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A Review on Assessment of Medical Students and Instructors With Respect To the Intra-Ward and Clinical Education in Iran.

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ABSTRACT

Improvement of a physician's competence and performance, which ultimately leads to the better improvement of a patient's condition, the main objective of a medical school is training a competent physician, students are the best source for the identification of clinical education problems, this review of literature we discuss about assessment of medical students and instructors with respect to the intra-ward and clinical education in Iran, Data were drawn from a number of scientific data centers like PubMed, Medlib, IranMedex, SID, and Google scholar, and then analyzed. In this study, the keywords and their Persian equivalents used in the title of the paper, abstract, and the whole article were searched. Some studies indicate that there is a little satisfaction with outpatient training services and accurate determination of educational goals can play a huge role in the achievement of clinical objectives and improvement of skills training quality

Keywords: Students, Medical; Education, Medical, Iran,

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INTRODUCTION

What is important in medical education and internship training is something beyond just increasing knowledge and skills, i.e. the improvement of a physician's competence and performance, which ultimately leads to the better improvement of a patient's condition [1]. A fundamental need for a patient-doctor relationship and increased number of patient's demands for independence and self-determination are two major challenges of student-patient relationship [2]. In addition, an accurate and continuous assessment of students' clinical skills in clinical fields by means of valid instruments is considered as an important factor for switching from a static to a dynamic education [3]. It is worth noting that in the area of medical education, scientific development depends also on the enthusiasm and training quality of the instructors in doing their professional duties. This can lead to the improvement of training and learning, and finally health quality [4]. The main objective of a medical school is training a competent physician. To achieve this, students should be in an appropriate and stress-free condition to become capable of concentrating on their study [5]. Therefore, the psychological conditions of a clinical education environment has a special role in students' learning [6]. In addition, there is a growing concern regarding traditional methods of medical education (which are lecture based). This method neither strengthen students' actual values nor is an appropriate methodology for learning [7]. The medical trainees (externs) are usually trained in specialized hospital wards, and less in specialized clinics. This does not acquaint medical students with actual problems of the society, as the majority of common patients visit outpatient centers and only a small portion of them visit or are referred to specialized hospitals [8]. In addition to intra-ward training, clinical training is an important part of clinical medicine [9]. Yet, some studies have concluded that a long-term assignment of a large part of medical courses to hospital training is not suitable [2]. Students who receive educational services are the best source for the identification of clinical education problems as they are in a direct relationship with this process. The identification of clinical training condition contributes to the elimination or correction of the weaknesses, and can result in the achievement of educational objectives, training skillful people, and providing higher quality of health-care services [3].

This study aims for reviewing the literature on the assessment of medical students and instructors with respect to the intra-ward and clinical education in Iran to improve the quality of educational services, using its findings.

Procedure

This article addresses the literature on the attitude, condition, and satisfaction and/or satisfactory factor in relation to intra-ward and clinical training in medical universities of Iran among the medical students and instructors. Data were drawn from a number of scientific data centers like PubMed, Medlib, IranMedex, SID, and Google scholar, and then analyzed. In this study, the keywords and their Persian equivalents used in the title of the paper, abstract, and the whole article were searched. Those words were determined and the relevant statements were searched in databases. The explored words were satisfaction, assessment, students, medical, instructors, intra-ward, ward, clinic, outpatient, medical sciences, and Iran.

Criteria for Article Selection

The research articles were selected from English and Persian studies conducted in Iran from 1996 to 2014. Their focus should be on the issue of medical training in the wards and clinics. There was no limitation in article selection regarding the student's grade, being a student or an instructor, and the research methodology. Articles that were irrelevant to intra-ward and clinical training were removed. The explorations resulted in 30 articles among which 17 papers fulfilled the criteria.

Article Selection Methodology

To determine the proportionality of the articles to the research subject, the titles and abstracts of them were investigated in order. After the approval of an article's place and year of conduction, as well as its title, it was completely studied by one of the researchers. Then, the following information was extracted by another researcher from the selected articles: research methodology, investigated area and year of conduction, target population, sample size, sampling method, statistical analysis, and results. The obtained

results were assessed and approved by other researches and the conflicting cases were settled through negotiation. A summary of the articles are presented in Table 1.

Table 1: summary of the features of articles are presented

Title	Authors	Sample size	Tool	Type	Conclusion
Medical Student Satisfaction	Mortazavi et al,	400	Questionnaire	Descriptive	The student participation in educational planning should increase
Medical students 'satisfaction about Quality of Education	Masoomi et al,	100	Questionnaire	Descriptive	Existing shortages should be corrected
Viewpoints of Interns and Clerkship Students about Community Medicine Course	Khadivi et al,	55	Questionnaire	Descriptive	Revise the program of health professionals
The Effect of Using Cardiology Ward Logbook on Students Training	Kazemi et al,	60	Check list	Interventional	Identifying educational objectives and providing guidelines
Rate of satisfaction and evaluation of medical students-Shahrekord	Zamanzad et al,	77	Questionnaire	Descriptive	the students were unsatisfied from teaching rounds, outpatient clinic and theory courses
Assessment of medical interns opinion about education in surgery courses	Hosseinpoor et al,	123	Questionnaire	Descriptive	changing in surgical education
The Attitudes of Interns toward the Adequacy of Received Trainings in Obstetrics & Gynecology Ward	Adhami et al,	93	Questionnaire	Descriptive	improving the quality of clinical training
Educational Process of Interns in Obstetrics & Gynecology Department at Zahedan	Roudbari et al,	70	Questionnaire	Descriptive	Increase the quality of education in the index view, discussion on bedside, managing under the supervision
The Effect of Peer Assisted Learning on Clinical Reasoning	Mehrabi et al,	66	Questionnaire	Descriptive	The promotion of independence in learning can lead to the improvement of clinical skills
The Effects of Clinical Skills Training on Medical Trainees Performances-Qazvin	Pakniyat et al,	40	Check list	Semi Interventional	paying attention to the students' clinical skills
Achieving minimum learning requirements in ophthalmology ward	Taban et al,	40	Questionnaire	Descriptive	designing appropriate evaluation methods is suggested to assess interns' acquired skills
The Conformity of Educational Programs to the Educational Priorities of Medical Doctors	Nejabat et al,	!	!	Descriptive	revision of the educational priorities seems to be required.
Evaluation of Faculty Members' and Students' Attitude Towards Ambulatory Teaching Quality	Khorasani et al,	180	Questionnaire	Descriptive	The overall attitudes were negative
Medical students' viewpoints about the quality of education in outpatient clinics	Bazazi et al,	150	Questionnaire	Descriptive	pay special attention to medical education programs in order to improve the learning quality
Ambulatory Education Quality in Al-Zahra Hospital Clinics	Avizhgan et al,	180	Questionnaire	Descriptive	changing in physical status of clinics
An Evaluation on Medical Students' Satisfaction with Clinical Education and its Effective Factor	Ziaee et al,	2000	Questionnaire	Descriptive	clinical education should be reevaluated
The effect on academic performance interns psychiatric outpatient clinic	Nazari et al,	78	Questionnaire	Semi Interventional	outpatient clinic is effective in medical education

Type of Study, Population, and Samples

Among previous studies, three of them were interventional and the remaining were descriptive. The three interventional studies have addressed the effect of log book, the effect of outpatient and clinical training on academic performance, and the effect of clinical training skills on the improvement of internships' learning,

respectively. The majority of studies have investigated the satisfactory level of students of intra-ward training. In some cases, the status of the wards and clinics has been inspected. Six studies only examined the attitude and satisfaction of the interns. One case has addressed just the effect of clinical training skills on the improvement of internships' learning. A study has concentrated on the instructors and student and the remaining ones have investigated the attitude and satisfaction of interns and medical trainees. Sample size has not been mentioned in one case, and it was 100 in another study. In addition, the sample size was below 100 in 9 cases and over one hundred in the remaining ones. The maximum and minimum sample sizes were 1000 and 40, respectively.

Data Collection Instrument and Methodology:

In all studies, questionnaire has been used for data collection. The majority of them were researcher-made questionnaires, whose validity and reliability were investigated by their designers. Check list was also used in two studies.

Review of literature

In a study by Mortazavi et al. on the medical students of Isfahan University of Medical Sciences, the highest satisfaction with intra-society outpatient training (health centers) related to the instructor's performance, educational method, and the number and diversity of the patients. The hospitalization wards had the lowest satisfaction score with respect to instructor's performance, educational method, and diversity of patients, but they had medium satisfaction score regarding physical space, medical equipment, and other facilities. The emergency units obtained good satisfaction score in terms of medical equipment and physical space, but gained medium score regarding instructor's performance and educational methodology [8].

In a study, Masoomi et al. have assessed satisfaction of medical interns of Isfahan University of Medical Sciences with the quality of clinical training in emergency medicine course. To students, the quality of training in the emergency ward is appropriate (none of the students has reported training quality in this department as bad or very bad) [10].

Khadivi et al. have assessed the attitudes of medical interns and trainees' (i.e. externs) of Shahrekord University of Medical Sciences towards the health field training quality. Eighty percent of medical trainees and less than fifty percent of interns had satisfaction with internship phase, planning, presentation of applied topics in the workshop, presence of faculty members, and responding to students' questions. In addition, the majority of medical trainees and less than 42% of interns had satisfaction with health management categories [11].

Kazemi et al. have evaluated the effect of using cardiology ward's manual on training conditions of Birjand University of Medical Sciences. They concluded that the determination of training objectives and setting policy through a manual can be an effective model for guiding students towards achieving clinical goals and improving skills training quality [12].

Zamanzad et al. have assessed the satisfaction of medical trainees and interns with the clinical course of Shahrekord University of Medical Sciences. Results showed that the highest satisfaction belonged to otolaryngology ward (54.8 %), infection ward (54.3%), and neurology ward (36.5%), and the lowest belonged to urology ward (6.3%) and gynecology ward (6.5%). The highest satisfaction in internal and pediatric wards belonged to holding morning report, and in surgical ward was with examining patients in the outpatient clinic. The lowest satisfaction in gynecology ward's students was with the outpatient clinic and theoretical classes. In addition, there was a significant correlation between the students' satisfaction with gynecology ward with the score of fundamental sciences and pre-internship [13].

Husseinpoor et al. have investigated the medical interns' attitudes towards training in the surgery course of Isfahan University of Medical Sciences. Results suggested the amount training in the operation room, emergency, the way residents treat interns in educational issues, the way interns are evaluated as the most important elements and factors [14].

Adhami et al. investigated the attitudes of medical interns of Kerman University of Medical Sciences towards the adequacy of given trainings to achieve educational objectives set in the Department of Obstetrics and Gynecology. According to the interns' attitudes, the provided trainings are not adequate. Therefore, the improvement of training quality at clinical phase and continuous evaluation of it in terms of its conformity with educational objectives and changing needs of the society are essential [15].

The learning status of the interns in the Department of Obstetrics and Gynecology of Zahedan University of Medical Sciences has been investigated by Roudbari et al., concluding that patient visit, bedside manner, managing under supervision of an instructor or individually indexes were lower in men [16].

Mehrabi et al. have addressed the effect of peer training on the clinical reasoning of medical trainees and interns in the Urology Department of Shahid Beheshti University of Yasuj. They have shown that learning with the help of peers has been effective in increasing clinical reasoning skill of medical interns. Occupying the role of instructor by students integrates the educator's attitude, skill, and knowledge, and creates a sense of comfort in the learners [17].

Pakniyyat et al. reported the highest scores before training were obtained by pop smear sampling, IUD application, gynecological examination with speculum and the lowest belonged to Leopold maneuver, bimanual examination and third stage management of labor. After the training, the highest score belonged to IUD application and pop smear sampling, and the lower score was obtained by Leopold maneuver, pelvic examination. Before training, the scores were not satisfactory in none of the skills. But after training, except in Leopold maneuver, pelvic exam and bimanual exam, the scores were satisfactory [18].

Taban et al. in a study have assessed the accessibility to minimum amount of learning in the Eye Ward of Isfahan University of Medical Sciences from the interns' perspective. They concluded that the most common activity and skill of the interns at the end of internship was physical examination of the eyes (100%) and removal of external object (5.92%). It is essential to review the minimum educational objectives, redefine them, adapt them to the needs of learners and society, and set them according to the priorities, and to predict some strategies to ensure the interns' acquired skill [19].

Nejabat et al. have investigated the conformity level of the Eye Department's educational programs of Shiraz University of Medical Sciences setting priority over the needs of general physicians. They observed a significant difference between the materials given to the students and expected priorities in the both parts, namely classes and tests. In that, some major priorities were trained less, and vice versa [20].

In a study, Khorasani et al. have investigated the quality of clinical training from instructors and students' perspectives. Results implied their negative view towards it due to the low possibility of independent action, lack of active supervision by instructors, lack of training in prescription writing and differential diagnoses, and inappropriate physical space [21].

Nazari et al. have investigated the effect of outpatient and clinical training on the academic performance of medical interns in the Psychiatric Department of the Lorestan University of Medical Sciences. Results showed that outpatient and clinical training significantly affected academic performance of interns and empowered general physicians in this area [22].

Bazzazi et al. have investigated the attitudes of medical students of Hamedan University of Medical Sciences towards the quality of clinical training. In this study, the majority of the students evaluated the physical conditions of educational hospitals as good and medium. The majority of them evaluated the conditions of educational facilities and equipment as weak. Training programs were evaluated as medium to good, and instructors' teachings were assessed as good. In general, the majority of students evaluated clinical training as weak at the end of the course [9].

In a study, Ziaee et al. investigated the satisfaction of the interns of Tehran University of Medical Sciences with clinical training during. The level of satisfaction with the provided clinical training was 52%. Three factors, namely trainee, familiarity with common diseases, and prepared educational program are factors that affect the interns' satisfaction [23].

Avijhgan et al. have investigated the quality of outpatient training in the clinics of Al-Zahra University of Isfahan. According to the results, the mean of total scores from the interns' view indicates that more attempts are needed for improving the quality of outpatient training. Instructors should strive more in this regard with timely and regular attendance at clinics, and with paying more attention to education. In addition, a comprehensive investigation into the facilities and physical spaces of each clinic should be done to implement practical changes [24].

DISCUSSION

Clinical Training

Although some studies indicate that there is a little satisfaction with outpatient training services [8, 9], several factors can affect this satisfaction. Provision of physical space and medical equipment, as well as auxiliary facilities is primary requirements of medical education [8]. Clinical and outpatient trainings have significant impact on the academic performance of medical interns, and empower general physicians in this regard [22].

Educational condition like instructors' attention to student training [21], timely and regular attendance of them at clinics [24], and other matter such as prescription writing training that is suitable for a general physician [11] can improve the quality of clinical training. In general, familiarity with common diseases and the existent of an educational curriculum can result in the improvement of it and greater satisfaction with it [23].

Intra-ward Training

Accurate determination of educational goals can play a huge role in the achievement of clinical objectives and improvement of skills training quality (12). In addition, it is worth mentioning that skills training increases the satisfaction with intra-ward educational status (18). Moreover, in the students' assessment of intra-ward training, intra-ward evaluation method was a criterion with influence on satisfaction level (14).

Although some studies have shown that externs' satisfaction with intra-ward training was greater than that of interns (11), making a firm conclusion is not possible; rather, performing more similar studies is essential.

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