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The status of clinical teaching from viewpoint of faculty members and students at Guilan University of Medical Sciences

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Abstract

Background: One of the main tasks of the faculty of medical sciences is clinical training. Given the importance of clinical teaching for medical students, the study aim was to determine the clinical teaching status from the perspective of students and faculty members.

Methods: The population of this cross-sectional study was all medical interns and final-year students of nursing and midwifery and faculty members of Guilan University of Medical Sciences in the 2015. The sampling was conducted by census method after obtaining the consent of the participants. The scale was a questionnaire consisting of 4 parts, including demographic data, phrases related to clinical teaching principles by faculty members, phrases related to the use of material and educational media by clinical faculty members and phrases related to educational activities by clinical faculty members. Data analysis was done by descriptive and inferential statistics (Mann-Whitney U test).

Results: Based on the results, the mean score of clinical teaching status from the perspective of the faculty members was 62.88 ± 5.76 out of a score of 66, and the mean score was 52.11 ± 1.1 from the students' perspective. Mann-Whitney U test results also showed a significant difference between faculty members' and students' perspective scores about clinical teaching status ($P < 0.0001$).

Conclusion: According to the findings of this study, to improve the quality of clinical education, implementation strategies will be necessary. One of the most important parts of teaching in the field of medical science is clinical education as it is the first real experience students have with their future work environment and it has a significant impact on their occupational success.

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Introduction

A key element in any university is education and the teaching-learning process. In fact, according to technological progress and the move toward a post-industrial society, new developments in the teaching-learning process at the university are necessary. Thus, traditional strategies for data transfer must move to the new instructional strategies, such as problem-oriented learning and prob-

lem-solving, which can help develop students' creative abilities.¹

Today, teaching evaluations, quality and effectiveness are often highlighted.² This is even more important in medical sciences students because the main mission of a medical university is training human resources for health promotion and treatment of the community.^{3,4} On the other hand, one of the characteristics of medical sciences

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education is learning practical and communication skills in addition to theoretical knowledge.⁵ In fact, clinical education provides an opportunity for students to convert theoretical knowledge to mental, psychological and psychomotor abilities, which is essential to patient care.⁶ Also, it should be noted that a high quality of patient care can be achieved only when the doctors have received high-quality teaching during their education.^{7,8} On the other hand, learning in the clinical setting is different from the formal learning environment and creates challenges for clinical faculty members.⁸

In general, clinical education is a complex process that is influenced by numerous factors, and the role of clinical faculty members as a fundamental element in this process is very important.⁹ However, the majority of the faculty do not have formal training in teaching methods and have little readiness for teaching.¹⁰ This leads to disturbances in the teaching and learning process.⁴ Clinical teachers should have enough knowledge of instructional strategies and knowledge in the field of teaching and learning to provide an opportunity to focus teachers and students on various aspects of patient care.¹¹

Thus, in an effort to maintain high-quality educational programs, performance evaluations of faculty members are used widely.¹² Thus, the study aim was to determine the clinical teaching status from the perspective of students and faculty members of Guilan University of Medical Sciences.

Materials and Methods

This was a cross-sectional study.

The community of this study consisted of all medical interns and final year students of nursing and midwifery (282) and faculty members of Guilan University of Medical Sciences in the 2015 academic year. We chose these groups of students because they have many clinical education units in their educational period.

The census sampling method was used after written consent was obtained. Out of 419 persons, 190 students and 63 faculty members responded to the questionnaire.

The scale was a researcher-made questionnaire consisting of 4 parts, including demographic information, phrases related to clinical teaching principles by faculty members, phrases related to the use of material and educational media by clinical faculty members and phrases related to educational activities by clinical faculty members.

The questionnaire of clinical teaching principles of faculty members had 22 items, and the scoring was based on yes (3), somewhat (2) and no (1), and the maximum score was 66 and minimum score was 22. A higher score indicated a more favorable situation in the field of clinical teaching principles. In the sections concerning phrases related to the use of material and educational media by clinical faculty members (4 items) and phrases related to educational activities by clinical faculty members, the scoring was based on yes and no.

For obtaining validity, the questionnaire was sent to some experts in the medical education field and results showed

all items had content validity ratio (CVR) above 85%. Also, test-retest results showed a 78% correlation between two stages of this tool.

Kolmogorov-Smirnov test results showed that the data did not have a normal distribution. Data analysis was done by Mann-Whitney U test and SPSS 16 software.

Results

The findings of demographic data showed the mean age of faculty members was 44.75 ± 8.42 , and the mean age of students was 24.38 ± 2.72 . The majority of faculty members were female (54%), married (84.1%) and their academic field was medicine (61.9%). Also, the majority of students were female (61.58%), single (82.1%) and their academic field was nursing (49.7.9%).

The majority of faculty members were assistant professors (49.2%) and the mean years of teaching experience was 11.56 ± 8.29 .

Based on the results, the mean scores of clinical teaching status from the perspective of medical faculty members and their students were 60.23 ± 6.97 and 52.56 ± 1.12 , respectively. A Mann-Whitney U test showed a significant difference between medical faculty members and students ($P < 0.0001$). Also, the mean scores of clinical teaching status from the perspective of nursing and midwifery faculty members and their students were 58.90 ± 8.04 and 48.75 ± 10.07 , respectively. A Mann-Whitney U test showed a significant difference between nursing and midwifery faculty members and students ($P < 0.0001$; Table 1). Nursing and midwifery faculty members (58.3%) and their students (30%) believed the most commonly used material and educational media was laptops. Medical faculty members (94.9%) and students (80%) identified slide and video projectors as the most used material in clinical teaching. The distribution of material and educational media used in clinical teaching is demonstrated in Table 2. The results showed that, from the perspective of nursing and midwifery faculty members, the most frequently performed activities were related to the conference or seminar and case presentation (83.8%) and from the students' perspective the most frequently performed activities were related to case presentation (80%). From the perspective of medical professors, the most frequently performed activities were related to educational rounds (94.9%) and journal club (94.9%), and from the perspective of medical students the most frequently performed activities were morning reports (74.4%).

Discussion

In this study, the mean score of clinical teaching status was higher from the perspective of medical faculty members than students. Salimi and colleagues also observed that the majority of nursing and midwifery teachers believed that the clinical teaching status was desirable, but was relatively desirable from the perspective of students.¹³ In some studies, the majority of students and instructors expressed that the instructors' performance was good in practice.^{14,15} These findings clearly emphasize the importance of train-

Table 1. The mean score of clinical teaching status from perspective of faculty members and their students

| Perspective on clinical teaching status | Mean \pm SD | Mann-Whitney test results |
|---|-------------------|---------------------------|
| Medical faculty members perspective | 60.23 \pm 6.97 | $P < 0.0001$ |
| Medical students perspective | 52.56 \pm 1.12 | $P < 0.0001$ |
| Nursing faculty members perspective | 58.90 \pm 8.04 | $P < 0.0001$ |
| Nursing students perspective | 48.75 \pm 10.07 | $P < 0.0001$ |

Table 2. Distribution of the use of educational materials and media in each group

| | Groups | Perspective on the use of material and educational media | | | |
|---|-----------------------|--|-----------|----------------------|-----------|
| | | Faculty members perspective | | Students perspective | |
| | | Yes | No | Yes | No |
| | | No. (%) | No. (%) | No. (%) | No. (%) |
| 1- Use of educational videos by clinical teachers | Medicine | 27 (69.2) | 12 (30.8) | 38 (42.2) | 52 (57.8) |
| | Nursing and midwifery | 12 (50) | 12 (50) | 28 (28) | 72 (72) |
| 2- Use of slides and video projector | Medicine | 37 (94.4) | 2 (5.1) | 72 (80) | 18 (20) |
| | Nursing and midwifery | 10 (41.7) | 14 (58.3) | 27 (27) | 73 (73) |
| 3- Use of laptop | Medicine | 36 (92.3) | 3 (7.7) | 69 (76.7) | 21 (23.3) |
| | Nursing and midwifery | 14 (58.3) | 10 (41.7) | 30 (30) | 70 (70) |
| 4- Use of educational software in mobile phones and tablets | Medicine | 12 (30.8) | 27 (69.2) | 26 (28.9) | 64 (71.7) |
| | Nursing and midwifery | 12 (50) | 12 (50) | 29 (29) | 71 (71) |

ing clinical faculty members and improving their skills.¹³ Perhaps the low level of teachers' skills in teaching is because of the lack of related courses in their academic experience.¹⁶ In this study, there was a significant statistic relationship between faculty members and students in all groups, similar to the study of Vahabi et al.¹⁴ But the study of Salimi et al did not show a significant relationship between faculty members and students.¹³ It seems that, due to teachers' broader vision and higher insight than students, they can better analyze the situation. Students often rely on short-term results, and this may have caused the lower score of students' perspective toward effective clinical teaching.

The most frequently used material and educational media from the perspective of nursing and midwifery faculty members and their students was laptops, and from the perspective of medical faculty members and students slide and video projectors were most frequently used. In a study by Bahadorani and Yamani, results showed that the majority of faculty members had a positive attitude toward the use of computers and internet in medical education, but a significant percentage of them lacked enough knowledge and skills in this area.¹⁷ Given the important role of material and educational media in teaching and learning, it is suggested that it is necessary to highlight the presence of and encourage teachers' use of these materials and media. Also, the results showed that from the perspective of nursing and midwifery faculty members and students, the most frequently performed activities were related to the conference or seminar and case presentation. From the perspective of medical professors, the most frequently performed activities were related to educational rounds

and journal club, and from the perspective of medical students the most frequently performed activities were morning reports. A study by Ghanbari and Jafroodi showed that the majority of faculty members used bedside teaching, individual conferences, team conferences and conferences based on nursing care.¹⁸ It seems that the use of new teaching methods is an effective measure that will improve the quality of medical education.⁴ Therefore, to establish effective clinical teaching, clinical teachers must use new teaching methods appropriate for their educational objectives.

A limitation of this study was the lack of direct monitoring of professors by researchers and the use of a self-report about clinical teaching. It is recommended that further studies be done with a more comprehensive assessment on the status of teaching. Another limitation of the study was sample loss due to the lack of cooperation of some of professors and students.

Conclusion

According to the findings of this study and previous studies, implementation strategies to improve the quality of clinical education could be emphasized because clinical teaching is an important part medical sciences education. In fact, clinical teaching is the first real experience of students with their future work environment and can thus have a significant impact on their occupational success.

Ethical approval

The ethical approval of this study was obtained from the Ethics Committee of Guilan University of Medical Sciences.

Competing interests

None to be declared.

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