Rural Training Settings and Practice Location Decisions

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Since 1974 the residency program in family medicine at the University of Missouri–Columbia has required resident physicians to spend approximately 25 percent of their last two years in a faculty supervised rural training center. This paper describes the setting of the rural training, the practice location decisions of the graduates, their recollections about their views regarding rural practice during their training, and their current judgments about the usefulness of that rural training experience. The results offer strong and corroborating evidence that such training is well received, is judged to be different from usual training, and is considered useful in both clinical and personal decision making. A ranking of ten training opportunities inherent in a rural center provides insight into why such experiences are well received. The data are suggestive, though far from conclusive, that participants' initial views about rural practice are reinforced by their rural training experience.

For the majority of physicians, the decision to locate their practices in a particular size of community appears to occur during internship or residency.[1] In order to increase exposure to smaller communities, a number of medical schools and some residency programs involve trainees in rural training settings. Reports of such efforts have concentrated upon student preceptorships in rural settings with the conclusion that they probably have some slight effect upon ultimate practice location decisions.[2,3] Participation in rural settings by resident physicians has been less widespread and, in common with student preceptorships, usually limited to two- to six-week sessions in the offices of approved private physicians. Reports from pediatric[4] and general internal medicine[5,6]

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programs show that these experiences have been well received by the participants, have been judged as different from their usual training, and appear to have educational value as well. However, there has been little data on the specific training opportunities considered to be useful by resident physicians in rural sites or upon any influence that experience might have had upon the participants' ultimate practice location decisions.

Since 1974 every resident physician completing the family practice program at the University of Missouri–Columbia (UMC) has spent about one fourth of his or her final two years in a faculty supervised rural training center. In late 1979 all program graduates were mailed a questionnaire eliciting retrospective judgments about the completeness and quality of their training. This paper uses a subset of that data base to describe views of the program graduates regarding rural practice at various points in their careers, their ultimate practice location decisions, and their retrospective judgments about the value of specific training opportunities experienced at the rural training center.

Setting and Methods

The rural training center was initiated in 1974 by the residency program and two private physicians in Fulton, Missouri, a town with a population of 12,000 located 25 miles east of the university's medical center. The rural training center was designed to provide realistic training for family practice under faculty supervision in an attractive practice and community setting, a community that also perceived a need for increased primary care services. Beyond realistic training, the rural training center was intended to be a setting that might entice young physicians with the rewards of small-town group practice. At the time the rural training center was initiated, the existing resident group expressed apprehension about any training value to be gained by leaving the university's medical center complex. Once into it, however, that apprehension quickly dissolved, and the rural training experience has consistently been judged by the participants as a major highlight of their entire training.

The rural center is organized as an independent, nonprofit corporation with its own identity and a local board of directors. Patient care and training are conducted through an affiliation agreement with the university. It is a fee-for-service practice center responsible for its own overhead expenses, and it operates as nearly as possible to any modern small-town group practice. Its distinguishing characteristics are that resident physicians provide the bulk of the care (all under supervising faculty), that they admit and care for inpatients at the local 67-bed community hospital, and that except for a local general surgeon, they must develop and use referral/consultation sources that are located outside the community.

Each resident is scheduled to practice at the rural center one day per week. Residents alternate evenings and weekends in Fulton to assure 24-hour on-call coverage for the practice. In addition, the curriculum is scheduled so that two residents spend an entire month once or twice a year on a rotating basis as coordinators of the practice's inpatient census at the local hospital. In contrast to the resident's medical center practice, the rural center's patients are characteristic of a light industrial and farming economy, somewhat older and less well educated, who present to the center with more trauma and chronic illness. In a typical year, the rural center experiences 10,000 clinic visits and 160 outpatient referrals. It averages 400 inpatient admissions, 100 deliveries, and 1,000 emergency room visits at the local community hospital. The practice cares for 30 to 40 nursing home patients and participates in various community health activities such as family planning clinics, sports medicine, and health education.

In late 1979 a questionnaire was designed, tested, and mailed to all 31 physicians who completed the University of Missouri–Columbia family practice residency between 1974 and 1979, inclusive. The questionnaire was directed primarily at the completeness and quality of their training as judged retrospectively from their practice experience. Twenty-nine of the graduates had spent one fourth of their last two years of residency in the

rural center. A few of the structured questions were directed at the graduates' recollections of their views and actions about rural practice at various points in their careers and at their judgment about the value of the rural training center experience.

Results

Twenty-nine University of Missouri–Columbia graduates in family practice trained at the rural training center through 1979. After two mailings, all had completed the questionnaire. Twenty-three indicated they were engaged in a full-time, family oriented practice within the United States. One 1979 graduate had not established his practice at the time of the questionnaire. The remaining five physicians were in academic medicine, emergency care services, or medical missionary work outside of the country. Of the 28 in practice, 20 physicians (71 percent) identified their practices as being located in communities with a population of less than 30,000. Of the 23 physicians in a full-time family oriented practice, 18 (78 percent) were practicing in towns of less than 30,000 people.

The questionnaire listed ten so-called "training opportunities" that might be associated directly with the rural center. Each physician was asked to rate each opportunity according to a scale ranging from "different and very useful in training" to "not different from usual training." The results are summarized in Table 1. Each physician was asked also to recommend a course of action to the residency program regarding the future use of the rural training center. No physician recommended discontinuing it. Two physicians recommended that future residents be required to spend even more time in the rural center than they themselves had spent. Eight recommended that individual residents be permitted to decide for themselves whether they participate in the rural center. The remainder (19 physicians) recommended that residents spend the same amount of time as they had spent. Clearly, from the vantage point of their own subsequent practice, these physicians perceived that the rural training center offered opportunities that are both different and useful to a family practice resident and that this training should not be discontinued.

Next, an attempt was made to associate the rural training center with any change in the physicians' view about the desirability of a rural practice career for themselves. The questionnaire asked the physicians to recall their feelings about eventually practicing in a town of less than 30,000 people, as they recollected their views at the time they entered residency training. Another question asked them the extent to which the rural training center experience changed their views of practice in a town of less than 30,000 people as a desirable career for themselves. (For both questions, a five-point scale was used permitting responses ranging from very positive to very negative.) The results, summarized in Table 2, show that the population of 29 physicians described here generally recalled being favorably disposed toward small-town practice at the time they entered residency training, and 14 of the 29 physicians recalled being positively influenced toward rural practice by their rural center experience. However, the preponderance of physicians in the upper left-hand quadrant of Table 2 suggests that those physicians who began with a positive view of rural practice were the ones most likely to have that view enhanced by the rural training center. Those who began neutral or negative about rural practice did not recall themselves being persuaded.

Moreover, Table 3 shows that those views about rural practice, as recalled from the beginning of the residency, are associated with the physicians ultimate practice location decisions. Seventeen of 19 physicians (89 percent) who recalled having a positive view about rural practice early in their residency reported that they currently practice in towns of less than 30,000 population. Of those who recalled being neutral or negative about rural practice, only three of nine chose such communities. Another action taken by the physicians with respect to rural practice, as elicited in the questionnaire, is suggestive of an association with their beginning view of rural practice. Fifteen of 19 physicians (79 percent) who recalled a positive view of rural practice investigated at

Table 1. Physicians' Rating of Usefulness of the Rural Training Experience (N=29)

Training Opportunities	Different and Very/Fairly Useful	Different but Useless/ Detrimental	Not Different From Usual
Exposure to assets and liabilities of small hospital	29	—	—
Exposure to strengths and weaknesses of typical rural family physician	29	—	—
Exposure to problems and/ or mechanisms for obtaining specialty referrals and consultations for rural patients	28	1	—
Exposure to professional lifestyle of physicians in a small community	27	2	—
Exposure to patients with wider range of medical and social problems	25	1	3
Exposure to patients with more varied socioeconomic backgrounds	22	2	5
Exposure to wide range of community agencies involved in health care (eg, public health, nursing home, family planning)	22	1	6
Exposure to esteem and confidence rural patients and hospital staff have for family physicians	21	4	4
Exposure to limitations/ opportunities available to physician's family (spouse, children) in rural community	19	5	5
Exposure to specified attending physicians on more intensive basis	19	1	9

least three potential practice sites in towns of less than 30,000 before choosing a site. Only two of the nine who recalled beginning the residency with neutral or negative views of rural practice examined as many as three potential small-town practice sites.

Discussion

Not every family practice program is situated geographically to permit a required integration of medical center and rural training throughout the residency. For those that are, these results are

Table 2. Physicians' Views About Later Practice in Communities of Less Than 30,000 People

View at Beginning of Residency Training	Direction of Change as a Result of Rural Center Experiences					
	++	+	0	−	−−	Total
++	3	4	4			11
+	2	3	3	1		9
0	1		2	1		4
−		1	2			3
−−				2		2
Total	6	8	11	4		29

++=very positive toward rural practice
+ =moderately positive
0 =neutral
− =moderately negative
−−=very negative

Table 3. Current Practice Site Vs Beginning View of Rural Practice

Town Size of Current Practice (Population)	Entering Residents' Views on Rural Practice		
	Positive	Neutral/Negative	Total
<5,000	5	0	5
5-12,000	7	1	8
12-30,000	5	2	7
>30,000	2	6	8
	19	9	28*

*One of the 29 physicians had not chosen a practice site at the time of the survey

supportive of the findings of programs which use shorter, elective rotations outside the teaching hospital: (1) the rural training experience can be well received by the participants, (2) it can offer something different from what is routinely available in residency training for primary care, and (3) that difference can be perceived as useful to the participants both in clinical learning and in helping to sort out their own preferences in regard to practice location.

However, a rural center experience that is judged as positive from a training standpoint ap-

parently will not serve as a change agent with respect to a resident's own career preferences. At best, one might argue that there could be a positive reinforcement mechanism at work: residents with a positive view about rural practice have those views reinforced by a useful rural training center experience; they choose to look at a larger number of small-town practice sites in making their own decisions; they ultimately select a small town for their own practice and, perhaps, have that choice reinforced by a satisfactory practice and lifestyle.

It is an enticing argument that can be supported by the data. However, one must be cautious for at least three reasons. First, although the data are complete as far as this population of physicians is concerned, the numbers themselves are small. Second, since all physicians rated their current practices as satisfactory, a retrospective questionnaire has a major shortcoming. One cannot exclude the possibility that, having made a choice of practice location and found it acceptable, the physician's recollection of his or her views and actions leading to that decision is a matter of rationalization. Finally, the physicians in this study have been in practice for relatively short periods of time and most have yet to encounter the classical sources of dissatisfaction attributed to rural primary care.[7]

Conclusions

This study offers strong evidence that a rural training experience for family physicians will be well received, judged different from usual training, and considered useful in both clinical and personal decision making. A ranking of ten training opportunities inherent in a rural center provides insight into why such experiences are well received. The study data are suggestive, though far from conclusive, that participants' initial views about rural practice are reinforced by their rural training experience.

This paper has focused on the perceptions of the participants and ignores any values or problems a rural training center might generate for the residency program or medical center administration.[8] As of July 1979, however, upcoming second year residents in family practice at the University of Missouri–Columbia were given the option of whether or not to participate in the rural training center; 18 of the 20 residents given the option thus far chose to participate. In July of 1980 the resident complement in family practice was increased to 12 per year. In October 1980 a second rural training center was initiated in another community (population 3,500) approximately 35 miles from the medical center. As the numbers increase and the analytical tools are refined, perhaps further evidence can be provided regarding the multiple variables that influence a physician's decision to enter rural practice.

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