Family Medicine Specialty in Singapore

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ABSTRACT

Family Medicine in Singapore has its roots in a generalist ethos and found its origin as a counter culture movement to the increasing sub-specialisation of medicine which resulted in a complex healthcare system where patients are often cared for by multiple specialists potentially resulting in fragmentation of care. The aim of the discipline of Family Medicine was to train and develop more generalist physicians so as to promote holistic care. Family physicians are the largest pool of generalists who are trained to provide general medical care to patients in the context of the person, the family and the community that they live in.

Keywords: Family medicine training, Family medicine speciality, Family medicine in Singapore

Family Medicine and Singapore

Modern day Family Medicine began as a “counterculture” to the disease-and-body-part focus of the hospital specialties in the 1960s.[1,2] The ethos of social reforms in this period touched the field of medical practice also leading to an era of renaissance for the age-old discipline of General Practice. Uninhibited access to medical care for everybody, especially the medically underserved, personal, and family-oriented care on a continuing basis, and comprehensive care at a reasonable cost were crucial in the modern rise of family practice.

Singapore followed the global paradigm that emphasized “Physicians practicing Family Medicine required vocational training for several years.” Translating the Family Medicine “counter culture” vision into various educational programs has been a huge challenge worldwide as well as in Singapore. Over the years, the specialty of Family Medicine evolved in Singapore at a steady pace to become the core of health care services attracting some of the best talents to the specialty.

Evolution of Modern Health Services in Singapore

To begin with, it is prudent to chart the origin and evolution of the subsidized polyclinic system that has over the years maintained its place as the core of primary health care in Singapore. The history of modern medical care in Singapore began in the year 1819 with the arrival of Sir Stamford Raffles in Singapore.[3] Accompanying him was Thomas Pendergast a Sub-Assistant Surgeon who introduced western medicine to Singapore. In the year 1821, the first General Hospital was built. However, it was in 1888, the first midwife got trained and in 1907 Maternal and Child Health services got introduced in Singapore. The fall of Singapore to the Japanese army in 1942 signaled the dark days and health care services came to a standstill leaving behind an extremely malnourished disease-stricken population (malaria and beriberi was common) till the British war administration took over in 1946. For the new administration, it was essential to provide expedient medical care for the famished people and also draw a comprehensive medical plan for the development and upgrading of services.

1947 and Beyond

The ideology of the founders were envisaged in the golden words of the chief architect of medical plan of 1947, Dr. WJ Vickers the then Director of Medical services who said, “It is stated that one fifth of the population of Singapore is in the nature of a floating surplus and there is no need for this colony to bear medical costs in this connection. Such a view cannot be accepted by any responsible authority. Common humanity and expediency demands that the poor man must be dealt with medically whether he is within our gates 10 weeks or 10 years.” However, the capitalist culture that have given an industrial color to health care has abetted the modern day governments to conveniently overlook this philosophy and today Polyclinics

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are out of reach from the poorest of the masses, i.e., the foreign domestic helps and migrant workers from Asian countries who form the backbone of Singapore’s construction, hospitality, healthcare, and other support services.

Beginning from 1947, the Maternal and Child health became the most important campaign in public health and by 1950 the 10 year medical plan was in motion with the initiation of immunization and a drive to administer vaccine against small pox. In 1949 was established the registration and regulation of the nursing profession, domiciliary antenatal care got introduced in 1952, and from 1953 midwives began to be trained in antenatal and postnatal care. Rural health centers were opened at different locations and public health campaign was intensified. In the year 1970, laboratory facilities were added to outpatient clinics, and in 1976 was formed the Public Healthcare division. Outpatient services, maternal and child health services, and school health services were brought together under this division. The 1980s and 1990s saw consolidation of the outpatient services and maternal/child health services into 16 polyclinics distributed throughout this island state. More services like X ray, mammogram, physiotherapy/podiatry, Dental, etc., were added to the polyclinics. Family Physician services were introduced to address the needs of those with chronic conditions and those with special care needs. The growth in infrastructure was in tune with the growing health care needs especially to address the increase in complicated needs of individuals with multiple co morbidities of chronic nature. This required an equivalent enhancement of the clinical capabilities of the General Practitioners who formed the core group of primary health care providers in the public and private practice. This felt need was suitably catered by the advancement of the specialty of Family Medicine with tailor-made programs for primary care physicians at various levels of training and practice.

Defining Family Medicine in the Singapore Context

The College of Family Physicians Singapore defines a Family Physician as a registered medical practitioner who has acquired core competencies in clinical care, Person-centered care, comprehensive and continuing care, collaborative and integrated care, community-orientated care, and a commitment to professional care based on ethical principles.

The Practice of Family Medicine in Singapore

In the context of Singapore, family physicians provide general medical care of patients in the following practice settings:

1. Private sector primary care clinics (GP clinics)
2. Public sector primary care clinics (polyclinics)
3. Community hospitals
4. Restructured and private hospitals
5. Other intermediate and long-term care facilities (home medical care, hospice, and nursing homes)

Historical Development of Family Medicine in Singapore

The following description of the chronology of events in the history of development of Family Medicine will provide an insight into the formative years of this rejuvenated specialty in Singapore [Table 1].

Postgraduate FM Training

Foundation years

Family Medicine training began in 1971 with the formation of the College of General Practitioners Singapore. Two sister Colleges, the Royal Australian College of General Practitioners and the Royal College of General Practitioners, were instrumental in setting up a College for general practitioners. The Australian College also provided support in the setting up of the College Diplomate Examination, which was first conducted in 1972.

From the early 1970s into the early 1990s, vocational Family Medicine training consisted of self-directed learning, lunchtime talks, and examination preparation courses run by hospital specialists. Candidates’ own practices were the self-directed “training ground.” The College Diplomate examination consisted of multiple choice questions and a clinical examination of both long and short cases. The last vocational examination was conducted in 1992. The Diplomate training program was superseded by the Master of Medicine (Family Medicine) program, which began in 1988.

Formal vocational training program

Master of Medicine (Family Medicine) – Program A

The formal 3-year vocational training program that followed the Diplomate program was targeted at residents in the Ministry of Health. The program was modeled after the UK and Australian programs, which constituted 3 monthly rotations in hospital departments for residents in training. The first examination was held in 1993 and by 2007, a total of 252 doctors (about 10% of the total number of Family Physicians in Singapore) had successfully obtained the MMed (FM). The MMed (Family Medicine) Program A consists of: (1) rotating hospital postings, (2) distance-learning program and face-to-face workshops, and (3) a 2-week advanced Family Medicine course. The examination consists of theory papers, case studies with an oral examination on them, and a clinical examination with long and short clinical cases. The distance-learning program, originally drawn up by the College Censor Board in the 1980s, attempts to provide the trainee with a complete knowledge base relevant to Family Medicine practice. Since 2006, the topics were grouped into three skills courses: (1) principles and practice; (2) communication, consultation, and counseling, and (3) professionalism, ethics, and law.
has worked out well for almost 20 years and is still used today. The question-and-answer portions are generally well received with much interaction among the participants.

In the MMed (FM) examinations, Specialists are included as co-examiners for the clinical examinations. This is different from the Advanced Specialist Training programs in Canada, the USA, and Australia where only FPs act as examiners. The inclusion of specialist examiners has led to rigorous pedagogical assessment in the MMed (FM) and has increased the standards of FP competency. Many external examiners for the MMed (FM) have commented that the examination is one of the more rigorous Family Medicine examinations that they have encountered.

The private practitioners’ stream (Program B)
In 1995, Program B was set up for private practitioners who did not complete their vocational training programs but were still keen on improving themselves vocationally. Family Physicians with at least 4 years in private practice or its equivalent (1 hospital year was considered to be equivalent to 2 private-practice years) could apply. They went through 2 years of tutorials based on the concept of portfolio learning. An attendance of 80% for the Family Medicine modular course (FMMC) and a 5-day clinical skills refresher course are the examination requirements for candidates, who sat for the same MMed (FM) examination as those in Program A.

| Table 1: Milestones in Singapore Family Medicine education |
|----------------------------------------------------------|
| 1971 | Formation of the college of general practitioners, Singapore |
| 1972 | First college examination was held |
| 1986 | Recommendation that Family Medicine be formally taught as a discipline in the undergraduate program in the national university of Singapore |
| 1987 | Family medicine taught as a formal discipline. Department of social medicine and public health (SMPH) was given the responsibility and was renamed the department of community, Occupational and Family Medicine |
| 1988 | Pilot Family Medicine vocational program for medical officers: Modular course and rotating postings |
| 1988 | First health manpower development program (HMDP) expert in Family Medicine |
| 1991 | Memorandum to the national university of Singapore that a degree in MMed (FM) be created was adopted |
| 1991 | First batch of trainees selected for MMed (FM) |
| 1993 | First MMed (FM) examination with graduation of 9 out of 17 candidates |
| 1995 | Private practitioners’ stream (Program B) of MMed (FM) was created |
| 1997 | Graduation of first batch of family physicians from program B |
| 2000 | Graduate diploma in Family Medicine (GDFM) started |
| 2002 | First GDFM examination |
| 2004 | Study visit to Scotland sponsored by the university of Glasgow |
| 2005 | Family practice register concept adopted by the Ministry of health |
| 2006 | The department of Family Medicine and continuing care was set up in a tertiary hospital (first in Singapore) |

The graduate diploma program and examination
The Graduate Diploma in Family Medicine (GDFM) program was introduced in 2000 for Family Physicians who wished to practice at an enhanced level. This program is aimed at meeting the needs of FPs who could not afford the time required for the MMed (FM) and consists of distance-learning programs and face-to-face workshops similar to that of the Master’s program. The small group tutorials are reduced to 8 in 2 years compared to 80 for the Master’s program. The GDFM examination consists of: multiple-choice questions, key-feature problems, and objective structured clinical examination stations [Table 2].

The GDFM program has seen an increase in enrolment in the past couple of years. This has been in response to the Ministry of Health, in consultation with the College of Family Physician, announcing the intended formation of a Family Practice Register. The GDFM or its equivalent will be the minimal requirement for entry into the Register and this is expected to be in place by 2013.

Another important program development is the linkage between the Diploma and the Master’s program for those in Program B. In 2006, the GDFM was recognized as an entry requirement for Program B and those with GDFM only need to complete an additional year before being awarded the MMed (FM). This restructured program allows one to move from the Graduate Diploma level to the Masters level after an additional year of training. However, the practice requirement of 6 years of general practice experience or equivalent remains an examination entry requirement.

The Fellowship by Assessment Program as “Finishing School”
Beyond the Family Medicine vocational training programs, the College Council saw the need for a professional development program as a “finishing school.” In 2000, a 2-year Fellowship by Assessment program was introduced. The entry criterion is the MMed (FM) degree. Participants have to complete a portfolio of case studies, topic reviews, teaching activities, skills course in pedagogy, medical writing and research. There is a half-year formative assessment and a final exit interview. Successful participants are conferred as Fellows of the College of Family Physicians of Singapore.

Family Medicine Modular Course
Specialists and FPs sometimes approach patients’ medical problems with different attitudes and perspectives. Together with gaps in communication, this has led to an artificial and unnecessary divide between hospital doctors and those working in the community. This results in inadequate and inappropriate transfer of care between tertiary and primary care and a low appreciation of community care. GPs in the UK have expressed that CME could be improved by increasing contact between themselves and hospital specialists. Fortunately in Singapore, Family Medicine education has enjoyed a close collaboration between specialists and FPs since FM became recognized as a unique medical discipline in 1987.
Throughout the history of FM training, specialists have regularly been invited to share their expertise in their various fields. This arrangement has worked out well since the inception of the MMed (FM) program and is still in use today. Specialists are involved in the teaching of the FMMC [Table 2 and 3] for both the MMed (FM) and GDFM programs. The modules are chaired by the FPs with specialist colleagues invited as domain resource persons. A major reason for its success has been the active participation of both the specialists and FPs during the question-and-answer sessions. This method of learning has garnered good feedback compared to didactic lectures utilized prior to 1997.

To address the needs of FPs, the College of Family Physicians of Singapore streamlined the MMed (FM) and GDFM training programs into Family Practice Skills Courses. These skills courses are held on weekends and specialists are invited to provide expertise and cover the practical aspects of their particular field. Demonstration of procedures and supervision of hands-on practices are provided by specialists. Such courses provide problem-oriented training for common problems in the FM setting and the technical skills training increases the confidence and expertise level of FPs to perform some of these procedures in their own practices. They are invaluable in transferring experience, knowledge, and skills and also act as a rare opportunity for specialists and FPs to interact and obtain immediate feedback on their work, improving the standard of FM practice in Singapore.

**Family Physicians Register**

The need was felt to emphasize the upgrading of skills for all FPs,
### Emerging Trend: Hospitalist Family Physician

The increasing complexity of healthcare is accelerating the rate of specialization in medicine, which in turn aggravates the fragmentation of care in hospitals. The hospitalist movement advocates for the return of generalist physicians to the hospital to provide general and more holistic medical care to inpatients.

Starting in the mid-1990s in North America, where the impact of healthcare complexity and fragmentation has been most widely felt, the hospital movement has gained strength and spread across the continent rapidly. A new type of generalist physician emerged in this new environment. They practice a new model of inpatient care in hospitals that focuses on the general medical care of patients. They receive the patient from the primary care physicians who no longer provide inpatient service and co-ordinate the care that they receive from specialists in the hospital. In anticipation of the relentless specialization and continuing fragmentation of healthcare, the largest tertiary hospital in Singapore was the first to attempt the development of such a care model. A clinical Family Medicine department was established in the Singapore General Hospital in May 2006 with the intention of developing a local adaptation of the hospitalist care.[26]

#### Department of Family Medicine and Continuing Care (FMCC)

Department of Family Medicine and Continuing Care (FMCC) boasts of promoting a patient-centered approach to care with emphasis on co-ordination and integration between care providers. The scope of the consultation service includes diagnosis and management of medical problems, especially for patients with multiple co-morbidities across disciplines, general medical care of patients regardless of age and gender discharge planning to optimize use of hospital, community and outpatient services. The Hospitalist consultant family physicians participate in inpatient care, run outpatient services, works closely with Nursing and Allied Health as a multidisciplinary team to improve care integration for patients with complex discharge planning requirements, monitors patient with recurrent hospitalization under the virtual ward project, provides customized health assessment for patients at the Health Assessment Centre, and provides home-based intermediate care to patients at their home after discharge. The home care service provides medical and nursing care at home with an aim to help stabilize patients in the community until they are right sited to community care providers.

FMCC provides undergraduate training and Family Medicine Clerkship to medical students in Family Medicine and general medicine. FMCC provides postgraduate training to family physicians preparing for basic and advanced Family Medicine training in collaboration with the College of Family Physicians Singapore. FMCC provides training in hospital medicine to meet the need of physician providing general medical care to inpatients. Hospitalist family physicians in FMCC provide senior medical ward coverage, leadership, and co-ordination of care of patients in a community hospital run by the department, thereby providing seamless co-ordination of care for our patients between the main hospitals and the step-down community level institution where patients with needs of subacute care and

### Table 3: Skills courses component (Family Medicine modular course)

| Unit | Topic |
|------|-------|
| 1    | Family practice consultation |
| 2    | Communication and counseling skills |
| 3    | Breaking bad news |
| 4    | Somatization and family conflicts |
| 5    | Insomnia and addiction |
| 6    | Difficult patients |
| 1    | Professionalism and ethics |
| 2    | Law and practice |
| 3    | Medical records and confidentiality |
| 4    | Notification and dispensing |
| 5    | Practice issues and advertising |
| 6    | Setting-up practice |

**Principles and practice of FM**
- Units 1 and 2: Principles of family practice
- Unit 3: Managing the practice
- Unit 4: Computer use and literature search
- Unit 5: Financial management
- Unit 6: Practice audit (quality)

**Communication, consultation and counseling**
- Unit 1: Family practice consultation
- Unit 2: Communication and counseling skills
- Unit 3: Breaking bad news
- Unit 4: Somatization and family conflicts
- Unit 5: Insomnia and addiction
- Unit 6: Difficult patients

**Professionalism, ethics and law**
- Unit 1: Professionalism and ethics
- Unit 2: Law and practice
- Unit 3: Medical records and confidentiality
- Unit 4: Notification and dispensing
- Unit 5: Practice issues and advertising
- Unit 6: Setting-up practice

#### Undergraduate Family Medicine Education

Undergraduate FM started in 1970 as a general practice attachment of 1-week duration and was initiated between the College of Family Physicians and the University. In 1987, a joint memorandum between the Department of Social Medicine and Public Health of the University and the College adopted the declaration that FM should be formally taught as an undergraduate discipline.[23] To reflect the inclusion of FM into the Department’s teaching responsibilities, SMPH was renamed the Department of Community, Occupational and Family Medicine on 13 February 1987. The philosophy behind the undergraduate FM education program is to provide medical students with an awareness of the knowledge base, core values and roles that Family Physicians play in the healthcare delivery system. With a 1-week attachment in 1970, this was increased to 2 weeks in 1987. Since 2001, undergraduates have a 4-week attachment in FM-2 spent with Family Physicians in private practice and the rest with Family Physicians in public polyclinics.[23] During the 4 weeks, students also gain exposure to the important roles community hospitals, palliative, and domiciliary care play in our primary care system. The syllabus focuses on the principles of FM, common symptoms in FM and the practical aspects of consultation, communication, and counseling.

by taking up the GDFM as a starting point for FPs. The Ministry of Health mooted the establishment of a Family Physician Register which came into existence from 2011.[24] Formal training in FM through additional, structured, and directed training programs is needed for entry to the Register. Physicians in general practice with more than 5 years practice experience can gain entry into the family physician register before December 2013 by completing accredited modular courses conducted by the college of family physicians.
rehabilitation remain hospitalized till they are fit to be managed in their home setting. The FMCC works closely with other specialist departments and various support services including Medical Social Work, Physiotherapy, Occupational Therapy, and Speech Therapy to provide multidisciplinary care.

CME and Revision of Accreditation

All registered doctors in Singapore renewing their practicing certificates every 2 years are required to meet the compulsory CME requirements. A family physician is required to maintain competencies through dedicated and rigorous participation in continuing professional development activities that include continuing medical education, quality improvement, research, and teaching in the discipline of Family Medicine. He should also be in constant interaction with peers through membership and active participation in a professional body of Family Medicine.

Future of Family Medicine in the Health Care Delivery System in Singapore

The generalist ethos of Family Medicine emphasizes the importance of managing illnesses in the context of the person, the family, the community, and the health care system. With the rise of complex chronic diseases and the increasing fragmentation of care as a result of specialization in medicine, more family physicians will be needed to meet the rising demand for good holistic care for the patients as they journey across the health care system.[28]

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