Opinions of Nineveh medical college students regarding current medical educational methods and teaching strategies

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Abstract
Medical education can be defined as the process of teaching, learning and training of students with an ongoing integration of knowledge, experience, skills, qualities, responsibilities and value which qualify an individual to practice medicine. The aim of the study is to improve the quality of medical undergraduate educational strategies and teaching methods among medical schools in Iraq. A descriptive cross-sectional study has been conducted in Nineveh medical College from the period of 1/4/2012 till the end of June / 2012. All the available present medical students were conducted from both third and fifth stage and special questionnaire form was prepared by interviewing with the study sample. 107 medical students were included, 36 students from fifth stage and 71 students from third stage. Majority of study sample were female and they constitute (59-55.2%) aged between 21- 23 (98- 91.5 %). All the medical students preferred combined method of medical education (72- 67.3%) and they agreed with the theoretical hours are much higher than the practical hours ( 75- 70.1%). The study concluded that combined method of medical education is preferable for all the medical students. The study recommended that more attention for practical demonstration and increased emphasis on better practical training as well as a need to incorporate the clinical sessions for the students to help plan them their future paths and to become a good doctors.

Key words :- Medical students, Opinion, Teaching methods

Introduction
The 'Glossary of Medical Education Terms' was prepared with the intention of assisting communication among medical educators. The developed formulations of educational definitions, terms and methods derived from different sources such as dictionaries, encyclopedias, glossaries, articles and the Internet. The attempt was made to present the most broadly accepted views as clearly as possible. The greatest difficulty is that quite often there are significant differences in definitions of the same or similar concepts and terms (1). Medical education is education related to the practice of being a medical practitioner, either the initial training to become a doctor (i.e., medical school and internship), additional training thereafter (e.g., residency and fellowship), or Physician Assistant education (2). Medical education and training varies considerably across the world. Various teaching methodologies have been utilized in medical education, which is an active area of educational research. (3). Though lectures (Lecture- based learning / LBL) are much criticized as a teaching method, universities have not yet found practical alternative teaching methods for the large majority of their courses. Critics point out that lecturing is mainly a one-way method of communication that does not involve significant audience participation. Therefore, lecturing is often contrasted to active learning. Lectures delivered by talented speakers can be highly stimulating; at the very least, lectures have survived in academia as a quick, cheap and efficient way of
introducing large numbers of students to a particular field of study (4).

Problem-based learning (PBL/Innovative method) is a technique used for small group adult learners. An unsolved problem or clinical scenario is given to the students. The students then use triggers from the scenario to define their own learning objectives. The learning objectives then lead to independent self-directed study. After a period away from the group, they return to discuss the acquired knowledge. This technique facilitates knowledge acquisition between members of the group and also facilitates other core skills such as a-Communication b-team work c-problem solving

Aim of the study :

The study aimed to assess the opinions of Nineveh medical students regarding current medical educational strategies and teaching methods.

Objectives of the study :

1- To determine the socio-demographic characteristics of the study students
2- To detect the main preferable medical educational strategies and teaching methods.
3- To find out proportion between the theoretical hours and the practical hours

According to students opinions

Subjects and Methods

Official permission was taken from the Mosul/University / Nineveh Medical Collage and written consent was taken from each medical students.

A descriptive cross-sectional study was carried out on Nineveh medical Collage which was established at 2001 and conducted a traditional method of teaching (LBL). Two stages were selected from the Nineveh medical Collage which are Third stage from pre-clinical semester and fifth stage from clinical semester. All the available present students at the time of data collection were included in the study and a special questionnaire form was conducted after receiving the written consent from them and the data was collected by interviewing with the study students. The study was conducted during the period from 1st April to end of May 2012. A special questionnaire form has been prepared by the investigator utilizing available related literature which include the following main items:

- Part-1- Demographic characteristics including (sex, age, student stage).
- Part-2- Students opinion regarding current medical educational methods and teaching strategies.
- Part-3- Students opinion regarding the curriculum (.theoretical hours / practical hours proportion)

The study questionnaire form have been led for discussion by a committee consist of (8) community medicine specialist and (2) experts in medical statistics. They gave a reliability index of 80%. Descriptive statistics by using (number, percent) The statistical test Ch-square was used . p ≤ 0.05 was considered level of significance.

Results

Regarding the socio demographic characteristics of the study students, it was shown that most of the medical students were female (59-55.2%), aged from 20-23 years (98-91.5%). All the medical students from both stages (third and fifth) preferred combined method of medical education (Problem based and lecture based learning) and they constitute (72-67.3%) while only (21-19.7%) preferred traditional method and (14-13.%) preferred Innovative method.

Concerning the curriculum, medical students agreed with the theoretical hours are much over the practical hours (75-70.1%) and most of them were female (59 – 55.1%) while (32-29.9%) said that the theoretical hours are in same proportion with the practical hours.

Discussion

Active learning methods are supposed to leave students with a greater level of knowledge and better learning skills compared with students exposed to other forms of learning. whether they do in all courses, however, a commonly studied
form of active learning is the small-group discussion. (6)

The study show that most of medical students were female which was agreed with similar study was conducted by (Jinadui 2001 /) (7) to assess the impact of the innovative community-based PHC educational strategy on medical education and practice. in Nigeria .and self administered questionnaires (for medical students and medical graduates )were introduced to them and he found that most of the medical students and graduates were female . Regarding the medical educational method and teaching strategies, all the students from both stages preferred combined method of teaching, this result is agree with the study conducted by (Rita /2004) . (8) in BMA medical Collage and Vajira hospital which indicated that majority of medical students were satisfied with both methods (LBL+ PBL) and they considered both PBL and LBL to be effective styles of learning for themselves and believed that both methods facilitated their learning process.

Similar study was conducted by Bushra/2011.(9) who determined that the medical students in public sector medical university regarding the academic activities and teaching methods were dissatisfied with the quality of teaching in the university and 57% of the participants believed that the current standard of their collage were not at par with those of international medical universities. Concerning the curriculum, medical students in Nineveh medical collage were agreed with the theoretical hours were too much over the practical hours in each subject and female represented a higher percent than male, this result was agreed with another study conducted in GCC countries (Kingdom of Saudi Arabia, Oman, Kuwait, Qatar, Bahrain, United Arab Emirates and Yemen) / 2005 .(10) to assess the current status of undergraduate curricula, in these medical colleges in relation to SPICES (Student-centered, Problem-based, Integrated, Community-based, Elective and Systematic) model and they found that (40%) of them were following the traditional curriculum, while the remaining (60%) were following hybrid Problem-based learning (PBL) curricula and medical students were dissatisfied with the curriculum in traditional method because of inadequacy of practical hours in comparison to theoretical hours. The majority of the traditional colleges were planning to change their curricula because of that medical colleges are still suffering from a curriculum based on the traditional lecture method which is not competent enough and the doctors graduating from these institutions might have the standards which are far from satisfactory when compared with graduates from another medical schools in U.K, U.S.A., and some European countries such as the Netherlands disappointment with traditional education has arisen because too many students memorize, forget, fail to apply or integrate knowledge and resist further learning’s and as a result the traditional curriculum is not well accepted by the students, as it does not prepare doctors to meet the needs of the community.

Another study was conducted by Tyagi / 2002 (11) in University College of medical sciences / Delhi / India to judge the utility of medical educational method from the students view points who found that 67% of medical students were agreed that practical hours and demonstration were inadequate and suggested to increase the number of practical hours and sessions with more greater hands on experience.

**Conclusions :-**

The study concluded that majority of the medical students from both stages (Third and Fifth) preferred combined method of medical education (Traditional and Innovative method) and they agreed that the proportion of theoretical hours much over the practical hours.

**Recommendations:**

The study recommended that Curricular innovations should be implemented in medical colleges upon their establishment, whereas established medical colleges could implement these innovations in a phased manner and curricular change should be done to all–lecture based learning or all-PBL curriculum. Increased emphasis on better lectures and practical training as well as a need to incorporate the clinical sessions for the students to help plan them their future paths. Further Future research is needed to investigate each of these methods to determine the
suitability of each one of these medical educational methods and teaching strategies.

References
9- Bushra M, To determine the level of satisfaction among medical students of a public sector medical university regarding their academic activities, Medical education J; 2011; 4: 380.
11- Tyagi A, Ahuja S. Under graduate medical students assessment of teaching curriculum / a cross – descriptive study, Indian J. Anaesth.2002; 46(3): 186- 188

Table (1) : Socio demographic characteristics of the study students

<table>
<thead>
<tr>
<th>Socio- demographic parameter</th>
<th>Third class N=71</th>
<th>Fifth class N=36</th>
<th>Total N=107</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>male</td>
<td>32</td>
<td>45.1</td>
<td>16</td>
</tr>
<tr>
<td>Female</td>
<td>39</td>
<td>54.9</td>
<td>20</td>
</tr>
<tr>
<td><strong>Age group (years )</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20- 23</td>
<td>71</td>
<td>100</td>
<td>32</td>
</tr>
<tr>
<td>&gt; 24</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Table (2): Frequency distribution of study sample according to their preferred medical educational methods and teaching strategies

<table>
<thead>
<tr>
<th>Medical educational methods and teaching strategies</th>
<th>Medical stage</th>
<th>N</th>
<th>No.</th>
<th>%</th>
<th>No.</th>
<th>%</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional methods (LBL)</td>
<td>Third stage</td>
<td>N=71</td>
<td>11</td>
<td>15.4%</td>
<td>10</td>
<td>27.8%</td>
<td>21</td>
<td>19.7%</td>
</tr>
<tr>
<td></td>
<td>Fifth stage</td>
<td>N=36</td>
<td>8</td>
<td>11.3%</td>
<td>6</td>
<td>16.7%</td>
<td>14</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>N=107</td>
<td>52</td>
<td>73.3%</td>
<td>20</td>
<td>55.5%</td>
<td>72</td>
<td>67.3%</td>
</tr>
</tbody>
</table>

- χ² test was used

Table (3): Frequency distribution of study sample according to their opinions regarding the proportion of theoretical hours over the practical hours

<table>
<thead>
<tr>
<th>Curriculum coverage</th>
<th>Medical stage</th>
<th>N=71</th>
<th>32</th>
<th>39</th>
<th>16</th>
<th>20</th>
<th>48</th>
<th>59</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third stage</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>26</td>
<td>39</td>
<td>6</td>
<td>4</td>
<td>32</td>
<td>43</td>
<td>75 (70.1%)</td>
<td>&lt; 0.005</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>0</td>
<td>10</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>32 (29.9%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>39</td>
<td>16</td>
<td>20</td>
<td>48</td>
<td>59</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- χ² test was used
أراء طلبة كلية طب نينوى حول طرق التدريس واستراتيجيات التعليم الحالية

الخلاصة:

أجريت دراسة وصفية مقطوعية لطلبة كلية طب نينوى للمرة من 2012/4/1 إلى الانتهاء من شهر مايو 2012 لغرض تطوير جودة التعليم الطبي الجامعي في كلية الطب العراقية. تم شمول جميع الطلبة من المرحلة الثانية من الكلية عندما نسبة 21-23 سنة (نسبة 91-98%) والذين يعانون من الفشل المزدوج للتعليم الطبي والتي تعتمد على الطريقة التقليدية مع الطريقة المبتكرة وشكلوا نسبة (22-67%) معا. 

 blurry the following table and text of the opinion of the medical students of Kaimin Medical College regarding the current medical educational methods and teaching strategies.

وقد أظهرت النتائج أن 12% من الطلبة أعربوا عن رضاهم الشديد بإعدادهم للمؤتمرات، ونسبة 15% أعربوا عن الرضا الفاقد لاستخدامهم للمؤتمرات. ونسبة 21% أعربوا عن الرضا القليل لاستخدامهم للمؤتمرات.

أما من الناحية العملية (75-10%)، فقد أعربت نسبة 70% من الطلبة عن الرضا الشديد في استخدامهم للمؤتمرات.

توصي الدراسة بالاهتمام بالأفضل والتركيز على الجانب التدريبي العملي لما له من أهمية قصوى لمساعدة الطلبة لكي يصبحوا أطباء مستقبل ويحذرون مسارهم الوظيفي.

مفاتيح الكلمات: طلاب الكليات الطبية، أرائهم، طرق التدريس.