Patient Perceptions Of Family Practice Residents In Rural Private Practice Settings

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The portion of US physicians who practice primary care has been declining, and there is general agreement that the United States has a shortage of primary care physicians. In spite of this shortage, both the number of first-year residency positions in family practice residencies[1,2] and the match rate for the existing family practice first-year residency positions have declined.[3] In the past, rural areas relied on general practitioners for primary care. Although newly trained family physicians are locating in rural areas (42.7 percent of the 1987 class of graduating family physicians went to communities of less than 25,000),[4] they are too few to replace the retiring generalists.[5] Clearly, we must not only train more family physicians but also train more family physicians who will practice in rural areas.

One approach to the problems of decreasing numbers of family practice residency positions and the shortages of rural family physicians is to use rural family practices as training sites for residents. Ernst and Yett[6] have concluded that "physicians have high propensities to settle in areas where they have had prior personal contact," and this tendency to settle in familiar areas has been proved for rural areas in several studies.[7,8] A barrier to this approach has been the concern of rural family physicians that their patients might not be receptive to resident physicians practicing in their regular physician's office.

The hypothesis of this study was that patients seeing family practice residents who were working as preceptees in rural family physicians' offices would have a positive perception of the physician-patient interaction and would be satisfied with their care. In previous studies of internal medicine residents working in academic practices[9] and of medical student involvement in family medicine practices, a majority of patients have been satisfied with their contacts with physician-learners.[10-12]

Methods

A survey instrument was developed to measure patients' satisfaction with the care received during a visit to their family physician's office. The survey instrument — a questionnaire — was pilot tested on a group of patients in the practice of one of the authors. The survey instrument was subsequently administered to patients seen in family practice training sites associated with the Montana Family Practice Residency Satellite Program.[13] Each of these sites had a 2nd- or 3rd-year resident assigned to it as a preceptee. More than 93 percent of the patients responding to the survey were seen in rural practices (community population < 25,000).

The study population consisted of patients coming to their family physician's office for a routine visit. All patients were entered into the study as they registered for that day's visit. Once there, the patients were seen by their regular physician, a family practice resident, or both. Upon leaving the clinic, they were given a questionnaire with a stamped addressed envelope. They were asked to complete the questionnaire and return it by mail. No attempt was made to contact nonresponders.

The survey questions were used to separate the patients completing the questionnaire into three groups: (1) those who saw only their regular physician, (2) those who saw both the resident and their regular physician, and (3) those who saw only the resident. The group who saw only their regular physician was used as a control group to obtain a baseline satisfaction level. The other two groups were compared with this control group. Questions were used to ascertain whether patients who saw the resident were told beforehand that they would see a resident, to determine what services were performed by the resident, and to measure the patient's satisfaction with these services. Additionally, patients who saw residents were given a

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scale to assess their perception of the resident's knowledgeability, caring attitude, and the effect of the resident's presence on the quality of care. Most importantly, all three groups of respondents were then asked to rate their overall satisfaction with their visit (to allow comparison of the groups). Final questions included the effect of the resident's presence on the promptness with which patients were seen and whether the patient wanted to see the resident again (and have their regular physician continue working with the residents).

Questions designed to rate satisfaction used a modified Likert scale offering five alternatives.[14] This approach to measuring patient satisfaction has been used successfully in several studies.[15-17] The number of respondents expressing each satisfaction level was multiplied by the scoring value for that level. The values thus derived were summed and divided by the total number of respondents to that question to obtain a mean satisfaction level for that service. The differences between the means for the various groups were tested for statistical significance using the 2×5 contingency table chi-square test.

Results

There were 750 questionnaires distributed from seven different practice sites. All but one of these sites were in rural communities. One hundred seventy-eight questionnaires were returned (n = 178) for a response rate of 23.7 percent. Only 12 questionnaires were returned from the larger community, thus 93 percent of the respondents were from rural areas. Forty-three patients (24 percent — group 1) saw only their regular physician and constituted the control group. Seventy patients (39 percent — group 2) saw both their regular physician and the family practice resident, and 65 patients (37 percent — group 3) saw only the resident. The results from the service-based questions, the knowledge question, and the caring attitude question are displayed in Table 1. There was no significant difference in response between patients who were told they would see the resident and those who were not told.

Patients were questioned next about whether the resident's presence affected the quality of their care. All groups that saw the resident (groups 2 and 3) rated the quality of care as slightly above "the usual care" and slightly below "somewhat better than the usual care."

Table 1. Patient Satisfaction with Resident Performance.

Service Performed	Number Responding	Mean Score*
History taking	57	3.48
Physical examination	103	3.90
Treatment	72	3.67
Knowledge	134	3.87
Caring attitude	135	3.95

*1 = not satisfied, 2 = somewhat satisfied, 3 = satisfied, 4 = quite satisfied, 5 = very satisfied.

Probably the most important findings of the survey were revealed when we compared the satisfaction levels of the patients in groups 1, 2, and 3. This information is presented in Table 2. Although there is obviously some numerical difference in the satisfaction levels, this difference is not statistically significant (P values all > 0.05). Additionally, it must be noted that in all cases the level of satisfaction was well above "satisfied."

When the patients were queried about the presence of the resident in their physician's office, most believed that the presence of the resident did not affect the promptness with which they were seen. Most (77.5 percent) indicated that they would like to see the resident for future office visits, and 96 percent wanted to see their physician continue working with the residents.

Table 2. Patient Satisfaction and the Presence of a Resident.

Group	Number Responding*	Mean Score†
Regular physician alone (group 1)	41	4.34
Regular physician + resident physician (group 2)	69	4.06
Resident physician alone (group 3)	64	3.61

*Total number of patients in these groups may not equal the total number of patients in the study because some patients did not answer all of the questions.

†1 = not satisfied, 2 = somewhat satisfied, 3 = satisfied, 4 = quite satisfied, 5 = very satisfied.

Note: Differences in satisfaction levels were not statistically significant. When individual satisfaction scores were compared, all P values > 0.05.

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Discussion

This study, although weakened to some degree by a relatively low response rate, seems to affirm the hypothesis that rural patients will react positively to resident trainees in their family physicians' offices. With regard to type of service, knowledge base, and caring attitude, the mean satisfaction scores were all well above satisfactory. Of importance is that the satisfaction scores of the group seeing only their regular physician (group 1) do not differ significantly from those of either the group seeing both the regular physician and the resident (group 2) or those of the group seeing only the resident (group 3). This point is especially salient, because from it one can surmise that the presence of family practice residents, working in a training capacity in rural settings, is likely to be perceived positively by the patients. This concept is affirmed by the overwhelmingly positive response to the questions concerning the patients' willingness to see a resident in the future and the patients' desire that their physician continue working with residents.

Clearly, this study was hampered by a relatively low response rate to the questionnaire. As noted, only 24 percent of the surveys were returned. The method of dispensing and collecting the questionnaires was believed to be responsible for the low rate of return. A similar problem (29 percent response rate) was encountered by Reichgott and Schwartz[9] in their study, which utilized the same methods.

Increased demand for family physicians, especially in rural areas, seems a certainty in the future. Rural training programs can offer one potential approach to increasing the number of rural family physicians, both by allowing alternate use of space at primary residency sites and by exposing resident physicians to rural practice settings. The clear implication of our study is that rural patients respond well to the presence of family practice residents in their regular physicians' offices. Furthermore, past studies have shown that family practice residents who participate in rural training programs are more likely to settle in rural areas.[7,8] It is hoped that these observations will encourage the establishment of more rural family practice training opportunities in the future.

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