

MEDICAL EDUCATION

Medical Education at the Arabian Gulf University

1. Philosophy and Objectives of the Undergraduate Curriculum.

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1. Philosophy and Objectives of the Undergraduate Curriculum

Medical educators agree that the traditional system for training medical professionals contains some inherent serious faults. The deficiencies most frequently cited include:

An irrelevance of much of the knowledge taught to medical students to the practical needs of the physician.

A lack of systematic integration of material from the various disciplines which contribute to the curriculum.

A failure to develop independent, permanent learning habits.

An assumption on the part of many medical educators that acquisition of knowledge necessarily ensures the ability to apply this knowledge in real practice.

Departmental autonomy, a prevalent organisational pattern in educational institutions, has engendered isolation and has not encouraged attempts to remedy these inadequacies. Educationally unsound traditions have been perpetuated which are difficult, if not impossible, to replace.

Since the turn of the century, pioneer educators have repeatedly voiced concern and dissatisfaction and have initiated attempts to revamp, within the existing systems, the pattern of physician training. However, educational innovations were rarely appreciated by complacent administrators who judge productivity mostly by the extent of research publication.

The last two decades have witnessed the advent of new medical schools with different patterns of curriculum and administrative structure; early responses to these experimental or innovative schools have been very encouraging. Therefore, the College of

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Medicine and Medical Sciences (CMMS) Arabian Gulf University, State of Bahrain, after careful study of the programmes of both traditional and innovative schools, determined to develop a programme which would utilise faculty experienced in traditional medical curricula while adopting patterns of education developed in experimental schools. This programme was designed to respond to the particular requirements of physicians in the Gulf region. In 1982, a seminar on medical education was held which was attended by the deans of regional medical schools and representatives from the various ministries of health, as well as by participants from the World Health Organisation and medical schools in Canada, the Netherlands and Australia. The CMMS has adopted the following philosophical guidelines.

Programme Philosophy

The educational programme of the CMMS is guided by the following principles:

1. The graduate of CMMS should be equipped to respond to the needs and demands of the Arabian Gulf region and focus on prevalent health problems, and on the social, cultural and ecological patterns of the population of this region.
2. Learning experiences will be designed to take place in the community itself, and peripheral health facilities should be used rather than restricting learning only to what happens in large hospitals. A "balanced exposure" which includes every health care delivery environment (home, health centres, hospitals, etc.) must be an integral part of the medical school programme.
3. An early exposure to real problems designed to maintain student motivation and to create interest is planned so that students may see for themselves the relevance of what they study.
4. The College of Medicine and Medical Sciences will actively collaborate with the Ministry of Health, Bahrain and the other ministries in the area to provide training facilities for students. Therefore, the College has no plans to develop its own teaching hospital or other clinical facilities. The programmes are being planned together, and staff will have joint appointments. The full-time staff of the College will regularly provide services at the peripheral health delivery settings. This will also provide a model for students in training.
5. A team approach to problem solving, wherein various members of the health team offer their own expertise in order to solve a problem (either at community level or individual level), will be a part of the instruction.

6. When study problems are selected which are relevant to community needs, education becomes relevant rather than focused on memorisation of massive amounts of disjointed information which is usually forgotten if not actively used in the practice of a medical profession. Therefore, the programmes will be designed to train students to acquire the ability to solve problems using logical and scientific methods.

7. The programme should treat students as responsible learners by providing opportunities for self instruction, independent study and self evaluation. This will promote skills and attitudes in the students which will enable them to continue their own learning and education into their future careers. The focus of the instructional process should be on student activities rather than on teaching activities performed by the faculty.

8. The student should benefit from learning activities in which he plays an active role. The student should participate in the planning and evaluation of his learning activities. This would imply a gradually increasing participation in decision-making bodies concerned with curriculum design and assessment.

9. The learning activities will be organised in order to ensure that students integrate all relevant knowledge across disciplines, especially between the traditional "basic" and "clinical" sciences, in order to facilitate the development of a both integrated and holistic perspective of health problems.

10. A system of continuous feedback will be established both for the students (to maintain their own progress) and for the faculty in order to improve the effectiveness of the curriculum implementation process.

Objectives

In order to specify the competence to be required of graduates of the CMMS, medical practitioners, administrators from the various ministries of health, international consultants and the CMMS faculty held many conferences in which they identified the broad areas upon which the medical school curriculum should focus as well as the specific competence considered necessary in each area. A draft document of these identified competencies was then widely distributed to concerned parties throughout the region. Many medical educators, as well as medical practitioners, reviewed the draft and made useful suggestions for modifications. A modified manuscript was further evaluated by experts in the field of medical education from the World Health Organisation. Finally, the CMMS adopted the following programme objectives for future graduates.

EDUCATION OBJECTIVES

The purpose of the Medical Education Programme is to train a physician who is capable of providing comprehensive health care at the highest standards to the people of the Gulf region and is capable of pursuing further specialty training in any field of medicine and medical science. The graduates of this programme, at the end of their training, will:

1) **Acquire Professional Competence in Dealing with a Patient :**

a. Diagnoses and manages the problem holistically using clinical reasoning and logical thinking.

1. Generates plausible hypotheses and uses appropriate strategies to reach an accurate diagnosis.

2. Synthesises and summarises the significant patient information and findings.

3. Interprets results of relevant clinical and laboratory investigations in the context of the patient problem.

4. Recognises the pattern of common illnesses and identifies pivotal and pathogenic signs and symptoms.

5. Uses patient-acceptable models: medical, social and psychological.

6. Diagnoses common (defined) health problem without assistance.

7. Formulates a plan of management for common clinical problems without assistance.

8. Diagnoses and manages less common clinical problems under supervision.

9. Prepares concise, clinical summaries, to keep accurate and systematic patient records and retrieves patients' information when required.

b. Uses practical clinical patient contact skills, attitudes and behaviors, and makes efficient use of available laboratory and other support facilities.

1. Elicits a medical history from a patient appropriate to his clinical complaint, condition or problem.

2. Performs relevant items of physical examination, as determined by the needs of the specific case.

3. Performs simple diagnostic and therapeutic procedures without assistance.

4. Requests and interprets appropriate investigative procedures, given the needs of the patient and the considerations of cost, potential benefits and patient risk.

5. Performs simple laboratory procedures and tests without assistance.

c. Establishes rapport and communicates with patients/relatives at a level appropriate to their understanding, education and beliefs.

d. Consults professional colleagues when in need of advice and refers patients to colleagues as determined by the best interests of the patient.

2. **Practice Preventive Medicine:**

a. Identifies the structure of a community, fabric of a society and the dynamics of its interactions and the relationships within a family unit.

b. Correlates socio-economic factors with health and disease, and implements measures based on this to improve health.

c. Identifies risk factors in the community and implements measures based on this to improve community and individual health.

d. Communicates with and leads the community in matters of their own health care.

e. Takes an active role in the evaluation of community health problems, and needs and in their solution.

f. Plans, implements and evaluates health education programmes for the community.

g. Recognises his/her role in the community and the effects of his/her beliefs and values on interactions with and perceptions of individuals and the community.

3. **Work as a Member of the Health Team and along with other Health Practitioners:**

a. Collaborates with other health professionals and across the profession (intersectoral) in the development of community.

b. Works in the therapeutic teams and groups, as the leader or as a member of a mixed health team.

c. Plans, implements and evaluates continuing education activities for other members of the health team.

4. **Participate in Research Programmes :**

(Especially in relation to national and community health problems)

a. Retrieves relevant scientific materials and assesses its utility and validity.

b. Evaluates scientific papers and journal articles.

- c. Applies and uses simple statistical methods.
- d. Designs simple experimental protocols, considering hypothesis, bias, error, etc.
- e. Utilises computers for storage and analysis of data.
- f. Uses a filing mechanism for the efficient storage and retrieval of scientific data for future use.

5. Keep Himself/Herself up-to-date Through Continuous Learning:

- a. Uses all available learning resources effectively.
- b. Uses self-evaluation and peer evaluation and criticism, and recognises his/her own deficiencies and undertakes remedial learning.
- c. Undertakes continuing education as a life-long process.

6. Participate in Comprehensive Health Care Planning:
(In individual practice and national health care delivery levels)

- a. Identifies available community health care resources and welfare benefits that might be available to a patient.
- b. Plans and practices cost-effective health care and cost containment at all levels, taking account of the pattern of funding and economics of health care in the Gulf States.
- c. Conducts his/her practice and plans his/her own professional future in context of the laws governing medical practice in the Gulf States.
- d. Manages his/her own health care resources and personnel.

- e. Manages his/her own practice routines and procedures and allocates time and priorities appropriately.
- f. Manages the finances of the health care practice, stock control, budgeting, accounting and filing.
- g. Makes use of business technology in the effective operation of health practice including the use of computers and other systems for filing, patient records, etc.

This is the first part in a series of articles to follow on Curriculum Development, Educational Strategies, Assess Processes, Student Characteristics and Organisational structure in the College of Medicine and Medical Sciences — Arabian Gulf University, which started with the first intake of students in October, 1984.

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