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Family Medicine in Israel: A National Overview and Examples from Ben-Gurion University in the Negev

Medicina de familia en Israel: perspectiva nacional y ejemplos tomados de la Universidad Ben-Gurión del Neguev

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ABSTRACT
This article describes the development of family medicine (FM) in Israel, and the special features of the program at the department of FM at Ben-Gurion University (BGU) of the Negev. It contains information about physicians' statistics in Israel (numbers, and distribution among levels of care), describes the primary care system, and shortly describes the history of the development of FM in this country. The residency program is described nationally and then locally, presenting some of the special features of the program at BGU (the didactic course, special issues in research, and characteristics of our undergraduate training program).

Key Words: Primary Care, Medical school curriculum, Family Medicine.

RESUMEN
El presente artículo describe el desarrollo de la medicina familiar (MF) en Israel y en especial las características del programa académico del departamento de MF de la Universidad Ben-Gurión (UBG) del Negev. Incluye información relativa a los médicos y estadísticas de Israel (número y distribución por niveles de atención), se señala al sistema de atención primaria, además se hace una breve reseña de la historia y desarrollo de la MF en Israel. Se presenta una breve explicación sobre el programa de la residencia en MF tanto local como nacionalmente, se señalan las características especiales de la residencia en la UBG (curricula, investigación y características del programa de pregrado en MF).

Palabras Clave: Atención primaria, Curriculo de la escuela de medicina, Medicina Familiar.

Physicians' Statistics

Most of the data presented in this article was previously published by the author in various articles and books [1-4]. Israel is a small country with a population that almost doubled itself in the last 30 years (3.5 to 6.97 million people) [5], mainly due to immigration. It has a large number of physicians/ population (460/ 100.000), and only 45% of them are board certified as a specialist in any discipline (data from 2004). One third of the physicians employed in 2004 immigrated to Israel after 1989. Almost 60% of all the physicians in the country are employed in Hospitals and the rest in the community. At present, training (a formal residency program or postgraduate course) is not a prerequisite to become a primary care physician, and a relatively low proportion of physicians working in this country today are specialist in Family Medicine (FM) (3.5% of total physicians / 8.2% of total specialists) [6].

The System

Israel has a well-developed primary care system with clinics located in the community, all around the country (urban, suburban, and rural) [2]. About 97 per cent of the population has medical coverage through a National Health Insurance, and they can choose one of four Health Maintenance Organizations as their health services' provider.

Family Medicine in Israel

The last 30 years have witnessed a process of renaissance of primary care in Israel, which developed on two main tracks: medical education throughout all its stages, and the organization of medical care in its various aspects [7]. FM developed as a new discipline in Israel in the seventies, achieving independence from other disciplines [8]. The first official residency training programs was initiated in 1977, and today there are 11 departments around the country; each affiliated academically with one of the four universities' with medical schools, offering residency programs in Family Medicine (Ben-Gurion University, Tel-Aviv University, and the Technion in Haifa and the Hebrew University in Jerusalem). FM is a well-acknowledged discipline in this country and it is now recognized by the National Scientific Council as base for sub-specialization in geriatrics, infectious diseases, and emergency medicine [2].

The Residency Program

After 1 year of internship, residents enter a national 4-year program composed of hospital and community rotations [1]. Hospital rotations include a year in internal medicine, 6 months in pediatrics, 3 in psychiatry, and 6 in elective rotations (two 3-month rotations chosen from a list of sub-specialties such as ENT, dermatology, ophthalmology, gynecology, surgery, orthopedics, and emergency medicine). Community rotations are performed in approved teaching practices, with 9 months under direct supervision of an instructor (1:1 teaching), followed by 12 months of independent work (not under direct supervision), in what will become the definitive practice of this doctor after certification. In addition, residents participate in a weekly course over six semesters in which they discuss the theoretical background of their work and learn communication skills. Evaluation consists of two examinations: a multiple-choice examination 24 months into their residency, and a final oral examination -for the Board of Family Medicine mandatory examinations- about different areas of knowledge (clinical cases, family presentation, and practice organization). These programs produce about 60 board certified physicians per year.

A Flower in the Dessert (Department of FM at BGU)

The Negev is the desert region of southern Israel covering a surface of over 13,000km² [9]. It covers 60 percent of Israel's landmass and is inhabited by only 13 percent of its population.

Family physicians throughout the Negev provide integrated curative and preventive care to all the inhabitants of the area, including urban, rural and semi-nomadic Bedouin tribes [4]. Neighborhood and rural clinics are spread all over the Negev, so that patients can get to a clinic within walking distance from their homes. Each family physician has about 1500 listed patients, which are 250-350 families, under his or her care. The clinics are well equipped with modern facilities and use a common computerized file communicating with the Soroka University Medical Center, central laboratories and other resources.

The major responsibility of the Department is a four-year residency program which, at the moment, numbers about 50 residents. This program was initiated in 1980. In addition, the department established a palliative care service and a pain clinic. The palliative care system in the Negev consists of a home palliative care service (HPCS), a mobile palliative care unit, an ambulatory and inpatient consultation service and Ma'agan – a community support center for cancer patients and their families. The HPCS attempts to alleviate physical, psychological and spiritual suffering both of patients and families. In addition, it provides patient follow-up and symptom management for terminally ill patients in the community.

The HPCS was established in 1990, and currently employs nine family physicians, nine nurses, and one social worker. It functions in full cooperation with the pediatric, oncology and hemato-oncology departments of the Soroka Medical Center and in conjunction with community family physicians.

The service in Beer-Sheva operates through Clalit Health Services, taking care of about 24 terminally ill patients at any given time. The Home Hospice is on call for 24-hours a day all year. Serving in the HPSC is an integral and required part of the residency training at BGU. Residents must spend at least six months at the HPCS in Beer-Sheva in addition to their regular responsibilities at the primary care clinic. They have full responsibility for at least one terminally ill patient along the entire 6-months period, including an on-call duty for the HPCS. However, for the time being, this unique experience has become a part of the residency training only in BGU. The main objectives of this experience are to provide the residents with an opportunity to accompany a family in crisis and to learn end-of-life care.

The Department prides itself for the scope and quality of its teaching activities, which range from the training of new immigrants and veteran Israelis for specialty careers in family medicine, to continuing medical education for family physicians, to teaching medical and nursing students. The Departmental academic staff also participates in faculty development activities. Further, the Department launched an annual course for general practitioners - the only one of its kind in the Negev and is taking the lead in raising the level of primary care throughout the region in a multitude of ways.

The didactic course

The early stages of the BGU program had only a few residents each year with little or no didactic supplementation to the practical part of the residency. In 1988, a year after the Family Medicine Department was founded it commenced a unique annual course for the residents, a-day per week. This course emphasizes the patient-centered medical model and the family-oriented primary care. During the first year of the residency, the emphasis is placed on doctor-patient relations and communication skills and a family-oriented care concept; in the second year the family-oriented care course is based upon case presentations and discussions; in the third year the course uses "simulated patient" techniques, whereby role playing of doctor-patient encounters are analyzed and discussed. In the last year, each resident is videotaped in his or her practice; the videotape is presented to the group for analysis and discussion with the tutors. All these classes are taught in small groups of 10 to 12 residents by a family physician and a social worker, modeling the importance of team work [10].

Additional topics in the program provide insight into medical problem solving and the decision making process and stress frontiers in clinical issues. Also included are updates in epidemiology, pharmacology, psychiatry, medical ethics and law, preventive medicine, and women's health as they apply to family practice.

The fourth year residents have an additional individual program tailored to their needs, which may include practice organization, analysis of videotaped encounters, Balint groups, and preparation for the final specialty examination.

Research

The Department has developed into the most productive and successful among all the departments of family medicine in Israel in terms of publications and attracting research funds. All residents are required to perform a mandatory research project during their residency training. This requirement was first introduced in Beer-Sheva and was later adopted in other family medicine departments in Israel.

Research instructors are members of the Department who supervise the residents through all the phases of their research projects. Some of these projects have been presented in national and international conferences, and published in peer reviewed journals. There has also been an increase in funding residents' projects. Sial Research Center provides the support for residents and faculty in their research projects

Conducting research in the community setting is an ongoing challenge. Physicians face many difficult barriers such as very broad spectrum of medical problems, personal involvement with patient and families, high practice --

demands, high sense of ongoing responsibility, low professional status and lack of research culture. The Sial Research Center for Family Medicine and Primary Care was established to remedy this deficiency and provide the needed support and assistance for research.

Undergraduate training (The FM Clerkship)

In order to improve the level of primary care in Israel, it is important to increase the number of medical graduates who choose primary care specialties. The decision to choose or not primary care as a career is greatly influenced by institutional, legislative, and market pressures [11, 12]. At an ***institutional*** level, the four medical schools in Israel differ greatly in their attitude toward primary care (regarding the length of primary care exposure in each of them). While BGU presents community-oriented care as a key component of its undergraduate training, and has a defined 6 week clerkship during the sixth year of studies, in other institutions, there are only between 2-4 weeks' rotations in family medicine in the sixth year of their programs. Students may acquire distorted images of the primary care specialties as they learn in academic settings that are essentially hospital-based. For a country in which 20% of its physicians are expected to work in the community, even the good example of BGU –who dedicate only 10% of the clinical years to teach primary care specialties - shows to be insufficient.

In 1974, the Ben-Gurion University of the Negev in Beer-Sheva, established a new medical school, with a primary objective of emphasizing community medicine and primary care [13]. Today, students at the Joyce and Irving Goldman Medical School at Ben-Gurion University, have a six year program, with a six-week clerkship in Family Medicine that moved lately from its fifth to its sixth year. Following is a description of the Family Medicine clerkship at our university, with special emphasis on the developments that took place during the last 10 years of the program [3].

Every year, after completing their clerkships in Pediatrics, Internal Medicine and Psychiatry, students arrive to the family medicine clerkship, and are divided into three groups of about 20 students each. Different to what happens in Hospital based rotations each student is assigned to one family physician in a community clinic, on a one-to-one teaching format. During the first two weeks of the clerkship, students regularly see patients with their preceptor. Later on, they start working more independently, involving the preceptor in the decision-making process at the end of each patient's encounter with the student. Once a week, students assist to lectures and seminars at the medical school. Some of these meetings serve for self- prepared presentations, mostly of the approach to a common medical problem or a prevention strategy. In preparation of their final oral exam (patient presentations), students also perform home visits in order to meet the patient's family, and to assess their home environment. Following are some special teaching highlights of our clerkship in Beer-Sheva:

- *Common muscular-skeletal problems*: This is a workshop consisting of 5-6 stations, in an OSCE type format. Each station deals with relevant clinical aspects - diagnosis and treatment - of common primary care orthopedic problems as seen in primary care. Groups of 4-5 students move through the different stations, learning about back, shoulder, knee, foot, hand, arm, and neck problems, all from a family physician's point of view. They spend about 30 minutes in each station, discussing and actively learning the assessment and treatment issues, including joint injections. Instructors use different teaching aids, such as plastic models and computerized presentations, and use the students for demonstration of the physical examination.

- *The geriatric assessment*: Geriatric assessment is taught by family physicians and geriatricians during a home visit [14]. The family physician chooses a patient who is home-bound, and performs a teaching home visit, for a group of 4-5 students, with a geriatrician from the Soroka University Hospital. The geriatric assessment at home is both a teaching experience for the students, and an opportunity for geriatric consultations for the family physician. All parties, including the patients and their families, are very satisfied with this experience.

- *Home Hospice experience*: During their clerkship, students perform home visits guided by the staff of the palliative home care for patients with advanced cancer and other serious illnesses. This is an aspect that can only be taught in the ambulatory setting and help students learn about alleviation of suffering, and about the process and choice of dying at home.

- *Patient-centered medicine*: Two sessions are dedicated to emphasize the patient-centered medical model, through role-play, presentations and discussions. The students, who have learned the principles of patient-centered care in their first medical school year, are exposed to the model again, but now within a framework that makes direct use of the model in everyday patient care.

- *Teaching-attending preceptors*: Every clerkship is attended by a senior family physician, who acts as a full-time teaching-attending. This physician supervises the students in their clinics, in small groups of 2-3 students each. The aim is to provide direct, continuous guidance to the students, by a physician who is free of other duties and can observe the students while they see patients in the clinic, provide constructive feedback and help students in their medical problem-solving abilities. During these sessions students may also be video-taped while interviewing patients, and then the attending physician supervises them and discusses the relevant issues with the group. Some of the sessions with a teaching attending physician are dedicated to preparation for their final examination.

- *Evaluation*: This oral examination consists of two parts. On the first one, the student presents three of his/her patients: a child with a chronic medical problem, an adult with a chronic disease, and a home-bound patient (most likely an elder). They are expected to present the patient's history, physical findings, laboratory and ancillary tests, and to discuss the patient's problems, using the Problem-Oriented Medical Record principles. Students are required to present the family background of each patient, their genogram, resource map and the expected prognosis, and to bring up-to-date evidence related to their patient-problem. Examiners ask about the presented patient, with general questions regarding preventive medicine and health promotion pertinent to the patient-problem or to the age group. Examiners use a structured form for their evaluation. On the second part of the exam, students are asked to discuss a structured case presentation, chosen randomly from a list. The list includes 15 common medical problems in primary care, such as asthma, urinary tract infections, low back pain, diabetes mellitus and others. After reading the case, students are asked about the management of the specific case-scenario. Some of the case scenarios are changed from one year to the other, in order to renew and expand the collection.

At the end of the clerkship, students are asked to fill anonymous feedback forms in order to evaluate the clerkship and the teachers. The analysis of these forms shows a high level of satisfaction from the clerkship and from the teachers

Conclusions

FM developed and grew for the last 30 years in Israel making a great impact in the delivery of primary, community-oriented care in Israel. Dr. Moshe Prywes, in 1972, expected the University Center for Health Sciences and Services (in the Negev) to *"combine the health services in the region into one integrated system in order to provide comprehensive medical care for the regional population, and to merge this system of medical education in trying to educate physicians who are aware of the needs of the community and wish to work in both, community hospitals and primary care clinics"* [15]. This didn't happen as he expected, and family medicine developed as a separated discipline who took responsibility for the health in the community, separating from the hospital. Today, FM in Israel has developed to be one the most developed systems of primary care in the world thanks to its academic development and the adoption of the National Health Insurance, which ensures equity in health' delivery. And in this process, the Department at BGU has an important part.

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