Physician Extenders in Family Practice Residency Programs

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The Family Practice Residency at Richland Memorial Hospital in Columbia, South Carolina, has utilized a physician extender (PE) since 1975. Recently, the residency received a family medicine training grant from the Department of Health, Education and Welfare (HEW) to study various configurations of health care delivery teams. A survey of the literature reveals considerable information on the use of physician extenders in private practice and public clinics, but there are only limited references to their use in family practice residency training programs.[1-3]

The national survey was designed to assess the prevalence, function, and acceptance of physician extenders in family practice residencies.

Methods

Early in January 1980, a questionnaire was mailed to 366 approved family practice residencies in the United States. A response rate of 66 percent (241 programs) was obtained after a six-week period of data collection.

In this survey physician extenders were defined by the authors as either a nurse practitioner (NP) or a physician's assistant (PA).

Results

One hundred seven (44 percent) of the responders employ physician extenders. Eighty have a nurse practitioner, 47 have a physician's assistant, and 20 have both. Of the programs that currently use a physician extender, 41 (38 percent) plan to add additional physician extenders in the next year or two. Only six programs, or six percent, that now have physician extenders plan to discontinue their use. Of the programs without physician extenders, 34, or 25 percent, plan to add them in the next one or two years. The number of physician extenders varies per program from 1 to 11, with most having one or two.

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Almost all of the programs have their physician extenders located in the family practice centers. Some programs also have physician extenders working in a satellite; however, only seven programs have them working exclusively in satellite units.

In 76 programs (71 percent), the residents gave direct supervision to the physician extenders. Sixteen percent of the programs have them working with first year residents, 50 percent with second year residents, and 70 percent with third year residents. Almost all programs utilize them in multiple activities (Table 1). Ninety-four percent use them in direct patient care, and 91 percent use them for patient education. Slightly over one half of the programs have them teaching residents, and almost one half have them teaching NP or PA students. About one third of the programs have physician extenders making house calls and/or hospital rounds. In only 15 (14 percent) programs are they involved in research.

Programs were asked to give global evaluation of the quality of their physician extenders. They were asked to rate them as outstanding, superior, satisfactory, disappointing, or inadequate. Twenty-five percent rate them outstanding; 33 percent, superior; 39 percent, satisfactory; 5 percent, disappointing; and none rate them inadequate.

One of the major areas of concern to many physicians is how physician extenders will be accepted. The acceptance by patients, staff, residents, and faculty was rated either without difficulty or with enthusiasm in over 75 percent of the programs (Table 2).

Many programs had multiple sources of funding. Sixty-three percent of the programs received hospital and/or patient generated funds. Forty-five percent of the programs acquired some or all of their funding through grants. Other funding sources were the military, universities, health departments, foundations, and state, local, or county governments.

Salaries ranged from $10,500 to over $25,000 annually. The military salaries were in the lower

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Table 1. Functions of Physician Extenders in Family Practice Residency Programs

Type of Activity	No. of Programs	% of Programs (N=107)
Direct patient care	101	94
Patient education	97	91
Teaching NP or PA students	49	46
Teaching nursing students	18	17
Teaching medical students	37	35
Teaching residents	57	53
Teaching other staff people	35	33
Making house calls	41	38
Making hospital rounds	35	33
Research	15	14
Others	15	14

NP=nurse practitioner
PA=physician's assistant

Table 2. Acceptance Ratings of Physician Extenders by Four Groups*

Acceptance Rating by Percent	Patients	Staff	Residents	Faculty
Enthusiastic	28	30	19	25
Without difficulty	68	52	58	61
Reluctant	2	17	19	11
Disappointing	2	1	3	2
Poor	0	0	1	0

*For each group, N=106

range while the upper range salaries cluster on the West Coast. The median annual salary range was $16,000 to $17,999.

Programs without physician extenders were asked their reasons for not employing them. The main reason was a perceived lack of need, with the most common concern relating to acceptance.

Discussion

The authors have shown that the utilization of physician extenders in family practice residency programs is widespread. A large segment of family practice residents in training are learning to deliver health care with a physician extender as a member of the team. Since the pattern established in training is often continued after graduation, many residency trained family physicians are likely to adopt this pattern of practice, so that the utilization of physician extenders throughout the United States can be expected to increase in the future.

Of particular interest was the use of physician extenders as teachers of family practice residents. The authors were interested to find that 53 percent of the programs use them in this manner. It is a teaching resource that has not been evaluated with regard to educational methodology, content, or quality. This is an area that needs further study.

There was no identification of those programs that are involved in undergraduate medical education. Thirty-seven programs, or 35 percent of the programs with physician extenders, answered that the physician extenders are involved in teaching medical students. It can be expected, therefore, that these medical students may be influenced by their exposure to this method of practice. The nature and extent of this influence in medical school should be considered by those responsible for curriculum planning and evaluation.

Conclusions

Physician extenders play a prominent role in patient care and family practice residency training programs, and their uses are becoming more diverse. Nurse practitioners are used more commonly than physician's assistants. Physician extenders provide direct patient care and patient education in the family practice center. Many are also involved in other educational activities including resident and medical student training. Acceptance by patients, staff, residents, and faculty has been very good.

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The Use of Videotape for Teaching Internal Medicine in a Family Practice Residency

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The perpetuation of the traditional mind-body dichotomy has fostered a tension in medical education between internal medicine and behavioral science. This is nowhere more obvious than in the specialty of family practice. In residencies, taking time *for* behavioral science teaching often may mean taking time *away* from the more well-established teaching of internal medicine. These two domains are often seen as mutually exclusive, not only in terms of teaching time, but also in terms of their approaches to the understanding of patients.

In an attempt to bridge this gap by focusing on an area of overlap—the physician-patient interaction—the Group Health Cooperative Family Practice Residency program incorporates behavioral science into the internal medicine curriculum. This is a report of six months of combined teaching conferences which grew out of a close working relationship between the faculty internist and the behavioral scientist. The focus is on the use of videotape to record and assess the physician-patient encounter in the inpatient clinical setting.[1,2]

Methods

An intern and senior (second or third year) resident are paired on the medicine service, with the one quarter-time faculty internist coordinating the service and serving as attending physician every second month. Once a week, the behavioral scientist, the internist, and two medicine residents together watch and comment on a videotape made by one of the residents or by the internist. A variant of the Kagan method is used to critique the tape, with any of the participants able to stop the tape to make comments or ask questions.[3] Interactions videotaped (by portable equipment run by the program secretary in the hospital) included a wide variety of encounters, including extended daily visits with patients and families, and summary interviews in which the findings of the hospi-

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talization are discussed. It had originally been hoped that diagnostic work-ups could be taped and discussed, but there were logistical problems with making the equipment available at those times.

The material which emerged from discussion of the tapes included: (1) eliciting the patient's view of experiences with the health care system; (2) promoting self-awareness for the resident; (3) offering useful insights about the patient; and (4) uncovering the process of the interview.

Case Examples

1. Eliciting the Patient's View of Experiences with the Health Care System

A 30-year-old man was hospitalized with an exacerbation of low back pain which had caused difficulties in his employment and family life. The hospitalization was marked by a change of residents on the medical service shortly after his admission, uncertainties about the goal of the hospitalization, and conflicts with the attending orthopedic surgeons about primary responsibility. This concluding interview allowed the patient to recount his difficulties with his back and with the multiple physicians he encountered. In addition, the patient's passive-aggressive behavior was noted and discussed in the playback session.

2. Promoting Self-Awareness for the Resident

A middle-aged female presented with seizures which were diagnosed as water intoxication of uncertain etiology. In an effort to elucidate the cause, the senior resident interviewed the patient and her husband. On the videotape, a rambling discussion ensued, with the patient and her husband talking nearly non-stop about the events of the day the woman had her seizure. The resident's difficulties in directing the interview were traced to his wish to be open with patients, and his concern that they would view him as too "authoritarian" if he were to set more limits.

3. Offering Useful Insights about the Patient

A diabetic in her 20s was interviewed after an episode of ketoacidosis which was managed in routine fashion. Information emerged that after seven years of insulin-dependent diabetes, she continued to believe that a proper diet and exercise would eliminate her need for insulin. She viewed insulin as an unnatural substance, and felt guilty for her continued dependence on it. The ketoacidosis was precipitated by a week of dieting and discontinuance of insulin in preparation to go to a natural health institute. Observation of the interview led to a discussion of this woman's view of her diabetes and her responsibility for it, the reasons for her failure to accept her illness, and ways in which a physician could help a patient accept this disease. Without the video interview, the house staff might simply have viewed this as another successfully treated case of ketoacidosis.

4. Uncovering the Process of the Interview

An elderly alcoholic woman with unstable angina was admitted for observation. The focus in the third year resident's interview was to elicit how this woman was dealing with her unresolved pain. In addition to the standard question-and-answer format of the medical interview, this resident allowed silences, made empathic statements, and permitted the woman to talk about her life and her health. This interview technique provided the framework for an empathic physician-patient relationship which enabled this woman to relate this illness to her life events.

It is clear that in addition to being a learning experience for residents and faculty, the videotaped interviews were also beneficial to patient care. With internists increasingly looking at the interview process and structure as an important part of the clinical picture,[4,5] cooperative efforts which also make use of modern videotechnology will help in integrating many of the important and basic concepts of family medicine.

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