
Communications

A Program for Teaching Research in a Family Practice Residency

Jim L. Wilson, MD, and Richard W. Redman, PhD
Iowa City, Iowa

Research in family practice has been viewed as a necessary component for the growth and development of the academic discipline.¹⁻³ Some of the major impediments to research by family physicians have been: (1) lack of academic training in research design and methodology, (2) lack of an adequate role model for conducting primary care research during medical training, and (3) slow realization of what is researchable in family practice (the feeling that "I have nothing of value to contribute").

Recently the value of research in the educational process of training family practice residents has been recognized.^{4,5} Various strategies and methods for teaching research design and methodologies have been developed and reported.⁶⁻¹¹ Wilson and Redman have reported a survey of family practice residencies which shows the extent of research activity undertaken by family practice residents during their training.¹²

At the University of Iowa all family practice residents have been required to design and conduct a research project before satisfactorily completing the residency. This communication reports the experience of the University of Iowa program.

Description of the Program

The family practice faculty has formulated a detailed set of educational objectives for the research experience with the expectation that upon completion of the residency program, the resident will be able to design and carry out a research project within his/her clinical environment.

These educational objectives can be summarized as follows. The resident will be able to: (1) formulate a research question; (2) devise appropriate methods for answering the question, and for collecting and analyzing the data; (3) prepare a proposal outlining the hypothesis and methodology of the study; and (4) recognize the appropriate use of resources.

Each resident's project is reviewed and evaluated by the departmental research committee. To be approved, a proposed research project is expected to be of interest or significance to the practice of family medicine. Exploratory, descriptive, causal, and correlational research are all general types which are acceptable. Methodology must be appropriate for the question asked in terms of validity, reliability, and control for relevant factors. The proposal must be realistic in terms of time, finances, and available resources.

A faculty advisor is assigned to each resident to help him/her formulate the research question and plan the project. A detailed timetable for completion of various stages of the project has been established, and the advisor's role includes the responsibility for seeing that the resident progresses according to the timetable.

From the Department of Family Practice, University of Iowa, College of Medicine, Iowa City, Iowa. Dr. Redman is presently with the Department of Family Practice and the graduate program in Hospital and Health Administration, University of Iowa. Requests for reprints should be addressed to Dr. Jim L. Wilson, Department of Family Practice, University of South Alabama, College of Medicine, 2451 Fillingim St, Mobile, AL 36617.

Recognizing that most residents have had little formal experience conducting research, a series of seminars has been developed and presented by a member of the departmental faculty. Feedback from the departmental research committee often is valuable for improving the design of the project.

Upon completion of the project, each resident is required to report the results according to a standard style, and an oral presentation is made at the annual Research Forum.

Discussion

The research experience at the University of Iowa has always been viewed as an educational experience designed to provide the resident with the experience of proposing, conducting, and reporting a research project. While residents are expected to develop a research design and methodology appropriate to the research question, the resident is not expected to conduct the definitive research in a given area (although this would be welcomed if it were feasible to do so). In the planning of a project, consideration must be given to the resources available both in terms of resident time and departmental resources.

The above program has evolved gradually over the past few years. The faculty feel that the quality of the research experience for the residents has improved. Prior to the development of these procedures, the system was rather chaotic and residents did not have a clear notion of what was expected of them. The general consensus of the faculty is that the residents have taken more interest in their projects and that both quality of the content and the presentations themselves have improved.

This is not to imply that all problems have been alleviated. Some residents are still reluctant to undertake any research. However, by establishing a definite timetable, fewer residents than formerly are delaying the initiation of their projects. In the past, some residents delayed beginning their projects until late in their final year.

The faculty advisor system has not worked as well as anticipated, largely because the faculty person has little leverage to force the resident into activity. The system works well for those residents who take the initiative to seek out the faculty person for help. The limited ability of faculty to assist residents in certain areas of investigation has also been a problem, although flexibility in

advisor arrangements and the use of other resources within the university have minimized this problem.

Attendance at the research seminars has varied and, as yet, has not been required. In the busy workday of family practice residents, seminar topics are likely to be perceived as secondarily important when compared to their other responsibilities. Since the institution of the seminars was recent, residents may not yet have had an opportunity to discover the value of the seminars in preparing them for their research requirement.

Adequate financial resources to support resident research have also been difficult to obtain. Each resident is provided a small fund (approximately \$200) to cover the costs of conducting his/her research project. This is generally used for expenses such as the printing of questionnaires, postage, laboratory analyses, and similar activities. Expenses for data analyses (keypunching, computer runs) are covered through institutional funds. Adequate funds are not available, however, to provide research assistants or to support elaborate research designs.

The above problems notwithstanding, the evolving research program is presently viewed as an important component in the resident's educational experience. The educational objectives and the established timetable have provided a framework for guiding the residents in meeting one of the requirements of the program.

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