



Original Article

Evaluating and comparing the performance of patient education of medical students in obstetrics and gynecology ward from the viewpoint of staff and medical students

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Abstract

Introduction: Getting education is one of the rights of the patients and a tool to improve health. Considering medical students spend a lot of time at the patient's bedside, educating the patient is considered one of their duties. The purpose of the current research was to assess and compare medical students' performance in patient education in the obstetrics and gynecology ward from both the staff and students' points of view.

Methods: In this descriptive-analytical study, students, and medical staff, who were in the obstetrics, and gynecology ward were selected by the census. The information regarding the performance of students in patient education was collected via a researcher-made questionnaire that was completed by students and medical staff. Then, the data was analyzed using an independent t-test at 5% significance level by SPSS (Version. 26) statistical software.

Results: 55 people completed the questionnaire. The average age of the students and employees was 25.88 ± 2.12 and 32.60 ± 2.47 respectively. From the staff's perspectives, in all diseases and procedures, the mean of student performance in patient education was 4.08 ± 0.07 . From the student's perspectives, in all diseases and procedures, the mean of student performance in patient education was 3.19 ± 0.13 . A comparison of the average performance of the medical students in the patient education in the midwifery, and gynecology ward regarding various diseases and procedures from the perspective of medical students and staff indicates that there is no significant difference between the average performance of the medical students in the patient education in any of the diseases and procedures from the perspective of staff and students (P -value > 0.05).

Conclusion: The overall performance of students in the patient education in various diseases, and procedures in the obstetrics and gynecology ward was middle from the students' viewpoint and the staff's viewpoint was good. In the patient education of details due to each disease or procedure, in some diseases, students' performance was not appropriate, so it is suggested that educational workshops be held for students in this regard.

Keywords: Gynecology, Students, Educational Measurement, Performance

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Introduction

One of the most important needs of the patients is to acquire sufficient, and appropriate skills regarding their disease, and knowledge reduces fear and anxiety in the patients, and makes them recover as soon as possible (1). The findings of the study demonstrate that patients who have received training about their illness are happier with the care given by medical personnel (2,3). Patient education as the most important right of the patient, is a tool to achieve health improvement, and prevention of diseases, and it is a set of activities planned to help people who have experienced the disease or the complications of disease, and ultimately change the patient's condition, and improves it (4,5).

Patient education is a process that includes health care education that is part of the care plan and should not be considered a side task (6). In some countries, patient education is one of the validation criteria of organizations that provide medical services, based on which the quality of care is determined, but in our country, this issue still faces a challenge (7). Studies have shown that the statistics of patient education in Iran and the world are increasing by about 50% compared to the past. Despite its significance, medical professionals, staff, and students do not provide patients with enough effective education, and patients' understanding of care and treatment in the area of the illness is low (2).

Humans need to be educated, and it becomes very important when they are admitted, and sick in the hospital, and the personnel and medical doctors play an important role because they have the most contact with the patient and their family (8). It is an important part of the care's duty of medical doctors, students, and medical personnel (9). Medical doctors, medical students, and medical staff have more access to the patients and spend more time on the patient's care, so they have more opportunities for patient education (10,11). Patient education is one of the important duties of medical staff, medical doctors, and medical students, and if it is done based on the needs of the patient, it will reduce the cost of care and improve the quality of care (12).

Based on the studies, if patient education is provided coherently and regularly, and in a combination of

different methods, it will lead to better and more educational goals, considering that no study was conducted on the evaluation of patient education performance of general medical students, current study carries out to evaluate, and comparing the performance of medical students in patient education in obstetrics and gynecology's ward from viewpoint of staff and medical students (10,11).

Materials and Methods

In this descriptive-analytical study that was carried out at Yasuj Medical Sciences University in 2022, extern students, intern students, and medical staff, who were in the obstetrics, and gynecology's ward, including obstetrics and gynecology's department faculty members, midwifery department faculty members, nurses, midwives, and residents, were selected by the censuses. A questionnaire created by the researcher and filled out by students and medical staff was used to gather data regarding student performance in patient education. Student's mastery in the patient education studied in laparoscopy, urinary incontinence, bladder prolapse treatment, cesarean section, abdominal hysterectomy, tubal ligation, hymenotomy, curettage, ectopic pregnancy, open wound infection, episiotomy open wound, ovarian cystectomy, vaginal hysterectomy, and hysteroscopy. In the questionnaire, in addition to the demographic questions, questions were categorized into three sections, including students' skills in patient education in admission, inpatient, and during discharge.

The questions about patient education in admission, including education about hospital guide and the physical space of the ward; ward and hospital regulations; the name of the doctor, and members of the treatment and care team, visit time; health and safety advice to the patient; the educational programs of the health education office; social worker; prohibition of treatment; cost of treatment; the explanation of alternative methods of treatment; explain the consequences of the treatment; informed consent in diagnostic, and therapeutic procedures. Questions about patient education in inpatient settings include disease definition, treatment, and alternative methods; consequences of treatment;

pain relief; drugs and drug side effects; medical warnings of the primary and secondary diseases; using the vital sign checking tool; range of activity and rest; self-care regarding the primary and secondary diseases; and nutritional guidance.

Questions about the patient's education in discharge including medications; nutrition; range of activity and rest; sexual education; self-care about the main and underlying disease and the time of re-visit. Answering the questions was on a Likert scale from zero to five. The questionnaire was scored as follows excellent grade (with a score of 5), good (with a score of 4), middle (with a score of 3), weak (with a score of 2), very weak (with a score of 1), and lack of mastery (with a score of 0). Content validity was determined by determining CVR and CVI. The opinions of experts in the field of test content are used to determine the CVR.

First, the objectives of the test are explained to the experts (5 gynecologists) and the operational definitions related to the content of the items are stated. Then they are asked to classify each of the items according to the three-part Likert scale as the subject is essential, it is useful but not necessary, and it is not necessary. For items less than 0.99, the items were removed from the set of items. Finally, after removing inappropriate items, CVR of the questionnaire was 1.

For the calculation of CVI, experts are asked to determine the degree of relevance of each item with the following four-part spectrum; irrelevant, need for a major overhaul, related but needs revision, and totally relevant. If the resulting value was less than 0.7, the item was rejected, if it was between 0.7 and 0.79, it was revised, and if it was greater than 0.79, it was acceptable. The total average of CVI was 0.83. The reliability of the questionnaire was 0.73. Based on the focus group held with the presence of gynecology, medical education, and psychology specialists, considering that 6 scoring numbers were considered and the total average is considered 5 based on this, it was decided that by dividing 5 By 6 the level of students' skills in patient education was graded as lack of mastery (between 0 and 0.83), very weak (between 0.83 and 1.66), weak(between 1.66

and 2.49), middle(between 2.49 and 3.32), good (between 3.32 and 4.15), and excellent (between 4.15 and 5). Regarding the spread of Covid-19 disease, health protocols were followed, the questionnaire was prepared online on Porsline, and the link to the questionnaire was sent to students, and staff through virtual space. The questionnaire's completion was followed up on by phone and in person. The data was entered into SPSS version 26 and the mean and standard deviation of each item were calculated.

The staff and students' perspectives on student abilities in patient education in the obstetrics and gynecology ward were compared using an independent t-test at a five percent significance level. This research was checked out by the research ethics committees of Yasuj University of Medical Sciences on September 18, 2021. The approval identification ethics code of this research was IR.YUMS.REC.1400.143.

The research was found in accordance with the ethical principles and national norms and standards for conducting medical research in Iran. Also, the research has been performed in accordance with the Declaration of Helsinki. Written informed consent was obtained from all subjects who participated in the study before joining the study. Initially, the purpose of the study was explained to the study population, and if they wished to complete the questionnaire, it was delivered to them.

Results

25 students (18 Extern and 7 Intern), and 30 employees completed the questionnaire. Six (24%) of the students and 24 (80%) employees were married. Comparison of mean age and grade point average in different groups is presented in Table 1.

Table 1. Comparison of mean age and grade point average in different groups

Variables	Group	Mean	SD	p-value
Age	Students	25.88	2.12	0.03
	Medical Staff	32.60	2.47	
GPA	Extern Students	14.11	1.42	0.99
	Intern Students	14.11	1.46	


Evaluating and comparing the performance of patient education of medical students

As shown in table 1, there was no significant difference between extern, and intern students in terms of GPA ($t=.009$, $df=23$, $p\text{-value}=0.99$). The mean score of performance of medical

students in educating patients about different illnesses and procedures in the midwifery and gynecology ward is shown in Table 2 from the perspective of the staff and medical students.

Table 2. Comparison of the perspective of medical studentsw and staff about medical students' performance in patient education at different illnesses and procedures

Variables	Group	Mean	SD	Performance grade	P-Value
Bladder prolapse treat	Students	3.34	1.73	Good	0.55
	Medical staff	4.07	0.70	Good	
Cesarean section	Students	3.23	1.74	Middle	0.26
	Medical staff	4.07	0.73	Good	
Ectopic pregnancy	Students	3.37	1.75	Good	0.54
	Medical staff	4.16	0.62	Excellent	
Tubal ligation	Students	3.08	1.91	Middle	0.13
	Medical staff	4.13	0.71	Good	
Abdominal hysterectomy	Students	3.29	1.75	Middle	0.40
	Medical staff	4.07	0.70	Good	
Curettage	Students	3.21	1.86	Middle	0.33
	Medical staff	4.16	0.63	Excellent	
Laparoscopy	Students	3.25	1.66	Middle	0.23
	Medical staff	4.01	0.87	Good	
Hysteroscopy	Students	3.07	1.86	Middle	0.13
	Medical staff	4.00	1.15	Good	
Episiotomy of open wound	Students	3.17	1.87	Middle	0.28
	Medical staff	4.21	0.67	Excellent	
Urinary incontinence	Students	3.27	1.52	Middle	0.18
	Medical staff	3.95	0.98	Good	
Vaginal hysterectomy	Students	3.28	1.81	Middle	0.47
	Medical staff	4.04	0.96	Good	
Ovarian cystectomy	Students	3.03	1.92	Middle	0.22
	Medical staff	4.10	0.73	Good	
Open wound infections	Students	3.22	1.91	Middle	0.64
	Medical staff	4.08	0.78	Good	
Hymenotomy	Students	2.90	1.99	Middle	0.06
	Medical staff	4.07	0.86	Good	

The average performance of students in the patient education from the perspective of the students in all diseases, and procedures except hymenotomy was above 3. Still, according to the interpretation made from the perspective of the students in all diseases, and procedures, they have a middle level of ability to the patient education, the diseases and procedures that from the perspective of students, they had a good ability were Bladder prolapse treat, and Ectopic pregnancy. The average performance of students in patient education from the staff's point of view was above 3 in all diseases, and procedures. From the perspective of the staff, the students had a good capacity to educate patients about all illnesses and procedures, and from their perspective, they had a great ability to educate patients about ectopic pregnancy, curettage, and episiotomy of open wounds. From the staff's perspectives, in all diseases and procedures, the mean of student performance in patient education was 4.08 ± 0.07 . From the student's perspectives, in all diseases and procedures, the mean of student performance in patient education was 3.19 ± 0.13 . A comparison of the average performance of the medical students in the patient education in the midwifery, and gynecology ward regarding various diseases and procedures from the perspective of medical students and staff indicates that there is no significant difference between the average performance of the medical students in the patient education in any of the diseases and procedures from the perspective of staff and students ($p\text{-value} > 0.05$). The mean and standard deviation of the ability of students in each of the patient education subfields related to each disease or procedure are shown in Tables 3 and 4. 

As shown in Tables 3 and 4, in all patient education sub-fields of any disease or procedure, from the staff's point of view, the mean score of students regarding patient education is above 3. From student perspectives in admission patient education, in subfields, such as the prohibition of treatment, cost of treatment, the explanation of alternative methods of treatment, explaining the consequences of the treatment, informed consent in diagnostic and therapeutic procedures, the mean score of patient education performance of students was lower than 3

in some diseases and procedures. As shown in table 3 and 4, from student perspectives, in inpatient patient education, in subfields, such as disease definition, treatment and alternative methods; consequences of treatment; pain relief; drugs and drug side effects; medical warnings of main, and underlying disease; working with the vital sign checking tool; range of activity and rest; self-care about the main and underlying disease; and nutritional advice, mean score of patient education performance of students was lower than 3 in some diseases, and procedures. As shown in Table 4, the main score of students for patient education was lower than three from their viewpoints on discharge patient education in subfields such as medicines, diet, range of activity and rest, sexual education, and self-care concerning the primary and underlying condition.

As shown in table 3 and 4, comparison of the perspectives of medical students and staff about medical students' performance in patient education subfields shows significant differences in different illnesses and procedures. For example, in Tubal League, there was a significant difference in student performance from the perspective of the student and the staff in the following areas, hospital guide and the physical space of the ward, ward and hospital regulations, the name of the doctor and members of the treatment and care team, visit time, health and safety advice to the patient, cost of treatment, explanation of alternative methods of treatment, explain the consequences of the treatment, informed consent in diagnostic and therapeutic procedures, disease definition, treatment and alternative method, consequences of treatment, pain relief, drugs and drug side effects, medical warnings of the main and underlying disease, working with the vital sign checking tool, range of activity and rest, self-care about the main and underlying disease, nutritional advice, medications ($p\text{-value} < 0.05$).

Discussion

The current study was carried out with the purpose of evaluating and comparing the performance of medical students in patient education in obstetrics, and gynecology wards from the viewpoint of staff and medical students. From the perspective of the

students all diseases, and procedures, have a middle level of ability the patient education, the diseases and procedures that from the perspective of the students, had a good ability were Bladder prolapse treatment and Ectopic pregnancy.

From the perspective of the staff, the students had a good capacity to educate patients about all illnesses and procedures, and from their perspective, they had a great ability to educate patients about ectopic pregnancy, curettage, and episiotomy of open wounds. Comparing the average performance of the medical student in patient education in the midwifery, and gynecology ward regarding various diseases and procedures from the perspective of medical students and staff indicates that there is no significant difference between the average performance of medical students in patient education in any of the diseases and procedures from the perspective of staff and students. The results of this research are similar to the research conducted at Isfahan University of Medical Sciences. In the research conducted at Isfahan University of Medical Sciences, the performance of medical doctors in patients' education during discharge from the perspective of medical interns in internal and surgical departments was investigated using a researcher-made questionnaire in Isfahan City in 2018, and from their viewpoints, the performance of medical doctors was moderate (13).

The difference between the present study, and the study conducted in Isfahan was that in the present study, the performance of medical students in patient education was investigated, while in the Isfahan study, the performance of medical doctors in patient education was studied.

Additionally, the current study looked into how well patients were educated in the gynecology and midwifery wards, whereas the Isfahan study looked into how well patients were educated in the internal medicine and surgery wards. Besides, the performance of the patient's education of the students was studied in three stages of admission, inpatient, and discharge, while in the Isfahan study, the performance of the patient's education of the medical doctors during the discharge was studied.

In the patient education during discharge in the subfield of drugs in procedures and diseases, such as

the fallopian tubes, hymenotomy, ectopic pregnancy, and ovarian cystectomy, the average score of the students regarding the patient education from the student's viewpoint is lower than 3.

This finding is distinct from the one obtained from the Isfahan research. According to the interns who participated in the Isfahan research, the area of medical education where physicians performed the best was teaching patients how to take their medications at home (13). The results of a study showed that the main educational expectations of patients are related to the length of time of taking medicine, how to take medicine, and the necessary precautions regarding taking medicine (12).

It seems that the higher level of education in the field of drugs in the Isfahan study is in terms of both the patients' demands and the doctors' perception of the benefits that the patient's education can have about the regular use of drugs.

The students stated that they have middle ability to the patient education, this result is different from the results of the studies conducted in Gonabad and the United States. In a study that was conducted in Gonabad to examine the educational needs during discharge in the patients referring to the health and treatment centers of Gonabad city, although the majority of patients (65.7) believed that they had received sufficient training, a percentage of them stated that they did not receive enough training, and needed training in the field of their disease (14).

An investigation on the sexual health knowledge of US medical students from 178 schools was undertaken in the US. According to the study's findings, medical students may not be fully equipped to address the crucial concerns of sexual health in upcoming clinical settings (15).

What was mentioned in the present study is that students' ability to the patient education about sexual issues in some diseases and procedures is middle. One of the limitations of this research was that the performance of students in patient education was measured by asking for an opinion, so it is better to measure the performance of students with practical tests such as objective structured clinical exercise (OSCE) and observing performance in a real environment in future studies.

Conclusion

The overall performance of the students in the patient education in various diseases, and procedures in the obstetrics and gynecology ward was middle from the students' viewpoint and the staff's viewpoint was good. In the patient education of details related to each disease or procedure, in some diseases, students' performance was not appropriate, so it is suggested to hold educational workshops for students.

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Conflict of interests

All authors declare that they have no conflicts of interest.

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