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The Perceptions of Students toward the Quality of Educational Services at Zahedan University of Medical Sciences, Based on the SERVQUAL Model during the Academic Year 2017-2018

Somayeh Shahroudi[1], Azizollah Arbabisarjou[2*], Omol-Banin Rahdar[3]

[1]Department of Biostatistics and Epidemiology, School of Health, Health Promotion Research Center, Zahedan University of Medical Sciences, Zahedan, Iran.

[2] Department of Nursing Management, School of Nursing and Midwifery,Zahedan University of Medical Scineces, Zahedan, Iran.

[3]Department of Educational Management, school of Educational Sciences, Islamic Azad University, Zahedan, Iran.

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***Corresponding author:**
Azizollah Arbabisarjou, Department of Nursing Management,
School of Nursing and Midwifery,
Zahedan University of Medical Scineces,
Zahedan, Iran.
Email: Arbabisarjou@zaums.ac.ir.

Abstract

Background & Objective: Higher education is an important institution providing education and human resources, which requires special attention in terms of the quality of services if it is to be preserved. The present study aimed to assess the perceptions of students toward the quality of educational services at Zahedan University of Medical Sciences (ZAUMS), Iran during the academic year 2017-2018.

Materials and Methods: This cross-sectional, descriptive-analytical study was conducted on 477 students, who were selected randomly using the Krejcie-Morgan table for the estimation of sample size and stratified-proportional sampling from the students of six schools at ZAUMS. Data were collected using the adjusted standardized questionnaire for the quality of educational services (SERVQUAL) model. The questionnaire consisted of two sections, including demographic data and quality assessment of educational services based on the SERVQUAL model. Data analysis was performed in SPSS version 21 using descriptive and analytical statistics, such as independent t-test and one-way analysis of variance (ANOVA).

Results: The assessment of the perceptions of the students toward the quality of university services indicated that 11.2%, 87%, and 1.8% of the students considered the service quality to be poor, average, and favorable, respectively. However, the quality assessment of the educational services based on gender, marital status, age, type of accommodation, and schools indicated no statistically significant correlations (P>0.05). The difference observed in the average scores of the quality assessment obtained by the native students was considered statistically significant (P=0.004).

Conclusion: According to the results, the students considered the quality of the current educational services at ZAUMS to be average. Therefore, the authorities must implement efficient plans in order to improve the quality of educational services.

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Introduction

Higher education is an important institution, which educates and supplies human resources and is the main pillar in the comprehensive development of every country. Higher education institutions have major responsibilities in the economic, social, political, cultural, and educational development of communities (1,2). Today, a key influential factor in the development and persistence of organizations, as well as higher education systems, is the quality of services as a constant demand of humans (3,4).

Regardless of quality development, the extension of the higher education system only in terms of quantity is associated with consequences such as academic failure, scientific dependence, brain drain, lack of entrepreneurship, and lack of knowledge generation(5). Evaluation of the current trends of the higher education system suggests that higher education should pay special attention to the crisis of growing quantitative and financial constraints to maintain and improve quality(6).

The quantity expansion of universities and educational institutions could increase the number of students. The growing number of unemployed graduates is considered to be a substantial challenge in the higher education system in Iran. These challenges have necessitated accountability in the Iranian higher education system, urging university systems to reconsider their structure and objectives. Therefore, the quality of services at higher educations as recently attracted the attention of researchers (7).

According to Alkin, the concept of the quality of educational systems is defined based on the performance of students, teaching and resource allocation by instructors, and the factors that are involved in the provision of educational services (3). Perceptions of students toward the quality of the provided educational services could yield beneficial

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results for fundamental decision-making by educational system authorities and policymakers (8).

Some of the influential factors in the quality of university services include physical facilities, professional competence of professors, and use of modern technologies, which affect the positive or negative attitudes of students, thereby motivating them or leading to their academic burnout (8,9). SERVQUAL model is a common method for the assessment of service quality, which was introduced by Parasumman and Barry et al. This model consists of five dimensions, including tangibility(availability of physical facilities, equipment, personnel, and communication materials), reliability (ability to perform the promised services dependably and accurately), responsiveness (willingness to help clients and provide prompt services)and accountability, confidence and assurance (knowledge and courtesy of employees and their ability to convey trust and confidence), and empathy and sympathy (caring and individualized attention provided by the firm for the clients) (10-12).

In a study, Shahraki Pour (2012) investigated the influential factors in the quality of graduate education in the Islamic Azad University, reporting that equipping classes with novel technologies, conducting research, changing educational contents and teaching methods, and professional development are the foremost influential factors in increasing the quality of master's degree courses (13). In another study, Kebriaei et al. (2004) evaluated the quality of educational services at Zahedan University of Medical Sciences (ZAUMS, Iran) using a questionnaire in 386 students using the SERVQUAL model. According to their findings, only 17.6% of students described the quality of educational services as favorable (14). Furthermore, Tatari et al. assessed the perceptions of students toward the quality of the educational services provided at Golestan University of Medical Sciences (Iran) using the SERVQUAL model. According to the obtained results, only 18.2% of the students described the quality of educational services as favorable (15). Similarly, Sultan and Wang (2010) evaluated the quality of educational services at Japanese universities in 64 international students using the SERVQUAL model, and the findings suggested satisfactory service quality from the perspective of the students (16).

Vaz and Mansouri in a study in Malysia found that in the SERVQUAL model, the tangibility had the most impact significantly and directly on the students' satisfaction with the quality of educational services (17).

Considering that students are the main element and clients of universities, assessing the quality of the provided educational services could lay the basis for proper planning and educational development by the related authorities.

The present study aimed to assess the perceptions of students toward the quality of educational services at ZAUMS using the SERVQUAL model in the academic year 2017-2018.

Materials and Methods

This cross- sectional, descriptive-analytical study was conducted on 477 students at ZAUMS in the academic year 2017-2018. To calculate the sample size considering the total number of the students at the selected university (approximately 4,000), the researchers used the Krejcie-Morgan sample size table based on the Cochran formula (18). The participants were selected via stratified-proportional sampling. To this end, ZAUMS was divided into six categories, including medical, nursing and midwifery, health, rehabilitation, paramedics, and dentistry schools. In proportion to the total number of its students, the samples were selected randomly from each school. The study protocol was approved by the Ethics Committee of ZAUMS (code: IR.ZAUMS.REC.1397.73). The objectives of the research were explained to the participants, and after obtaining informed consent, they were assured of confidentiality terms regarding their data.

Data were collected using a questionnaire consisting of two sections, including the demographic data and service quality at higher education institutions. The demographic data included age, gender, marital status, income status, type of housing, type of school, and degree and field of study. The questionnaires were administered as self-reports. Data collection was performed after coordination with the selected schools. Moreover, the adjusted standardized questionnaire of the quality of educational services was used based on the SERVQUAL model for data collection regarding the quality of educational services from the perspective of the students (3).

The questionnaire had 20 items and five subscales of tangibility (four items) reliability (three items), accountability (five items), assurance (four items), and empathy (four items). The items were scored based on a five-point Likert scale (Strongly Disagree=1, Disagree=2, Do No Know=3, Agree=4,

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and Strongly Agree=5).Scores 20, 60, and 100 represented the total low, average, and high scores, respectively. The score ranges of 20-40, 41-79.5, and more than 80 indicated poor, average, and favorable educational service quality, respectively. The quartiles were considered as the scoring criteria for the questionnaire. The scores with the first-quarter range indicated poor service quality, scores within the second- and third-quartile ranges were considered as moderate service quality, and scores within the fourth-quartile range represented the high quality of educational service in the viewpoint of the students (19).

To calculate the score of each subscale, the scores of the items in the subscales were summed up. The face validity and content validity of the questionnaire were confirmed by a panel of educational management faculty members. In addition, the reliability of the entire questionnaire has been previously confirmed at the Cronbach's alpha of 0.93 (20). The reliability of the questionnaire in the present study was estimated at the Cronbach's alpha of 0.93.

Data analysis was performed in SPSS version 21 at the significance level of 5%.The Kolmogorov-Smirnov test was used to assess the normal distribution of the data, and descriptive statistics (mean, standard deviation, and percentage) were also applied. To investigate the quantitative variables based on the two-level qualitative variable, independent t-test and one-way analysis of variance (ANOVA) for the variables of age and school.

Results

In total, 477 questionnaires were distributed, 23 of which were incomplete and excluded from further analysis, and 454 questionnaires were analyzed. Among 454 subjects, 45.4% were male, and 54.6% were female. The mean GPA of the students was 16.46±1.25, with the minimum of 12 and maximum of 20 (Table 1).

Table1: Distribution of students according demographic characteristics

Variable	levels of Variable	Number	percentage
Gender	Female	248	54.6
	Male	206	45.4
	Total	454	100
Age	Less than 25 years	360	79.3
	Between 25-35	76	16.7
	Between 35-45	4	0.9
	Total	440	96.9
Marital Status	Single	354	78
	Married	69	15.2
	Total	423	93.2
Nativity	Native	268	59
	Non-native	114	25.1
	Total	382	84.1
Location of Residency	Student dormitory	177	39
	Outside dormitory	95	20.9
	Total	272	59.9
faculty	Medicine	101	22.3
	Dentistry	69	15.2
	Nursing & Midwifery	106	23.3
	Rehabilitation	54	11.9
	Paramedics	72	15.9
	Health	49	10.8
	Total	451	99.3

According to the findings, the mean score of educational service quality was 56.23±12.15with the minimum score of 21 and maximum score of 94. With regard to the perceptions of the students

toward the quality of educational services, 11.2%, 87%, and 1.8% of the students considered the quality to be poor, average, and favorable, respectively. Additionally, the comparison of students' perception in the five dimensions of the questionnaire indicated that the lowest score belonged to the dimension of empathy, and the highest score belonged to the dimension of tangibility (Table 2).

Table2: Mean and standard deviation of student perceived service quality.

Quality dimensions of educational services	Mean	Standard deviation
tangibility	60.52	14.92
reliability	56.28	17.11
responsiveness and accountability	54.53	16.35
confidence and assurance	57.99	16.74
empathy and sympathy	52.71	15.78

According to the results of the Kolmogorov-Smirnov normalization test, the observations regarding the evaluation of the perceptions of the students toward the quality of educational services had normal distribution (P>0.05). Independent t-test and one-way ANOVA were used to compare the mean score of service quality assessment based on important demographic data, and the obtained results indicated that the perception of the students toward the quality of educational services had a higher score compared to women, while the difference in this regard was not considered significant based on the results of independent t-test (P>0.05). On the other hand, comparison of the mean scores based on age, marital status, and type of housing showed no statistically significant difference (P>0.05) (Table 3). The quality assessment of educational services received higher scores by the native students (57.87%) compared to the non-native students (53.92%), and the difference in this regard was considered significant based on the results of independent t-test (P=0.004)(Table 3).

According to the comparison of the results of the quality of educational services based on the schools, the highest mean score for the quality of educational service belonged to the school of nursing and midwifery, while the lowest score belonged to school of dentistry; however, the difference in this regard was not considered significant based on the results of one-way ANOVA (P>0.05)(Table 3).

Table3: The Mean(Std) value of students perception scores given to the quality of educational services based on important characteristics of demography.

Demographic variables		Students perception score		Teststatistical	Significance level
		Mean	Standard deviation		
Gender	Female	56.04	12.64	T=0.35	0.72
	Male	56.45	11.55		
Age	Below 25	56.63	12.19	F=0.69	0.5
	Between 25-35	55.50	11.61		
	Between 35-45	52.75	19.61		

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Continue of Table3: The Mean(Std) value of students perception scores given to the quality of educational services based on important characteristics of demography.

Marital status	Single	55.77	12.15	T=-1.67	0.094
	Married	58.46	11.21		
Location of Residency	Student dormitory	54.46	11.67	T=-1.73	0.085
	Outside dormitory	57.05	11.92		
Native	Native	57.87	12.4	T=2.86	0.004*
	Non-native	53.92	12.2		
Faculty	Medical	55.34	10.22	F=1.15	0.28
	Dentistry	54.11	14.83		
	Nursing and midwifery	58.3	12.05		
	Rehabilitation	56.55	10.92		
	Health	55.32	13.16		
	Paramedical	56.86	10.92		

* Independent test T at the 0.05 significance level.

F test for analysis of variance (ANOVA).

Discussion

The present study aimed to assess the perceptions of students toward the quality of educational services at ZAUMS in the academic year 2017-2018. University students are the main component of educational institutions since they are in direct contact with the research and education staff and could provide useful data to authorities for the assessment of the university performance, as well as the identification of the problems in the provided services and proper planning to address these issues. According to the obtained results, more than half of the students considered the quality of the educational services to be average at ZAUMS, which is in line with the findings of Jahangiri in an investigation of the quality of educational services and ranking of the universities in Iran in terms of the quality of services in a systematic review of 33 articles. The mentioned research showed that the scores of the quality assessment of educational services was average in 82% of the conducted studies in universities (21).

Also, the results of Gruber et al. study with the aim of assessing students 'satisfaction with the quality of educational services at a university in Germany using the new tool showed that in most domains of the study, students' satisfaction was moderate(22). Therefore, it is essential to upgrade the quality of educational services at universities. On the other hand, the study by Jahangiri indicated that no comprehensive studies have evaluated the quality of educational services in Sistan and Baluchestan province (Iran). In the present study, we only assessed the perceptions of students toward the quality of educational services. As such, so it is necessary to conduct a study with better models to discover and explore the expectations - perceptions gap in the field of educational services at the provincial level.

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The results of a study by YarMohammadian et al. in2014that tried assess the quality of educational services among students of health services management of Isfahan University of Medical Science using the SERVQUAL model is contradictory to ours(23). In their study they reported that more than half of the students have assessed the quality of services as bad. These differences may be due to differences in research environment.

At a closer look, the different dimensions of quality of educational services questionnaire showed that students at ZAUMS give lowest score to empathy and give the highest score to tangibility factors, which is consistent with Yousapronpaiboon's study in Thailand (24).

The results of this study is contradictory to RasolAbadi'sresultsof Medical Sciences in 2011-2012 academic year and Kay's findings in singapore University that tried to assess the quality of educational services using SERVQUAL model (25,26). In RasoulAbadi's study, the students' perceptions score in accountability dimension were the lowest and were the highest in the assurance dimension. The reason for contradiction of the results may be due to the difference in the information gathering tool and the community .In the Kay Student Perceptions Assessment, students showed the highest levels of university facilities.

The comparison of the mean scores of service quality assessment by gender, marital status, age, type of settlement and faculty was not significant. These results are in line with Heydari and Mohammadi's results that tried to assess the quality of educational services in Science and Culture school in 2014-2015 academic year which was carried d out using researcher made toolbased on SERVQUAL model. In their study, among the demographic variables, there was a significant difference about the quality of university educational services only between the perceptions of students of different educational levels (27).Therefore, it is necessary to evaluate the quality of education in universities and educational institutions in order to identify the weaknesses and strengths of the service using a reliable SERVQUAL model.

The limitations of the present study are the use of self-reporting method in collecting data and only addressing the evaluation of students' perceptions of the current status of university education services. It is suggested to use gap models to study the quality of educational services of ZAUMS in future studies.

Conclusion

The results of our assessment showed that 11.2 percent of students perceived the quality of university services as poor, 87 percent perceived it as moderate and 1.8 percent perceived it as good. Students gave the lowest score to reliability and the highest score to accountability. Also, there was no significant difference in the mean score given to educational services quality based on gender, marital status, age, housing status and type of school, and only significant difference is in the native or on native variable. Therefore, educational authorities and policymakers need to take the effective steps to improve the quality of educational services according to the results of the study.

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