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FEATURED ARTICLE

The Wicked Role of the Medical Education Department

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Abstract

Purpose: This paper aims to describe the role of the Medical Education unit/department (MED) from a world-wide perspective, how it qualifies as a wicked issue, and provide tips on how to tame it.

Methods: The authors reviewed the regional and international literature to obtain a framework of functions and then used brainstorming and focus group discussions to define the scope of functions of the MED. Telephone interviews with present or previous chairs of medical education departments in the Kingdom and the region helped define the challenges that are faced.

Results: The functions of the MED were found to fall under 10 domains (Table 1) and 40 functions (Table 2). Challenges facing MED role include governance and organizational structure, financial support, manpower, intersection with the roles of other structural entities, and dual reporting of MED staff. Ten tips are described to deal with these challenges.

Conclusion: The MED role is complex and faced with many challenges. It has changing and dynamic boundaries, and is entangled with other entities in the college or university. Ten tips are proposed to tackle these challenges and tame the wickedness of the MED role.

Keywords: Medical education, Health professions education, Organization and governance, Function and role

1. Introduction

Medical education is relatively a new discipline, it is an interprofessional field that is critical to the normal function of any medical school. The roles of the Medical Education entity varies according to the institutional logic [1] and context of each medical school however the common shared roles include and are not limited to needs assessment, teaching, faculty development, student assessment, program evaluation training service provision, research, and quality assurance provision. To respond to these functions the structure of medical education ranges from units through department to educational development centres. The function as well as structure is vast and interrelated.

The Medical Educational Unit/Department (MED) role includes all the functions related to education so the boundaries of its function are fuzzy and expandable and diverging with medical education changes like the advancement of teaching and assessment strategies in line with cognitive psychology and neuroscience. The medical education department role involves all departments/year committees and higher administration as well. It also involves all health profession colleges, and all practices and so intersects with many structural entities in the college and institution. Its role is dynamic and changing as it tries to apply and follow the new evidence and trends in medical education as that related to technology assisted learning and assessment, artificial intelligence and virtual reality systems.

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All of these functions are sometimes hindered by rules and regulations and by the rigidity of the educational system.

Based on the experience in Saudi Arabia and worldwide the authors attempted to describe this role in 40 functions categorized into ten domains of service including faculty development, curriculum development, teaching and learning, student assessment, program evaluation, educational/academic activities, research and development, Information Technology, clinical simulation, quality assurance and accreditation. This paper ended with tips to detangle and tame the wicked role of MED. For instance Medical Education must be reflected in the organization structure of the college and be represented as its own identity in the college governance, where most of the decisions are addressed and approved.

Medical education is considered an interdisciplinary field that contributes to the development of medical knowledge worldwide [2]. Medical education is a relatively recent specialty. Interest in this field appeared during the late 60s when it became obvious that the traditional education curricula for health professions education were unable to provide good application of the most recent teaching and learning theories and lacked the capability to incorporate their advances in educational and communication technologies.

To respond to these challenges medical schools started to establish their own medical education units, staff it by qualified medical educators to provide educational services, conduct research, and establish educational programs at the level of Masters and PhD. It became an essential discipline or speciality in medical schools [3]. The role of the MED is critical to the normal function of any medical school [4]. MED is considered as a mandatory requirement for the accreditation of a medical college [5]. The roles of MED vary from school to another, yet the major functions include needs assessment, teaching, staff development, training service provision, research, and quality assurance provision [3,4,6].

In Saudi Arabia medical educational structure was established in 2004, and within a few years, most medical schools had a medical education entity. These entities varied in title from office, division, unit to department or centre. They are headed by a chair, director, head or vice-dean [3,7].

The medical education entity is also unique in their structure and roles. The faculty members of medical education come from variable professional background and expertise, such as health

profession, education, psychometrics, and statistics. Some faculty are full timers, report only to the chair of MED and have no other roles in the medical school; other affiliated faculty members are part-timers and report administratively to the chair of their own department in which they play a role as a teacher or a physician or both.

MED entities in Saudi Arabia have the structure of academic departments, that are represented in the College board and report directly to the dean. This hierarchical organization structure allows the medical education entity to have the privilege of an academic department in relation to staffing, administrative leadership, and education. Yet MED's role and function in the medical college and university has many multifaceted aspects. From the authors' more than eight-year experience as Chair of MEDs, the role of MED collides with many obstacles related to the scope of its' function, organization and administrative issues, and fulfilling its academic role in teaching undergraduate, postgraduate, and continuous medical education [8].

This paper aims to describe the wicked role for Medical Education Department (MED) world-wide with special emphasis in Saudi Arabia and provide Ten tips to detangle and balance them.

1.1. The scope of function of Med education

The department or unit of medical education should have a comprehensive function that includes research, teaching, service provision and nurturing the careers of the academic staff [3]. Within the new era of integrated outcome-based curricula, MED is accountable to maintain the balance between the roles of other academic departments, academic vice-deanships, and curriculum development initiatives. MED responsibilities overlap with many functional or administrative entities in the college, such as, the curriculum committee, assessment committee, the vice-deanship of quality, the vice-deanship of academic affairs, and the simulation center. It also overlaps with institutional entities like the academic development center or deanship, the e-learning deanship, the research deanship, the simulation center, the assessment quality unit, and clinical simulation and skill lab. Most of the time there is no clear definition of how these roles relate to each other.

The MED's scope of functions is vast and inter-related. This is an attempt to describe this role in 40 functions categorized into ten domains of the services (Tables 1 and 2).

Table 1. Medical education departments' core ten domains of services.

| | | |
|-----------|------|-------------------------------------|
| Domain 1 | FD | Faculty Development |
| Domain 2 | CD | Curriculum Development |
| Domain 3 | TL | Teaching and Learning |
| Domain 4 | ASM | Assessment |
| Domain 5 | EVAL | Evaluation |
| Domain 6 | EDU | Educational and Academic Activities |
| Domain 7 | RD | Research and Development |
| Domain 8 | IT | Information Technology |
| Domain 9 | CS | Clinical Simulation |
| Domain 10 | QA | Quality Assurance and Accreditation |

1.2. Organization

In most medical colleges, MED takes the lead in the mentioned functions. However, within the college hierarchical structure, its role is limited in a silo within the organization structure as other academic departments and does not have any authority over other departments to demonstrate the required scope of functions as described above. This makes reinforcement of teaching/learning and assessment policies very difficult, not sustainable, and dependant on the dean's support. For example, MED trains faculty to design appropriate exam/course blueprint with proper weightage of all learning outcomes, and produces a policy to only approve exams if they are accompanied by a proper blueprint. Nevertheless, the exams usually are prepared and approved by departments or committees without adherence to the stated policy.

In other instances, MED covers the faculty development and examination needs of all health profession colleges [9]. The budget needed for the faculty development and examination scoring, item analysis and report generation is paid by the medical school and these activities are not counted either in staff teaching loads or department budget.

The organisation structure should reflect the role of MED and must accommodate the required structure and authority at least at a vice-deanship level. MED exists in most medical colleges in the Kingdom, yet most of these departments extend their services and consultations to other health colleges. Therefore there is a need to establish similar structure in all health allied colleges.

1.3. Academic role

The role and function of MED requires recruiting faculty and staff members with various educational background and experiences to fulfil the department roles. Staff expertise is needed in the content area, educational approaches and methodologies, research methodologies both qualitative and

quantitative, educational technology, and management to run individual projects; secretarial, and computing and IT skills [3]. Davis accentuates the importance of flexibility in staffing MED. Academic Staff with various background are required to fulfil the Department function. Also various contractual arrangements, affiliations and support from non-affiliated personnel are needed to provide a multi-professional team with a range of expertise [3].

MED staff themselves need development, updating and even formal training both locally and internationally. They require support to visit other colleges and to participate in national and international health profession education meetings [8]. On average, MED should have five or more academic staff with professional qualifications and an additional three technical or administrative support staff [10].

The department faculty duties expand from classical teaching to medical students, to development activities such as staff development program, and educational research supervision. Yet these duties are not counted as registered teaching load. As an academic department, the MED is expected to have faculty with teaching assignments according to the quota for each academic rank. But there are no courses of medical education in most undergraduate/postgraduate medical curricula. Some MEDs teach a one credit hour course like the learning skills course for first year medical students. This creates a problem for those faculty as they cannot claim the teaching or clinical allowances or apply for promotion.

On the other hand, MEDs are expected to be heavily involved in postgraduate health education training programs, such as Certificate, Diploma, Master, and PhD in medical or health profession education. This role requires an ample number of full timers that are experienced educationists and are Ph.D. holders.

2. Tips for the wicked role of MED

The wicked role of MED in classical medicine colleges relates to three dilemma, the governance structure of the College; the mixed nature and roles of medical education department; the role and academic duties of the affiliated teaching staff.

Ten tips to detangle the wicked role of medical education.

1. Medical Education functions are not related to its role as a regular academic department and that must be reflected in the structure of the college.

Table 2. Medical education departments' core 40 functions.

| Domain | Function |
|--------|--|
| FD | Faculty Development |
| 1. | Design, conduct and evaluate staff development programs: workshop – seminars |
| 2. | Design medical education activities to leverage the culture of awareness, Journal Club, best articles |
| 3. | Collaborate with college in developing peer observation program or staff evaluation systems. |
| 4. | Design and conduct appropriate orientation course for new staff and affiliated training centres and teaching hospitals |
| CD | Curriculum Development and Reform |
| 5. | Lead curriculum development process according to the vision and strategy of the leadership in colleges that fulfill international standards and pedagogy |
| 6. | Collaborate with faculty and academic departments to ensure successful implementation of the existing curriculum. |
| 7. | Develop a new curriculum (graduate or undergraduate) (if needed) |
| 8. | Ensure alignment between designed curriculum, conducted teaching, and assessment |
| TL | Teaching and Learning |
| 9. | Advise the college leadership and develop appropriate teaching and learning strategies, policies, procedures and guidelines that ensure smooth implementation of the curriculum |
| 10. | Collaborate with the curriculum committee and faculty members to develop quality instructional material, such as module, lecture, or workshop study guides |
| 11. | Develop and implement orientation to undergraduate and postgraduate students in the new area of training, such as study skills, clinical placements and internship |
| 12. | Choose, appraise and recommend the college leadership about the most appropriate computer-assisted learning platforms |
| ASM | Assessment |
| 13. | Develop and maintain assessment strategies, policies, procedures and guidelines. |
| 14. | Develop and maintain structure of quality assessment process. This includes Blueprinting, pre-exam review, item analysis, and standard setting, and provide feedback to the concerned faculty and students on the learning outcome achievement |
| 15. | Maintain record of previous exams as per the policy of the university. |
| 16. | Manage and administer Local/National/International Item Bank. |
| 17. | Plan, organize and manage e-assessment center and devices |
| EVAL | Evaluation |
| 18. | Provide internal/external consultation in the curriculum evaluation and development to any educational institutes |
| 19. | Develop and regulate curriculum and assessment mapping |
| 20. | Identify and review program learning outcomes KPIs |
| 21. | Develop and conduct periodical review process of the program, learning and teaching activities, and assessment process |
| 22. | Develop and supervise program benchmarking measures |
| EDU | Educational/Academic Activities |
| 23. | Design and develop accredited medical education programs, such as Certificates, higher Diploma and Master in the field of medical education |
| 24. | Develop and implement elective educational courses for undergraduate students. |
| 25. | Contribute to the teaching of the college undergraduate programs |
| 26. | Develop strategic partnership with the affiliated clinical facilities and contribute and design required train the trainer activities, which fulfil the need for undergraduate and postgraduate training |
| 27. | Develop strategic plans to establish a continuum in clinical training between undergraduate and postgraduate |
| RD | Research and Development |
| 28. | Shape and develop medical education research activities of the college (research line, which concurs with available resources and expertise) |
| 29. | Contribute to educational research activities at national and international level through participation in national and international conferences and workshops on medical education |
| 30. | lead the culture awareness of excellent clinical training by developing research initiatives, and organizing activities such as, journal club and monthly newsletter |
| IT | Information Technology Services |
| 31. | Select and contribute with related Deanships to provide suitable technology and educational platforms |
| 32. | Identify scope and opportunities for the use of IT in curriculum development, teaching and learning, assessment and faculty development activities. |
| 33. | Develop projects involving the use of IT services in Instructional Design Activities, e.g. the development of Virtual patients. |
| CS | Clinical Simulation |
| 34. | Plan, organize and manage Clinical Simulation Centre services. |
| 35. | Select and prioritise training activities and resources that fulfil the curriculum needs |
| QA | Quality Assurance and Accreditation |
| 36. | Ensure the quality of educational environment in the college through Educational Environment Monitoring System. |
| 37. | Collaborate with the college vice-deanship and departments to develop and maintain strategies, policies, procedures and guidelines to ensure the development of internal educational quality assurance system. |
| 38. | Collaborate with Quality and Accreditation Deanship to perform Educational Quality Assurance Functions. |
| 39. | Provide Educational psychology services to students and faculty on learning difficulties, student motivation, communication skills, personality development and a range of other psychology issues. |
| 40. | Integrate quality practice to curriculum delivery process by developing strategies, policies, Standard operating procedures and guidelines for successful implementation of the curriculum. |

2. Ensure representation of the medical education identity in the college governance structure, where most of the decisions are addressed and approved. Or provide the required authority to empower the process for change
3. Review the academic duties of the MED faculty members to consider and reward functions such as staff development, exams review, and educational material design as an additional part to their teaching duties.
4. Consider and allow the consultancy role of the MED to align all teaching and learning activities, curriculum development, assessment, quality assurance, and clinical training.
5. Disseminate the culture of awareness of medical education among the medical colleges
6. Develop leadership in medical education among the college faculty members by recruiting distinguished faculty to implement certified medical education programs
7. Lead the learning innovation initiatives by structured programs and fund
8. Design a national template for MED role description and interaction with other college entities and reinforce its implementation to maximize benefit
9. Establish a national board that includes all MED to state common policies and share and benchmark medical education practices.
10. Employ objective methods of selection and appointment of the MED chair.

3. Discussion

Medical Education Department is considered crucial in medical schools. It plays an essential role in the planning and implementation of educational activities in the health profession colleges [3–5,7]. There is an increasing call for a well-staffed and actively functioning MED not only at the undergraduate and postgraduate levels, but also at the level of regulatory bodies and policy making institutes [5,11].

The suggested functions of the MED are also addressed by many studies, which outlined the role of medical education department regarding their needs and governance structure [6,11–13]. Some of these roles as indicated are related to faculty development, curriculum development and reform [8], teaching and assessment development, quality assurance and accreditation, student support, clinical simulation and technology assisted learning platform. Also studies support that establishing medical education departments consider a strategic

decision to renovate and improve the quality of health professions education [11,14].

The addressed challenges that face MED including providing the required infrastructure, outlining the appropriate functioning, recruiting adequate expertise, and granting financial resources are serious impediments that require immediate attention and has been discussed by the literature [5].

Another preeminent challenge that faces the MED is the governance structure, which outlines the authority and power. Varpio and colleagues explained how institutional logic shapes Medical Education roles and function [1]. The MED without logistic support will fail to deliver the expected change of excellent medical training and practice. As Swenson indicates that the leader for change “must be empowered with the authority to proceed with the process for change and to empower others within the lines of authority to affect that change” [15]. Medical colleges with high bureaucracy are challenging for their MED chair and academic staff as they are tasked with high importance and critical functions but with little freedom or power and support. This often results in burnout and high turnover of MED staff [16].

Conflict of interest

The authors declare no conflict of interest.

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