Doctor of Medicine Training – Reflections on the UWI (Mona) Experience

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ABSTRACT

Postgraduate Doctor of Medicine (DM) training at the University of the West Indies (UWI) has grown in response to the need to meet the regional requirements for high quality, competent clinical specialists. The progress of these programmes are examined from historical and health manpower development perspectives.

More than 600 persons have been trained through the DM programmes at UWI, Mona and 89% of them continue to provide critical services in the region. Such statistics underscore the success of the programme in meeting the Caribbean Corporation in Health (CCH), UWI and Faculty of Medical Sciences (FMS) objectives. The relevance of the programme to the Caribbean's needs is manifestly clear. Curriculum changes including a mandatory research component for all DM degrees reflect the evolution of training programmes as they adjust to current expectations of modern clinical practice and new emphases on evidence-based medicine and policies. Nevertheless, challenges exist including the deterioration of the physical plant for training, availability of training posts and funding of research. Monitoring, evaluation and quality assurance of existing programmes are to be continued.

La Formación Postgraduada del Doctor en Medicina: Reflexiones en Torno a la Experiencia de UWI (Mona)

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RESUMEN

La formación postgraduada del doctor en medicina (DM) en la Universidad de West Indies (UWI) ha crecido en respuesta a la necesidad de satisfacer las demandas regionales de especialistas clínicos competentes, de alta calificación. Se examina el progreso de estos programas desde la perspectiva de la historia y el desarrollo de los recursos humanos en el campo de la salud. Más de 600 personas han recibido entrenamiento a través de los programas en UWI, Mona, y el 89% de ellos continúan proveyendo servicios críticos en la región. Estas estadísticas subrayan el éxito del programa en cuanto a satisfacer los objetivos de la Corporación para la salud en el Caribe (CCH), la Universidad de West Indies (UWI), y la Facultad de Ciencias Médicas (FCM). La importancia del programa para las necesidades del Caribe es claramente ostensible. Los cambios en el currículum incluyen un componente de investigación obligatoria. Todos los grados de DM reflejan la evolución de los programas de entrenamiento a medida que se ajustan a las expectativas del momento en relación con la práctica clínica moderna y los nuevos énfasis en las políticas y la medicina basada en la evidencia. No obstante, existen retos que incluyen el deterioro de la base material para el entrenamiento, la disponibilidad de puestos de trabajo para el entrenamiento, y los fondos para la investigación. El monitoreo, la evaluación, y el aseguramiento de la calidad de los programas existentes, deben continuar.

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INTRODUCTION

The University of the West Indies (UWI) began sixty years ago in 1948 with the medical undergraduate programme, postgraduate training being introduced 20 years later. In 1962, one of the Faculty reviews noted that while 55% of graduates had received specialist training, for the most part, it had been done outside of the region (1). It was recognized that if the brain drain problem was to be addressed local training was necessary. In response to the collaborative effort

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of the (UWI), the Caribbean Health Ministers' Committee (CHMC) and the Pan American Health Organization (PAHO), a joint UWI-CHMC-PAHO committee was established which laid the foundation for the development of postgraduate medical education. The Medical Faculty now offers a wide range of postgraduate training ranging from taught masters, research degrees (MPhils and PhDs) to clinical programmes. It is the latter that this paper addresses with an emphasis on the ten years since the 50th anniversary. However to understand "the now," some of the history is necessary.

Postgraduate clinical programmes were introduced in 1967 with Diplomas (Diploma of Anaesthetics). These were eventually phased out and replaced with the Doctor of Medicine (DM). By 1984, all specialties offered DMs. Currently 20 DMs are offered as Surgery has introduced subspecialty training (Table 1). Dean Ragbeer, in a 1974 West Indian Medical Journal (WIMJ) article, outlined the basis for the development of Postgraduate Medical Education (PGME) and the establishment of the Oversight Committee on Postgraduate Medical Education now referred to as the Faculty of Medical Sciences (FMS) Graduate Committee (2).

Table 1: List of DMs

The DM's include	Year Introduced
* Anaesthetics and Intensive care	1975
* Microbiology	1984
* Medicine	1970
* Obstetrics and Gynaecology	1970 (as a Masters) DM 1981
* Paediatrics	1969
* Pathology	
o Anatomical	1974
o Chemical	1974
o Haematology	1980
* Psychiatry	1970
* Radiology	1970
* Family Medicine	1980
* Surgery	
o General	1972 (as Masters) DM 1981
o Urology	1993
o Cardiothoracic	1993
o Neurosurgery	1991
o Paediatric surgery	1998
o ORL	1974
o Orthopaedics	1991
o Ophthalmology	1984
o Emergency Medicine	1997

The need for postgraduate training was recognized by Regional Health Ministers in 1969 and a recommendation regarding the same made to the UWI. The Faculty presented a position paper at the 1970 Health Ministers Conference outlining its response and plans for the development of postgraduate medical training programmes (3).

The paper identified the existing facilities, the basic needs for postgraduate training and stated the basic requirements for postgraduate training such as:

* Dedicated trainee posts
* Academic staff in sufficient numbers as to reduce clinical load. Technical and ancillary staff.
* Accommodation for trainees
* Equipment
* Dedicated funds for postgraduate teaching
* Research activity

It also identified the special problems of the UWI as being inadequate staff and resources, including equipment (3). A detailed proposal for a four-year post-internship training programme was included in the paper. All three campuses were included. Six objectives for postgraduate training were identified. These were:

* To provide, eventually, training within the Caribbean region in all branches of medicine and medical sciences for UWI graduates.
* The organization of training programmes in such a way that medical service will be rendered to contributing territories.
* The development of training and research programmes which reflect the needs of the Caribbean.
* Organization of a manpower data bank which will determine the needs for the training of medical specialists and other professionals.
* To strive assiduously to establish excellence in our training programme with the possible consequential effects of alleviating the brain-drain and to achieve favourable comparison with universities outside the region.
* Establishing and administering post-basic training for allied health personnel.

Despite all the problems identified, postgraduate clinical training programmes began in 1969. This was possible as several partners were involved. Project Hope which completed a tour of duty in Jamaica in 1968 is given the credit for ensuring the establishment of PGME. The University was unable to provide staff at the time and Project Hope supplied full-time tutors for three-month rotations in Anaesthetics, Medicine, Surgery, Paediatrics, Radiology, Psychiatry and Obstetrics and Gynaecology. The Ministry of Health in Jamaica agreed to finance residency positions and 60% of the postgraduate building, now the Dean's Office. Dean Ragbeer subsequently got additional funding from USAID to fund the second floor (2).

The Doctor of Medicine was first introduced by Paediatrics in 1969 graduating its first candidate in 1973, followed by Psychiatry and Medicine in 1974. Some disciplines continued to offer training at Diploma level and others offered registrar training to satisfy the British requirement for registrar training to Membership and Fellowship levels. Surgery and Obstetrics and Gynaecology offered training as a MSc degree during the period 1975–81. In 1982, the joint MSc was changed to individual DMs in Surgery and Obstetrics and Gynaecology. By 1984 all specialties were offering DMs. Surgery was the first discipline to offer sub-

specialization introducing the DM (ORL) in the 1970s.

By 1986, programmes in several areas and disciplines were offered including 7 Diplomas, 9 MPhils/MScs, 16 DMs and the MD by thesis. Seventeen PhDs were listed but only 8 had students enrolled.

In 1986, in a report to the Health Ministers, the faculty indicated meeting five of the six objectives; having only failed in establishing a regional manpower data bank (4). Interestingly, 30 years later although health conditions and resources have changed, objectives two to six remain relevant and an important driving force of postgraduate training.

By the 1990s, postgraduate medical training was well established and the objectives reviewed and restated as:

1. Strengthening the ongoing residency and other training programmes.
2. Reinforcement of the administrative capabilities of postgraduate medical education programmes to cope with increased workload.
3. Introduction of programmes focussing on regional needs.
4. Organization of a manpower data bank which will determine the needs for the training of medical specialists and other professionals
5. Further development and establishment of medical training programmes in the other campus territories according to established needs.
6. A feasibility study in respect of regional non-campus hospitals for the rotation of residents. This policy will be contingent on the accreditation of the institutions.

However, the manpower data bank has not been developed.

Influences

Over the years, postgraduate training has been influenced by changes in the environment in which health operates including the social and political arenas. The necessity for the development of human resources first recognized in 1975 by Ennevor and Standard in the oft repeated statement "Development of human resources is indispensable to economic and social progress" became a universal concern (5). 'Development without health as an unacceptable concept' became a recurrent theme in the Health Ministries' documents.

In 1992, the West Indian Commission stressed the need to consider the importance of Health Management, Health Education and Finance in the delivery of healthcare (6). The importance of local training sensitive to regional needs was emphasized and the Faculty responded with the introduction of a taught Masters Programmes in Public Health with an emphasis on Health Management including economics. This Masters replaced the Diploma in Public Health and represented a major shift in the training of public health persons as the Masters was not restricted to physicians as the Diploma was. The clinical programmes were not being developed in isolation and the Faculty was also developing the allied health programmes with nursing a critical focus. Of note is that the Faculty's first postgraduate taught Masters programme was in Nutrition and there were programmes in areas such as Microbiology.

The Caribbean Cooperation in Health (CCH) agreements I and II, in identifying the health priorities for the region, has stressed the importance of training to meet local needs and to reduce the brain drain (7). In 2006, the World Health Organization (WHO) in its annual report "Working Together for Health" described the urgent health needs of countries and identified the shortage of human resources "as replacing finance issues as the most serious obstacle to implementing national treatment plans" and questioned whether academic medicine "was in trouble" (8). It goes on to identify the importance of training to achieving development goals but notes "inappropriate or inadequate training with curricula that are not needs based" as constraints to achieving development. The report in recommending an expansion of the health workforce assert that, "specialist and subspecialist training should not be overlooked and is a necessary support to community care". The report cites UWI as a successful example of regional training given that one institution serves several countries. The report also noted that one Prime Minister and 4 Minister's of Health were graduates of the Faculty. It also noted that critical to the success of UWI "was the return to the country of origin by the graduate."(8). A review of the graduates during the last ten years (Table 2) suggests that this is being achieved.

Research

The Medical Faculty has a long history of research although in the earlier years it was concentrated in specific departments such as the Tropical Metabolism Research Unit (TMRU), now Tropical Medicine Research Institute (TMRI). The original objectives for postgraduate training recognized the importance and it was cited by Gibbs (9) on the 50th anniversary as being one of the strengths of the faculty. He also noted that facilities for research needed retooling and more infrastructure. More and more "evidence based" practice is being emphasized and needs to be supported by local research (9). Research training was strengthened in the undergraduate programme during the expansion of the Community Health curriculum so all residents enter Postgraduate training with the basic concepts of research.

Specialty Boards

Specialty Boards were established by the Faculty in 1969 to oversee the clinical graduate programmes and remain unique in the University to the Faculty of Medical Science (10). They offer the opportunity for wide input to the management and development of the programme by specialists outside of the University and include associate lecturers. Given the importance of Government in providing facilities, trainee posts and funding, the participation of the Ministry of Health is

Table 2: The DMs

DM	# of Graduates 1999–2008	# in Region	% in Region	# in Programme 2008–2009
* Anesthetics and Intensive Care	32	30	94%	20
* Microbiology	6	5	83%	
* Medicine	39	32	82%	32
* Obstetrics & Gynaecology	43	50	98%	38
* Paediatrics	37	24+	65%	27
* Patthology	13	11+	89%	4
* Haematology	4	4	100%	2
* Psychiatry	15	15	100%	13
* Radiology	17	15	88%	17
* Family Medicine	2	2	100%	1
* Surgery (total)	61	57	95%	73
o General	21	19	90%	32
o Urology	8	8	100%	1
o Cardiothoracic	2	2	100%	5
o Neurosurgery	6	6	100%	7
o Paediatric Surgery	5	4	80%	1
o ORL	7	6	86%	6
o Orthopaedics	12	12	100%	16
o Opthalmology	-			5
o Emergency Medicine	21	20	95%	15
Totals	**298**	**265**	**89%**	**246**

+ persons are away studying subspecialties in Paediatric and 1 in pathology and they are expected to return

critical. They have representation on several of the Boards and participate in decision- making. Therefore, while the manpower data bank has not been established, there is a way for Government to inform the training institution of its priorities and training needs. An example of this is that in 2008, two additional training posts were made available because of a need in the service and two applicants being qualified but without training posts. All Specialty Board chairmen meet monthly at the FMS Graduate Committee and discuss and share ideas, often arriving at consensus on common items such as leave.

Where Are We Now? 1999–2008

Dean Gibbs reporting on the state of postgraduate clinical-training in 1998 for the 50th anniversary stated that there had been over 300 graduates over the thirty years of graduate training (9). In the ten years since (1999–2008), the DM programmes have graduated another 298 persons; 89% of whom are serving the region (Table 2), so meeting one of the stated Faculty objectives. Furthermore many of the senior persons in leadership positions have DM UWI degrees, including the Faculty Dean. Seven of the eight heads of clinical departments and all section heads have UWI postgraduate degrees. Eighty-two per cent of the professors in the clinical departments graduated with DMs and/or PhD's from UWI. In December 2008, three disciplines, Paediatrics, Surgery and Obstetrics and Gynaecology had each graduated their 100th person in their respective disciplines.

Current enrollment (2008–2009) is 246 in DM programmes and another 300 in other programmes. The Faculty has recognized that there are still gaps and continues to take the necessary steps where possible to address them. It has been recognized that subspecialty training across the disciplines is necessary, Medicine has introduced nephrology and gastroenterology training and Psychiatry is developing Child and Adolescent Psychiatry. It is expected that Child Health and Obstetrics and Gynaecology will in similar vein soon follow suit. The delivery of healthcare is dependent on several professions working together and new programmes are being developed in the allied professions.

Accreditation of non-University Hospital of the West Indies (UHWI) facilities has been critical to the expansion of clinical programmes. In keeping with the 1990s stated objectives, several hospitals and facilities in Jamaica and The Bahamas have been accredited. The accreditation process is ongoing.

In keeping with another stated objective and with the advances in medicine not only have new training programmes such as Emergency Medicine (1997) and Sports Medicine (2006) become necessary, but also curricula changes. Between 2006 and 2008, all DM regulations, some over 30 years old, were reviewed, rewritten and approved by the Board for Graduate Studies and the Faculty Board. Similarly, the curricula have been documented to include all

the additions and revisions made over the years to ensure relevance. Competencies, an important component of clinical training, have been included.

The importance of evidence-based medicine and research as the basis for action (9, 11, 12) has not been overlooked. Research has been incorporated as a requirement in all clinical programmes. The DM previously included detailed case-books which in some disciplines have been retained but the number of cases required reduced and all candidates must now do a research project as part of the examination process. A dual degree option DM/PhD for clinicians interested in research has been approved to encourage research.

Programmes have been strengthened in other ways in keeping with teaching advances. Standard setting has been introduced into the examination process although not yet used in all disciplines. Over the years, student input into training programmes has been recognized as important through student evaluations and has become well established for the undergraduate programme. The process was introduced into the clinical programmes in 2008 after discussion and adaptation to the type of training.

Challenges

The development of postgraduate training to ensure that the UWI, Mona, continues to meet the needs of the region in keeping with the strategic plan of the university (13), has not been without its challenges. Among these are the deterioration of the physical plant of the hospital and more recently the funding challenges which have jeopardized the availability of training posts.

Funding of research is also difficult. Clinical students are not recognized as research students and therefore do not have access to funds allocated for such students.

Way Forward

The faculty retreat in 2008 discussed postgraduate training as a specific item and as had been done previously (1969 and 1990) a clear set of objectives identified (14). These will be finalized at the upcoming faculty retreat. A number of programmes have been discussed and are being developed for introduction over the next three years. Most of them are in the allied health fields including Forensic science, Medical Microbiology, Speech Therapy and Occupational Therapy. These disciplines are important for successful delivery of comprehensive healthcare programmes.

In keeping with advances in monitoring and evaluations, measurable indicators have been included. Constant monitoring of existing programmes and quality assurance efforts will continue.

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