American Journal of BioMedicine
AJBM 2016;4(5): 103-108
Research Article doi:10.18081/2333-5106/016-5/103-108

Evaluation of medical teaching skills in undergraduate medical school: a cross-sectional questionnaire study

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Abstract

Many medical schools have searched for ways to effectively and constructively evaluate performances of their faculty members and it is paramount to ascertain their effectivity by continuous evaluation and development of all teaching staff. The objective of this study are: to inform the allocation of medical school resources; to identify parts where teaching system can be updated; support methods for promotion by teachers; and to provide feedback and encouragement for teachers. A cross-sectional questionnaire study was conducted from January, 2015 to June, 2015 and descriptive statistics were used to analyze the evaluation ratings, the effects of evaluation, the satisfaction of students in elective courses, and the attendance of students in elective courses. There is a growing commitment in teaching methodology to undergraduate medical students, but there are challenges faced faculty members are mainly attributed to lack of professional training on how to developed standard curriculum that addresses the teaching methodology aspects and there is a need to train teaching members as 'training of trainers' on how to teach medical students, regardless their previous scientific certification.

Keywords: Teaching methodology; Professional training; Teaching evaluation

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Received December 03, 2015; accepted April 12, 2016; published May 03, 2016

Introduction

Many medical colleges have searched for ways to performance of effectively and constructively measurements of their faculty members [1, 2]. The most common sources of evaluation data have been students, and teachers of faculty medicals school. Medical education in Iraq is free, and under full governmental national funding [1]. Undergraduate's medical education in Iraq is a 6-year study program, which carried out in English language. First three years of the program is for teaching the basic sciences like anatomy, histology and biology and are done through basic science specialists. The next three years are for teaching clinical components of the program i.e. medicine, surgery, pediatrics and Gynecology/obstetrics and these done exclusively by Board certified faculties or doctors. Successful completion of the program gives the graduate a Bachelor degree in Medicine

Research Article doi:10.18081/2333-5106/016-5/103-108

and surgery (M.B. Ch. B). The graduates enroll in 2-3 years of paid-internship then into postgraduate residency training which is required for both Iraqi and Arab board certifications in each specialty.

In 2015, there are 23 colleges of medicine in Iraq, 13 colleges of nursing, 14 colleges of dentistry and 14 colleges of pharmacy which take the responsebility for supporting health care services and delivery [1]. Muthanna University/ College of medicine is one of these medical colleges. It established in June 2008. There are 215 students enrolled in the program at different stages from first to sixth in 2015. Two classes have graduated in 2014 and 2015. The medical students must get the most fundamental medical knowledge during the medical college. This make them able to build and extend their medical knowledge in future and able to manage some medical situations. In Iraq and many other countries, the fresh medical graduates face the patients directly during the internship while they are serving in the emergency room or in the intensive care unit. Hence, the continuous evaluation, control, and supervision of medical teaching including educators (teaching professionals), facilities and techniques, is very important to prepare these students for the upcoming practice.

Medical colleges perform a comprehensive program evaluation every five years. Both external and internal experts participate in this exercise. A special document is produced on such occasion. In addition, the ministry of higher education conducts an annual performance evaluation for the college covering inputs, process, and outputs. According to the result of this annual appraisal all colleges of higher education are ranked according to specialty and the first three colleges in each profession is declared and awarded a certificate of excellence [2].

There are a few independent studies in this field in Iraq especially for medical colleges. In addition, the universities encourage the faculties to evaluation researches in this field but there are only few responses. We tried to evaluate how the educators deliver the knowledge to the students with coverage of certain elements that usually missed by the former evaluations like student's absence for example. Many studies are investigated the relationship between the teaching system in undergraduate school resident doctors, and many of them desire more comprehensive and interdisciplinary education in medical ethics and educators in Japan should aim to develop education programme to meet these desires [7-10].

Method

We reviewed multiple international professional standards held by well-known education organizations for medical and non-medical teaching. Although it is for general teaching, we finally take the Education and Training Foundation professional standards and modify them to be applicable for our situation and available facilities [4-8]. We also add other items for evaluation including lectures presentation and dealing with class absent students [11]. We used a survey questionnaire study conducted in Muthanna University-college of medicine in January, 2015 to

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June, 2015. It delivered on two separate papers, one for the educators and the other of the students. Twenty educators (57% of all teaching staff) and seventy-two students (33% of total students) participate in the study **Table1**.

Statistics

We used Statistical Package for Social Service (SPSS) to analyses the data using mainly descriptive statistics like frequencies.

Discussion

The system of teaching evaluation contributed to the perceived improvement of teaching quality and faculty's teaching skills at undergraduate medical school [12-15]. We noticed that the scores for lesson plans, appropriateness of content to level of the course and program, and interaction between teacher and students needs to be evaluated.

The faculty members received affirmations of their strengths and helpful suggestions for improvement, while the medical students must get the most fundamental medical knowledge during the medical college. This make them able to build and extend their medical knowledge in future and able to manage some medical situations. In Iraq, the medical students study six years in the medical college and then they face the patients directly while they are in the emergency room or in the intensive care unit. Hence, the continuous evaluation, control, and supervision of medical teaching including educators, facilities and techniques, is very important to prepare these students for the upcoming practice.

There are a few studies in this field in Iraq especially for medical colleges. We tried to evaluate how the educators deliver the knowledge to the students and how they treat them in different situations like student's absence for example. We reviewed multiple international professional standards held by well-known education organizations for medical and non-medical teaching.

We also add other items for evaluation including lectures presentation and dealing with class absent students. The educators appear to maintain their knowledge as most of them (80%) attended at least one conference or workshop in their specialty in this year. On the other hand, they seem to neglect or underestimate the importance of educational researches and evidence-based teaching practice as there are only (55%) had made or read two educational researches and only (25%) use more than four evidential points of teaching practice. More than a half of the educators notify each other regarding their own teaching method or practice but a minority of them (25%) criticized each other through feedback. This is may be because of the educators do not attend the lectures presented by their colleagues. The lectures presented verbally and by details on screens. The latter method done by PowerPoint presentation. About (47%) of the students prefer this method. Regarding the lectures contents, there is less emphasis on the importance of lectures learning objectives as only (39%) of educators mention them in the lecture and significant proportion of the students (84%) do not know at least three of these learning objectives. As a

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references for lectures contents, the licensed textbooks are used mostly (53%) and the internet websites used secondly (30%). Some (15%) of the educators use their personal experience as a reference. The educators tend to instruct the students to read more references and to expand their knowledge. Fifty-fife percent of educators advised to read from more than two references.

Table 1.

The Education and Training Foundation Professional standards used in our study

The UK educations standards	Our modifications as survey questions
1. Professional knowledge and understanding • Maintain and update knowledge of your subject and/or vocational area • Maintain and update your knowledge of educational research to develop evidence-based practice • Apply theoretical understanding of effective practice in teaching, learning and assessment drawing on research and other evidence • Evaluate your practice with others and assess its impact on learning	Conferences, scientific lectures and workshops Educational researches. How the educators applied the evidences of teaching in practice for better outcome. Advices and feedback from colleagues.
• Professional skills • Plan and deliver effective learning programs for diverse groups or individuals in a safe and inclusive environment • Promote the benefits of technology and support learners in its use • Enable learners to share responsibility for their own learning and assessment, setting goals that stretch and challenge • Apply appropriate and fair methods of assessment and provide constructive and timely feedback to support progression and achievement • Maintain and update your teaching and training expertise and vocational skills through collaboration with employers	They recognize the students with weak and intermediate potential and help them to overcome obstacles. Using slideshow and interactive learning. Using fair method of continuous assessment. Motivate the students to read from references and expand their knowledge
2. Professional values and attributes • Build positive and collaborative relationships with colleagues and learners.	Students and colleague feed-back Asking if the subject is clear and offer to repeat.

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Student's assessment done by different methods. Ninety-fife percent of the educators used to ask the students during the lectures. Sixty-fife percent use both quizzes and end of term written examinations. The educators used to penalty the frequently absents from the class. Getting poor impression and reducing marks are the frequently used penalty methods with (80%) and (32%), respectively.

The educators recognize the students with weak intermediate understanding potentials and they treat them well. They ask if the subject is clear enough and offers to repeat missed areas. They also tend to receive feedback from students to improvise the teaching method for better outcome. It was important to provide feedback to faculty as fast as possible. The faculty members who received feedback earlier believed that they got more help from it, and remembered more specific details about that session. They could more easily use the comments to affirm their strengths and improve weaknesses [16-20].

Recommendations

- The educators need to participate more in the educational researches to know the appropriate methods for their students for better outcome.
- They also need to explore others researches and colleagues opinions in this field and apply the evidences in their teaching practice.
- There is a need for farther studies to evaluate the college for other standards like the Academy of Medical educators (AOME) Professional Standards for medical, dental and veterinary educators [4] and the University college London standards [5].

Acknowledgements

We would like to express my special thanks of gratitude to Dr. Ameer Ali and Dr. Ammer Shaker for their profound help and advices in data collection.

Competing interests

Authors declare that We have no competing interests.

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