



Quality of outpatient education in educational clinics of Hormozgan University of Medical Sciences: Students and Professors' attitude

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Abstract: Introduction: General practitioner as an active groups of health care team, have major role in facing and treatment of outpatient people that cause outpatient be emphasized as a fundamental issues. Thus, our study aimed to evaluate the quality of outpatient education in major wards of educational clinics(internal, obstetrics, pediatrics and surgery) of Hormozgan University of Medical Sciences from students and professors attitude.

Methods: The population of this descriptive and applied study consist of all students include internship, externship and students and all clinical professors of Hormozgan University of Medical Sciences that were 200 people. Questionnaire was used to collect data. The questionnaire had 20 questions about ambulatory training characteristics including physical conditions, quality of number variety of patients, access to resources, quality of students and independent activity of students in history taking, examination and prescription, quality of professors' educational activities and the extent of their interest to clinical training. Data were analyzed by SPSS.

Results: The mean score of ambulatory teaching quality was 41.89 ± 7.40 . Comparing ambulatory teaching score in terms of educational grade showed that there is a significant difference between externship and internship scores.

Conclusion: Results showed that ambulatory teaching quality was not desirable. Thus, it is suggest that ambulatory teaching is done by careful planning. Also, there is need to hold briefing courses for professors and students.

Keywords: Outpatients education, Academic Medical Centers, Hormozgan University of Medical Sciences.

Introduction

General practitioner as an active groups of health care team, have major role in facing and treatment of outpatient people. According to investigations in health care systems in this country, ambulatory teaching has

been emphasized as a major issues in medical education¹. According to one of most important approaches (achievement based education), each higher education system must educate students based on their future work need².

What is known in traditional approach as a dominant clinical education environment in medical education, is hospital education (inpatient wards) and major educational programs in this situation are planned and done, whereas what is important in future workplace of general practitioner, are clinical patients that there is main difference between outpatient and inpatient wards not only in term of diseases but also in terms of available short time for effective communication, taking information and examination, reviewing the differential diagnosis and also outpatient treatment and prescription and as a result, attention to outpatient and ambulatory training have been become important and there are abundant evidences of its role in optimizing of future performance of general practitioner and investigating the problems in the world³.

Although has not been done comprehensive studies in this field and various aspects of outpatients and ambulatory training, available experiences and some conducted studies indicate the inadequacy and insufficiency in this important area of medical education^{4,5}. There are not complete investigation about standard principal teaching, however it is acceptable that deep educational methods including integrated perceptual skills have better educational outcome in comparison with shallow methods or mere explanation. Recent experiences have shown that noncompliance of appropriate and scientific patterns can cause serious problems⁶.

Several studies have examined students' views about ward and ambulatory training. The majority of students believes that ambulatory training is useful^{7,8}. Measuring the viewpoints of students, as major client in educational system not only is the way that its results reflect the current status, butalso clear the way for planning and modifying the available methods and strengthens professors in educational areas that have more compliance with desired working conditions of students in future. Irby (1995) showed ambulatory training performance was less than desired level and had disadvantages including variability, unexpectedness and discontinuity of educational process⁹. Jacobson et al. (1998) found that ambulatory training is more acceptable than ward training⁷. Kalt et al. (1998) compare wards and ambulatory training and found that ambulatory training was more useful and effective⁸. McManus and Keeling (2004) showed that effect of educational methods depends on educational effectiveness of receiver and perception of current way of work¹⁰.

Conducted studies in Iran about ambulatory training although have increased in recent years, it is not enough and it is impossible to conclude. However, as a result of these studies, can be said that ambulatory training is weak and requires a systematic ambulatory training and also need to be improved by exact assessment systems and improved. Studies showed that most of students have a negative view about quality of ambulatory training^{11,12,13,14}. Thus, this study aimed to investigate attitudes of Hormozgan University of Medical Sciences' students about ambulatory training provided in educational clinics of Hormozgan University in order to provide a setting for useful and effective changes to ambulatory training planning and increasing performance optimization of students after graduating.

Methods

This paper is a descriptive cross sectional study and applied research. The study population consist of clinical grade students (include internship, externship and students) and professors of Hormozgan University of Medical Sciences that were 200 people and entered by census. Data were collected by a questionnaire that was used in Khorasani et al¹² study. This questionnaire had 20 questions that investigates ambulatory training characteristics including physical conditions, quality number and variety of patients, access to resources, quality of students, independent activities of students in history taking, examination and prescription, quality of professor's educational activities and the extent of their interest to ambulatory training. Each question was measured by 5-item likert scale (best condition 5 and worth condition 1). The scale reliability was measured by test-retest method (0.85) validity was measured by content validity method according expertise view in this field. Demographic data was collected with this questionnaire. Totally, questionnaire were delivered to 200 students and 36 professors directly by researchers. Finally, 183 students and 17 professors returned the questionnaire. Data analyses was performed by SPSS21 and descriptive statistics (mean, standard division and frequency) and inferential statistics test and ANOVA was used.

Results

139 people (96.5%) were female. More than of half participants was in clinical wards. Their mean age was 25.75 ± 7.21 years. 183 participants (91.5%) were students. In terms of education grade majority of them were students (100 people, 54.6%). More details are shown in table 1.

Table 1: Demographic data

		Number	Percent
Sex	Male	61	30.5
	Female	139	69.5
Ward	Internal	68	34.0
	Pediatrics	49	24.5
	Obstetrics	32	16.0
	Surgery	51	25.5
Scientific ranking	Professor	17	8.5
	Students	183	91.5
Students' Grade	Student	100	54.6
	Externship	34	18.6
	Internship	49	26.8

In general, obtained score from quality of ambulatory training ranged from 15 to 65 with mean of 41.89 ± 7.40 . Comparison of mean score of ambulatory training quality between male and female, professors and students, single and married people, residential and nonresidential was statistically nonsignificant. Comparing of students' score to ambulatory training in terms of education grade showed that externship score was significantly higher than internship. Table 2 shows more information.

Table 2: Comparing mean score of ambulatory training quality in terms of demographic characteristics

Variable		Mean	SD	P-value
Sex	Male	41.63	7.94	0.74
	Female	42.00	7.18	
Students' Grade	Student	42.75	7.72	0.001
	Externship	44.14	6.03	
	Internship	38.36	7.61	
Scientific ranking	Professor	42.52	3.26	0.48
	Students	38.36	7.68	
Marital Status	Single	41.57	7.41	0.15
	Married	43.64	7.24	
Living place	Residential	42.19	7.47	0.51
	Nonresidential	41.51	7.34	
Mean score of ambulatory training quality		41.89	7.40	

Discussion

Due to the sensitive task that students will have in the future, medical education is one of the most important issues that have close relation to their preparedness for their future job¹⁵. One of most important expectation of ambulatory training is to follow a certain objectives¹⁶. According to results, majority of participants believe ambulatory training follow certain objectives, although more than 40% of them have opposite view. It shows there is need to provide ambulatory training more purposive and educational goals be explained to students.

Different effective dimension of education quality are access to scientific resources, physical condition, number and variety of patients, quality of students, independent activity of students in history taking, examination, prescription, quality of educational activities of professors and their interest in ambulatory training.

Based on results, one of the most important shortcomings is lack of sufficient resources. More than half of participants did not access to information resources.

Another effective factor in quality of ambulatory training is the number of trainees and interns. Most of participants believed that number of interns is appropriate but about more than of half participants said the number of trainees are high.

Another dimension is physical condition that like Khorasani et al.¹¹, Bazazi et al.¹² and Avijgan et al.¹⁴ small portion of participants said that physical condition is appropriate.

Number and variety of patients was described appropriate. Possibility of taking history and treatment independently was appropriate that is in parallel with Bazazi et al.¹². If students can independently diagnose and treat, they will received more and better education. Although independent examination and prescription is important, patients health should be consider. Therefore, professors should monitor on this process.

Professors interest to education, quality of their educational activities including present subjects in a structured way, appraise and modifying history taking can show the important role of professors in ambulatory training that in like Avijgan et al.¹⁴ and Bazazi et al.¹² was expressed appropriate.

Generally, ambulatory score in this study indicate that quality of ambulatory training is not desirable but some aspects like possibility of patients follow up and possibility of access to information resources can increase the quality of ambulatory training. According to this study, one of most important shortcoming in this case is lack of access to sufficient scientific resources. Making access to these resources is one of strategy that can have an effective role in improving quality of ambulatory training.

Since clinical conditions were described appropriate by a small portion of participants, it is essential to pay attention more to equipment and environment condition in order to improve quality of ambulatory teaching. Thus, we suggest quality of ambulatory teaching be improved by using new methods. Holding courses plan for professors and students, can help to increase quality of ambulatory training and whole students and professors must be introduced by any ambulatory training methods and know their advantages and disadvantages. Doing more regular planning and offering it to students can help to improve quality of education. It is better that students have access to this planning. Using attitude of students who are graduated recently, can be an effective factor in increasing education quality, because these students are aware of needed ambulatory training and they can judge better about needed changes in ambulatory training.

Conclusion

Results showed that ambulatory teaching quality was not desirable. Thus, it is suggest that ambulatory teaching is done by careful planning. Also, there is need to hold briefing courses for professors and students.

References

1. Mahoori Kh, Sadeghi Hassanabadi A, Karimi A, Tabatabaei HR. Investigating of clinical Faculty members of Shiraz University of medical Sciences toward participation of private sector physicians in ambulatory training to medical students. The Abstract of 1st National Congress of Ambulatory. Shiraz: Shiraz University of Medical Science; 2011. [Persian]
2. Mazor KM, Stone SL, Carlin M, AlperE. What do medicine clerkship preceptors do best? *Acad Med.* 2002; 77(8):837-40
3. Alizadeh M., Sadeghi Hasanabadi A., Sharifi HR. Surveyofgeneral practitioners working inhealth centers inShirazaboutambulatory medicine. The Abstract of 11th Geographical International and1st National Congress of Ambulatory. Shiraz: Shiraz University of Medical Science.

4. Shaygah B., Ahmadi A. survey of medical students on the adequacy of community-based ambulatory training programs educational health centers of Isfahan Shahid Navab Safavi in 1375. The Abstract of 11th Geographical International and 1st National Congress of Ambulatory. Shiraz: Shiraz University of Medical Science. 37.
5. Peivandi A., Nazari A. Madah SH. Study the attitudes of faculty members and students of Semnan University of Medical Sciences and Health Services toward ambulatory training. The Abstract of 11th Geographical International and 1st National Congress of Ambulatory. Shiraz: Shiraz University of Medical Science. 84.
6. Stagnaro-Green A, Packman C, Baker E, Elnicki DM. Ambulatory education: expanding undergraduate experience in medical education. A CDIM commentary. *Am J Med.* 1995; 99(2): 111-5
7. Jacobson EW, Keough WL, Dalton BE, Giansiracusa DF. A comparison of inpatient and outpatient experiences during an internal medicine clerkship. *Am J Med.* 1998; 104(2): 159-62.
8. Kalet A, Schwartz MD, Cappoin LJ, Mahon-Salazar C, Bateman B. Ambulatory versus Inpatient Rotations in Teaching -Third Year Students Internal Medicine. *J Gen Intern Med.* 1998; 13(5): 327-30
9. Irby DM. Teaching and learning in ambulatory care settings: a thematic review of the literature. *Acad Med.* 1995; 70(10): 898-931.
10. McManus IC, Keeling A, Paice E. Stress, burnout and doctors' attitudes to work are determined by personality and learning style: a twelve year longitudinal study of UK medical graduates. *BMC Med.* 2004; 2: 29.
11. Khorasani GA., Mahmoodi M., Shahi V., Shahbaznejad L., Ghaffari CH. Investigating of the quality of clinical education from the perspective of teachers and students of the Faculty of Medicine, Mazandaran University of Medical Sciences 1385. *Mazandaran University of Medical Sciences* 1386; 17(58): (87-100).
12. Bazazi N., Fallahi Nia GH., Yavari Kia AR., Hooshmand B. Medical students' attitude toward the quality of clinic education at the University of Medical Sciences 1386. *Iranian Journal of Medical Education* 1390; 11(2): 167.
13. Ahmadinejad Z., Ziyei V., Moraveji A. investigating the students satisfaction of Tehran University of medical sciences of clinical teaching using standard forms of job satisfaction assessment. *Iranian Journal of Medical Education* 1381; 7(8)
14. Avijgan M., Farzanfar A., Najafi M., Shams B. Ashvarion V. Quality of ambulatory training in clinics of AlZahra hospital according to trainees and interns' perspective. *Iranian Journal of Medical Education* 1389; 10(5): 896-905
15. Javadi H. Medical education community a step in the design of future doctors. *Zanjan University of Medical Sciences* 1373; 9-10: 33-37.
16. Shams B., Jamshidian S., Changiz T. Challenges of educational program in Pediatrics clinics based on the experiences of teachers and students: a qualitative study. *Strides in Development of Medical Education* 1389; 7(2): 81-91.
17. Shirdel A., Sarabi A., Mohebati M., Forooghi poor M., Baskabadi H. Investigating the quality of clinical education of medical students in internal, pediatrics and dermatology wards at Mashhad Ghaem Hospital 1387-88.
18. Amini A. Alizadeh M., Farzaneh F. investigating the quality of ambulatory education from the perspective of students in educational centers of Tabriz University of Medical Sciences. *Iranian Journal of Medical Education* 1381; 7(19).
19. Dent J.A, Harden R.M. A practical guide for medical teachers. Published in Elsevier Health Sciences UK, 2009. Edition 3.
