Original Article

Pharmacy Students' Satisfaction Rate with their Majors and its Relationship with Educational Status in Kermanshah University of Medical Sciences (2014)

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Abstract

Introduction: Satisfaction of the students as educational institutions' customers plays a major role in the performance and activities of the university. The aim of this study was to evaluate the degree of satisfaction of pharmacy students and their educational status in Kermanshah University of Medical Sciences in the year 2014.

Methods: 48 pharmacy students at 9th to 11th semesters participated in this cross-sectional study. The students' satisfaction was evaluated in 14 different domains. Various fields related to basic and specialized training, educational space, communications, groups' performance, facilities and teaching space were investigated. Data were collected using a questionnaire whose validity was confirmed by experts, and its reliability has already been proven by Cronbach's alpha test. For comparing scores between bimodal variables, Mann-Whitney U test was used, and for comparisons between multimodal variables, Kruskal-Wallis test was used. The collected data were coded and analyzed using the statistical software SPSS.17.

Results: The moderate students' satisfaction with the entire fields was 70.8%, with women's satisfaction more than men's. Students' satisfaction with the effectiveness of the education system and whether training is to increase the professional capabilities was 82.9%. Average students' satisfaction with the facilities such as laboratories, library and electronic sources was 77.1%.

Conclusion: The overall satisfaction of pharmacy students with the School of Pharmacy was assessed as moderate. Thus, doing some actions to increase the level of satisfaction is necessary.

Keywords: Satisfaction, Students, Pharmacy, Educational status

Introduction

There is a consensus about importance of education quality in universities and its consequent effects on educational system's success and effectiveness (1). There are many parameters of education process effecting learning individually; the faculty member is one of the most important human factors while lesson plans and references are other effective parameters in teaching-learning interaction (2). Learning environment is the most important parameter that depends on lesson plan implementation, professors' approach of learning, institutional culture of the university, students' opinions about learning environment, and their social perception (3). Learning environment is a determinant of learning motivation among students since it can positively affect learning attitudes and educational development. It can be assessed by learning space, student affairs, institutional relations, educational equipment, and administrative affairs (4). Learning environment is different in every learning-teaching aspect and can be promoted or demoted considering standards. Learning is an interaction between students and teachers that causes sustainable changes in the students' knowledge, skills, and attitude. Students' point of view about education and motivation may affect the education system. Therefore, knowing about students' opinions is quite effective in improving education quality (5).

Evaluating satisfaction is very important. Jamal & Naser define satisfaction as a user's feeling after using a product (6). Higher education in Iran needs a comprehensive plan in various aspects. Studying students' satisfaction, as education product users, that play an important role in university evaluation and activities, provides suitable information for education improvement and is required in order to identify positive and negative points of activities.

Students' satisfaction with education quality was studied in this paper among pharmacy students of Kermanshah University of Medical Sciences. The results are planned to be used for identifying deficiencies and improving education quality within the domains of student affairs, lesson plans, institutional relations, laboratory facilities, teaching supplements, and administrative affairs.

Methods

This cross-sectional study was done in 48 pharmacy students in semesters 9-11. The students were randomly selected based on each semester's population rate. Data gathering was done with a questionnaire confirmed previously by experts. The reliability of the questionnaire was confirmed by Cronbach's alpha of 0.94. It consisted of 54 questions about various educational, service, and facility aspects which were classified in 14 domains as follows:

- Basic sciences (2 questions)
- Professional courses (3 questions)
- Professors' abilities (5 questions)
- Student importance (9 questions)
- Communications (2 questions)
- Pharmacognosy group's performance (2 questions)
- Pharmaceutics group's performance (2 questions)
- Pharmacology group's performance (2 questions)
- Medical chemistry group's performance (2 questions)
- Education quality (2 questions)
- Personal parameters (11 questions)
- Education system's performance (3 questions)
- Learning environment (2 questions) and
- Facilities (6 questions)

The gathered data were coded and statistically analyzed using SPSS.17. Satisfaction was classified in groups of "poor" (lower than 34%), "medium" (34% to 66%), and "good" (more than 66%). Descriptive values such as frequency, percentage, mean, and standard deviation were computed. Moreover, box plot was used for satisfaction distribution based on personal parameters.

Kolmogorov-Smirnov test was done to test for the normality of data. Mann–Whitney U test was used for comparing satisfaction between bimodal variables, and Kruskal-Wallis test was used for comparing satisfaction among variables which have more than two modes. Also, Spearman correlation was used for association between numeral variables.

Results

The sample includes 20 women and 28 men, 42 single and 6 married. Also, 11 students passed the entrance exam in region 1 (7 women and 4 men), 15 students in region 2 (6 women and 9 men), 17 students in region 3 (5 women and 12 men), and 5 students passed the entrance exam through Shahed grant (2 women and 3 men). Age range of the students is 22-29 years, with most of them in the range of 23-25.

In this study satisfaction level of 48 students about education quality, facilities, and services in the School of Pharmacy of Kermanshah University of Medical Sciences was surveyed, considering evaluation criteria of "poor", "medium", and "good". Generally, married women and single men showed the highest and the lowest satisfaction, respectively (Figure 1).
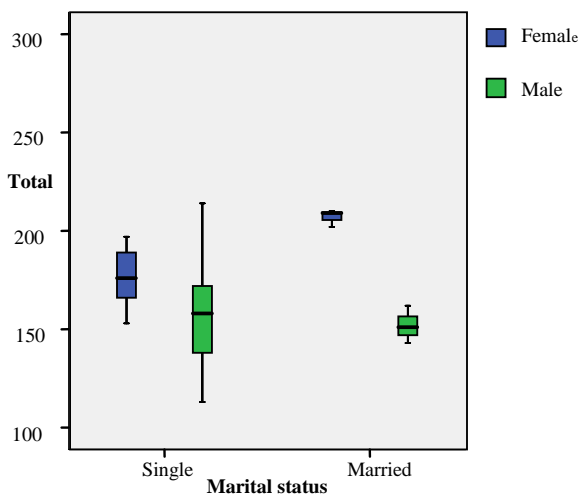
Figure 1. Total satisfaction according to women's and men's marital status
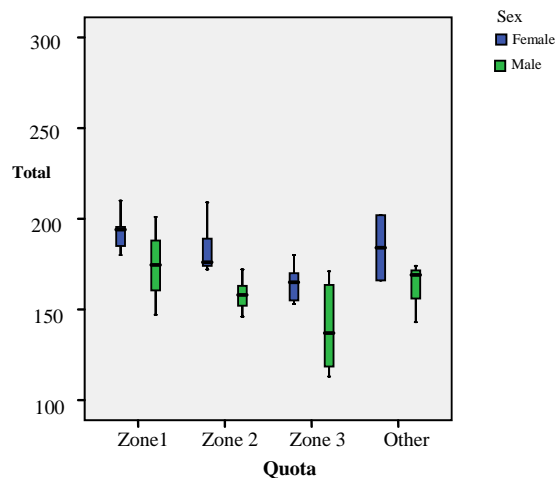

Figure 3. Total satisfaction according to acceptance quota in both genders

Considering age, while students are in range of 22 to 29, those who were 22 had the least satisfaction with all the others claiming the same satisfaction level (Figure 2).

Total student satisfaction disaggregated by gender shows that women are more satisfied in comparison to men (Figure 4).
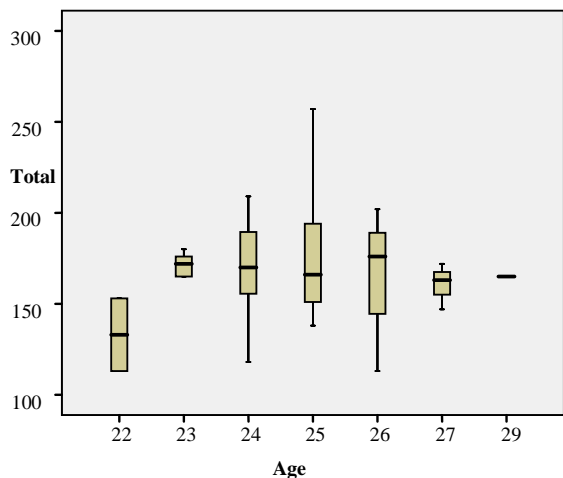

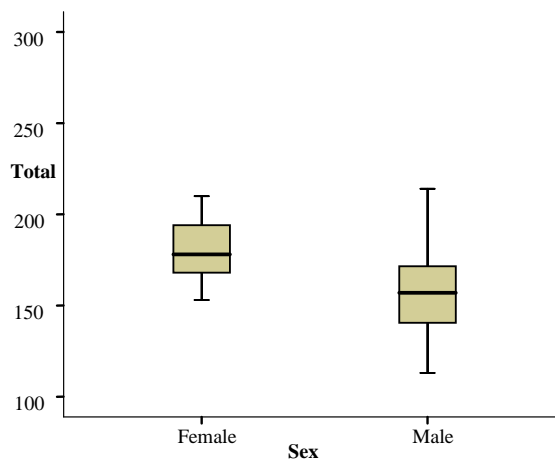**Figure 2. Total satisfaction point according to age**

Figure 4. Total satisfaction point considering gender

Women showed more satisfaction in all quotas. Satisfaction among participants from regions 3 and 1 were the most and the least satisfaction levels, respectively (Figure 3).

Students' satisfaction level with basic science course education was surveyed with two questions in the questionnaire. 52.1% of students had medium satisfaction with basic science course education. Students' satisfaction

level with professional courses was surveyed with three questions in the questionnaire and 68.8% of students had medium satisfaction with the courses. In response to whether educational environment encourages students to learn or not, 50% claimed medium satisfaction. About faculty members' sense of duty and encouraging students, five questions were used in the questionnaire, that 52.1% of students had medium satisfaction. Positive relation between students and professors was assessed with three

questions in the questionnaire, which figured students' satisfaction as 83.3%. 9 questions addressed students' involvement in education system, developing students' abilities, and in general the importance of the students in education process, and it was found out that students' satisfaction was 70.8%. About professors' ability in various professional instructing groups, two questions for each of them were used, which detected students' medium satisfaction in each group as follows:
- Pharmacognosy: 62.5 %
- Pharmaceutics: 45.8 %
- Medical chemistry: 52.1 %
- Pharmacology: 58.3 %

In response to whether education system is focused and purposive or not and totally about education quality, 5 questions were used in the questionnaire, for which 75% claimed medium satisfaction. Student satisfaction with educational system effectiveness, and in response to the question asking whether instructions were in order to increase professional capability or not, was 82.9%. Medium satisfaction with facilities such as labs, libraries and electronic sources was 77.1%. About personal factors such as taking part in workshops, sports and artistic activities, and etc., 11 questions were included in the questionnaire, and the average students' satisfaction in this field was 81.2%. Finally, the average students' satisfaction in various fields was totally 70.8% (Table 1).

Table 1. Students' satisfaction with various educational fields

Number	Domain	Number of questions	Low satisfaction Percent (Frequency)	Medium satisfaction Percent (Frequency)	High satisfaction Percent (Frequency)
1	Science course education	2	35.4 (17)	52.1 (25)	**12.5 (6)**
2	Specialized course education	3	12.5 (6)	68.8 (33)	**18.7 (9)**
3	Educational environment	12	43.8 (21)	50 (24)	**6.2 (3)**
4	Creating positive relation	3	6.3 (3)	83.3 (40)	**10.4 (5)**
5	Teachers abilities	5	10.4 (5)	52.1 (25)	**37.5 (18)**
6	Student importance	9	27.1 (13)	70.8 (34)	**2.1 (1)**
7	Pharmacognosy group's performance	2	10.4 (5)	62.5 (30)	**27.1 (13)**
8	Pharmaceutics group's performance	2	37.5 (18)	45.8 (22)	**16.7 (8)**
9	Medical chemistry group's performance	2	47.9 (23)	52.1 (25)	**0**
10	Pharmacology group's performance	2	16.7 (8)	58.3 (28)	**25 (12)**
11	Education quality	2	16.7 (8)	75 (36)	**8.3 (4)**
12	System effectiveness	3	12.5 (6)	82.9 (40)	**4.6 (2)**
13	Facilities	6	12.5 (6)	77.1 (37)	**10.4 (5)**
14	Personal factors	11	14.6 (7)	81.2 (39)	**4.2 (2)**
	Total satisfaction	54	18.8 (9)	70.8 (34)	**10.4 (5)**

Discussion

Students' satisfaction with their received education quality was assessed via a standard questionnaire in this paper. The results showed that students' satisfaction with professional courses was 18.7% more than basic science courses. Mirmohammadi et al. did a descriptive cross-sectional study in 2013 on a sample of 183 alumni graduated from Shahid Sadoughi University of Medical Sciences in the last four years through phone interviews. Satisfaction with basic science and clinical courses were 86.3% and 81.3%, respectively. Satisfaction with professors of basic science and clinical courses were 91.4% and 98.3%, respectively. Generally, education quality is mentioned as proper by students, and satisfaction with basic science courses is higher than clinical courses (7).

The results indicated relatively good or medium satisfaction of 70.8%. Professors' abilities were more desirable in all domains. Behnampour et al. studied satisfaction among 150 paramedicine students of Golestan University in 2012 and found out that satisfaction was not high enough (8).

Students' satisfaction with basic science courses was 52.1% (medium) in this paper. Faraji Armaki & Bagher Panahi did a study on randomly selected 107 students and 20 faculties in 2010-2011 and found out that most of the students were relatively satisfied by the medicine basic science courses (9).

Pejhan et al. measured satisfaction of 414 students in Sabzevar University of Medical Sciences and concluded satisfaction of 41.4% (medium) with educational service and facilities (10). Satisfaction with facilities among pharmacy students in Kermanshah was 77.1%.

Fattahi et al. did a descriptive cross-sectional study among dentistry students in Kerman. 74.3% of students claimed high and very high satisfaction, 17.1% claimed

medium satisfaction, and the rest reported low satisfaction (11). Hassanzadeh et al. evaluated 380 students' opinion about their major of study in Isfahan. Opinion score was figured as 73.78% based on Likert scale that was lower than the test average. Hence, the score was assessed as negative (12). In this paper, students' satisfaction of their study major was figured as 70.8%.

Izadi et al. did a survey among 348 students of Mazandaran University and found out that only 40% of students were satisfied with educational service (13).

Laaksonen et al. studied student properties effect on their satisfaction with studying pharmacy and found out that 82% of students were satisfied with courses (14). In this paper, students' satisfaction with educational service was measured as 70.8%. Therefore, the following suggestions are made in order to increase students' satisfaction with educational services and facilities in School of Pharmacy based on the obtained results:
- Distributing pamphlets including this study's results among all educational groups working with students during 6-year period of pharmacy studies,
- Introducing the 6-year educational plan to freshmen in order to make them familiar with their total educational way,
- To make students involved in education system and run a student-based system,
- Encouraging students to do side-activities such as artistic and sportive activities,
- To do periodic inter-group evaluations in order to observe educational improvement process, and
- Developing facilities especially in libraries and laboratories.

Conclusion

General satisfaction of pharmacy students with the school's education quality was figured out to be 70.8% (medium satisfaction). The highest satisfaction level was with professors, and the lowest level was with college space and facilities. Thus, doing some actions to increase the level of satisfaction is necessary.

Acknowledgments

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