Research Paper: Assessment of Satisfaction of Rehabilitation Students With Clinical Education Quality in Ahvaz University of Medical Sciences

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ABSTRACT

Introduction: Increasing the prevalence and complexity of rehabilitation-related disorders has risen the responsibility of future therapists. Learning clinical skills is largely influenced by the effectiveness of the clinical education at university. Identifying the status of clinical education helps resolve or modify the weak points to attain the educational goals and educate skilled people. The purpose of this study was to determine the satisfaction of rehabilitation students with clinical education quality at Ahvaz University of Medical Sciences in 2017.

Materials and Methods: This descriptive-analytical study was carried out on 153 rehabilitation students. The relevant data were collected using a valid and reliable questionnaire of clinical education satisfaction. Then the obtained data were analyzed using descriptive statistics, the independent t test and ANOVA by SPSS.

Results: The overall satisfaction of students (from different fields of Rehabilitation) with clinical education was reported to be between 50% and 63%. There was a significant difference between the students' satisfaction with the quality of clinical education and the field of study (P=0.001)

Conclusion: Conducting ongoing education courses to promote the academic level of trainers, rehabilitating the educational environment based on strategic plans, setting up a specific tool and method for clinical evaluation of the students, and determining the minimum clinical qualifications based on the number of patients assessed during internship and apprenticeship can be of great assistance to increase students' satisfaction.

1. Introduction

The most dynamic areas in the field of health, speech therapy, audiology, occupational therapy, and physiotherapy are a blend of professional knowledge, art, and creativity. A growing prevalence and complexity in disorders related to rehabilitation has added to the numerous demands from the future therapists. The new rehabilitation system emphasizes on thinking skills, analysis, question design, problem solving, communication with clients, and providing effective therapies [1]. Consider-

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ing that nearly half of the educational courses taken by Rehabilitation students are offered as internship and apprenticeship, learning these skills by students is largely influenced by the effectiveness of the clinical education department in the university [2, 3].

Among the training stages offered to rehabilitation students, internship and apprenticeship can be the most important ones in which students feel themselves as future therapists and adopt professional skills in their clinical setting [4]. Clinical education during the internship and apprenticeship period provides students with the opportunity to turn theoretical knowledge into various clinical skills required for patient rehab and shape their professional identity [5, 6]. Clinical education can be seen as a learning facilitator in a clinical setting in which clinical instructors and students are equally involved and their main goal is to develop students' clinical skills to perform rehabilitation services, so that all students be able to implement the various skills they have learned [7]. Poor design of the clinical education results in defects, which will eventually lead to poor professional skills and unqualified graduates [1].

As recipients of educational services, students are the best resource for identifying clinical education problems because they have direct and immediate interactions with clinical processes [8, 9]. Identifying the status of clinical education helps resolve the shortcomings, attain educational goals, educate skilled people, and provide higher quality rehabilitation services. In the literature, the satisfaction of students in various medical and paramedical fields in Iran has been studied for qualitative planning in clinical education. But similar studies have not been conducted in Rehabilitation Sciences. Due to the above reasons, any planning to improve the quality of clinical education depends on recognizing the problems, failures, and shortcomings in the clinical education system. This study aimed to determine the satisfaction level of clinical internship and apprenticeship and the students of speech therapy, audiologists, physiotherapy and occupational therapy regarding the conditions of clinical education in Ahvaz Jundishapur University of Medical Sciences and examine the effective factors in improving their satisfaction level.

2. Materials and Methods

This is a descriptive-analytic study that assesses the satisfaction level and evaluations of speech therapy internship and apprenticeship students of audiology, occupational therapy and physiotherapy. In this study, total enumerative sampling was performed and all willing students that at least 4 months had passed from their internship and apprenticeship, were enrolled in the research project. After obtaining informed consent and providing necessary explanations by the researcher, the students who entered the intervention completed the clinical education satisfaction assessment questionnaire. In order to assess their satisfaction, the questionnaire items were rated in a multiple-grade scale (excellent=4, good=3, moderate=2, weak=1) [10] (Table 1).

To assess the content validity of the questionnaire, 10 faculty members, who participated in the clinical education of students, were consulted. A questionnaire was prepared which included general questions about the suitability of items of the questionnaire in relation to the study objectives. The questionnaire was provided to the respondents with the evaluation form. The respondents answered the assessment-related items as: Necessary (2), Sufficient but not necessary (1), Not necessary (0). Moreover, they were asked to leave their comments to improve the test quality. Then, the Content Validity Ratio (CVR) was calculated for each item of the questionnaire [11].

After determining and calculating CVR, Content Validity Index (CVI) was calculated. To calculate CVI, the experts commented on each item with respect to three criteria related to being specific, simplicity and fluency, clearance. First, the criteria were scored based on 4-point Likert-type scale and then, it was calculated using CVI formula. Drawing upon the CVR results, the content validity results for all items were above 0.62 and based on the results of CVI, the values of each questionnaire item were calculated from 0.80 to 0.100 which had good and acceptable validity, based on the minimum content validity ratio.

The target students received clinical education in speech therapy, auditory, physiotherapy and occupational therapy in hospitals, and clinical centers affiliated to Jundishapur University of Medical Sciences. Their satisfaction with clinical facilities, the clinical education provided by the internship and apprenticeship educators, and the number and variety of clients of clinical units were among the most important issues that have been studied in the target questionnaire. Students' comments and their satisfaction was collected through filling the questionnaire. Students' names were not requested. To examine and compare the facilities, equipment and clinical space, each student indicated the name of the internship and apprenticeship center in the last semester in the questionnaire.

The data for each part of the questionnaire was fed into SPSS 16. Descriptive statistics were used to present the mean, standard deviation and the percentages of the raw

Table 1. Questionnaire form

No.	Questionnaire Items	Weak	Average	Good	Excellent
1	Distribution of rehabilitation clients among internship and apprenticeship students				
2	Sufficient clinical units offered to acquire basic clinical knowledge by the students				
3	Appropriateness of the clinical education content provided in internship and apprenticeship courses				
4	Appropriateness of theoretical and clinical areas covered to achieve objectives of clinical education (proportion between theoretical and practical courses)				
5	Theoretical and clinical knowledge of the clinical director to answer to students' questions related to assessment and treatment				
6	Appropriateness of the number of clients in the clinical education centers for obtaining the initial clinical experience by the students				
7	Diversity of the clients referring to educational centers with respect to the type of the disorder and etiology				
8	Appropriateness of the area of clinical education centers for the provision of specialized rehabilitation services				
9	Appropriateness of equipment in clinical education centers to provide specialized rehabilitation services				
10	Quality of scientific and clinical discussions being raised at the conferences held by clinical education centers				
11	Appropriateness of clinical education provided in the training centers with student expectations				
12	Scoring and evaluation method of the students' clinical skills				

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data. Distribution of satisfaction data was carried out using Kolmogorov-Smirnov test. As the distribution of the scores of the questionnaire regarding the gender and semester was normal, the independent t test was used to compare and evaluate students' satisfaction scores. Regarding the normal distribution of scores with respect to the field of study and clinical education, the satisfaction scores of different disciplines and satisfaction with different clinical centers were analyzed using ANOVA and Tukey post hoc tests. In this study, the significance level was set at 0.05.

3. Results

This study was performed on 153 Rehabilitation students in Ahvaz City, Iran. The Independent t test scores showed no significant relationship between gender and overall score of satisfaction among the students (P=0.5) (Table 2). In addition, it showed that the students' satisfaction in each discipline is not significantly different among academic semesters (P=0.06). According to

ANOVA results, a significant relationship was found between students' satisfaction scores and their field of study (P=0.001) (Table 3). The Tukey test was used to determine the mean scores of the fields that differed. The results showed no significant difference between satisfaction level of speech therapy and audiology students (P=0.06). Also, there was no significant difference between the satisfaction level of physiotherapy and occupational therapy students (P=0.8). However, there was a significant difference between the satisfaction level of speech therapy and audiology students with satisfaction scores of physiotherapy and occupational therapy students (P=0.001). In terms of facilities, space and clinical equipment, the highest satisfaction rate was obtained from the clinics of the Faculty of Rehabilitation (78%) and the lowest satisfaction rate was reported from Imam (29.9%), Abuzar (31%) and Razi (33%) hospitals.

Percentage of satisfaction from each item of the questionnaire was calculated separately and the results

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Table 2. Mean and standard deviation of scores of the questionnaire regarding gender and various academic semesters

Group	Number	Mean±SD Scores of the Questionnaire
Female	102	9.2±9.26
Male	51	7.2±7.26
5 Semesters	72	1.3±75.56
7 Semesters	81	5.3±75.54

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showed the lowest satisfaction level of the students with the number and variety of clients referring to the clinical education centers (Table 4).

4. Discussion

In this study, the views of rehabilitation students about the clinical education at the Faculty of Rehabilitation were surveyed. One of the important and fundamental ways to increase the quantitative and qualitative level of performance of clinical departments of rehabilitation is to increase the knowledge and awareness of the education authorities on the satisfaction level of internship and apprenticeship students. Hence, paying attention to students' opinions is helpful in future planning to improve the performance of clinical domains.

The results of Pournamdar study (2016) on the status of clinical education in Zahedan teaching hospitals showed that more than half of the students were moderately satisfied with instructor performance [12]. Wahabi study (2011) showed that students were moderately to well

satisfied with their instructors [13]. Darabi study (2007) reported moderate student satisfaction [14]. The results of this study showed more than 60% satisfaction with clinical educators which was more than previous studies. However, the promotion of scientific levels and development of close supervision by instructors on the clinical education of students can increase the satisfaction level with the performance of clinical educators. According to the studies, one of the most important factors influencing effective clinical education is the performance of clinical educators [15]. Educators are the bridge between the theoretical knowledge and clinical skills and can provide students with a better educational background for their clinical knowledge and experience [16]. In order to improve the performance level of the clinical instructors and increase student's satisfaction, ongoing training courses and emphasis on the mandatory presence of all educators in these courses and workshops are suggested.

In Poornamdar study (2016), satisfaction level of nursing and midwifery students regarding the setting and educational facilities was reported to be desirable, and

Table 3. Relationship between satisfaction scores, semester and field of study

Field of Study	Semester	Number of Students	Average Score	Satisfaction Level by Semester (%)	Overall Satisfaction Level (%)
Audiology	5th	22	7.30	63	61
	7th	21	8.28	60	
Speech therapy	5th	17	7.30	64	59
	7th	19	6.26	55.4	
Occupational therapy	5th	15	24	50	52
	7th	13	26	54	
Physiotherapy	5th	17	24	50	50
	7th	28	24	50	

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Table 4. Total satisfaction percentage for each component presented in the questionnaire on satisfaction with clinical work

No.	Questionnaire Items	Overall Satisfaction Level (%)
1	Distribution of rehabilitation clients among internship and apprenticeship students	72%
2	Sufficient clinical units to acquire basic clinical knowledge by the students	61%
3	Appropriateness of the clinical education content provided in the internship and apprenticeship courses	56%
4	Appropriateness of theoretical and clinical areas covered to achieve objectives of clinical education (proportion between theoretical and practical courses)	61%
5	Theoretical and clinical knowledge of the clinical director to respond to student problems in patient evaluation and treatment	62%
6	Appropriateness of the number of clients in the clinical education centers for obtaining the initial clinical experience by the students	43%
7	Diversity of the clients referring to educational centers for the type of disorder and etiology	44%
8	Appropriateness of the area of clinical education centers for the provision of specialized rehabilitation services	52%
9	Appropriateness of equipment in clinical education centers to provide specialized rehabilitation services	52%
10	Quality of scientific and clinical discussions being raised at the conferences held by clinical education centers	52%
11	Appropriateness of clinical education provided in the training centers with student expectations	55%
12	Scoring and evaluation method of the students' clinical skills	55%

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75.4% of the students reported the condition as desirable [12]. In Peyman et al. study, inappropriate clinical teaching environment was reported as a major problem in internship [17]. In the present study, except for the clinics of the Faculty of Rehabilitation, students' satisfaction with space and clinical facilities in other clinics and hospitals was reported as relatively poor. The clinics of the Faculty of Rehabilitation was renovated and improved according to strategic plans. Accordingly the students were satisfied with the space and facilities of the clinics in the Faculty of Rehabilitation. Since the lack of access to appropriate educational facilities decreases students' motivation and impairs learning, the authorities of the field of clinical education should adopt strategic integrated plans to improve all clinics in terms of equipment, facilities, and space.

Poornamdar, Wahabi (2011), and Darabi (2007) reported moderate student satisfaction with the evaluation and grading clinical credits [12-14]. The results of this study with respect to evaluation are in line with previous studies. Lack of a clear and realistic evaluation tool was reported by students as a problem. Hence, the existence of identical and specific methods of assessment for students is necessary.

Students' satisfaction with the diversity and number of clients in the study by Poornamdar et al. was reported as weak [12] that was consistent with the results of our study. Increasing the number and variety of clients in different etiologic fields can make it easier for students and interns to provide effective rehabilitation services in the future. Therefore, policies and efficient plans for attracting patients with different etiologies should be addressed with high priority. For training clinical skills, only general scheduling and the number of apprenticeships and internship credits are identified for Rehabilitation students and no minimum clinical qualifications have been defined for undergraduate students in Rehabilitation field in Iran. It seems that for students to achieve a minimum

qualification in assessment and treatment of patients with different etiologies, a minimum clinical qualification and criteria should be identified based on the number of students during internship and apprenticeship.

Based on the results of this study, the majority of students were moderately satisfied with clinical education. As the satisfaction level in the majority of the questionnaire items has been reported to be moderate to good, revision and re-evaluation of different planning and policies in the field of clinical education can help increase the level of students' satisfaction. The adaptability of the planning objectives in the field of clinical education with the existing realistic educational policies and their relevance to existing demands are important in increasing students' satisfaction with the performance of clinical education courses.

Ethical Considerations

Compliance with ethical guideline

After obtaining informed consent and providing necessary explanations by the researcher, the students who entered the intervention completed the clinical education satisfaction assessment questionnaire.

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Conflict of interest

The authors declared no conflict of interest.

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