

The Research Environment in Family Practice

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Both the place of family practice in academic medicine and the intellectual underpinning of the specialty itself are thought by many to depend on the development of successful research programs in academic departments of family medicine. Yet many believe less research than desired is being done in such departments, even by faculty trained in research. To gain additional information on this important subject, a survey was conducted of the departmental research experiences of 42 graduates of the several Robert Wood Johnson Foundation Family Practice Academic Fellowship Programs who had had the opportunity for at least one year of faculty experience. The responses indicate that the majority of such graduates spend 20 percent or less of their time in research, that most perceive administrative duties as interfering with research, that a minority have budgeted research time, and few have departmental research funds. Despite these obstacles, those who do research publish with surprising frequency, about one paper per fellow per year. Several ways are presented to improve the research environment in departments of family practice and to lead to even more productive, secure research activities of these and other family practice faculty.

The development of family practice as a specialty was characterized by several years of intense, largely successful effort to define a new type of general physician with expertise in medi-

cal, psychosocial, behavioral, epidemiologic, and managerial care.¹ While there still are many problems, the clinical base and role of family practice in medicine seem well established, especially in rural and suburban areas. The place of family practice in academic medicine, however, remains problematic. Most medical schools have departments or divisions of family medicine, but the record of scholarly achievement in those programs has been spotty. Some disagreement remains even within family practice about the areas of medicine

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that should be the focus for research in this field, and the traditional, biomedically oriented medical school departments have been slow to accept much of what has already been done. Nevertheless, there is general agreement that family practice research should be mainly clinical.²⁻⁵

How to foster such research in family practice also has been argued. Parkerson et al⁴ recommended that family medicine research centers be developed, that such centers sponsor research fellowships in family practice, and that professional organizations in family medicine take on the responsibility for raising money to support family practice research. David⁶ reviewed the family practice fellowships already in existence in 1980 and found that there were over 100 such programs ranging in duration from six weeks to two years, with most being one year in duration. At that time, only about one half of the available positions were filled. With regard to research funding, the major organizations of family medicine have cooperated to develop the Family Health Foundation of America, which makes small research grants available to applicants who are family physicians. Also, the Robert Wood Johnson Foundation has made grants to some family practice investigators under their Medical Practice Research and Development Program to Improve Patient Function. Some family practice investigators also have succeeded in obtaining funds from the National Institutes of Health and the National Center for Health Services Research. Thus, while no one believes that there is a great deal of research money available, neither is the picture for the funding of research in family practice totally dismal. It appears, therefore, both that there are opportunities for training family physicians to do research and some likelihood that those who are trained will be able to find funds with which to pursue their work.

Nevertheless, some have expressed concern that people who have received training in research in family practice are doing less research than they should or than they were expected to do (J. Geyman, MD, J. Medalie, MD, personal communication, May 1984). In particular, concern has been expressed that graduates of the several Robert Wood Johnson Foundation Family Practice Fellowship Programs might not have done or published as much of their work as many hoped. Lack of research productivity by this group of

people might not augur well for research in family practice overall, since these fellows have completed an intensive two-year program that emphasized preparation for and successful completion of a major research project as a requirement for graduation. These programs, which have been functioning at the University of Washington, the University of Utah, the University of Iowa, the University of Missouri-Columbia, and at Case Western Reserve University for the past six years, are two years in length. Each leads to a master's degree that requires training in epidemiology, biostatistics, and research design, with various approaches to the social sciences and the humanities. The fellowships are expected to prepare people with competence in and the desire to do research, to teach, to continue as competent clinical physicians, and ultimately to assume administrative leadership. If anyone can be expected to carry out and publish research in family practice, it is these graduates.

Informal communications with graduates and directors of all five of these programs frequently have suggested that even these well-trained young people have had difficulty accomplishing creditable research in the academic positions to which many of them have gone. For these reasons, a small study was made of graduates of Robert Wood Johnson Foundation Family Practice Fellowship Programs to learn about the research environment in which they found themselves in their new positions and to identify possible barriers or facilitators of research in family practice.

Methods

By June 1984, 42 graduates of the five Robert Wood Johnson Foundation Family Practice Fellowship Programs had had at least one year of post-fellowship experience. Those who graduated in 1984 were not included in the study because they had not yet had faculty experience. A questionnaire* was sent to all 42 graduated fellows exploring the degree to which research was a

*Available from the author on request.

Table 1. Percentage of Availability of Research Resources

	Seldom	Usually	Almost Always
Interested colleagues	51	31	18
Consultants	54	26	21
Financial support	73	19	8
Populations or materials	23	51	26
Time	84	16	0

priority in their work, the amount of time they spent at research, the time budgeted for research, and other aspects of the environment in which they worked. Follow-up telephone calls were made to those who did not return the questionnaire within one month; in some instances a second questionnaire was mailed. By eight weeks after the initial mailing, 40 questionnaires had been returned for a return rate of 95 percent. Most questions were designed to be answered on a five-part Likert scale, but for the purposes of this paper, the scales were converted into three-part scales by combining the top two and the bottom two responses into single percentages to give high, medium, and low responders. All tables are presented in this manner. Research was listed as a "high priority" activity only for two thirds of the group. Comparison of separately tabulated responses from the total group and for the high-priority group showed only a few minor differences. Therefore, most of the data are presented only for the total group of responders, with the few exceptions noted in the text. Statistical analyses were not appropriate in the present study, and the figures are presented as descriptive only.

Results

Time Spent in Research or Scholarship

Eighty-two percent of the respondents spent 20 percent or less of their time in research or other scholarly activities. Even more impressive is that 62 percent spent 10 percent or less of their time in such activities; 18 percent spent no time doing research. Despite this low level of research activity,

67 percent indicated that research was a high priority for them. The "high-priority research group" was less likely to spend no time doing research (4 percent) and somewhat more likely to spend 30 percent or more time (20 percent). As might be expected, only 23 percent of respondents were satisfied with their time spent in research and 28 percent were neutral, while 49 percent were dissatisfied.

Availability of Research Resources

Research resources generally were available to only a limited extent (Table 1). For example, only one fourth or fewer respondents said they had readily available interested colleagues, consultants, or populations to study. Most important, none said they had enough time, and only 8 percent indicated they had any financial support.

Effects of Other Activities on Research

About one third or slightly more of the respondents said that teaching and clinical practice responsibilities inhibited their research, while an equal number said both these experiences had positive effects on their research. However, 76 percent said that administrative duties inhibited their research; only 1 percent found their duties to be a positive factor.

Degree of Departmental Support

When asked about the support they received from their department or program head for research, only one third of respondents characterized their chief as very supportive; 42 percent said he or she was neutral. Twenty-five percent found their chiefs "not supportive" of their research activities. Confirming these results, 50 per-

cent had 10 percent or less of their time budgeted for research; only 21 percent had 30 percent or more time budgeted.

Publication Record

Even though the present data were collected a minimum of one year after the fellows had graduated and taken academic or other positions, one third of the respondents had not published any papers, either from their fellowship research project or on some other subject. Of the two thirds who had published, 27 had published one or more papers, while 10 had published five or more. In general, these ten were the fellows who graduated from the earliest years of the program. As a group the respondents had published 105 papers, of which 50 were characterized by them as research papers and 55 as educational or clinical in nature. As a group, there were 2.7 papers per fellow, and 4.0 papers per fellow published. This rate calculates out to be one paper per fellow year for those who have published.

Discussion

This study shows that the research environment in departments of family practice, at least for the graduates of the Robert Wood Johnson Foundation Family Practice Programs, is far from optimal. Only a minority of these research-trained faculty have significant time budgeted for research, and many of them indicate that even this time is eroded by other responsibilities. Administrative responsibilities in particular seem to be most responsible for this time erosion. Whereas in traditional, biomedical, research-oriented departments, young faculty are in general given modest clinical responsibilities and expected to do research, frequently under the wing of established investigators, the family practice fellows are expected to initiate their own research, take care of patients, teach, organize teaching programs, stimulate others to do research, and in some instances develop and operate divisions of research in departments where such divisions did not previously exist. The difference between expectations of these fellows and those in other depart-

ments was best stated in one of the open-ended comments when that person responded, "the RWJF fellows are expected to *train others* to do research, whereas in other departments this is the responsibility of the senior researcher or of the department heads."

Other negative factors also were described. A much smaller number of program chiefs were characterized as less supportive of research than one generally expects to find in academic medicine, and few fellows had enough money to do the research they wished to do. The lack of support is indicated further by the small number who had more than 20 percent of their time budgeted for research.

Despite these obstacles, some of the data belie the original concerns that led to this survey. Even though one third of the respondents had not published at all, the publication record of the remainder was surprisingly good. Those who had been in faculty positions for several years had multiple publications, and the publishing fellows were preparing and publishing papers at a rate of one per fellow per year. About one half the papers published were characterized by the respondents as research papers, with one half as educational or clinical, a distribution quite in keeping with the combined clinical and research goals one has for faculty in family practice programs. It seems, therefore, that the original expectations that this group of trained young people would have the drive to do research even under adverse circumstances has some basis in reality. Nevertheless, the overall tenor of the numerical results of the survey leads to the almost certainly correct conclusion that under better circumstances more research would be done and that those who expect to do it would be more satisfied with their lives in academic medicine. What could be done to improve the situation?

It is clear that fewer administrative responsibilities and more budgeted time and funds for pilot projects would supply the resources needed most for young faculty to initiate sound research activities. Since budgeted time is the same as money, the main thing needed to foster research among young faculty in family practice is additional money, at least for the first two or three years of faculty life. How much money would be needed? In a paper in which a model is described

for considering the relationships between practice income and family practice residency program funding, Colwill and Glenn⁷ found that practice income could pay for about one fifth of residency program expenses. When considered in relation to total department operation, this income was enough for about 15 percent of all activities, including research grants, contracts, training grants, and university funds. If one set aside only \$50,000 of this money, or roughly 12 percent, it would be enough to give budgeted research time to two and one-half full-time equivalent young faculty for two days per week. If one used part for salary support and part for research funds per se, then this much money could be used to support time for two faculty and one research assistant to spend more than one day weekly doing a research project. Such an investment for two or three years of the initial employment of research-oriented and -trained faculty could yield much benefit in later successful competition for research grants, just as such investments did and still do in traditional biomedically oriented disciplines.

Naturally, any department chairman presented with such a proposal will rightly ask, "where do I get the money to pay for the clinical and attending responsibilities those faculty do now?" Another study of the same department showed that attending physicians spent only 25 percent of their clinic attending time in actual teaching activities with residents (J. Glenn, PhD, personal communication, September 1984). Only the physical layout of the clinics in the department studied inhibited more efficient use of attending physicians. It may be that some departments are not making efficient use of attending time. From this source alone, therefore, it should be possible to generate funded faculty research time without seriously endangering resident education or patient care. Volunteer faculty also might be found who would help staff clinics in return for a role in other aspects of departmental activities rather than being paid for such teaching at the same rate as their office practices. Some departments might find that fostering research is more important to them than filling a vacant faculty or staff position. Alternately, new clinical segments of responsibility might be developed for the clinical physicians in the departments. Contracts for clinical care might yield funds that could be used for research—student

health services activities, city health department patient care, routinized clinical activities such as physical examinations for groups of employees, and the like. In other words, funds might be available if priorities were set differently.

One more aspect of this study deserves comment. At least one half the respondents said they did not have interested colleagues with whom to work. The intellectual environment in which faculty work is a factor in the fostering of research that has received little comment. Those departments that do make the decision to emphasize research on the part of their faculty probably would be wise to appoint more than one trained individual to these positions. A critical mass of investigators is an important research resource.

To summarize, the research environment in family practice, at least as exemplified by the responses of the Robert Wood Johnson Foundation fellows to this questionnaire, is deficient in supervisory support, budgeted time, and exclusive assignment of time to research activities for young faculty. Despite these deficiencies, the research record of these faculty is better than many believe. It is likely that this record could be outstanding if there were more support and encouragement of these well-trained and committed young people.

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