



Original Article

The dental education specialism in KSA: Are we there yet?☆

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المخلص

أهداف البحث: استجابة للتكنولوجيا المتطورة بسرعة وظهور أدوات تعليمية مبتكرة، اكتسب تعليم المهن الصحية نشاطاً دافعاً. تعليم طب الأسنان، على وجه الخصوص، هو تخصص مكرس للتقييم والتطوير المستمر لمناهج طب الأسنان للتأكد من استيفاء معايير الجودة. بالإضافة لذلك يهتم المتخصصون بتعليم الأسنان بتشجيع معلمي طب الأسنان بتطبيق أدوات وأساليب التدريس والتقييم الحديثة. ومع ذلك، تختلف حالة هذا التخصص، بين المؤسسات المختلفة. الهدف الأساسي من هذا البحث هو تحليل الوضع الحالي لتعليم طب الأسنان في المملكة العربية السعودية.

طرق البحث: في مارس ٢٠٢٠، تم إجراء بحث شامل لجمع البيانات من المواقع الرسمية لـ ٧٢ من الجامعات والكليات السعودية. تم تحليل البيانات لتسجيل المعلومات المتاحة بخصوص تخصص تعليم طب الأسنان في هذه المؤسسات.

النتائج: أشارت النتائج إلى أن حوالي ٤٠٪ من كليات طب الأسنان الحكومية لديها أقسام لتعليم طب الأسنان بأدوار وهيكل مختلفة، ولم يكن لدى أي من مؤسسات طب الأسنان الخاصة أي قسم خاص لتعليم طب الأسنان. علاوة على ذلك، لم تكن هناك مراكز محددة مخصصة لتعليم المهن الصحية مقارنة بالعديد من المؤسسات الدولية.

الاستنتاجات: أشارت النتائج إلى أن دور تخصص طب الأسنان قد لا يكون موضع تقدير جيد. كتوصية، يجب تفعيل دور تعليم المهن الصحية في المؤسسات التي تسعى للحصول على الاعتماد الدولي وتخريج خريجين أكفاء.

الكلمات المفتاحية: المراجعة التعليمية؛ تعليم طب الأسنان؛ قسم التعليم؛ الاحتراف؛ التعليم المهني

Abstract

Objectives: In response to swiftly evolving technology and the emergence of innovative educational tools, health professions education has gained momentum. Dental education, in particular, is a specialism devoted to continuous evaluation and development of dental curricula, ensuring that quality standards are met. Furthermore, dental education specialists are concerned with encouraging dental educators to implement up-to-date teaching and assessment tools and techniques. The status of this specialism, however, is different among various institutions. The primary objective of this research is to analyse the current situation of the dental education specialism in KSA.

Methods: In March 2020, an extensive search was performed to collect data from the official websites of all 72 Saudi universities and colleges. The data were analysed to record the available information regarding the dental education specialism at these institutions.

Results: The results indicated that about 40% of public dental schools had dental education departments with various roles and structures, and none of the private dental institutions had any special dental education departments. Furthermore, there were no specific centres devoted to health professions education, unlike at many international institutions.

Conclusion: This research contains a review of the dental education specialism in KSA. The results indicated that the role of the dental specialism may not be well-appreciated. It is recommended that institutions seeking to secure international accreditation and produce competent graduates should actively engage with health professions education.

☆ The data that support the findings of this study are openly available online from official websites mentioned in references list.

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Keywords: Dental education; Educational audit; Education department; Professionalism; Professional education

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Introduction

Health sciences were historically, and still commonly are, taught by specialists in their fields with the questionable assumption that teaching skills are a natural consequence of field expertise.¹ These specialists may not be experts in practising new approaches to education and may not use innovative learning technologies or new assessment tools.^{1,2} In response to current educational developments, the health professions education (HPE) specialism is garnering more interest and many medical schools have established medical education (ME) departments.¹ Dental education (DE) can be considered as an autonomous field of HPE, in that it is devoted to education in dentistry. There are many reasons to support the presence of HPE departments in medical or dental schools. These include: increased public expectations of the services provided by healthcare professionals, educational developments, and the need to adapt the curricula to the changing requirements of society.^{1,3} Specialists in HPE, who work for health schools, are concerned with different aspects of education, such as: the continuous evaluation and updating of the curricula according to the specific needs of the country, researching teaching and learning processes, providing support to teaching staff members regarding innovative teaching strategies, the assessment and evaluation of students, and conducting continuous developmental courses to these members in addition to establishing local, regional, and international links.^{1,3–5}

Although postgraduate studies in HPE are offered by medical and dental schools and require candidates to hold a bachelor's degrees in medicine or dentistry,⁶ this is not considered a dental or medical specialism by the organisational authority, the National Commission on Recognition of Dental Specialties and Certifying Boards, or NCRDSCB,⁷ which is the agency that recognises dental specialties based on the requirements of the American Dental Association, or ADA. Similarly, the General Dental Council, or GDC,⁸ in the United Kingdom does not consider DE among its 13 approved dental specialisms. The situation is the same in other countries, such as Canada,⁹ KSA,¹⁰ and Australia.¹¹

In almost all developed countries, HPE is a well-known specialism that has a prominent position in undergraduate and postgraduate health education. However, this position still may not be satisfactory in some countries.² Searching the literature revealed that there is a scarcity of research explaining the position or status of HPE in KSA. The first ME department in the country was established in 2007.¹²

From personal experience, as a specialist in DE, I suggest that the number of dentists specialising in DE in KSA does not match the need for such a profession. Scanning flyers and questionnaires targeting dental educators in KSA revealed that there were no available options for professional dental or medical education. Furthermore, most dental graduates were not even aware of the presence of such a specialism.

The aim of this study was to shed light on the situation of DE departments in Saudi universities.

Materials and Methods

A list of all universities and institutions in KSA, both public and private, was obtained from the Saudi Ministry of Education,¹³ and an extensive search of their official websites was performed. Areas of concern included the following:

1. Existence of a dental school
2. Existence of DE departments
3. Role of these departments
4. Number of staff working in these departments and their qualifications
5. Departmental aims and objectives

Basic statistical analysis of the collected data was performed. Whenever available, data were collected in English. However, professional translation from Arabic was conducted in a few cases.

Results

Currently, there are 29 public universities in the whole kingdom that are controlled and registered with the Saudi Ministry of Education. However, they also have a great degree of administrative and academic autonomy. Eighteen of these universities have dental colleges. Among these 18 dental colleges, only eight, less than half, have special departments for DE, and only four have additional departments for ME in their medical colleges. However, seven of the 18 universities have departments for ME in their medical schools, but not in their dental schools. Six of the 18 universities have departments for neither ME nor DE.

King Faisal University¹⁴ is one of the universities that has a DE department. However, there is no information available regarding the size or objectives of this department. Similarly, Qassim University¹⁵ has no information about its DE department, but retrieving data about teaching staff revealed that there is one assistant professor with a qualification in DE.

Imam Abdulrahman Bin Faisal University¹⁶ also has a department for DE in addition to an ME department in the School of Medicine. Based on the number of allocated members, this department is among the biggest DE departments at universities in KSA. Ten members of staff work for this department, including two professors. The dental school at King Khalid University¹⁷ has a DE department that has four units. This department might be considered to be well-established, with eight members of

Table 1: Dental education departments in Saudi universities.

Institution	Structure of DE department	Number of staff members	Objectives	Website
Dental College at King Faisal University	No information available	—	—	https://www.kfu.edu.sa/en/Colleges/Dentistry/Pages/Departments.aspx https://dent.kku.edu.sa/ar/content/166
Dental College at King Khalid University *	The department has the following units: 1. Faculty member development. Concerned with developmental activities for teaching and learning, guidance for new staff members to understand the college program, and the conducting of surveys to study staff opinions. 2. Administrative unit for the offered courses. Concerned with the evaluation of university courses and the development of student mentoring and assessment. 3. National and international accreditation unit. Concerned with the approval and management of the accreditation process to ensure that the dental college follows the national and international standards in DE, patient services, community services, and research. 4. National and international cooperation unit. Concerned with the selection of programs and organisations that can be helpful to improving the college development, the exchange of students, research, and technological improvement. [†]	One professor, four assistant professors, one admin, one lecturer, and one teaching assistant.	Aiming to provide continuous academic development in the dental college and ensure the high quality of research. Objectives: 1. Continuous monitoring and promotion of the implementation of the college's curriculum in cooperation with all departments in the college. 2. Encourage and guide faculty members for the optimal use of innovative teaching and assessment tools and methods. 3. Ensure the optimal application of quality procedures by the scientific departments of the college and the units attached to it. 4. Upgrade the scientific research activities of the college at the local and international levels and cooperate with similar international bodies through the official channels of the university.*	
College of Dentistry at Qassim University	No information available. However, by searching faculty member information, I found one female staff member that has a qualification in DE and dental informatics. [†]	—	—	https://dent.qu.edu.sa/
College of Dentistry at Taibah University	The department has three divisions: 1. Division of DE and advanced dentistry. 2. Division of dental research and evidence-based dentistry. 3. Division of quality, ethics, and dental management.	Two professors of health quality, one assistant professor with a PhD in ME, and one lecturer.	1. Develop the skills of academic staff in teaching and assessment. 2. Empower students and provide them with skills for the 21st century like logical analysis, creative thinking, constructive criticism, and scientific research, alongside practical specialised training. 3. Build a teaching environment that is prepared for all the requirements that students and tutors need, including equipment and the basic supplies necessary for a successful educational experience. 4. Teach courses to undergraduate students.	https://www.taibahu.edu.sa/Pages/EN/Sector/SectorPage.aspx?ID=23&PageId=231
College of Dentistry at	No information available.	No information available.	The Department of Dental Education was established with the establishment of the college to cope with the developments and	https://bu.edu.sa/web/guest/home <i>(continued on next page)</i>

Table 1 (continued)

Institution	Structure of DE department	Number of staff members	Objectives	Website
Baha University			<p>changes taking place globally in medical education and the shift from traditional teaching and learning methods to integrated student-centred learning based on problem-solving, continuous assessment, and feedback through integrated curricula based on competencies. ME focuses on the development of the capabilities, efficiency, and effectiveness of faculty members through the provision of diverse courses and the development of curricula, teaching methods, and evaluation in the field of DE, in order to provide the appropriate scientific and educational environment for students and support students through training and the provision of teaching aids for students. It also focuses on highlighting and activating the elements of integration and overlap between all courses of dentistry and both courses of basic preclinical and clinical sciences to benefit the integrated medical training of students.</p> <p>Areas of work of the department. Field of development and curricula. Field of measurement and evaluation. Field of professional development and training. Continuous learning.</p> <p>MESSAGE To enrich the educational, research and technological system in the field of DE to cope with the challenges of the times and prepare outstanding graduates for the labour market, while contributing to solving the problems of the surrounding society.</p> <p>OBJECTIVES Assist the college in achieving its mission in: - Graduating a dentist with ME skills and medical work to serve the community.</p> <p>Providing programs to develop the skills and methods of teaching and learning among faculty members and students in the college. Introducing and applying modern curricula and trends in ME and developing methods and means of evaluating students and trainees. Conducting a comprehensive assessment and evaluation of the educational environment and ensuring consistency between educational objectives and teaching methods used to accomplish them, as well as assessment methods. Continuously reviewing the development and updating of the curriculum in the faculty to conform to the ongoing changes in the field of ME.</p>	
College of Dentistry at Imam Abdulrahman Bin Faisal University	No information available.	Two associate professors and eight lecturers, teaching assistants, and demonstrators.	<p>DE is a dynamic process, that includes training and assessment. These areas require continuous study and review to keep pace with the different developments that occur in teaching and assessment methods. The department is continually developing and updating the curricula, in addition to fulfilling its educational goals of graduating qualified professionals as soon as possible. This specialised</p>	https://www.iau.edu.sa/en

Department of Dental Education is concerned with providing educational services for faculty members and students of the College of Dentistry through teaching, consultations, implementation of different programs related to teaching skills, and raising the level of professionalism by presenting continuous learning and training programs for faculty and staff.

Majmaah University	No information available.	One head of department, one lecturer, and one teaching assistant.	https://www.mu.edu.sa/en
King Saud bin Abdulaziz University for Health Sciences	No information available for the DE department on the university website. However, detailed information about the ME department is available.	—	https://www.ksau-hs.edu.sa/English/pages/default.aspx

† Information was translated from Arabic.

staff. Taibah Dental School^{18,19} also has a well-established DE, with five staff members working across its three divisions.

Albaha University²⁰ is another example of a public university that has a department for DE. What is specific about this university is that there is no ME department in the Faculty of Medicine. Majmaah University²¹ has a small department for DE in addition to an ME department in the School of Medicine. One teaching assistant and a lecturer work in this department in addition to the head of the division.

King Saud bin Abdulaziz University for Health Sciences²² is the only university in the whole kingdom to offer a master's degree in HPE, namely the *Masters of Medical Education*. However, this leading university has no specific department for DE. The department of ME at this university might be the most developed of all those at other universities. There are 18 staff members working for the ME department, including six lecturers, 10 assistant professors, one associate professor, and one professor. The department has 10 well-established units. Each unit has its own specific objectives.²³ Table 1 illustrates information about the DE departments in KSA.

In addition to the universities in the public sector, there are 14 private universities and 29 private colleges.¹³ Two of the private universities and six of the private colleges have dental faculties, but none of them have DE departments.^{24–27} The only private university that has an ME department at its medical school is Dar Al Uloom University.²⁸

Discussion

There are wide variations in the structure and characteristics of the HPE of different academic organisations around the world. Some organisations have centres or departments specifically devoted to DE, such as the Centre for Dental Education at King's College London,²⁹ while others have centres for HPE that generally serve different health faculties, including dentistry. At the University of Dundee, for example, there is the Dundee Institute for Healthcare Simulation, where dental students can be trained in communication skills and dental emergency.³⁰ There is also the 40-year-old Medical Education Centre for training healthcare professionals, including dentists.³¹ Similarly, other leading universities have ME centres, such as the University of California,³² where general support is offered to health education schools.³³ National centres are other organisations, besides universities, that might serve DE, such as the Glasgow Dental Education Centre,³⁴ which is under the control of the National Health Service, or NHS.

Postgraduate studies in HPE might be considered contemporary and have emerged in response to new advances in education. In 2014, Tekian³⁵ found that there are only 24 structured PhD programs for HPE in the world. He suggested that institutions should widely include this specialism rather than relying only on studies in ME. Postgraduate HPE studies are generally offered by some universities, such as the University of Toronto, with no specific degree for dentistry.³⁶ Meanwhile, specific programs for DE are offered by other universities.³⁷

Despite of the exponential increase in demand for the development of health education curricula, the implementation of high standards in the assessment of health professionals, and the following of standards for quality assurance and accreditation, the specialism of HPE is still not widely relied upon in KSA. To the best of the author's knowledge, the number of Saudi specialists in HPE holding PhD degrees is no more than eight, including the author. However, a few members of teaching staff at some dental institutions are sent abroad to take this degree. Some of the Saudi specialists in HPE have other qualifications upon which they are solely classified by the authorising health commission. Further research is needed to better understand the perspectives of dental educators towards studying DE.

In KSA, a special society for DE was founded in November 2016. The Saudi Dental Education Society (SDES)³⁸ claims to be the first official society for DE in the Middle East region. The society has nine board staff members from Saudi dental colleges, most of whom have a master's qualification in HPE, alongside their main dental specialism. Its objectives include promoting scientific research for the development of DE, providing continuous education programs for the promotion of DE, and stimulating the exchange of production and distribution of information and modern means of education among those who are interested in the education of dental and other health disciplines. This is in addition to communicating with local, regional, and global health education bodies, in order to keep up with the progression and globalisation of information regarding the ways and means of DE and assessment and providing consultation services related to DE programs. Interestingly, a staff member who first established the SDES came from a dental college without a special department for DE.³⁹

The results of this research indicated that about 40% of Saudi dental schools have specific departments for DE, with a variety of structures and functions similar to other HPE departments worldwide.¹ In some instances, these departments are only identical to the other scientific dental departments in the school, in that their role is limited to providing courses for undergraduate students. These include some basic courses, such as dental ethics, dental photography, and dental practice management.¹⁹ Table 1 revealed that some of the DE departments do not clearly state their intended goal. However, the data identified and presented might not be inclusive of all DE departments in Saudi universities, as some official websites might not be regularly updated or treated as a complete or perfect source of information.

The idea of having centres for HPE to serve all health faculties is not yet applied in KSA. The presence of only one institution that offers postgraduate studies in HPE might be the reason for the low number of qualified professionals. Other causes might be the fact that this qualification adds no benefit with regards to professional classification. From my personal experience, being qualified in HPE does not mean being involved in the intended role of this specialism, as this situation is governed by many other factors that are beyond the scope of this research. Furthermore, the presented departmental objectives of Saudi DE departments are not necessarily applied in practice.

Conclusion

In conclusion, DE is an important specialism for dealing with the current educational challenges in DE. Despite its importance, there is a shortage in this specific field at Saudi universities. Not all universities have DE or ME departments. None of them have centres that serve this role for health colleges. However, there is an increasing interest in developing such departments at Saudi universities, with an increased interest in acquiring international accreditation and following quality standards.

Recommendations

I suggest that a DE department is an essential resource for any dental school. Its role should be reinforced and aligned with the main aims and objectives of the school, and its operations should be integrated with those of the faculty.

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Conflict of interest

The author has no conflict of interest to declare.

Ethical approval

This protocol was approved by the Taibah University Ethics Committee (TUCDREC) with reference TUCDREC/20200305/ETNafea dated 18th March, 2020.

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