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# Evaluation of the educational services quality from the viewpoint of postgraduate students at Kermanshah University of medical sciences in 2019

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## Abstract:

**BACKGROUND:** At present, the SERVQUAL model is one of the most significant tools for measuring customers' expectations and perceptions in organizations. Determination of expectations and perceptions of students who are the main university customers from educational services can provide valuable information to the programmers to improve the condition of educational services. Therefore, this study aims to measure the quality of education services from the viewpoint of postgraduate students at Kermanshah Medical Sciences University using the SERVQUAL model in 2019.

**MATERIALS AND METHODS:** This was a descriptive cross-sectional study. The population under the study consisted of 162 students at the postgraduate education section (Master's degree and Ph.D.) studying in the second semester of the academic year of 2019 at Kermanshah Medical Sciences University. The standard SERVQUAL questionnaire was used for data collection, which included five dimensions of the quality of educational services, and the random-stratified sampling method was employed. The data were analyzed using the SPSS Statistics software (version 23.0, SPSS Inc., Chicago, IL, USA), and descriptive and other statistical tests, including the Pearson correlation coefficient, and paired and independent t-tests were performed.

**RESULTS:** Based on the students' perspective in the provision of service there was quality gap existed in all services, and the largest gap was in the reliability dimension (-0.37), and after that, empathy (-0.37), guaranty (0.27), and responsiveness (-0.24) dimensions, respectively, and the lowest one was in the tangible dimension (0.15). There was a statistically significant observed difference between the quality gap in different educational dimensions ( $P > 0.001$ ).

**CONCLUSION:** Research findings showed that students were not meeting their expectations from the presented educational services. Hence, holding a training workshop is suggested in the field of how to serve and enhance communication skills for employees and teachers.

## Keywords:

Educational services, quality gap, SERVQUAL, students

## Introduction

In a competitive environment, organizations compete with each other, and customer satisfaction from provided services is a key element in the success and superiority of organizations and is considered an

important factor for customer profitability and loyalty to the organization.<sup>[1,2]</sup> At present, more than ever, the issue of service quality has been addressed as a significant feature for the growth, success, and sustainability of organizations and as an efficient strategic topic in the management

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agenda of organizations worldwide.<sup>[3-6]</sup> Educational services, in particular, services provided through universities and higher education institutions, play an essential role in the development of societies.<sup>[7,8]</sup> Therefore, attention to the promotion of educational and research quality services is continually an essential issue. Quality in higher education is a multidimensional concept which depends on the academic status, academic system, mission, conditions, and standards of the university degree.<sup>[9-11]</sup>

Students, staff, and instructors (faculty) are the major clients of higher education, among which students' views can play a significant role in improving the quality of services.<sup>[12,13]</sup> Since one of the quality attributes in a university is the satisfaction of students' expectations through the provision of educational services, the quality of this process can be determined by examining the gap between students' expectations and perceptions.<sup>[1,14]</sup> One method that is often used to evaluate the quality of higher education and university services is the SERVQUAL model, which has been offered by Parasuraman *et al.* and Abbasi *et al.*<sup>[15,16]</sup> This template brings up five key gaps in relation to customers' perceptions and expectations of service quality and activities associated with service delivery to the customer. These dimensions include the tangible dimension (conditions and physical space of environment of service providers such as facilities, equipment, employees, and communicational channels), confidence dimension (ability to doing service in trustworthy and safe mode), responsiveness dimension (tendency to cooperation and helping customer), guaranty dimension (eligibility and ability of employees for the induction of trust and confidence feeling to the customer), and empathy dimension (special encounter with any one of customers regarding their moral, so that they can convince consumers).<sup>[9,17-19]</sup>

The determination of the quality gap is very significant in educational services from the viewpoint of students, who are the most vital customers to plan the improving quality of educational services.<sup>[20-22]</sup> Regarding the importance of examining the viewpoint of students on the quality of educational services, a lot of research has been done so far.<sup>[4]</sup> The results of Kavosi's study in Shiraz showed that there was a great difference between students' perceptions and expectations, in which the highest gap had been in the empathy domain and the least in the physical domain.<sup>[23-25]</sup>

In the study of Mohammadi and Vakili in Zanjan and Sohrabi in Tehran, the quality gap was observed between students' perceptions and expectations.<sup>[26,27]</sup> A study of Zohadi in Malaysia showed that the quality of educational services in public centers had been better than private ones.<sup>[28]</sup>

Because of the importance of the recognition of both category of perceptions and expectations of students as internal customers of the education system, this research can eliminate or decrease the gap between available situations and desirable situations of quality (if there is a gap). It will improve future programmings with efficient and effective interventions in eliminating or reducing the mentioned gap, and thus, it will improve the quality of educational services. Therefore, this study will be done with the purpose of the investigation of the service quality gap by using the SERVQUAL model.

## Materials and Methods

This was a descriptive cross-sectional study, and the population under study was all postgraduate students studying in the second semester of the academic year 2019 at Kermanshah Medical Sciences University. Based on the results of a similar study,<sup>[5]</sup> with considering the average of educational service gap in the tangible dimension,  $0.82 = \sigma$  and  $d = 0.1$  and  $\alpha = 0.05$ , the minimum of needed sample size with correction of finite society ( $n = 475$ ) were determined equal to 168 students.

### Tools

To measure the perceptions and expectations of students about the quality of educational services, a questionnaire was used that was prepared by Kebriaei and Roudbari with the SERVQUAL method. Its reliability and validity had been approved based on previous studies.<sup>[12]</sup> The questionnaire had two parts: the first part included questions related to the profile and background of students, and the second part consisted of 25 pairs of questions, related to perceptual assessment and their expectation of the quality of educational services at a 5-point Likert Scale (in perception questions of the current situation, from very good to very bad and in expectation questions in the optimal position, from very minor to very important) was presented with a scored scale of 1–5.

After following the steps of administrative procedures, the researchers asked for permission from the authorities for acting out toward the questionnaire by students. In this study, collected data were analyzed using descriptive and inferential statistical methods such as the Pearson correlation coefficient and paired and independent *t*-test.

### Ethical consideration

This study is part of the research project (IR.KUMS.REC.1398.104) sponsored by the Deputy of Research and Technology from Kermanshah University of Medical Sciences, Iran. The authors maintained all the protocols before performing all the procedures engaged in this study involving human participants in accordance with the ethical standards of the institutional research

committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

## Results

In this study, 162 students of M.A. and Ph.D. degrees were examined, and the age distribution of participating students was in the study was  $35.2 \pm 27.5$  years, and 52 persons (32.1%) were male, and 110 persons (67.9%) were female. Based on the educational placement, from the whole number of participating students, 71 persons (43.8%) were studying in medicine school, 62 persons (38.3%) in nursing school, 18 persons (11.1%) in midwifery school, and 11 members were unclear. The results showed that, in general, the mean scores in all aspects of the quality of educational services were negative from the student's viewpoints ( $P < 0.001$ ). The highest quality gap was observed in the reliability dimension, and then in the empathy dimension, and the lowest quality gap was observed in the tangible dimension. The observed difference between the quality gap in different educational dimensions was statistically significant ( $P < 0.001$ ) [Table 1].

The results showed that based on the one-sample *t*-test, an average of all scores in five dimensions of educational services (tangibility, reliability and responsiveness, guaranty, empathy [in the field of expectation, perception]) had been too moderate ( $P < 0.001$ ) [Table 2].

There was no significant difference between the male ( $0.17 \pm 0.86$ ) and the female students ( $-0.34 \pm 0.82$ ) regarding the assessment of the quality dimensions of service ( $P = 0.661$ ).

There was no significant difference among M.A. ( $-0.12 \pm 0.71$ ) and Ph.D. ( $-0.31 \pm 0.87$ ) students regarding the assessment of the quality of the services ( $P = 0.53$ ) [Table 2].

According to Kruskal–Wallis test, results showed that there was no significant difference between the scores of quality of educational services among students of (medicine, nursing, midwifery) colleges ( $P = 0.012$ ), and the quality gap of educational services was negative between all colleges of the university, which then the test of dual comparisons (Dunn) showed that the

quality of educational services in midwifery group was lower than in medical group ( $P < 0.001$ ) and nursing group ( $P = 0.002$ ) and there was no significant difference between medical and nursing groups [Table 2].

## Discussion

The results of this study showed that, in general, the mean scores in all aspects of the quality of educational services were negative from the students' viewpoints.

The highest gap in this study was in the reliability dimension with the gap score ( $-0.369$ ), and it was ranked in first grade, and thus indicating that the students were not aware of the outcome of the evaluation. Besides, the information provided by the colleges in this regard was weak. This study has corresponded with the obtained results of Kavosi *et al.*,<sup>[23]</sup> Ghalavandi *et al.*,<sup>[1]</sup> De Oliveira,<sup>[29]</sup> and Legčević.<sup>[30]</sup> It is suggested that to reduce this gap, all faculty members and the students should be aware of the results of the evaluation, as well as using the students' viewpoints, required feedback must be given, and in fact, this issue is one of the policies of the college and the duties of the professors.

The second educational gap was in the empathy dimension, with a gap score of  $-0.368$ . This gap indicated the college's tendency to providing quick services for students and reflecting the sensitivity and knowledge toward students' demands, questions, and complaints.<sup>[31]</sup> The negative gap indicated that the students did not have the proper mechanism to express their opinions and suggestions, and their views were not being used in curriculum planning. Moreover, the students did not have the flexibility of faculty members to deal with unique problems. The results of this study are consistent with the results of studies of Kavosi *et al.*<sup>[23]</sup> and Legčević.<sup>[30]</sup>

To minimize this gap, the faculty members should have the flexibility and allocate time to listen to the students' viewpoints and show their interests. In this regard, it is better to hold workshops base on effective communication with students.

Then the guaranty dimension with a gap score of  $-0.762$  had placed in third grade in the five dimensions of

**Table 1: Mean scores of perception and expectation and the quality gap in the five dimensions of presented educational services in the studied students**

Service dimensions	Perception	Expectation	Quality gap	Standard deviation	P
Tangible	2.9985	3.1497	-0.015123	$\pm 0.94259$	0.043
Reliability	2.9309	3.3000	-0.036914	$\pm 0.77782$	0.000
Responsiveness	2.7975	3.0432	-0.024568	$\pm 0.99546$	0.002
Guaranty	2.8815	3.1494	-0.026790	$\pm 0.87368$	0.000
Empathy	2.8045	3.1728	-0.036831	$\pm 0.94618$	0.000
Total	2.8748	3.1640	-0.028914	$\pm 0.78463$	0.000

**Table 2: Correlation coefficient and the P amount of quality dimensions of educational services**

Service dimensions	Correlation	P
Tangible	0.219	<0.005
Reliability	0.229	<0.003
Guaranty	0.144	<0.067
Responsiveness	0.124	0.117
Empathy	0.112	0.155
Total	0.178	0.023

the quality of educational services. In this regard, the negative gap indicated that students had not sufficiently satisfied with equal treatment of faculty with students and as well as the fruition of teachers from specialized knowledge and needed skill. One of the reasons for the gap in this dimension was the lack of an effective system of evaluation. It seemed that the evaluation criteria of students were depending on the end of the course, and in reality, they were not continuous, and the students did not participate in how they evaluated themselves. The results of this study are consistent with the study results of Barnes<sup>[31]</sup> and Ghalavandi *et al.*<sup>[1]</sup>

It is recommended that the evaluation of the educational groups be systematized. In addition to the final written examination, other methods, as well as the Student's ideas, should be used in this regard.

In the tangible dimension with a gap score of - 0.89 had the lowest rank among the dimensions of educational quality. Physical facilities, including buildings and class lessons, etc., had been related to this aspect. Besides, we can say this dimension was very tangible by the student as it had the most effectiveness in their satisfaction. The results of this study matched with the results of the studies of Emanuel and Adams<sup>[32]</sup> and Stodnick and Rogers.<sup>[33]</sup>

It is suggested that the relevant officials and managers try to take action toward the physical space and facilities for students to solve this problem (appropriate self-service, adequate space for the rest of students, green space, etc.).

This dimension had the highest score among other dimensions of educational services and indicated that it had a better situation than other dimensions.

Hereby, the researchers appreciate the contribution of the department of study and clinical researches development of Imam Reza medical education center.

## Conclusion

Research findings showed that students were not meeting their expectations from presented educational services. Hence holding a training workshop suggested

in the field of how to serve and enhance communication skills for employees and teachers.

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## Conflicts of interest

There are no conflicts of interest.

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