

Going beyond the curriculum to promote medical education and practice in Saudi Arabia

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ABSTRACT

The foundation of health starts as early as undergraduate medical education. Medical education in the Kingdom has always been successful in promoting the medical profession and population health. The current issue in the Kingdom is quality assurance in all organizations including the health field. Thus emerges the value of evaluating the efficiency and effectiveness of the current system in meeting health needs and expectations. The aim of this paper was to analyze the current situation in order to design a frame for the direction of promotion of medical education and practice that best meets health needs and expectations. In fact, medical practice is a multidisciplinary process that is showing continuously changing theories. It has a broad scope of serving the whole community and improving the quality of life of all population categories. The huge quantity of information, needed to be retained by medical professionals, necessitates the move away from traditional methods of education to more practical and comprehensive programs of study. Most of the recent reform in medical education, in the Kingdom, has focused on curriculum and disregarded the education process. The requisite for the education process is a complete model of community-based health care, education and research. This study proposes a design aiming to enhance medical education and promote the medical profession, through developing the quality of medical professionals, that will foster growth of their activity and productivity, moving them into the community where clinical practice and experience are more relevant to the true health situation.

Keywords: Medical education, medical profession.

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The socioeconomic development of nations is measured by the health status of the population, the health care services offered to the society and the quality of life of all population categories. The foundation of health starts as early as undergraduate medical education which, determines the skills of future doctors to meet the population health needs and expectations. In past decades, Saudi Arabia has undergone enormous development in the health field services and medical education as bases for prosperity and development.¹ The current issue in the Kingdom is quality assurance² of all organizations including the health field and medical education and the feeling that it is time for a change.^{1,3-5} For this to

be attained, the critical approach is desired to understand the efficiency and effectiveness of the current functioning system in a manner designed to serve the ultimate goal of promoting the standards of the medical profession and the quality of population health. This has triggered us to analyze the current situation in order to design a frame for the direction of future promotion of medical education and practice.

Situation analysis. Nowadays, medicine has a broader scope of health that does not only mean the absence of a disease but social, physical and mental well-being. The main goal of the medical profession is to improve the quality of life of all population

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categories and help people to be integrated in their society regardless of their condition. Consequently, health field workers are expected to serve the public whether healthy or unhealthy and outreach the whole community and not only those seeking medical care, in order to promote health, prevent, control and manage the various health problems. Furthermore, due to the rapid advances and new technologies introduced to the medical field, information expires rapidly and new theories emerge. Rapid means of communication between populations have helped in the spread of health problems beyond country boundaries having special features in each geographic area and changing patterns over time. Hence, assessment of health needs is not a straightforward process. Health is not easily defined and certainly cannot be measured by precision. This renders the medical profession a creative process that follows continuously changing theories. Medical education is expected to graduate doctors who can cope with the enormous rapid turnover in medical practice.^{6,7}

The current undergraduate medical education system in the Kingdom includes a 6-year course containing a dichotomy of basic and clinical sciences. The system consists of an over crowded curriculum depending on heavy use of lectures and other didactic sessions. All activities are teacher centered with few open discussion and problem solving sessions.^{3-5,8-13} Moreover, clinical practice starts late in the final years and is mainly hospital based. Research activities and community-based services are limited with lack of integration between these activities and clinical practice.^{3-5,8-13} The current students' assessment procedure focuses on knowledge, promotes competition and considers individual assessment rather than group work.¹⁴ Subsequently, students face an overload of content together with lack of appreciation and motivation and only aim for short-term success rather than the acquisition of enduring knowledge.¹⁵ Teaching staff are only evaluated on research activities and are not rewarded neither for educational activities nor for community services.⁵ Lack of facilities, in the form of library and other information sources, for students and teaching staff hinders the process of education.¹⁵ Teaching staff and students complain of lack of resources. They miss the creative vision and are neither able to adapt themselves to the available resources nor to build up their own resources.

In recent years, there has been a huge increase in the amount of information needed to be understood and memorized by medical students. Consequently, the current trend in developed countries in undergraduate medical education is community oriented, problem-based learning, integrated medical education and learner centered educational activity.¹⁶⁻¹⁸ Thus, the educational process in the Kingdom should move away from the traditional

methods to more comprehensive programs and actual practice. Though, much has been published on the promotion of undergraduate medical education in the Kingdom, most of the immense efforts carried out have concentrated on curriculum reform.^{1,4,5,13} Curriculum is of course at the heart of the system. However, undergraduate medical education is a multidisciplinary process that has a broader scope beyond the curriculum. The system of medical education includes the teaching staff, who passes the information to the student making use of the available resources to meet the needs and even exceed expectations of the community. All participants in the educational process are expected to take an active role. Thus, a simultaneous integrated action, targeting all components of the educational process, is required to foster the growth of health profession and education.

Proposal for the undergraduate medical education process. The design aims to enhance medical education and promote the medical profession by developing the quality of medical professionals in order to make them active, productive and move them into the community where clinical practice and experience are more relevant to the true health situation. Thus, apply a complete model of community-based health care, education and research. In order to meet the rapid changes in the medical field and new trends in medical education, the optimal quality of medical professionals should be acquired by all workers in the field, whether the teaching staff (current health workers) or students (future health workers). Medical professionals are expected to be skillful in their profession with a community approach, education talent, communication skills and research capabilities. They are expected to work independently and be integrated in teamwork with an observer eye, as well as, critical thinking, problem solving and creative attitude.

Teaching staff. The teaching staff is expected to acquire the quality of medical professionals that will in turn be transmitted to the students. The requisites for the teaching staff (Table 1) are qualifications, experience and educational skills that meet the objectives of their assignment. Rectification of the scientific knowledge and teaching capabilities through continuous education, training, national and international contact are the means to achieve self-satisfaction and motivation. Development of research capabilities is the basic element to build an observer, independent, creative and problem solving attitude. Computer literacy in the medical field, concentrating on data and statistical analysis, is the route to strengthen research capabilities, critical thinking and creative personality.^{19,20} Long term productivity is the primary goal of an organization and is the desired outcome achieved by updating knowledge and practice with latest advances and technologies, as

Table 1 - Medical organization requisites for the teaching staff.

1. Fit in the organization	Qualifications Practical experience Education skills Research capabilities Attitude
2. Self satisfaction and motivation	Continuous education Continuous training Computer literacy applied in medicine National & international contact
3. Long term productivity	Hospital practice Community based practice Research activities Educational activities Facilities acquisition
4. Appropriate evaluation	Education skills Professional skills Research capabilities Community services

well as, absorbing the experience, activities and skills of the teaching staff in the presence of appropriate facilities. Education activities, hospital experience, community practice and research are weapons that help to promote knowledge, performance and productivity. Evaluation of performance is best measured on all activities as educator, professional, community server and researcher.

Student. The student is a mature individual in the community and is capable of being productive even during the education process. He is expected to be an active participant in the education process and not a simple passive member. Consequently, the vertical approach in medical education is the most appropriate in which multiple departmental activities are harmonized and integrated to pass the complete message during the study duration. The role of lectures can not be denied as they facilitate the learning habits and give clear explanations. Clinical practice, besides theoretical teaching, starting as early as the first year of medical education, helps in building knowledge for students through practice and self-learning, as well as, rendering the student productive from the first year of studies. Students are viewed to have an active assignment within the medical setting according to their capabilities starting from history taking in first year, and annually escalating, to anthropometric measurements, vital signs, general examination to complete physical examination and participating in basic clinical techniques in the last year. Introducing clinical practice from the first year of medical education has a complementary role to the theoretical teaching as it helps in rectifying the education process through immediate actual practice of the academically taught

subjects. The student is regarded as an active member in the team, with attendance, fixed schedule, working hours and evaluation within the medical setting. Integration of hospital and community based practices are beneficial to expose the student to existing health problems and true health needs of the community. Surveys and research activities, to study the existing health problems, using clinical skills are required to expose the students to the true health situation and promote medical practice. Students could be of great help in community services as vaccination campaigns, screening programs, health education and counseling activities where huge manpower is required. In this context, medical education will be learner centered through actual productive practice. The student is expected to have an active role in presenting and discussing health issues as an observer with a critical approach and be a problem solver with creative ideas.

To ensure the goal of the medical profession in serving the community, the curriculum must concentrate on the existing health problems and the emerging conditions. Updating students with the latest advances in medical practice will make them feel the rapid change in this field and the necessity to be independent and creative. Students should be exposed to subjects related to community based services and are better evaluated on all the activities performed on both an individual and a group work bases.

Resources. The resources include the place, person, equipment and money. Teaching hospitals, governmental hospitals, primary health care, school health units and governmental specialized centers for communicable and non-communicable diseases constitute a huge number of places available to absorb undergraduate medical students. Fieldwork is more beneficial in the learning process than passive listening or watching the expensive audio-visual methods. Teaching staff, as well as, non-university medical professionals in the medical settings can help to supervise and train students. They need to accept the students as active members in the working team with fixed assignments that have to be fulfilled according to a schedule and pass their evaluation to the teaching staff. This design requisites that university institutions establish partnerships and work in collaboration with the various medical settings to educate, supervise, train and evaluate students.^{21,22} Existing equipment and financial resources within the medical setting can help as starting points. The different departments should learn to adapt themselves and make use of available resources. They should develop ideas to gradually build up their own resources in order to auto-finance their activities. Conferences, workshops, journals, community based services, educational sessions to health field workers, health education sessions to the public, integration in national and international

multicenter projects, are examples of bases for developing resources.

In conclusion, medical education in the Kingdom has always been successful in promoting the medical profession and population health. Currently, the system needs reform to meet future health demands and even exceed expectations. The modification should not only be directed to change in the curriculum, but should consider the mechanism of the whole system in order to develop the quality of medical professionals that assures long term productivity. Resources are never lacking but the various participants should learn how to adapt themselves to available resources and gradually build up new resources according to their activities.

References

1. Al-Gindan YM, Al-Sulaiman AA, Al-Faraidy A. Undergraduate curriculum reform in Saudi Medical Schools. Which direction to go? *Saudi Med J* 2000; 21: 324-326.
2. Al-Shahri MZ, Kinchin-White J. Continuous quality improvement. A proposal for Arabian Gulf Associations. *Saudi Med J* 2000; 21: 135-137.
3. Kassimi MA. Problems of undergraduate medical education in Saudi Arabia. *Med Educ* 1983; 17: 23-25.
4. Al-Gindan YM, Al-Sulaiman AA. Undergraduate curriculum reform in Saudi Medical Schools, needed or not? *Saudi Med J* 1998; 19: 229-231.
5. Al-Shehri AM, Al-Ghamdi AS. Is there anything wrong with undergraduate medical education in Saudi Arabia? *Saudi Med J* 1999; 20: 215-218.
6. Ludvigsson J. A curriculum should meet future demands. *Med Teach* 1999; 21: 127-128.
7. Towle A. Critical thinking. The future of undergraduate medical education. London; King's Fund Center London: 1991.
8. Harrel GT. Medical Education in Saudi Arabia. *Ann Intern Med* 1976; 85: 677-678.
9. El-Hazmi MA, Haque SM. Curriculum evaluation: Status and options. *Med Educ* 1985; 19: 48-53.
10. El-Hazmi MA, Tekian AS. Medical curriculum appraisal-Riyadh 6 days experience. *Med Teach* 1986; 8: 55-63.
11. Shoboski O, Sukkai MY. An approach to medical curriculum evaluation. *Med Educ* 1988; 22: 426-432.
12. Latif A. An examination of the examinations. The reliability of the objective structured clinical examination and clinical examination. *Med Teach* 1992; 14: 179-183.
13. Milaat WA, El-Gamal F. Factors affecting the use and attitude towards medical resources and education methods in a Saudi Medical School. *Annals of Saudi Medicine* 1994; 14: 209-214.
14. Jayawickramarajah PT, Premadasa GA. Short study-skills course for the new entrants to the medical school. *Med Teach* 1985; 7: 69-73.
15. Al-Kuwaiti AA. The learning skills of undergraduates: A proposal for Saudi Medical Education. *Journal of Family and Community Medicine* 1996; 3: 50-56.
16. World Health Organization. Doctors for Health. A WHO global strategy for changing medical education and medical practice for health for all. Geneva: World Health Organization; 1996.
17. World Federation for Medical Education. Proceeding of the World Summit on Medical Education. Walton H, editor. *Medical Educ* 1994; 28: 140-149.
18. Enarson C, Burg FD. An overview of reform initiatives in medical education. 1906 through 1992. *JAMA* 1992; 268: 1141-1143.
19. Berner ES, Boulware DW. Medical informatics for medical students: Not just because it's there. *Medical Education on Line* 1996; 1: 3.
20. Barbosa JC, Willoughby P, Mrtek RG. Computer Education in Emergency Medicine Residence Programs. *Medical Education on Line* 1996; 1: 7.
21. Richards RW. Building Partnerships: Educating Health For The Communities They Serve. San Francisco: Jossey-Bass; 1996.
22. Maurana C, Goldenberg KA. A successful academic community partnership to improve the public's health. *Acad Med* 1996; 71: 425-431.