |
| P value: (Mann-Whitney U) | 0.638 | 0.235 | 0.284 |

*Mean scores, three physicians rating independently
Score values: 5=maximum agreement, 1=minimum agreement

| | Patient Satisfaction | Physician Perception of Patient Satisfaction |
|------------------------------|----------------------|--|
| Concordance | 1.1022 | 1.5255 |
| Non-concordance | 1.0833 | 1.5500 |
| P value: (Mann-Whitney U) | 0.778 | 0.701 |

*Score values: 1=maximum satisfaction, 5=minimum satisfaction

patient and physician was asked to write his/her perception of the diagnosis, prognosis, and therapy. These lists were abstracted and—without other knowledge of the case or other participation in the study—three physicians independently scored each pair of diagnostic, prognostic, and therapeutic perceptions. A one-to-five Likert scale was used, with five signifying maximum agreement and one indicating minimum agreement. Data presented in Table 4 revealed no statistically significant relationship between elicitation of primary purpose of the visit and subsequent agreement as to diagnosis, prognosis, and therapy. The effect of non-responders upon the outcome cannot be determined.

Process of the Medical Encounter

Table 4 represents conversion of open-ended data on patient and physician questionnaires to a numerical score. On the questionnaires each

Outcome of the Medical Encounter

The patient was asked to record his satisfaction—how well the visit fulfilled his pri-

mary purpose—on a scale of one (maximum) to five (minimum); the physician was also asked to rate his perception of the *patient's* satisfaction. The data presented in Table 5 revealed no significant satisfaction difference in the concordance and non-concordance groups.

A comparison of patient satisfaction and physician perception of patient satisfaction for all patients revealed scores of 1.096 and 1.533, respectively (Table 6). There thus appears to be a statistically significant difference ($P < 0.0001$ according to Sign test) between patient and physician perception of patient satisfaction, with patients tending to record greater satisfaction with encounters than the physicians believed there was.

The data in Table 7 describe patient and physician perceptions of intended patient compliance, again using a Likert scale of one (maximum) to five (minimum). Although agreement on purpose of the visit appeared not to influence the patient's intention to comply with the therapy, concordance did increase the physician's expectation that the patient would comply with treatment plans ($P < 0.0005$ by Mann-Whitney U).

For all encounters, physicians tended to underestimate intended patient compliance ($P < 0.005$ by Sign test), as indicated in Table 8.

Discussion

The purpose of the visit is the reason for the encounter, and is different from symptom, chief complaint, problem, or diagnosis. Purpose connotes a goal, with some expectation for fulfillment. The primary purpose may be elicited, presumed, or ignored altogether.

The study revealed that almost half of all patients came for the purpose of continuing health care, reflecting the continuity characteristic of family practice.¹³ While relatively few patient encounters were primarily for management of emotional and social problems according to patients' perceptions, the totals reflect what might be expected in a busy family practice: patients reported seeking care for emotional and social problems in 3.5 percent and 0.5 percent of encounters, respectively, while analysis of the Virginia Study data reveals 3.537 percent emotional problems and 0.469 percent social problems.¹⁴

Table 6. Patient and Physician Perceptions of Patient Satisfaction*

| | Total Number | Mean Satisfaction Score |
|------------------|--------------|-------------------------|
| Total patients | 197 | 1.096 |
| Total physicians | 197 | 1.533 |

$P < 0.0001$, Sign test
*Score values: 1=maximum satisfaction, 5=minimum satisfaction

Table 7. Intended Compliance Mean Scores Concordance and Non-Concordance Groups*

| | Patient Intention to Comply | Physician Perception of Patient Intention to Comply |
|------------------------------|-----------------------------|---|
| Concordance | 1.0513 | 1.4091 |
| Non-concordance | 1.0345 | 1.6780 |
| P value: (Mann-Whitney U) | 0.823 | 0.003 |

*Score values: 1=maximum intention to comply, 5=minimum intention to comply

Table 8. Patient and Physician Perceptions of Intended Compliance*

| | Total Number | Mean Compliance Score |
|------------------|--------------|-----------------------|
| Total patients | 197 | 1.046 |
| Total physicians | 197 | 1.491 |

$P < 0.0001$, Sign test
*Score values: 1=maximum intended compliance, 5=minimum intended compliance

The physician often failed to recognize that the patient had come because of a worry, concern, or fantasy, and this important finding corroborates earlier work of Korsch et al showing that main

worries are often not specifically mentioned to the physician.³

The finding that higher patient education paralleled patient-physician concordance of primary purpose is in contrast to the findings of Snyder et al that greater formal patient education was linked to a greater number of patient-physician misunderstandings.⁸

The study indicated that agreement as to primary purpose is as likely on the first visit as on the fourth or fifth in the population of patients and physicians. The finding of no significant difference in achieving concordance of purpose among first, second, and third year residents and faculty might suggest that medical school graduates enter family practice residency programs already possessing good communication skills. There was no significant relationship between physician-patient concordance of purpose with subsequent agreement concerning diagnosis, prognosis, therapy, or patient satisfaction.

The study revealed that although concordance concerning primary purpose of the visit appeared not to change the patient's intention to comply, there was a significant increase in the *physician's expectation* for patient compliance when there was mutuality of purpose. In these instances, the physician's heightened expectations for compliance were not attended by augmented patient intentions to follow the plan of management.

Finally, when all encounters were considered, both the patient's satisfaction with the visit and intention to comply with management plans tended to be underestimated by physicians, perhaps indicating that the encounters had been more successful than physicians believed—in terms of meeting patient needs and inspiring patient involvement in therapy.

Comments

Woolley et al have proposed that improved effectiveness of medical care depends upon enlargement of the medical model to incorporate psychosocial aspects of the medical care transaction.¹⁵ One such transaction is the negotiation to achieve concordance of primary purpose for the physician-patient encounter. The physician and patient may have different perceptions of the purpose of the visit—differing agendas, priorities, and objectives. Early open discussion of the primary purpose of the visit can prevent the mispercep-

tions of purpose revealed in this study, amounting to more than 30 percent of encounters. In many instances, such an early transaction will allow the physician to focus appropriately on a concern or psychosocial problem rather than searching for an elusive, and perhaps non-existent, physical disease.

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