International Perspectives

Medical Education and Practice in India

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While the family practice movement has entered into its second decade in the United States and Canada and is growing elsewhere, it has not gained a widespread acceptance in many countries. Other practitioners have been developed, such as Russian feldshers, Chinese barefoot doctors, village health workers in India, medex, nurse practitioner programs in the United States, and other innovative programs designed to meet some of the health care needs the family physician is meeting in North America.[1] However, these programs do not offer the comprehensiveness nor the medical sophistication encompassed in family medicine training.

If family medicine is relevant to this part of the world, it seemed appropriate to study a different area to see if family medicine might be as needed in another setting. A review of medical education and health care delivery systems in India was undertaken. Several problem areas were identified that proved to be remarkably similar to those identified in the Willard,[2] Millis,[3] and Folsom[4] reports. A program was devised based on family practice residencies in North America but modified with a heavier community medicine emphasis as dictated by the needs of India, and this program has been started on a pilot scale at the Christian Medical College in Ludhiana, Punjab, India.

Indian Medical Education

Allopathic medical education is reasonably well standardized over a period of $5\frac{1}{2}$ years in medical school. Graduates receive the MBBS (bachelor of medicine and bachelor of surgery) degree. The curriculum is divided into two preclinical 18-month phases, followed by an 18-month clinical block, and then a one-year internship.

The postgraduate trainee is called a houseman during the first year, and if he performs satisfactorily is registered as a trainee for that specialty and becomes a registrar (resident) and undergoes traditional specialty training for two or more additional years in programs similar to those in the United States and Canada. At the conclusion of the training period he qualifies as a specialist by examination, and after preparation of an acceptable thesis, many universities grant the MD degree.

Delivery of Indian Health Care

A large portion of medical care is provided by private physicians in their offices on a fee-for-service basis, and they do not usually maintain a hospital practice.

There is an ambitious national program of providing a primary health center (PHC) for every segment of the population as part of a free care, government sponsored, health program utilizing salaried physicians. The PHC is essentially an ambulatory operation but may contain a few hospital beds. Each primary health center operates on a team concept including nurses, a pharmacist,

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health educators, male and female (village) health workers, family planning counselors, and sanitation inspectors. Curative medicine is only a part of this comprehensive approach. Home visits help supplement health education programs, collection of vital statistics, and control of communicable diseases. Maternal and child health programs are of paramount importance, and nutrition, school health, and environmental sanitation programs round out the range of services provided by these basic units.

The primary health centers are backed up by a network of secondary civil hospitals. Service here is again free and the salaried physicians maintain only a hospital practice. There are also tertiary or district medical centers, and medical school hospitals.[5,6]

Other types of practitioners include homeopathic and ayurvedic physicians, and unlicensed prescribers (registered medical practitioners).

Problem Areas

A study of the delivery of health care in India reveals several problem areas that are remarkably reminiscent of those leading to development of the family practice movement in North America.

Family Oriented Society

India has a very stable family structure and family oriented care is desired by many people. Many untrained registered medical practitioners recognize this and provide family oriented care, while the medical care of many trained medical specialists tends to be fragmented and specialty oriented. A need is recognized for adequately trained physicians to practice in a manner meeting the needs of the family.

Fragmentation of Care

While specialization has provided an excellent cadre of well-trained specialty physicians, it has led to fragmentation of care and sometimes loss of continuity of care. Patients with multiple problems frequently have to visit several physicians and many prefer a single physician to care for their multiple needs and provide a point of entry into the health care system when they need more specialized care.

Lack of Postgraduate Training for the Generalist

There is a need to upgrade the educational standards of the general practitioner. At the present time few general practitioners have postgraduate training beyond the MBBS. There is a new specialty-certifying examination in general practice under the umbrella of community medicine, yet there are no formal training programs in general or family practice at a postgraduate level.

Physician Distribution

There are serious problems related to distribution of physician manpower in India. Eighty percent of the population is rural, but 80 percent of the physicians are urban.

Cost of Medical Care

Curative care is expensive and some economy in health care delivery might be another benefit from having well trained postgraduate general practitioners. Patients frequently spend considerable money on various other practitioners before coming to the physician. When seeking entry into the medical care system they are bewildered by the array of specialists. If patients choose the wrong specialist and have to be referred, the cost of health care is further increased.

Lack of Stimulation of Undergraduate Medical Students

There have been no organized residency programs to train and recruit students who are interested in a family approach to medical care. Graduates are either forced to go into practice with the MBBS degree and receive no further training or be recruited into one of the traditional specialty postgraduate programs. The top students frequently opt for the latter for further education.

Brain Drain

The so-called "brain drain" refers to the emigration of physicians for postgraduate training; many of these physicians then remain abroad. Two primary reasons are given. After completion of training in a program abroad, they are offered jobs at a much higher salary than they would receive upon returning to India. The other is that

they frequently receive subspecialty training and there are not adequate facilities to induce them to return home. An Indian program to train generalists would serve to keep a larger number of postgraduate trained physicians in India and cut down on the number of job offers from overseas.

Community Medicine

There is a much greater need for community medicine in India than in North America. In addition to practicing curative medicine, the Indian physician in a rural area must have some expertise in caring for communicable diseases. He must be more knowledgeable of the family structure, community organization, vital statistics, and epidemiology patterns in the rural villages. Aggressive family planning and maternal and child health programs alongside patient education must be carried into the homes in rural areas where medicine is often suspect, and resistance to care is frequently encountered.

Outline of Training

An experimental training program has been developed at the Christian Medical College (CMC) in Ludhiana, Punjab, India. This was patterned after family practice residency programs in North America but with a larger emphasis on community medicine and public health, reflecting the vastly larger community needs in India. This pilot, three-year postgraduate training program is designed to prepare physicians for general-family-community medicine. Residents enter the program after completion of the one-year undergraduate internship and one-year of experience as a postgraduate house physician. The training program involves a basic one-year experience in medical care in the rural village setting coupled with learning experiences in other clinical specialties within the medical school and close supervision by faculty. This longitudinal assignment in one of the communities is a teaching site for teaching in community health. During the second and third years, clinical rotations are set up in the university hospital in medicine, obstetrics-gynecology, surgery, pediatrics, otolaryngology, psychiatry, dermatology, trauma, outpatient care, and radiology, as well as special courses with the Indian Academy of General Practice and with private physicians. Continuity of care is obtained by regularly returning to the village PHC where the first year of experience was obtained. All these activities are closely supervised by university faculty.

A general outline of these second- and third-year rotations includes 15 percent of the time assigned longitudinally to a general (family) physician. Internal medicine, neurology, geriatrics, psychiatry, and radiology account for 30 percent of the time. Surgical specialties include an additional 20 percent of the curriculum and include trauma, general surgery, orthopedics, ophthalmology, otolaryngology, and anesthesia. The remaining 35 percent of the time is spent in pediatrics, obstetrics-gynecology, and community medicine.

Summary

From a survey of medical education and health care delivery in India, it appears that the concepts embodied in family medicine education might help meet needs of health care in India as they are presently helping in North America. The family practice movement might consider a more global scope of endeavor in the future. As medical practice and education evolve on a worldwide scale, it seems appropriate for family practice to be included in this development.

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