

Original Article

Medical Interns' Satisfaction of Clinical Education's Quality in Rasht Hospitals

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Abstract

Introduction: Clinical education is a dynamic process in which- students, with presence in bedside, gain experience and interact with the teachers and the environment to apply learned concepts in practice. If the education fails to provide appropriate learning conditions, would be no possibility for clinical skills to nurture. This study was performed to determine the satisfaction of medical interns with the quality of clinical education in Rasht teaching hospitals in 2014-15.

Methods: This descriptive-analytical study was carried out on 106 medical interns of Guilan University of Medical Sciences in 2014-15 using convenience sampling. The data were collected by a validated researcher-made questionnaire consisting of 3 sections and 39 items. SPSS.21 and descriptive and inferential statistics (Chi-square test, Fisher's exact test, and Man-Whitney U test), considering 95% confidence interval and 90% test power, were employed to analyze the data.

Results: The results showed that 50% of the interns were highly satisfied with the quality of education and the mean-score of students' satisfaction was 65.68 ± 14.19 out of 102. The interns' satisfaction rate of different components was: familiarity with the objectives of the course (32.1%), teaching methods (53.8%), evaluation methods (41.5%), facilities and equipment (46.2%), students' clinical skills (24.5%), and teachers' skills (51.2%). There was no significant relationship between satisfaction and demographic factors ($P > 0.05$).

Conclusion: Given the fact that the students were not highly satisfied with some of the components of clinical education such as familiarity with the objectives of the course and students' clinical skills, it is recommended that the educational planners pay more attention to these components.

Keywords: Satisfaction, Clinical, Education, Medical students

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Introduction

The rationale for the existence of every educational system is to make that system's goals realized (1, 2). If the desired goals are not analyzed correctly and the priorities are not outlined and clarified vividly, it will be impossible to move and activate accurately and eventually make that system's educational goals come true. Therefore, educational planning, curriculum planning, evaluation and intersystem educational activities are formed based on the educational goals (1). In this regard, the educational qualitative and quantitative promotion through correct planning, in order to train the medical students concurrently with treating the patients at educational hospitals, has been set forth as one of the critical concerns by the medical education authorities and officials after the formation of the Ministry of Health and Medical Education (3). Clinical education is a dynamic process during which the students gain experience gradually via attending the clinic and interacting with their instructors and the environment and they put what they have learned into practice (4). If this type of education did not have the proper ground for learning, it would be infeasible to train clinical skills. Among the continuous medical training stages, internship and apprenticeship periods can be termed as the most important ones when the students turn the theoretical knowledge into various psychomotor skills. On the other hand, medical students point out the highest number of the problems and dissatisfaction about them (5). Undoubtedly, students' educational experiences and their views about the content, structure and quality of the education are among the key factors to control the quality of the curricula and assessment; therefore, they can be viewed as an important source for educational decision making. In this respect, analyzing the students' opinions about clinical skills acquisition can be one of the learning facilitating activities in the clinical setting where the teacher and student participate equally (6) and its goal is to create measurable changes in the student for performing the clinical cares (5, 6). Thus, one of the tools to analyze educational methods and evaluate clinical training system and consequently, improve educational quality is to take their opinions into account (6). Regarding the majority of the researchers have presented lots of evidence and reasons based on the accuracy and credibility of the students' opinions about the teachers and

Methods

The present study is a descriptive cross-sectional study in which the satisfaction of medical interns at GUMS with

their educational quality (4), one of the significant recommendations of educational advancements conference in Edinburgh was to get the students to participate at all levels (4, 7). Unfortunately, most of state funded universities depend on students' exams' grades for their scientific and practical analysis and do not deal with the students' opinions about their educational experiences' quality (6). The findings by Eslamipour et al. investigating the dentistry students' perspective and satisfaction with the scientific departments indicated negative correlation between the students' Grade Point Average (GPA) and their satisfaction with the departments' clinical training (8).

In a research done by Aziz et al., senior students' dissatisfaction level with the clinical and public health training was estimated at 38.2- 85% (9). In the study by Cannon et al., the overall scores of the medical students and residents were 84 and 79 out of 100, respectively. In addition, a significant relationship was found between satisfaction with the quality of care and the type of training by the instructor (10). In the other research by Masic, done in Bosnia, students expressed dissatisfaction with the problems existing in the clinical skills training (11).

In Iran, the study results obtained by Jalili et al. showed that only 28.4% of the participants were generally satisfied with the received training (12). The research by Zamanzad et al. also demonstrated that in major parts, the students are dissatisfied with not paying enough attention to the training rounds, outpatient clinics and theoretical classes. In contrast, the morning reports have accompanied with their high contentment (13). In addition, in a study by Anbari et al., the students' satisfaction with the clinical training was assessed at 30.5% (considered to be poor). The minimum satisfaction was attributed to the fields (12.5%) and educational content (50.3%) received the maximum satisfaction (5).

Thus, with regard to the existing gaps, the findings of various studies, and the insufficiency and shortcomings in the educational system, the current study aims to determine the medical clinical interns' satisfaction with the clinical course at Guilan University of Medical Sciences (GUMS); so that we can draw a general framework of the strengths, weaknesses, challenges and opportunities of the current system at the university.

their clinical course training quality in Rasht teaching hospitals was surveyed. The study setting was Rasht teaching hospitals and 106 medical interns studying at GUMS in 2014-15 academic year constituted the

population of the study. Convenience sampling was used as the sampling method. This study was approved by the ethics committee of research deputy at GUMS (ethics committee license number: 1930382809). Written informed consent was obtained from all of the students at the beginning of the study. All participants were informed of the voluntary nature of participation and were assured about confidentiality of their personal information.

The data collection instrument was a researcher-made questionnaire derived from criteria for educational evaluation and accreditation of teaching hospitals affiliated with GUMS and based on a review of the related literature. The questionnaire is designed in three parts with 39 options. The first part is on demographic data and the second one is on evaluating the students' satisfaction with the clinical training consisting of 6 dimensions and 34 questions: familiarity with teaching objectives, clinical training methods, clinical evaluation methods, equipment and clinical facilities, capability to perform the acquired clinical skills and the teachers' theoretical and practical skills. Answering these options was based on 4-point Likert scale (low: 1, moderate: 2, high: 3 and no opinion: 0). The minimum score of the questionnaires was 0 and the maximum score was 102; higher scores reflect more satisfaction. The third part is composed of 5 open-ended options so that the students describe their suggested strategies when considering other strong and weak points in the clinical training process.

The reliability and validity of the instrument were calculated by the researcher. To determine the validity of the questionnaire, it was handed to 10 affiliated faculty members and after collecting their comments and applying the required modifications the final questionnaire was modified and organized. The instruments reliability was set by internal consistency and Cronbach's alpha estimation ($\alpha=0.93$).

Gathered data, entered into SPSS.21 and analyzed using descriptive statistics (frequency, percentage, mean and standard deviation) and inferential statistics (Chi-square test, Fisher's exact test and Man-Whitney U test) considering 95% confidence interval and 90% test power. A content analysis was conducted on the qualitative data obtained from third part of the questionnaire.

Results

The participants' demographic characteristics indicated that the most of the students were female (55.7%), single (73.6%), and native (61.3%) (Table 1). Also, the mean age of them was 25.42 ± 2.18 year old.

Table 1. Socio-demographic characteristics of students

Socio-demographic	characteristics	N (%)
Gender	Female	59 (55.7)
	Male	47 (44.3)
Marital status	Single	78 (73.6)
	Married	28 (26.4)
Native or non-native	Native	65 (61.3)
	Non-native	41 (38.7)
Residence	Hostel	13 (12.3)
	Personal residence	72 (67.9)
	Rental residence	21 (19.8)

The median of basic sciences score and pre-internship score were 124 and 116, respectively (Table 2).

Table 2. Descriptive statistics training variables of students

Variables	Median	Inter Quartile Range (IQR)	Min-Max
Basic sciences score	124	120.75-131	56-170
Pre-internship score	116	114.25-125.5	47-159

The mean score of satisfaction in the students was 65.68 ± 14.19 out of 102 attainable score and 50% of them were generally satisfied with the clinical training quality. Moreover, 32.1% of the students were satisfied with familiarity with clinical teaching objectives, 53.8% with the clinical training methods, 41.5% with the clinical evaluation methods, 46.2% with the clinical equipment and facilities, 24.5% with the student clinical skills level and 51.2% with the teacher's skills level (Figure 1).

In analyzing the relationship between the students' socio demographic factors and satisfaction level, there was no significant relationship ($P>0.05$) (Table 3).

Comparison of basic sciences score and pre-internship score medians between satisfaction status revealed that there were not any statistical differences ($P>0.05$) (Table 4).

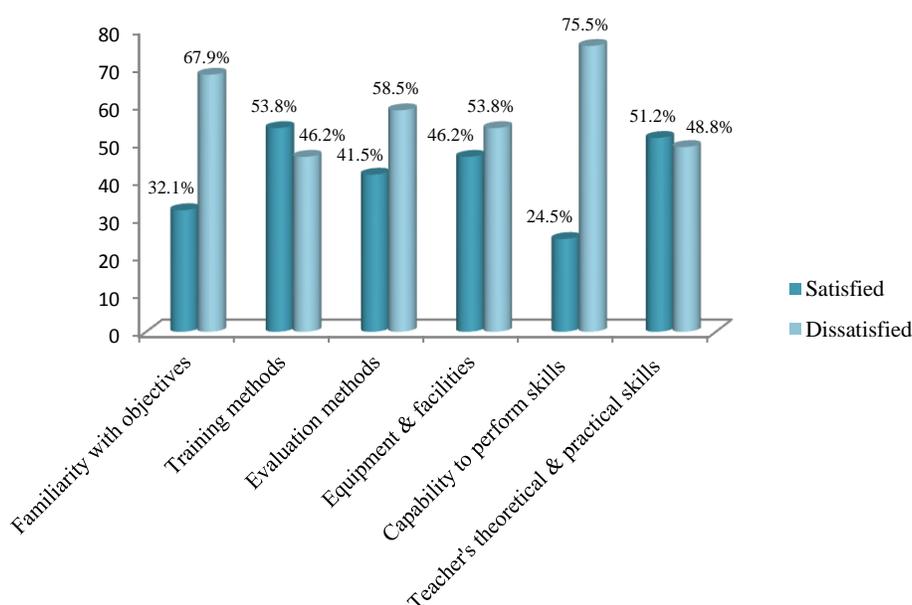


Figure 1. Distribution of students' satisfaction based on domains

Table 3. Socio-demographic variables based on students' satisfaction status and their correlation

Variables	Satisfied	Dissatisfied	P value
Gender	Female 31 (51.7)	29 (48.3)	0.69 Fisher's exact test
	Male 22 (47.8)	24 (52.2)	
Marital status	Single 40 (51.3)	38 (48.7)	0.66 Chi-square
	Married 13 (46.4)	15 (53.6)	
Native or non-native	Native 35 (53.8)	30 (46.2)	0.32 Chi-square
	Non-native 18 (43.9)	23 (56.1)	
Residence	Hostel 8 (57.1)	6 (42.9)	0.78 Chi-square
	Personal residence 36 (50)	36 (50)	
	Rental residence 9 (45)	11 (55)	
Total	53(50)	53(50)	

Table 4. Training variables based on students' satisfaction status and their correlation

Satisfaction status Variables	Satisfied			Dissatisfied			P value (Man-Whitney U)
	Median	IQR	Min-Max	Median	IQR	Min-Max	
Basic sciences score	124	122-131	80-170	124	115.5-131	56-162	0.51
Pre-internship score	116	115-126	89-152	116	111-125	47-159	0.79

The results extracted from the third part of the questionnaire indicated that three parts with the highest level of satisfaction expressed by the students were emergency medicine (23.36%), internal cardiac (12.41%) and urology ward (10.95%) respectively and three parts with the least rate of satisfaction with training were surgery (18.99%), gynecology (17.72%) and internal

ward (12.66%). The students mentioned their reasons for satisfaction from these wards as the training potential of the wards, clarity of the goals and curriculum, the teachers' attendance, training and direct supervision, their independent performance presenting regular and practical educational rounds and morning reports. Also, the reasons why they felt dissatisfied were pointed as improper scoring system, inconsistency between the equipment and

facilities and the educational plans, inability to perform independently due to the residents' presence and high and unconnected workload. They suggested some strategies in order to enhance the training process which are: description of the educational goals and familiarity with basic principles of each section at the beginning of each training course, reducing in the number of students' groups for each course, the use of teaching aids, separation of general and specialized rounds and morning reports, and performance of final evaluation and scoring by teachers.

Discussion

With respect to the fact that every kind of planning to boost clinical training quality depends on the identification of problems, insufficiencies and deficiencies existing in the educational system based on the target group's perspective, the current study aimed to determine medical clinical interns' satisfaction with the clinical training in the teaching hospitals located in the city of Rasht. The results indicated that half of the participants were generally contented with the clinical training quality; in addition, although the majority of them were satisfied with the clinical training methods and teachers' clinical skills level, they were dissatisfied with the clinical training objectives, the clinical evaluation methods, the clinical equipment and facilities, and the students' clinical skills level. In this respect, the study by Masic in Bosnia implied that the students were discontented with the issues available in their clinical skills training (11). The study by Jalili et al. also showed that merely 28.4% of the students were overall satisfied with the received training (12). Also, Guarino et al. showed that students' overall satisfaction with teaching is high but there was room for improvement (14). In the study by Sharifi et al., the majority of the students evaluated the clinical training quality and quantity in most of the dimensions unfavorable (15) consistent with the present research. Unlike the current research, the study by Sanatkhani et al. demonstrated that, the students' perspective in most educational areas like clinical teachers' performance, clinical setting equipment and facilities, evaluation, and educational objectives were positive (4). In researcher's opinion, the contradiction discovered in the present study with that of Sanatkhani et al. (4) can be justified regarding the difference in educational fields, environments and educational objectives.

In analyzing the relationship between socio-demographic factors with the students' satisfaction, there was no significant correlation. In this respect, Zamanzad et al. showed that no relationship exists between satisfaction with the clinical training, age, gender and educational

grade but the score of the basic science and pre-internship revealed a meaningful association (13). The results of a study by Eslamipour et al., investigating the dentistry students' perspective and satisfaction with the scientific departments indicated a negative correlation between the students' GPA and their satisfaction with the wards' clinical training (8). In addition, in a study by Sharifi et al. a significant relationship was discovered between age and educational grade (15).

The students were most satisfied with training in the emergency medicine, internal cardiac and urology wards and least contented with surgery, gynecology and internal wards. In this regard, in a study by Zamanzad et al., the maximum reported satisfaction related to the minor wards of ENT, infection, neurology and psychiatry wards and the minimum satisfaction related to major wards, especially gynecology, poisoning and urology; in the major wards, the students were dissatisfied with the educational rounds, outpatient clinics and theoretical classes and in contrast, the morning reports accompanied high satisfaction (13). In Sanatkhani et al. study, the students' dissatisfaction was more with the teachers' supervising the students' work and the teachers' attending time (4). Consistent with the findings of this study are the studies in which the students are inclined to see the educational objectives and planning and the course evaluation are determined for them at the start of the course (13, 15, 16).

Conclusion

Regarding the fact that clinical training is one of the critical stages of medical training, and also with respect to the mentioned results, it is recommended to outline the educational objectives at the beginning of each training course so that the students get familiar with them, and the training of each ward be given according to the internship goals. Also, with regard to the fact that the students were not so satisfied with some clinical training components and since high quality clinical training is very vital for medical students, it is recommended to perform broader studies in this field. Also, educational planners are strongly advised to pay more attention to the components with less satisfaction. Description of the educational goals and familiarity with basic principles of each section at the beginning of each training course, reducing in the number of students' groups for each course, the use of teaching aids, separation of general and specialized rounds and morning reports, and administration of the final evaluation and scoring by teachers are some of the strategies suggested by the students to promote the educational process. It is obvious that focusing on them can dramatically influence the improvement of the quality of the clinical training.

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