



Students' Perception of the Educational Environment at Hawler College of Medicine, Erbil, Iraq

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Abstract

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BACKGROUND: Medical education and training vary considerably across the world. Various teaching methodologies have been adopted in medical education.

AIM: This study aimed to elicit the perception of medical students at Hawler College of Medicine about their educational environment.

METHODS: The study participants included all 152 students in their final year of study at Hawler College of Medicine, Erbil, Iraq. An anonymous questionnaire containing 27 items about the quality of their education, preparedness for residency, students' affairs, and behaviors experienced or witnessed during medical school with a five-point Likert scale was used for data collection. The Statistical Package for the Social Sciences program was used for data analysis.

RESULTS: Of 140 students participated in the study, 73 (52.1%) said that the final year was helpful in their preparation for residency, 67 (47.8%) were satisfied with the quality of their education, and 65 (46.4%) said that basic science coursework had sufficient illustrations of clinical relevance. Overall the students mostly were dissatisfied with the relaxation spaces, study space, health services, and response to their problems. Fifty-six (40%) were frequently publicly embarrassed, 45 (32.1%) believed that they received lower evaluations or grades solely based on gender rather than performance, and 27 (19.1%) were denied opportunities for training or rewards based on gender.

CONCLUSIONS: Most of the students were satisfied with their education but unsatisfied with study space, relaxation space, and health services in the college.

Introduction

Medical education is education related to the practice of medicine. It is a lifelong process embracing undergraduate medical education, general clinical training, specialist or vocational training, subspecialty training, and continuing medical education [1]. Medical education and training vary considerably across the world. Various teaching methodologies have been utilized in medical education, which is an active area of educational research [2]. It has a long history, from the early beginnings where unregulated apprentice-based learning and barbershop surgeons, to the current situation, where most medical schools are embedded in large multi-faculty universities [3].

Curriculum in different colleges needs continuous evaluation system to determine whether the current system working to produce qualified graduates [4]. Curriculum needs evaluation to be more effective and responsive to the need and it can be evaluated through direct measures (e.g., comprehensive examination or indirect measures) (e.g., student satisfaction) [5], [6]. In the United States, evaluation of the curriculum is done through graduate exit questionnaire which is part of the routine educational process to revise the curriculum and improve its quality [7]. One of the main challenges that

are facing authorities in medical schools is to determine the curriculum which encourages high level knowledge, skills, critical thinking, problem solving knowledge, and skills to prepare their graduates to work in the complex sociomedical situation [7], [8].

Students as a direct beneficiary of the system can be used as a tool for evaluation through their feedback [9]. Student satisfaction is an important tool to ascertain that colleges and universities are fulfilling their mission and implementing correct measures to improve the quality of their graduates and are inversely related to student complaints regarding career development and the need to implement new courses or improve the current courses [10], [11]. Satisfied students are likely to be more interested in their education and becoming more involved and committed to their studies [12].

The first medical school in Iraq, Baghdad Medical College, was established, in 1927 and adopted the Edinburgh curriculum. Iraq's second medical school, Mosul Medical College, was opened in 1959. Other medical colleges were subsequently established throughout Iraq, and all adopted the same teaching curriculum of Baghdad Medical College [13].

In 1989, the Ministry of Higher Education and Scientific Research in Iraq opened a new medical

college in Tikrit. The new college of medicine has followed since its establishment competency-based education programs/problem-based learning (PBL). Despite the support of the World Health Organization (WHO) to the new college, a shortage of staff leads to incomplete implementation of the new curriculum [14].

Founded in 1977, Hawler Medical College is the oldest medical college in Kurdistan Region, Iraq. It has the highest number of academic staff and research productivity in the region, as well as the highest number of both undergraduate and postgraduate students' enrolment per year. Each year 150–160 students enter its undergraduate (M.B.Ch.B.) program [15].

The current curriculum of undergraduate program in Hawler College of Medicine like most other medical colleges in the country is a 6-year traditional Flexnerian, discipline-based curriculum. It consists of 3 years of mainly lecture-based basic sciences and 3 clinical years [15]. Several activities have been achieved by conducting several meetings between the staff of the Ministry of Health and Ministry of Higher Education and Scientific Research under the supervision of the WHO to review medical curricula in the college and Iraq in general. Several recommendations have been made such as reviewing curriculum on a regular basis; introducing new teaching methods; developing a system for monitoring performances and applying the social accountability by all medical schools; introducing objective assessment methods; and implementing PBL approach in practical sessions in medical schools [14]. Till now, no studies have been done to assess students' perception of the quality of their education upon graduation in Hawler College of Medicine. The study aimed to assess the students' perception of their undergraduate education in Hawler College of Medicine.

Methods

This cross-sectional study was carried in Hawler College of Medicine, Erbil, the capital of Iraqi Kurdistan region, from January to May 2015. All the 152 6th year students were included in the study.

The students were invited to participate in the study after obtaining their consents. The purpose of the study and instructions for completing the questionnaire was explained to each participant. The Research Ethics Committee of the Hawler Medical University has approved the study.

A self-administered questionnaire regarding the students' perceptions of the educational program and their competence, as well as the overall satisfaction with their training, was developed based on the graduation survey distributed in the United States

by the Association of American Medical Colleges (AAMC) [16] with modifications to fit the specifications of our undergraduate program. I decided to adopt this questionnaire mainly due to its comprehensiveness and the similarities between the undergraduate medical education throughout the world. Many items were omitted from the original questionnaire, because they did not suit our program such as students' perception of elective courses, career options and financing of the education. Some items were added such as the perception of students about some topics which are not available in the original questionnaire such as dermatology, ophthalmology, otolaryngology, orthopedics, and neurosurgery. Some other items regarding the perception of students about different types of assessment methods used in the college were also added to the questionnaire.

The questionnaire has previously been shown to be valid and reliable and pilot tested before administration. It contains different items consisting of Likert scale type questions measuring students' perceptions and satisfaction, as well as demographic questions. For a better presentation of data and analysis, ratings of "agree" and "strongly agree" were combined, as were ratings of "disagree" and "strongly disagree." "Neutral" was omitted.

Participants were asked to evaluate the quality of different components of their education experience in different phases of medical school, namely, basic science course, pre-clinical course, clinical, and residency. Questions were focused on the overall quality of the courses as well as, in the case of basic sciences courses, their clinical relevance. Students were also asked about their perception of the amount of time devoted to different topics.

The data obtained through this study were entered into a database. Data analysis was performed using the Statistical Package for the Social Sciences (version 19).

Results

Of 152 6th year students in Hawler College of Medicine, 140 filled the questionnaire, so the response rate was 92.1%. The mean age \pm SD of the participating students was 23.3 ± 1.3 years. One hundred and thirty-two (94%) participants were from the urban area while 8 (6%) were from the rural area.

Seventy-three (52.1%) participants mentioned that the final year was helpful in preparation for residency, 67 (47.8%) were satisfied with the quality of their education, and 65 (46.4%) agreed that basic science coursework had sufficient illustrations of clinical relevance, as shown in Table 1.

Table 1: Perception of students about quality of medical education

Statement	Strongly agree/Agree	Not sure (%)	Strongly disagree/Disagree (%)
Overall I am satisfied with the quality of my medical education	67 (47.8)	31 (22.1)	42 (30)
Basic science coursework had sufficient illustrations of clinical relevance	65 (46.4)	36 (25.7)	39 (27.8)
The final year was helpful in my preparation for residency	73 (52.1)	25 (17.9)	42 (30)
Faculty provided effective teaching during the clinical sessions	61 (43.5)	33 (23.5)	46 (64.4)

Seventy-nine (56.4%) participants understood the ethical and professional values that are expected from their profession. Seventy-four (52.9%) said that they had the communication skills necessary to interact with patients and health professionals, 61 (43.6%) believed that they were adequately prepared to care for patients from different backgrounds, 57 (40.7%) were confident that they have acquired the clinical skills required to begin a residency program, and 68 (48.6%) agreed that they have the fundamental understanding of common conditions and their management encountered in the major clinical disciplines, as shown in Table 2.

Fifty-eight (41.4%) students were dissatisfied with accessibility to the office of the vice dean for student affairs. Eighty-four (60%) students were dissatisfied with student relaxation space and 72(51.4%) were dissatisfied with the responsiveness of student problems. Seventy-three (52.1%) students were dissatisfied with student health services. Sixty (42.8%) students were dissatisfied with awareness of student concerns. Overall, the students mostly were dissatisfied with relaxation spaces, study space, health services, and response to their problems, as shown in Table 3.

Fifty-six (40%) were frequently been publicly embarrassed, 45 (32.1%) of them believed that they received lower evaluations and grades solely based on gender rather than performance, and 27 (19.3%) had been denied opportunities for training or rewards based on gender, as shown in Table 4.

Discussion

The 6th year students were selected for our study because we thought that they have more

experience and have better ability to answer our questions properly.

Out of 152 6th year students, 140 (92.1%) of them filled the questionnaire, the high response rate could be attributed to that researcher is a member of teaching staff in the college and the topic is interested and related to students.

Among the participants, 67 (47.8%) of students were satisfied with the quality of education. This finding is higher than the finding of the study done in Iran in Tehran University of Medical Sciences-School of Medicine, in which only 28.4% of the respondents were generally satisfied with the quality of their medical college [17]. While this finding is lower than that of Hebrew University – Hadassah Faculty of Medicine, Jerusalem, Israel, in which 79% of the respondents agreed with the quality of education in their college [18].

Sixty-five (46.4%) student agreed that basic sciences coursework had sufficient illustrations of clinical relevance. This finding was lower than the finding of Hebrew University-Hadassah Faculty of Medicine, Jerusalem, Israel, in which 74% of the respondents agreed that basic sciences coursework had sufficient illustrations of clinical relevance¹⁸ and higher than the finding of Tehran University, in which only 13.1% of the respondents reported that they have received enough illustrations of clinical relevance in the clinical years [17].

Seventy-three (52%) students believed that the final year was helpful in the preparation for residency, because the final year generally is clinical and repetition of previous years rather than theoretical topics. Sixty-one (43.5%) students agreed that teachers provided effective teaching during the clinical sessions while (55%) of students in Bangladesh agreed about effective teaching during clinical sessions and lectures [19].

Fifty-seven (40.7%) students were confident that they had acquired the clinical skill required to begin residency program. This may be attributed to having the final year containing sufficient clinical skill such as emergency, and elective cases that enable students to prepare them for residency program, compared with 69% of respondents in the research of University of Massachusetts Medical School were confident that they had acquired clinical skill required to begin residency program [20].

Sixty-eight (48.6%) participants agreed that they have the fundamental understanding of the common conditions and their management encountered

Table 2: Perception of students about preparedness for residency

Statement	Strongly agree/Agree (%)	Not sure (%)	Strongly disagree/Disagree (%)
I am confident that I have acquired the clinical skills required to begin a residency program.	57 (40.7)	43 (30.7)	40 (28.5)
I have the fundamental understanding of common conditions and their management encountered in the major clinical disciplines.	68 (48.6)	56 (41.4)	24 (17.1)
I have basic skills in clinical decision making and the application of evidence-based information to medical practice.	64 (45.7)	48 (34.3)	28 (20)
I have a fundamental understanding of the issues in social sciences of medicine (e.g., ethics, humanism, professionalism, and organization and structure of the health care system).	65 (46.4)	51 (36.4)	24 (17.1)
I understand the ethical and professional values that are expected of the profession.	79 (56.4)	36 (25.7)	25 (17.8)
I have the communication skills necessary to interact with patients and health professionals.	74 (52.9)	40 (28.5)	26 (18.6)
I believe I am adequately prepared to care for patients from different backgrounds.	61 (43.6)	50 (35.7)	29 (20.7)

Table 3: Perception of students about student affairs

Statement	Very satisfied/ satisfied (%)	Neutral (%)	Very dissatisfied/ Dissatisfied (%)
Accessibility to the office of the vice dean for student affairs	40 (28.6)	42 (30)	58 (41.4)
Responsiveness to student problems	28 (20)	40 (28.8)	72 (51.4)
Awareness of student concerns	39 (27.8)	41 (29.3)	60 (42.8)
Student health services	33 (23.5)	33 (23.5)	73 (52.1)
Library	67 (47.8)	25 (17.9)	48 (34.3)
Computer resource center	42 (30)	34 (24.3)	64 (45.7)
Student study space	38 (27.1)	31 (22.1)	70 (50)
Student relaxation space	27 (19.2)	29 (20.7)	84 (60)

in the major clinical disciplines. This could be attributed to the strong relationship between the theoretical and practical session that enable students to manage the clinical cases.

Table 4: Perception of students about behaviors experienced or witnessed during medical school

Statements	Never (%)	Once (%)	Not sure (%)	Occasionally (%)	Frequently (%)
1. Been publicly embarrassed	37 (26.4)	23 (16.4)	9 (6.4)	15 (10.7)	56 (40)
2. Been publicly humiliated	49 (35)	18 (12.8)	11 (7.85)	19 (13.6)	43 (30.7)
3. Received lower evaluations or grades solely due to gender rather than performance	29 (20.7)	14 (10)	14 (10)	38 (27.1)	45 (32.1)
4. Been denied opportunities for training or rewards based on gender	42 (30)	19 (13.6)	18 (12.9)	24 (17.1)	27 (19.3)

Seventy-four (52.9%) participant believed that they have the communication skills necessary to interact with patients and health professionals this could be attributed to the role of communication skills topic which is taught in the 3rd year in the college.

Forty (28.6%) participant were satisfied with accessibility to the office of the vice dean for student affairs. This finding was lower than the finding of research in a Malaysian Medical School about undergraduate medical students' perceptions of effective medical teachers in their college [21], in which 79% were satisfied with accessibility to the office of the vice dean for student affairs.

Seventy-two (51.4%) students were dissatisfied with the responsiveness of student problems; probably, this could be attributed to that there is no special team for solving student problems. Seventy-three (52.1%) students were dissatisfied with their health services; this could be attributed to the general health system in the region which has many defects. This finding was close to the finding of a study done in Turkey [22].

Forty-five (32.1%) participants believed that they have frequently received lower evaluation due to gender. This could be attributed to the culture of our society.

Conclusions

Most students were satisfied with the quality of the education in the college, but the main concerns related to study space, relaxation space, health

services, and response of the college's administration to their problems.

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