Evolution of the Dubai health authority’s residency training program: A 25-year review, challenges and outcomes

Ashraf Ahmed1, Mahera Abdulrahman2, Richard Withnall3

1AlMizher Clinic, Primary Health Care Sector, Dubai Health Authority, 2Department of Medical Education, Dubai Health Authority, Dubai, United Arab Emirates, 3Royal Centre for Defense Medicine, ICT Centre, Birmingham, UK

ABSTRACT

Background: The Dubai Residency Training Program (DRTP) is a structured postgraduate educational training program started on 1992 to improve healthcare in the United Arab Emirates (UAE) through education and training; align doctors’ training in the UAE with internationally recognized standards; deliver educational best practice; and achieve a balance between clinical service delivery and continuing professional development. The aim of this paper is to review the experiences, challenges and outcomes of the DRTP over the last 25 years. Methods: All documentation relating to the DRTP was reviewed and reevaluated. Results: The DRTP has become a very solid foundation; yet, one of the major challenges we are facing is containing the balance between the health service and education. Another challenge is that our capacity for training is limited, in spite of demand, we are not yet able to open all specialties needed in the UAE. Finally, there is a mandate to separate the educational body from service to better govern the education. Conclusions: The time has come, however, for the UAE to have its own medical specialty board. This would further support high quality, comprehensive specialty training to deliver the bespoke workforce required by the Dubai Health Authority. The concept of structured training where the resident knows what, when, and how to learn the required knowledge and skills is already established, and the UAE has the required numbers of highly trained professionals to form the board. Nevertheless, we should neither be complacent nor underestimate the challenges that remain to deliver the UAE specialty board.

Keywords: Dubai Health Authority, postgraduate educational, residency program, training program, United Arab Emirates

Introduction

The Dubai Health Authority (DHA) was established in 1971 to provide healthcare across the Emirate of Dubai. In 1992, the Dubai Residency Training Program (DRTP) was launched. The DRTP is a structured postgraduate educational training program that bridges the gap between undergraduate medical school training and the delivery of unsupervised family medicine or hospital-based specialist care. The DRTP was established to improve healthcare in the UAE through education and training; align doctors’ training in the UAE with internationally recognized standards; deliver educational best practice; and achieve a balance between clinical service delivery and continuing professional development. The DRTP provides learner-specific customized training and ongoing evaluation to stimulate the continuous improvement. At its launch, DRTP only offered training in family medicine. The Medical Education Department’s Academic Affairs Center evolved the DRTP program in 2006. The DRTP now provides vocational training in 16 different specialties.

Residents’ progression through the DRTP is dependent on their demonstrating competences benchmarked against international standards. The curriculum is broader than

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just medical knowledge. Residents are required to also exhibit humanity, solid ethical principles, technical expertise, scholarship, collaboration, strong written and verbal communication skills, leadership, health advocacy, and professionalism. Accordingly, the DRTP governs a depth and breadth of education and lays out the standards that lead to the good practice of medicine, safe doctors, and high quality, patient-centered care.

This paper reviews the experiences, challenges, and outcomes of the DRTP over the last 25 years. We hope Dubai’s experiences will help other developing countries in further improving their own residency programs.

Pedagogical Framework: Context and Process

All documentation relating to the DRTP over the last 25 years was reviewed and reevaluated.

The Dubai Residency Training Program

Aim

The Dubai Residency Training Program bridges the gap between undergraduate medical school training and the delivery of unsupervised family medicine or hospital-based specialist care. Launched in 1992, the DRTP only initially provided family medicine training. The DRTP has been continually evolved and currently hosts 17 specialist training programs [Table 1 and Figure 1].

Administration

The DRTP is administered at three levels. Level 1 is the program director and team who manage the DRTP. Level 2 is the specialty training committee that quality controls the DRTP. Level 3 is quality assurance undertaken by the Academic Affairs Center at the Department of Medical Education. This tripos has ensured the necessary policies, and structures have been developed, collated, implemented, and quality assured, improving the quality of medical education over the last 25 years.

Accreditation

Since 1971, the DRTP has been governed and accredited by The Arab Board of Health Specializations. In 2010, the Saudi Commission for Health Specialties began governing the internal medicine, neurology, pulmonology, anesthesia, and neurosurgery training programs. The orthopedics and trauma are accredited by the Germany specialty board.

Student numbers

The high-quality education attracts ever-increasing numbers of students. The DRTP currently comprises residents from 27 countries. In the last intake, 398 students applied of which 79 were accepted.

Duration

The DRTP programs are divided into two phases. Years 1 and 2 represent the “Junior” level. Year 3 onward represent the “Senior” level. Most programs are 4 years long. Some last 5 or 6 years (e.g., obstetrics and gynecology, surgery, orthopedics and trauma, neurology, and neurosurgery). All DRTP programs have an accredited manual guide, and a curriculum is comprising a syllabus and descriptions of the training and assessment methods. Progression to the next academic year requires a satisfactory rotation evaluation; successful appraisal of academic activities; workplace-based assessment throughout the academic year; and passing an end-of-year written examination.

Table 1: A review of different specialties and board of each specialty in Dubai residency training program

| Specialty                          | Program establishment | Specialty board          | Residents intake |
|------------------------------------|-----------------------|--------------------------|------------------|
| Family medicine                    | 1992                  | Arab Board               | 230              |
| General surgery                    | 2005                  | Arab Board               | 62               |
| Internal medicine                  | 2005                  | Arab Board and SCFHS     | 141              |
| Pediatrics                         | 2005                  | Arab Board               | 100              |
| Obstetrics and gynecology          | 2006                  | Arab Board               | 66               |
| Community medicine‡               | 2006                  | Arab Board               | 28               |
| Emergency medicine                 | 2008                  | Arab Board               | 92               |
| Psychiatry                         | 2008                  | Arab Board               | 39               |
| Dermatology‡                       | 2008                  | Arab Board               | 9                |
| Radiology                          | 2011                  | Arab Board               | 18               |
| Neurology                          | 2013                  | SCFHS                    | 7                |
| Orthopedics and trauma surgery     | 2014                  | German Board             | 5                |
| Neurosurgery                       | 2015                  | SCFHS                    | 3                |
| Ophthalmology                      | 2015                  | Arab Board               | 5                |
| Cardiology fellowship             | 2015                  | Arab Board               | 4                |
| Medical Informatics fellowship     | 2016                  | N/A                      | 2                |
| Anesthesia                         | 2016                  | SCFHS                    | 1                |
| Pulmonology fellowship             | 2017                  | SCFHS                    | 1                |
| Ear, nose, and throat surgery      | 2017                  | Arab Board               | 1                |
| Total 19                           | -                     | -                        | 814              |

‡Community medicine and dermatology programs were discontinued after three intakes. SCFHS: Saudi Commission for Health Specialties; N/A: Not available.
Eligibility and selection criteria

Undergraduate training

Prospective candidates for the DRTP must be graduates from the World Health Organization-recognized medical school. These include six medical schools in the UAE: The Faculty of Medicine at UAE University, a governmental facility established in 1986; Dubai Medical College, a private facility established in 1985; Gulf Medical University, a private facility established in 1998; Sharjah University, a private facility established in 2004; Ras al-Khaimah Medical and Health Science University, a private facility established in 2006; and Mohammed Bin Rashid University of Medicine and Health Sciences, a private facility established in 2016.[3]

The length of undergraduate medical training in the UAE medical schools varies from 5 to 6 years.

Internship

Candidates must also have completed a 1-year internship following the award of their medical (Bachelor’s) degree.

Application deadlines

Applications for the DRTP program must be made within 5 years of the award of the medical degree or within 4 years of completion of the internship. Applicants must have remained in clinical practice throughout this 5- or 4-year period. Applications for the DRTP may be made online. The application window is open for 30 days (during March of every year).

Language test

Although the native language of the UAE is Arabic, applicants are required to be proficient in English. To demonstrate this proficiency, applicants must have passed an English language proficiency test. These include the Test of English as a Foreign Language and the International English Language Testing System Exam.

Preentry examination

Applicants are also required to pass the Emirates Medical Residency Entrance Examination conducted by the College of Medicine and Health Sciences at UAE University. Examinations are held in December, January, February, and March.

Applicants from other Dubai governmental institutions

The DRTP also supports the training needs of doctors already working within Dubai governmental institutions including the Ministry of Health, Police, and Armed Forces. Such doctors follow normal DRTP application processes. They are in competition with all other applicants and do not receive preferential treatment.

Credentialing and multiple mini interviews

The DRTP team undertakes a credentialing process for all applicants. A committee, chaired by the Head of the Academic Affairs Centre, reviews every application. Since 2012, shortlisted applicants have been invited for further assessment by multiple mini interviews (MMI).[1,2] The first such initiative in the Middle East, the MMIs constitute a circuit of several short, independent assessments which deliver an aggregate score of each applicant’s “soft skills.” Shortlisted applicants must also provide their original medical degree and internship certificates authenticated through primary source verification.

Structure of the programs

Each DRTP has a director, two co-directors, and a number of supervisors and clinical tutors. DRTP residents undertake well-structured training to meet the learning needs of a well-planned syllabus. The academic year for all the programs is divided into 11 blocks. Each block lasts 4 weeks. One block is for annual leave. Rotations within each program provide a breadth and depth of knowledge to allow residents to progress from novice to expert.

Assessments

Monthly

Residents’ performance in each block is assessed by a supervisor against The Royal College of Physicians and
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Surgeons of Canada (CanMEDS’s) competency framework (http://CanMEDS.royalcollege.ca/en/framework).

**Three monthly**
Residents are provided with formative feedback from the program director or co-director each 3 months.

**Six monthly**
Every 6 months, residents receive further evaluation and formative feedback in the form of a report that is copied to the Head of Academic Affairs.

**Twelve monthly**
Throughout the year, all residents’ attendance, performance, and achievements of all residents are meticulously collated. At the end of each academic year, all residents undertake summative assessments prepared by the Saudi Commission for Health Specialties. These comprise a practical objective structured clinical examination, then a written examination. The residents’ formative and summative assessment outcomes are considered by an academic committee who determine whether or not the resident has demonstrated adequate progress to advance to the next year of DRTP training. There are well-structured policies for advancement and if required, transferring from one specialty to another, appealing, extending time within a program, retention of the residents, and research.

**End of Dubai Residency Training Program training**
At the end of DRTP training, all residents are required to pass the Arab Board Certificate exit examination. In addition, some residents also choose to pursue membership of the United Kingdom (UK) Royal College of General Practitioners (RCGP), membership of the UK Royal College of Physicians, or membership of the UK Royal College of Obstetricians and Gynecologists.

**External evaluation**
The DRTP is subject to continuous internal quality assurance by the Academic Affairs Center. The DRTP is also subject to periodic external quality assurance visits and reaccreditation processes by international partner organizations.

**Residency Research Program**
In 2011, introduction of the “Residency Research Program” including a 2nd year research workshop and delivery of a research thesis, made research a mandatory component of the DRTP program. This has proved very popular with residents. Thus far, 99 out of 146 Residents have submitted their theses. Nine theses have won awards; nine have been published; and six have been presented at international conferences.

**Initial objectives, enablers, outcomes, and impact for the Dubai Residency Training Program (1992–2017)**
In the early 1980s, the UAE medical graduate numbers were small, and the DRTP was orientated toward those awaiting higher specialty training in other countries. As medical schools in Alain and Dubai opened from 1985 onward, number of the UAE Graduates and expatriate doctors increased and the DRTP expanded. Family medicine became the first-structured DRTP program. Residents completed 2 years’ of hospital posts and 2 years in primary care. The first three health centers were accredited by the Arab board in 1998. In 2004, a collaboration formed between the DHA and the UK RCGP. In 2006, the RCGP curriculum was incorporated into the existing Arab board curriculum. Family medicine has become one of the strongest DRTP programs, with large numbers of board-certified doctors now working in key positions within the UAE and overseas.

In 2006, buoyed by the success of the family medicine program, the Department of Medical Education evolved all the DHA training programs by officially establishing the DRTP. The specialties of internal medicine, obstetrics and gynecology, pediatrics, and general surgery were restructured first. In 2010, the Academic Affairs Center was formed to administer and quality assure all the DRTP programs.

A more structured, unified DRTP entry examination was introduced in 2011. MMIs replaced the traditional interview process in 2012 to try to reduce selection bias, followed by further policies that standardized selection, recruiting, transferring, and monitoring the residents.

Today, the DRTP is a well-established scheme with a good reputation within the Middle Eastern region. Numerous international institutes now send their doctors for specialty training within the DRTP. Graduates of the scheme now hold influential positions in Canada, the US, and Great Britain. DRTP is accredited by both the Arab board and Saudi board. It continues to expand, expanding its number of specialties each year. The DRTP is now making DHA more self-sufficient. The DHA no longer needs to hire family medicine and emergency medicine specialists from outside the UAE. All DHA specialist appointments in these fields can now be filled from graduates of the DRTP program.

**Challenges of Dubai Residency Training Program**
One of the major challenges we are facing is containing the balance between the health service and education. Although all our premises are accredited by Arab board and Saudi board, we are still more of a service provider than the educational provider. Therefore, between time to time we do have problem for securing protected time for our program directors and faculties. Another challenge we are facing is that our capacity for training is limited, in spite of demand, we are not yet able to open all specialties needed in the UAE. Finally, there is a mandate to separate the educational body from service to better govern the education.
Recommendation and future plans
Over the last 25 years, the DRTP has become a very solid foundation. As DRTP continues to expand, more training capacity is required. It is recommended that this could be facilitated through the creation of a larger training faculty, a governing body, and potentially UAE’s own medical specialty board with more authority to enforce educational standards in a more bespoke and effective way. The time has come, however, for the UAE to have its own medical specialty board. This would further support high quality, comprehensive specialty training to deliver the bespoke workforce required by the DHA. The concept of structured training where the resident knows what, when, and how to learn the required knowledge and skills is already established, and the UAE has the required numbers of highly trained professionals to form the board. Nevertheless, we should neither be complacent nor under-estimate the challenges that remain to deliver a UAE specialty board.

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Conflicts of interest
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