

The Impact on Patient Satisfaction of the Introduction of Family Medicine Residents into a Model Practice Facility

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This study examines the effects on patient satisfaction of the introduction of family medicine residents into the staff of an ongoing private practice that joined a Department of Family Medicine. Questionnaires were administered to clinic patients during a four-week period four months prior to when residents began seeing patients at the clinic and again five months after residents joined the clinic staff. Satisfaction at both times was high; however, significant declines from Time 1 to Time 2 were noted on most items. Analysis showed that this decline was not related to dissatisfaction with the residents.

A questionnaire was also mailed to a sample of patients who had not visited the clinic more than once during the first year of the resident program there. Three fourths of these individuals still viewed themselves as patients of the clinic. Implications of these findings for family medicine residency training programs are discussed.

When developing a residency program for family physicians, a primary concern is the nature of ambulatory care facilities to be used to supplement hospital training. One option is to build a new medical facility and develop a model practice around it. A second possibility is to recruit practicing family physicians as faculty and utilize their existing facilities and practices as a base for residency training. The latter option was exercised by the Department of Family Medicine, University of Mississippi Medical Center, and thus, a private, middle-class practice became the first model practice facility used to train family medicine residents in Mississippi.

A major concern in exercising this second option was doubt about pa-

tient reaction to the introduction of residents into a facility previously staffed by two physicians. Since many patients had been with the clinic for a number of years, the question of how they would respond to seeing a physician other than "their doctor" became a subject for investigation.

Study I. Methods

Subjects

The initial sample was comprised of all patients seeing a physician during a four-week period (January 14 through February 8, 1974, designated Time 1) several months prior to the residents joining the clinic staff. All patients seeing a physician during a four-week period (October 6 through November 1, 1974, designated Time 2) about five months following the residents' entrance into the clinic comprised the second sample. In both of these studies patients were questioned only on their first visit during the month and not sampled again if they made a return visit.

Procedure

The patients were asked to complete a two-page questionnaire before leaving the clinic. Since the questionnaire was generally completed in ten minutes or less, little opposition was expressed to completing it prior to leaving the clinic.

The questionnaire used at Time 1 was designed to obtain demographic data on the patient and to examine his satisfaction with several aspects of the clinic on that visit. The questionnaire used at Time 2 contained the same questions as well as specific inquiries regarding patient satisfaction with the residents.

In the first study, 275 of the 388 persons seeing a physician at the clinic completed the questionnaire, a response rate of 71 percent. Of the remainder, 2.6 percent were too sick or refused to answer. The others were not interviewed because the staff was too busy with clinic demands to administer the questionnaire.

In the second phase of the study, 285 persons out of 540 patients completed the questionnaire, a response rate of 54 percent. Of the remainder, three questionnaires were incomplete, nine persons refused, and the rest were not surveyed due to staff turnover and staff involvement in other clinic duties.

Results and Discussion

Characteristics of Patient Population

The two groups of patients sampled did not differ significantly, as shown in Table 1. That is, the composition of the patient population did not change significantly after the introduction of residents into the clinic.

Table 1 shows that about three

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Table 1. Characteristics of Two Samples in Clinic

	Time 1 Percent (N = 275)	Time 2 Percent (N = 285)
Sex	(N = 274)	(N = 280)
Female	58.8	57.5
Age	(N = 274)	(N = 283)
0-9 years	6.2	4.9
10-19 years	19.3	16.9
20-29 years	12.7	22.2
30-39 years	19.3	15.2
40-49 years	14.6	14.8
50-59 years	12.0	13.4
60+ years	15.7	12.4
Marital Status	(N = 275)	(N = 284)
Single	29.4	28.1
Married	61.1	60.5
Separated, divorced, widowed	9.4	11.2
Education of head of household	(N = 271)	(N = 281)
8th grade or less	6.6	4.6
Some high school	5.9	6.7
High school graduate	17.7	24.9
Some college	29.5	30.2
College graduate or additional training	40.2	33.4
Reasons for visit to clinic	(N = 270)	(N = 282)
Illness	44.4	40.0
Routine visit	27.7	21.9
Instructed to return	19.2	26.9
Other	8.5	10.9
Condition of patient at visit	(N = 268)	(N = 278)
Sick	48.5	47.8
Well	51.4	52.1
First Visit to Clinic	(N = 273)	(N = 284)
Yes	5.5	11.9

This item had a χ^2 of 6.494 with $p < .05$

fifths of the patients were female, married, and in households where the head had at least some college education. Except for the youngest group, people of all ages were about equally represented in the patient population. Most came to the clinic because they were ill, but approximately one fifth to one fourth were making a routine visit, and the same percent had been instructed to return. The patient populations were quite evenly divided regarding whether they felt sick or well.

Table 1 does indicate one way in which the two samples differ significantly. At Time 2, a significantly higher number (12 percent) were making a first visit. Thus, although the demographic characteristics of the two groups were similar, a larger percentage of the second group were new patients.

Patient Satisfaction

Patients' responses to a series of questions designed to determine patient satisfaction with the physician for that visit are shown in Table 2.

As other research has shown, patients generally report a high level of satisfaction with their physician.¹ In general, our two patient populations supported this finding. Over 75 percent at Time 1 were satisfied with each item; satisfaction was generally less at Time 2.

Looking at comparisons of the two time periods, it is evident that patients voiced significantly greater satisfaction ($p < .05$ or better) with most items at Time 1 than at Time 2. When all the items pertaining to satisfaction with the physician were analyzed together, significant differences ($p < .001$) were found, with the patients at Time 2 less satisfied. Clearly, these data indicate that satisfaction with the physician was greater for the group sampled before the introduction of residents into the practice.

However, statements of intent to comply with the doctor's prescribed treatment plan were high in both samples, with 92 percent of each group stating they planned to comply and about seven percent stating no treatment plan had been prescribed. In addition, the introduction of the new doctors did not result in changes in patients' feelings that the doctor did

Table 2. Patient Satisfaction with Physician

	Time 1 Percent yes (N = 275)	Time 2 Percent yes (N = 285)	χ^2
The doctor:			
1. spent enough time with you to evaluate your problem	94.5	88.7	5.34*
2. used words you did not understand	5.8	1.4	6.69**
3. conducted himself in a professional manner	84.5	82.8	N.S.
4. seemed unsure of what he was doing	5.8	1.8	5.3*
5. made you feel you could discuss personal problems	78.2	58.9	23.07***
6. appeared genuinely friendly with you	84.3	77.5	N.S.
7. answered your questions adequately	87.2	74.7	13.43***
8. adequately explained your illness to you	86.9	71.2	19.76***

* $p < .05$
 ** $p < .01$
 *** $p < .001$

show sufficient interest in investigating areas of life affecting their health. Also, the introduction of the residents did not result in changes in patients' perception of access to their physician. Ninety-nine percent of patients at both times felt free to call their physician if questions arose concerning their treatment.

Analyses were done on items other than satisfaction with the physicians, including satisfaction with the waiting area, the receptionist, and the nurses. No significant differences were found on items pertaining to the waiting room or the receptionist.

The nurses were perceived as treating patients courteously and as being friendly at both times; patients at Time 2 were significantly ($p < .05$) more likely to feel that (1) the nurses did not conduct themselves in a professional manner, and (2) the nurses did not make sure the patients' questions were adequately answered. Such feelings might be related to the fact that most of the nursing staff changed between Time 1 and Time 2.

The next question concerned whether the significant decline in satisfaction pertained to the residents. Analyses of each of the items in Table 2 by whether the patient had seen a resident or one of the two physicians practicing at the clinic for many years showed significant differences on only one item, that is, "whether the doctor adequately explained your illness to you." More often those who had seen the residents answered this question positively.

This finding suggests that the drop in satisfaction was *not* a reflection of patients' opposition to seeing the new doctor. Eighty-five percent of those seeing the residents were satisfied with the treatment they received, 40 percent could see no difference in the quality of care received, 62 percent planned to see the resident if they visited the clinic again, almost 30 percent had seen a resident before and requested to see him/her again, and only five percent said they resented not seeing one of the faculty physicians. Furthermore, if given a choice, only 7.6 percent of the total patient population would refuse to see one of the residents.

What, then, could explain the changes in patient satisfaction? It could be that patients new to the clinic, who tended to be young and

came because they were ill rather than for a routine visit, might include some who were, in general, dissatisfied with the health care system. However, no significant differences were found between old and new patients on items pertaining to satisfaction with the physician.

Another possible explanation might be that elderly persons in the clinic population were upset by the many changes that accompanied the incorporation of the clinic into the University Medical Center. Such changes included a new record and billing system and new personnel at all levels in the clinic as well as the introduction of the residents into the practice. Limited support for this explanation comes from responses to the item, "Does the doctor conduct himself in a professional manner?" Aged persons, along with adolescents, were significantly ($p < .05$) less likely than other groups to respond positively to this item. No significant differences by age were found for the other items listed in Table 2, although a trend was seen for the aged to be less satisfied. For those who saw residents, a significant difference ($p < .01$) by age was found for the item, "I was satisfied with the treatment I got." The aged were less satisfied.

Additional research is necessary to explore reasons for the decline in patient satisfaction, but it is evident that residents themselves, introduced into an ongoing middle-class private practice, did not result in a decline in patient satisfaction.

Study II. Method

Subjects

To address the question of whether patients from the clinic population who were most dissatisfied with the introduction of the residents into the practice facility had covertly indicated this by leaving the practice, a short questionnaire was mailed to a sample of patients.

This questionnaire was mailed in April 1975, to each of those in the first sample group in Study I who had made either one or no visits to the clinic since the residents' entrance into the clinic in May 1974.

Procedure

Two mailings were made to the 73 persons meeting the criteria discussed

Table 3. Characteristics of Respondents to Mailed Questionnaire

	Percent (N = 35)
Sex	(N = 33)
Female	48.4
Age	(N = 34)
0-9 years	0.0
10-19 years	8.8
20-29 years	14.7
30-39 years	35.3
40-49 years	5.8
50-59 years	23.5
60+ years	11.7
Marital status	(N = 33)
Single	12.1
Married	78.7
Separated, divorced, widowed	6.0
Identification as clinic patient	(N = 35)
yes	74.3

above. The return rate was 65.8 percent. Among the others, 16.4 percent of the questionnaires were returned by the Post Office with no forwarding address, 1.4 percent were returned with incomplete responses, and the remainder were not returned.

The questionnaire asked whether the respondent still considered himself a patient at the clinic. Questions concerning satisfaction with care were asked of those responding affirmatively to this question. For those who no longer considered themselves patients, questions were asked concerning reasons for leaving the practice. Demographic data were also gathered.

Results and Discussion

Demographic characteristics of the respondents are shown in Table 3. Compared with the samples in Study I, this group of respondents contained a smaller percent of females, of single persons, and of those in the younger age categories.

Table 3 shows that 74.3 percent of the respondents in Study II still considered themselves patients at the clinic. About half (56 percent) of these had seen one of the residents. No

difference in medical care over the past year was noticed by 59 percent. Half of the sample reported they were satisfied with the care they received at the clinic, 16 percent said their satisfaction was greater than it had been before the residents came, one fourth felt they could not evaluate their satisfaction at the clinic, and only eight percent felt they were less satisfied with their care since the residents had joined the clinic.

Of the nine who were no longer patients at the clinic, one had moved from the city and one had died. Of the remaining seven, five had not visited the clinic since the new doctors were there; four of these had found a new physician. Only one person said he left the practice because he did not want to see a new doctor. None of the respondents had left the clinic because of seeing the new doctor and not wanting to return. Six of the seven left because of difficulty in getting an appointment with their own personal physician. Five of the seven stated that no member of their family was still a

patient at the clinic.

This study shows that only seven of the 35 patients completing and returning the questionnaire no longer considered themselves patients at the clinic. Three fourths still identified themselves as patients and seemed satisfied with the care they received.

Comment

The two studies reported here represent an attempt to answer the question of what happens to patient satisfaction when residents are introduced into a formerly private practice.

Although in Study I satisfaction was above 70 percent on each item at both Time 1 and Time 2, results showed significant declines in most satisfaction items from Time 1 to Time 2. Additional analyses showed that the change did not reflect dissatisfaction with the residents. It was suggested that perhaps changes in satisfaction reflect overall discomfort with the many changes occurring in the clinic as it became incorporated into the Department of Family Medicine

and thus into the University Medical Center.

The second study also indicated a high level of satisfaction, with three fourths of the respondents considering themselves patients of the clinic and most satisfied with their care.

These data suggest that a private practice can be assimilated into a Department of Family Medicine and then be used as a model practice facility without having a significantly negative effect on patient satisfaction. Only two percent of the total patient population was lost due to dissatisfaction, and most of that stemmed from not being able to see "their doctor." We suggest that patient satisfaction could perhaps be best maintained if each change necessary in such a model practice facility could be made slowly enough for adjustment by patients to occur before another change is implemented.

Reference

1. Lebow JL: Consumer assessments of the quality of medical care. *Med Care* 7:328-336, 1974

