

# Family Medicine Training by Distance Education

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## ABSTRACT

*A postgraduate programme is developed to provide Family Medicine training to practising General Practitioners. The programme provides physicians with didactic material by distance education while enhancing clinical competence through face-to-face sessions in ambulatory clinics. Assessment of participating physicians is based on the responses to distance education assignments, case presentations during clinical sessions, clinical examinations at the end of year 2 and the defense of a research project in year 3. Initial programme evaluations demonstrate that the distance education format is successfully incorporated in the discipline of Family Medicine postgraduate training.*

# Entrenamiento en Medicina de la Familia Mediante Educación a Distancia

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## RESUMEN

*Se desarrolla un programa de postgrado a fin de ofrecer entrenamiento en medicina de la familia a médicos generales en servicio. El programa brinda a los médicos materiales didácticos a través de cursos de educación a distancia, contribuyendo al mismo tiempo al perfeccionamiento de su competencia clínica a través de sesiones de encuentros en clínicas ambulatorias. La evaluación de los participantes tiene por base las respuestas a las tareas asignadas a distancia, las presentaciones de casos durante las sesiones clínicas, los exámenes clínicos al final del segundo año, y la defensa de un proyecto de investigación en el tercer año. Las evaluaciones iniciales del programa, demuestran que el formato de educación a distancia, se halla incorporado exitosamente a la disciplina de entrenamiento de postgrado en medicina de la familia.*

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## INTRODUCTION

Physicians required to staff the primary healthcare and General Practitioner services of the Caribbean nations have been trained at the University of the West Indies (UWI) since 1948 (1). Almost thirty years later, the conference of Caribbean Ministers responsible for health, requested the UWI to establish as a matter of priority, a postgraduate training programme in general practice (Caribbean Community Secretariat, 1977) (2). Due to their extensive training, family physicians are specialists qualified to treat most illnesses and provide comprehensive healthcare for people of all ages – from newborns to the elderly. As leaders of the health team, family physicians deliver a range of acute, chronic and preventive medical care services. In addition to diagnosing and treating illness, they also provide preventive care, including routine medicals, immunization and screening tests, and per-

sonalized counselling on maintaining a healthy lifestyle. Family physicians also manage chronic illness, often coordinating care provided by other sub-specialists. From heart disease, stroke and hypertension, to diabetes, cancer and asthma, family physicians provide primary care for the Caribbean's most serious health problems (3).

Recently, international and regional events have evoked discussions on the training of these individuals. International events such as the recognition of General Practice/Family Medicine as a specialty, the movement away from hospitals to community-based training and the introduction of certification and accreditation methods for physicians have impacted on the Caribbean (4, 5). This was manifested in the Canadian government's plan to increase access to primary care by increasing the number of family medicine training positions by 70% (141 positions) in 2006 (6).

Local events include the formation of the Caribbean Association of Medical Councils, which has as one of its mandates, the registration of physicians (7). More recently, the internal changes in the region such as the introduction of an integrated curriculum for medical students at the UWI and

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the re-introduction of one-year internships with the elimination of the community health experience during internship have provoked renewed concerns about the training of General Practitioners for the private and public sector. The main concerns are the need to emphasize issues relevant to general practice, the preferred setting for training, cost of training and time limitations of practising physicians (8).

The Faculty of Medical Sciences on the three campuses of the University of the West Indies (UWI) continues to respond to the current training needs for quality General Practitioners. The use of distance learning methodology allows the family physician to work and study simultaneously thus reducing the costs of postgraduate training (8). This paper describes the Family Medicine programme delivered mainly by distance as a means of training future General Practitioners.

### **History of Family Medicine Training at The University of the West Indies**

The postgraduate training of doctors in General Practice began in an organized, but informal way in October 1971 at the then Department of Social and Preventive Medicine of the UWI (9). It took the form of a series of post-graduate seminars which were chaired by general practice lecturer, Dr Owen Minott on the last Friday evening of each month.

In June 1980 (10) a formal postgraduate training project was established with the aid of a Kellogg Foundation Grant. Initially there were two offerings: (a) a full-time programme for post-registration students with no experience in Family Medicine, and (b) a part-time programme for those candidates with more than three years experience in General Practice. The full-time programme involved three-monthly rotations through hospital-based sub-specialties such as internal medicine, paediatrics, obstetrics and gynaecology, psychiatry, dermatology and surgical specialities. As a result, 17 physicians received the Master of Science (MSc) and Doctor of Medicine (DM) degrees. It came to an end in 1991 because of a lack of establishment of paid posts at the University for Family Medicine residents. The initial grant money had expired and there was no financial support forthcoming from the University or from Caribbean governments.

A parallel programme begun in Barbados in 1981 receives support from the government and has produced 18 graduates to date. In July 2002, a similar programme commenced in the Bahamas with four candidates. They graduated with the Master of Science degree in July 2005.

In 1992 a proposal (11) came from the Caribbean College of Family Physicians (CCFP) and the General Practitioners Association of Trinidad and Tobago (GPATT) to restart post-graduate training. This proposal called for a two-year (diploma) core-programme (Part I) which all doctors in General Practice should undertake. A third year (Part II) would lead to a Master of Science degree and Part III would be for a minimum of one year and would consist of a research

thesis or casebook and would lead to the DM in Family Medicine.

A two-year, part-time postgraduate diploma programme began in the twin-island state of Trinidad and Tobago in January 2000. The first cohort consisted of 18 doctors who participated in weekly three-hour face-to-face sessions. The latter included seminars, discussion of selected readings, presentations by students, small group teaching and evidence-based clinical updates (12).

A three-year Master of Sciences distance programme became available to Caribbean physicians seeking to specialize in Family Medicine in September 2001 (11). Initially it was offered to practitioners in Jamaica but more recently (September 2004) the programme has been offered at all three campuses (*ie* Cave Hill, Barbados; Mona, Jamaica; and St Augustine, Trinidad and Tobago).

### **The Programme**

The programme targets General Medical Practitioners. It consists of two components: 1) distance-taught courses, and 2) a clinical practicum. The distance modality was selected because it permitted access to physicians regardless of their location. The archipelagic geography of the Caribbean region has been a challenge for the delivery of training. The UWI has addressed this need by developing a satellite network that links campus and non-campus territories. Physicians enrolled in the programme attend audio or teleconferences related to each course.

More importantly, the distance format permits teaching and learning outside of conventional training institutions. Distance education allows for context-specific training since it facilitates the physician remaining in the office setting, while working and studying. Through distance learning, the physician is given the opportunity to remain in the office setting where he/she is presented daily with clinical incidents that are related to his/her teaching-learning experiences. Thus one's own experience becomes an important training resource independent of an on-site teacher.

### **Distance Courses**

There are 16 independent courses (Table 1). These were initially provided to trainees as printed manuals containing core content and selected readings but more recently have been sent to them electronically as programme documented files (pdf) or on compact discs. Each course consists of content based on a family practice topic as well as activities (exercises) which trainees must complete to demonstrate their understanding of the learning objectives. The practitioners are expected to complete assignments and e-mail written responses to course tutors.

### **Clinical Rotations**

The clinical component is a significant feature of the programme. Clinical training involves the rotation of family

Table 1: Distance courses

Year 1	Year 2	Year 3
Continuing medical education	Epidemiology and evidence-based medicine	Health management
The medical consultation	Research methods	Practice management
Health determinants	Gender issues in health	Legal issues in primary care
Principles and practice of health promotion	Healthcare of the elderly	
Child and adolescent health	Counselling for primary care physicians	
Sexuality and sexually transmitted illnesses	Doctor/patient relationship and ethics	
Chronic diseases in primary care		

physician trainees through selected disciplines (Table 2). The physicians participate in ward rounds, assessment and

Table 2: Clinical rotations

Year 1	Year 2	Year 3
Internal medicine	Obstetrics and gynaecology	Ophthalmology
Child health	Community psychiatry	Children with disabilities
Dermatology	Ear, nose and throat	Elective
General surgery	Family practice	Family practice
Family practice		

management of patients in the specialist outpatient clinics and on the wards. Each physician devotes half-day per week throughout the three years for clinical training. Their training is guided by specific learning objectives implemented by senior physicians in these specialties.

A special feature of the programme is the involvement of experienced family physicians as family practice preceptors (trainers) to the trainees. The preceptors implement the specified learning objectives of the family practice sessions over the three-year period. They guide the trainees in developing interviewing skills, managing diverse consultations and conducting practice audits.

### Faculty

The personnel for implementing this programme were drawn from many disciplines and fields of scholarship. The course writers were noted experts in their fields. They were guided by curriculum specialists/instructional designers and editors located in the Distance Education Centre at UWI, which ensured that materials adhered to sound distance education principles, emphasizing pre-planning of content for effective delivery and the use of access devices to help learners navigate the materials. The manuals were produced with the

assistance of graphic artists and other members of the distance education team, reflecting the industrial process recommended for the preparation of distance education materials. Course writers would sometimes also serve as course tutors. Clinical teachers were drawn from interested consultants in regional hospitals. This allowed trainees to attend hospitals in their locale. The family medicine preceptors were also selected to match trainees in their location.

### Assessment

The methods of assessing physicians in the programme include written coursework such as case reports and course assignments; an objective structured clinical examination (OSCE); a research project and a portfolio. The coursework assesses the knowledge acquired from the distance courses. The case reports assess the clinical skills of the family physician trainees. Their clinical skills are further evaluated in the OSCE at the end of year 2. The trainee's skills in accessing new information as well as critical thinking are assessed by way of the research project. The portfolio provides evidence of personal growth as a reflective practitioner of family medicine. Also the portfolio allows the trainee to give evidence of his/her self-directed learning and self-evaluation.

### Programme Evaluation

In July 2003, the initial two years of the programme were evaluated by participants as well as by stakeholders. This took the form of focus group discussions followed by a plenary session. There were four focus groups. These included two groups consisting of students only, and two groups consisting predominantly of teachers and other stakeholders. The latter included representatives of the Distance Education Centre, public and private health professionals. Each group was asked to identify and discuss the strengths, weaknesses, opportunities and threats to the programme (Table 3). In the plenary session, the four groups presented reports. These reports were discussed and recommendations were made.

The strengths identified were related to the use of the distance modality and the instructional design of the programme. It was felt that distance education allowed easy access to this level of postgraduate training. The flexibility of the distance programme permitted physicians to continue earning while improving their medical education. This represented a reduction in economic costs to the physician. The weaknesses identified were related to the developmental costs of the distance programme and the lack of support from governments. The discussions concluded with the recommendation that the family medicine by distance programme should be recommended for postgraduate training of general practitioners. It was further recommended that the policy makers of the CARICOM region should be approached for financing of the programme.

Table 3: SWOT Analysis

Strengths	Weaknesses	Opportunities	Threats
1. Distance modality	1. No governmental support	1. New technologies for distance teaching	1. Poor sustainability
2. Use of the internet	2. High costs of tuition	2. Modular structure for cme	2. Low income rewards
3. Instructional design excellent	3. No clear career path	3. Improved standards of practice	
4. Relevant learning objectives	4. Lack of financial incentive	4. An avenue for certification of GPs	
5. Course content eg ethics course	5. Day release required	5. Inclusion of physicians in non-campus territories	
6. Involvement of practicing FPs	6. Small core teaching team		
7. Flexibility of training time	7. Feedback to students slow		
8. Doctor able to continue earning			
9. High level of clinical content			
10. Research Component			

Other methods of programme evaluation implemented, were student surveys at the completion of distance courses. These questionnaires addressed issues such as course content, presentation, relevance of the course content and the adequacy of time for completion of the courses. These surveys emphasized that the learning objectives and course content were relevant and corresponded to the needs of Caribbean physicians.

### Summary

The family medicine by distance education programme was launched in September 2001 at the University of the West Indies, Mona and this paper represents an initial report. The programme has been well received by Caribbean physicians with 10 family physicians graduating in July 2004. It provides an innovative and convenient means of postgraduate training for general medical practitioners in this region. However, its sustainability is threatened by the lack of financing from University or public funds. The reliance on student tuition as the main source of income is a constant threat to the survival of the programme.

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