Family practice in the United States of America: the first 10 years

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SUMMARY. Family medicine was officially recognized as an independent discipline and as the twentieth specialty in the USA in 1969, when the American Board of Family Practice was established.

The main achievements of the first 10 years has been the establishment of departments of family practice in two thirds of the medical schools and the growth of graduate training has advanced rapidly from a total of 290 residents in 1970 to over 6,000 in 1978. Developments in group practice, team work, and medical records have been considerable and research is expanding.

In 1976, the 50-year trend of falling numbers of family physicians in the USA was reversed for the first time and excellent progress is also being made in countering the geographical maldistribution of physicians.

The challenges for the future of family practice are different from those in the past and are discussed.

Introduction

THE predominant theme of medicine in the United States of America during the twentieth century, as in many other countries of the world, has been the increasing trend toward specialization and subspecialization in both medical education and clinical practice. In 1917, ophthalmology was the first American specialty to be recognized. By 1948, 18 other specialty boards had been established. Between 1930 and 1970, the ratio between general practitioners and specialists completely reversed, from about 80 per cent general practitioners to 20 per cent specialists in 1930 to about 20 per cent: 80 per cent in 1970 (*GP*, 1969). Fewer than 10 per cent of the graduates of many USA medical schools in the late 1950s and 1960s entered general practice.

The growth of subspecialization accelerated after the 1940s and was associated with increasing emphasis on the technology of medicine. This led inevitably to problems of access, cost of care, fragmentation of the patient and the doctor/patient relationship, and public resentment toward the medical profession.

In response to these problems, the 1960s saw concerted efforts to strengthen the primary care base of medical care. In 1966, four national reports were released by independent groups which came to similar conclusions—each stressed the need to train far more primary care (family) physicians (American Academy of General Practice, 1966; American Medical Association, 1966a and b; National Commission on Community Health Services, 1966). The result of these and related efforts was the establishment of the American Board of Family Practice in 1969 as the twentieth specialty in American medicine.

Since family practice had no formal place in American medical education before 1969, a number of questions were naturally raised as the new specialty took root. These included the following:

1. Can successful teaching programmes be organized and maintained at both undergraduate and graduate levels?
2. Can faculty (university staff) be recruited to teach in these programmes?
3. Can interest among medical students in this emerging specialty be developed and sustained?
4. Is there a legitimate area of research in family practice to nurture the developing specialty?
5. Can family practice make any impact on the specialty and the geographical maldistribution of physicians?

Since the first decade of family practice as a specialty has just been completed, it is timely to measure the

progress it has made so far and to reflect briefly on some of the lessons which have been learned. Although there are important differences in patterns of primary care and in health care delivery systems around the world, there is much in common in the training and practice of the family doctor which transcends national boundaries and makes the experience in America of more than passing interest in the UK and elsewhere in the world.

Ten years of progress

Organization of teaching programmes

The most striking single measure of progress during the 1970s must certainly be the development of programmes for teaching family practice at both undergraduate and graduate levels. In 1970, there were just a handful of departments of family practice in American medical schools. By the beginning of 1979, about two thirds of the country's medical schools had established departments of family practice, and an additional 17·7 per cent were in the process of developing departments or other administrative units for family practice (Table 1).

At the undergraduate level, most family practice teaching programmes have been involved at both preclinical and clinical levels. Many programmes have become actively involved in first-year and second-year introductory courses on clinical medicine, including both interviewing and/or history taking and physical diagnosis. Most programmes have offered family practice clerkships (at the third-year and/or fourth-year level) and preceptorships (attachments) with practising family physicians. A variety of electives have been developed by many programmes in such subjects as geriatrics, sports medicine, preventive medicine, and human sexuality. Despite these common themes, however, undergraduate teaching programmes in family medicine have differed rather widely in the extent to which family medicine teaching is decentralized in the community, and in the way in which the family medicine curriculum is integrated within the overall medical school curriculum. Three contrasting kinds of undergraduate family practice teaching programmes have recently been described in detail (Baker *et al.*, 1977).

Progress in the development of graduate education in family practice has been even more striking during the 1970s. Graduate training has been based upon the *Essentials for Graduate Training in Family Practice,* a document prepared jointly by the American Academy of Family Physicians, the American Board of Family Practice, the Section on General/Family Practice of the American Medical Association and the AMA Council on Medical Education (1969). These *Essentials* provide general guidelines for the organization and content of three-year family practice residency (vocational training) programmes, with the first year replacing the traditional one-year internship (pre-registration year). By the end of 1978, there were 358 approved family practice residencies in the USA, with 6,033 residents in training (Table 2). About half of these programmes are in community hospitals affiliated with medical schools, with about 16 per cent in medical schools and a lesser proportion in unaffiliated community hospitals.

The family practice resident's experience and training includes that derived from the care of patients in an ambulatory (community) teaching practice (family practice centre) and in the hospital on a family practice service, as well as that derived from other integral parts of the residency programme, such as inpatient rotations on other services, and ambulatory experiences in other specialty clinics and community settings. Table 3 illustrates the curriculum in a 'typical' family practice residency (Geyman, 1978). More detailed accounts of the organization and content of three well established family practice residency programmes have recently been published (Leaman *et al.*, 1977).

Faculty recruitment

The development of teaching programmes for family practice has called for the recruitment of excellent

Table 1. Organizational units for family practice in medical schools.

	Number	Per cent
Departments	88	*67.1*
Divisions	14	*10.7*
Other programmes	4	*3.0*
Departments under development	5	*4.0*
Schools without activity	20	*15.2*
Total	131	*100*

Source: Division of Education, American Academy of Family Physicians, Kansas City, Missouri.

These figures represent all medical schools in the USA, including branch campuses and medical schools not yet fully accredited but in an advanced stage of development.

Table 2. Growth of family practice residencies.

Year	Number of approved programmes	Number of residents	Average number of residents per programme
1970	49	290	5.9
1971	87	534	6.1
1972	133	1,015	7.6
1973	191	1,771	9.3
1974	233	2,671	11.4
1975	259	3,720	14.4
1976	272	4,675	17.2
1977	325	5,421	16.6
1978	358	6,033	16.8

Source: Division of Education, American Academy of Family Physicians, Kansas City, Missouri.

Table 3. Curriculum in 'typical' family practice residency.

	Inpatient rotations (months)	Family practice centre (half-day(s) per week)
First year		
Medicine	4	
Paediatrics	3	
Obstetrics-gynaecology	2	1
Surgery	2	
Emergency room	1	
Second year		
Medicine	4	
Paediatrics	3	
Obstetrics-gynaecology	2	
Cardiology	1	3
Psychiatry	1	
Emergency room	1	
Third year		
Medical selectives	4	
Surgical selectives	4	4
Electives	4	

Source: Geyman, J. P. (1978).

clinicians from family practice with interest and skills in teaching. In the five-year period between 1971 and 1976, about 400 family physicians left full-time practice to join family practice teaching programmes in USA medical schools on a full-time basis. A much larger number of full-time family practice faculty (hospital staff) are now teaching in community hospital based residency programmes. In addition, many thousands of practising family physicians are involved in part-time teaching, often on a voluntary basis, in connection with residency programmes and undergraduate preceptorships (attachments).

A recent study of 240 full-time family practice faculty showed that their average age was 45 years, and about two thirds had at least 10 years of practice experience (Longnecker *et al.*, 1977). During the last few years, about five per cent of each year's graduates of USA family practice residency programmes have entered full-time teaching.

Many of the individuals attracted to full-time teaching have necessarily been called upon to organize and administer teaching programmes. Many have also become involved with curriculum development and evaluation, as well as related academic responsibilities and research. These new responsibilities have required the development of various kinds of training for such teachers ranging from workshops and other short-term learning experiences to formal one-year and two-year fellowship programmes.

Care of patients

Several important changes have taken place during the last 10 years with respect to patient care in family practice. Improved methods of medical record keeping have included the expanded use of the problem-orientated medical record and the development of data retrieval systems. The use of periodic audits of both ambulatory and in-hospital care has received increased emphasis for the purpose of education and/or quality control. Office-based audit has been adopted by the American Board of Family Practice as a required component of the recertification examination.

The 1970s have seen a strong trend toward partnership and group practice, particularly among recent graduates of family practice residency programmes. Fewer than 15 per cent of the 1977 and 1978 graduates of USA family practice residencies entered solo (single-handed) practice.

Another relatively new direction in family practice is the testing of various forms of team practice. Several training programmes have been developed during the 1970s for 'physician extenders', including nurse practitioners, 'Medex', and physicians' assistants. Many of these 'middle-level practitioners' have found employment in family practice, particularly in under-served urban and rural areas. Some family practices (especially teaching programmes) have worked closely with clinical psychologists, medical social workers, and/or other allied health professionals.

A major change has also taken place in the hospital, with the development of clinical departments of family practice in a growing number of community hospitals throughout the country. The American Academy of Family Physicians has formulated guidelines for the organization and operation of these departments, including an active role in the monitoring of quality of hospital care by family physicians and the delineation of their hospital privileges conjointly with other specialty departments (American Academy of Family Physicians, 1977).

Organizational development

Several kinds of organization have played important roles in the progress of family practice during the 1970s.

American Board of Family Practice

The American Board of Family Practice (ABFP) was the first among American specialty boards to require all diplomates to pass the certification examination (no 'grand-fathering') and to require periodic recertification (at intervals of six years). The ABFP is now one of the largest specialty boards, with over 19,000 diplomates. About 80 per cent of board-certified family physicians are members of the American Academy of Family Physicians (AAFP), and about 23 per cent have completed three-year family practice residency programmes.

American Academy of Family Physicians

The American Academy of Family Physicians (until 1970 the American Academy of General Practice) is the equivalent of the Royal College of General Practitioners. It is now second in size to the American Medical Association among medical organizations in the USA and has over 40,000 members and was a major contributor to the birth of family practice as a specialty during the 1960s. The AAFP provides leadership in a wide range of activities, including advising about university staff and teaching programmes, continuing medical education, and liaison with other medical organizations, government agencies, and other groups.

Society of Teachers of Family Medicine

The Society of Teachers of Family Medicine (STFM) was established in 1968 as an academic organization principally concerned with the development of the educational content of family medicine and with the improvement of teaching skills among family practice faculties. With a current membership over 1,400, the STFM is actively involved in faculty development, curriculum development, evaluation of teaching programmes, and to a lesser extent, research.

North American Primary Care Research Group

The North American Primary Care Research Group is an informal organization established about five years ago to promote the development of research in primary care. This group is not exclusively a family practice organization but is contributing to family practice research and the development of improved investigative skills among family practice faculty through its annual meetings devoted to the presentation and critique of original work in primary care.

Table 4. A taxonomy for research areas in family practice.

Epidemiological and clinical research	Health services research	Behavioural research	Educational research
Single illness studies Morbidity Natural history Prevention Early diagnosis Management Case reports	*Consumers* Health and illness behaviour Needs and demands Consumer participation Patient compliance Effects of health education	*Doctor/patient relationships*	*Medical student interest in family practice*
Practice studies Content: Common diseases Common problems Variation with geographic setting Consultation rates Changing patterns	*Providers* Numbers and distribution Efficiency (utilization) Physician performance Referral patterns Costs of primary care: Solo practice Family practice group Multi-specialty group Allied health manpower studies: Task definition Health team studies Cost and efficiency studies Drug and laboratory procedure studies Experimental models for delivery of primary care (including comparison of family practice and multi-specialty approaches)	*Health team and changing roles*	*Teaching aids for family practice*
Family studies Morbidity Prevention Role of genetic counselling Crisis intervention	*Interface* Patient outcome studies Costs and incentives Cost benefit ratios Facilities and utilization Role of health hazard appraisal	*Impact of social changes on primary care* *Family dynamics* Normal Abnormal Changing patterns Developmental aspects of family life cycles *Counselling* Methods Results	*Family practice residency programmes* Educational objectives Role of problem-oriented record and medical audit Programme costs Model family practice clinic costs and revenue Self-assessment methods: Family practice residents Practising family physicians Continuing medical education: Needs of family physicians Physician performance

Source: Geyman, J. P. (1977).

Research

Although by no means well developed at this point, important beginnings were also made in family practice research during the last 10 years. These include the development of some basic research tools, an impetus to collaborative research, the birth of a scientific journal in the field *(The Journal of Family Practice),* the growth of research activity in both medical schools and community settings, and an increasing awareness of the importance of research as the clinical and educational lifeblood of the new specialty.

The development of research tools has been an international effort in many respects. An excellent example of international collaboration is the *International Classification of Health Problems in Primary Care* (ICHPPC), developed in large part by a working group of the World Organization of National Colleges and Academies of General Practice/Family Medicine (WONCA) (Froom, 1977). An *ad hoc* committee of the North American Primary Care Research Group (NAPCRG, 1977) has developed a glossary of terms for primary care research which has also been widely adopted. The E-book is perhaps the most commonly used diagnostic index in the USA today, and was first developed by Eimerl (1960) in England and introduced into the USA by Wood and Metcalf (Froom *et al.,* 1977). Other basic research tools in family practice include age/sex registers, encounter forms, and indices of health status.

It has become apparent that the spectrum for research in family practice is indeed wide. Table 4 presents a simple taxonomy with four major topics of family practice research, with examples of specific subjects in each category (Geyman, 1977). Most research in family practice so far has been on a descriptive level, with particular attention to its content in different settings. The Virginia Study is perhaps the most definitive study of this kind yet reported in the USA (Marsland *et al.,* 1976).

Some lessons from the 1970s

Four important lessons have been learned from the first decade of development of family practice in the USA.

Importance of department of family practice

Various kinds of organizational unit have been considered and tried by USA medical schools in developing family practice programmes. These include full departments, divisions of other established departments, such as internal medicine or community medicine, and other kinds of administrative unit.

Ten years' experience has shown clearly that the full department is required to facilitate and accommodate the clinical, educational, research, and administrative functions of a family practice programme. A successful family practice programme in a medical school requires a clinical and teaching base in the school; adequate numbers of faculty and staff, space, and funds to support clinical, teaching, and research activities; and links with other disciplines and affiliated community settings. A full department, with equal standing to other clinical departments, is needed to develop and support this wide range of activities.

A large study of USA and Canadian undergraduate teaching programmes in family practice was carried out in 1975 to determine the relationships between administrative structure, size of programme, faculty size, and type of undergraduate curriculum to the number of graduates selecting family practice residency training (Beck *et al.,* 1977). It was found that full departments of family practice (family medicine) had more fully developed undergraduate curricula in family medicine. A positive correlation was established between increased numbers of graduates opting for careers in family practice and the presence of a department of family practice.

Need for co-ordinated curriculum in family medicine

The undergraduate curriculum in family medicine is logically derived from the knowledge, skills, and attitudes of the family physician. As suggested by Pellegrino (1978): "Any such curriculum must teach a set of skills—intellectual and practical—that are specific to the clinical function of the generalist and the family practitioner. Defining these skills more precisely, illustrating their use, and demonstrating them clinically in the domain of the family are the special educational assignments of a department of family medicine."

The ideal undergraduate curriculum in family medicine offers didactic and experiential teaching throughout all the years of medical school as an integral part of the medical student's experience. Such a curriculum requires co-ordinated planning and implementation in order to build in progressive levels of responsibility for patient care by medical students and to prepare interested graduates for the more definitive training received in family practice residencies. Exemplary role models of family physicians and family practice residents are an essential part of undergraduate teaching programmes in family medicine. It has been found that *required* preceptorships and clerkships in family medicine have been directly correlated with larger numbers of medical graduates opting for graduate training in family practice in comparison with medical schools with *elective* curricula in family medicine (Beck *et al.,* 1977).

Sustained student interest

The 1970s have amply demonstrated that high levels of student interest can be developed and sustained in the specialty of family practice. Many USA medical schools now report 20 to 30 per cent of their graduates entering family practice residency programmes. Despite the rapid growth in the number of such programmes, there

are still more graduates seeking family practice residencies than can be accommodated by the more than 2,400 first-year places at present available. The proportion of American medical school graduates entering family practice residency programmes in 1975, 1976, and 1977 was 12·7 per cent, 13·7 per cent, and 15 per cent, respectively (Willard and Ruhe, 1978). The attrition rate from family practice residencies has been quite low, for example fewer than four per cent of second-year family practice residents during 1976. Many of the residents who drop out of family practice residencies enter another family practice residency programme, so that the great majority of vacated positions are promptly filled. In addition to quantitative measures of student interest, there is considerable evidence supporting the high calibre of young physicians opting for family practice in recent years (Collins and Roessler, 1975).

Impact on maldistribution of physicians

The shortage of primary care physicians has been an increasing problem in rural, suburban, and urban communities throughout the USA for many years, and was one of the important factors involved in the birth of family practice as a specialty. Legislators at both federal and state levels have appropriated funds for the development of family practice teaching programmes with the reasonable expectation that maldistribution of physicians by specialty and geographical area will be effectively reduced.

The record in just 10 years in this respect has been remarkable. For the past 50 years, the number of practising general/family physicians in the USA has been declining steadily. This trend was reversed for the first time in 1976 (Willard and Ruhe, 1978). Excellent progress has also been made in countering the problem of maldistribution of physicians. Table 5 shows the distribution of practice locations of 1977 and 1978 graduates of USA family practice residency programmes. Over a half of the surveyed graduates in these two years entered practice in communities with a population of under 25,000, whereas more than a quarter of the graduates started practice in large communities of at least 100,000 people.

Discussion

The renaissance of family practice in the USA during the last decade has been due largely to strong public and legislative support, rather than pressure from within

Table 5. Distribution of graduating residents by community size (1977 to 1978).

Character and population of community	1977 graduating residents			1978 graduating residents		
	Number of reporting graduates	Percentage of total reporting graduates	Cumulative percentage of total reporting graduates	Number of reporting graduates	Percentage of total reporting graduates	Cumulative percentage of total reporting graduates
Rural area or town (under 2,500) not within 25 miles of large cities	81	*11.1*	*11.1*	91	*8.4*	*8.4*
Rural area or town (under 2,500) within 25 miles of large city	20	*2.7*	*13.8*	34	*3.1*	*11.5*
Small town (2,500-25,000) not within 25 miles of large city	180	*24.7*	*38.5*	257	*23.8*	*35.3*
Small town (2,500-25,000) within 25 miles of large city	107	*14.7*	*53.2*	183	*16.9*	*52.2*
Small city (25,000-100,000)	127	*17.4*	*70.6*	186	*17.2*	*69.4*
Suburb of small metropolitan area	14	*1.8*	*72.4*	38	*3.5*	*72.9*
Small metropolitan area (100,000-500,000)	78	*10.7*	*83.1*	90	*8.3*	*81.2*
Suburb of large metropolitan area	55	*7.5*	*90.6*	103	*9.5*	*90.7*
Large metropolitan area (500,000 or more)	45	*6.2*	*96.8*	72	*6.7*	*97.4*
Inner city/low income area (500,000 or more)	23	*3.2*	*100*	28	*2.6*	*100*
Total	730	*100*		1082	*100*	

Source: Division of Education, American Academy of Family Physicians, Kansas City, Missouri. These figures are based on response rates of 68 per cent and 89.5 per cent respectively for 1977 and 1978 graduating residents.

academic medicine. Today, this public support for family practice remains at a high level, as it is now recognized not only as a viable specialty in its own right but also as an integral part of a changing health care system.

There is considerable confusion and uncertainty at present about the future shape of the health care system in the USA. Various types of national health insurance are being considered, each raising questions of cost and effectiveness. In contrast with other parts of the world, such as England, no single specialty in the USA has the 'contract' for primary care. Although some effort is being directed to the development of expanded teaching programmes in other primary care disciplines, especially general internal medicine and general paediatrics, a substantial proportion of physicians in these disciplines is likely to continue to subspecialize as in the past. Regardless of the nature of the changing health care system in the USA, there is increasing consensus that family practice will inevitably provide the basic foundation for primary care.

The current manpower policy for physicians is being re-examined carefully. Although precise goals for the best 'mix' of physicians by specialty have not been established, there is general acceptance that the proportion of first-year residency positions in family practice should be expanded to accommodate 25 per cent of medical graduates by 1985 (Willard and Ruhe, 1978).

The challenges facing family practice in 1979 are quite different from those encountered by the emerging specialty in 1969. Most of the initial organizational issues have been decided successfully. The most pressing needs today include the following:

1. Recruitment of increased numbers of family practice faculty.
2. Expansion of family practice teaching programmes.
3. Strengthening of the family practice base in medical schools.
4. Refinement of quality control mechanisms in teaching programmes.
5. Further development of the specialty's research base.
6. Stabilization of funding for teaching programmes.

A good start has been made by family practice as a specialty in the USA, but it is clear that the development of any specialty is a long-term evolutionary process. In 1966 McWhinney astutely identified four essential criteria for the definition of any academic discipline: a distinguishable body of knowledge; a unique field of action; an active area of research; and a training which is intellectually rigorous. Excellent progress has been made in each of these except research, which must still be considered embryonic. Perhaps the greatest challenge now is for family practice to develop the capacity and interest to study effectively its own clinical experience and relate the results to the improvement both of patient care and teaching programmes. The benefits of systematic research in family practice include expansion of the research in family practice include expansion of the body of knowledge which family physicians will teach, increased practice satisfaction, and most importantly, better health care for the patients and families of family physicians.

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