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Assessment of Educational Service Quality Gap: The Students' Perspectives

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Abstract

Background: No one can deny the importance of educational services and the role it plays in attaining social goals. Proper training and students' satisfaction leads to system promotion and finally social development. This study aimed to evaluate the educational service quality in Qazvin University of Medical Sciences (QUMS).
Methods: This cross - sectional study was conducted in 2014 among 327 students of QUMS who were selected through simple random sampling. The most significant variables were tangibility, assurance, empathy, reliability, and accountability of the educational service quality. The data were collected using the 27 - item SERVQUAL questionnaire. Cronbach's alpha score ($\alpha = 0.88$) and test - retest (R = 0.83) method were used to determine the reliability of the questionnaire.
Results: The average age of the students was 22.2 $\pm$ 3.1 years. The quality gap of the educational services was -1.62, -1.70, -1.52, -1.31, and -1.15 for assurance, accountability, empathy, reliability, and tangibility, respectively, which was statistically significant ($P < 0.001$). The mean educational service quality gap was -1.38 based on the students' perceptions ($P < 0.001$). There was no significant relationship between the students' perceptions and expectations and their gender ($P > 0.05$).
Conclusions: There are significant gaps in the educational service quality regarding accountability and assurance. More attention from policymakers seems to improve the educational service quality.

Keywords: Distance Education, Education Services, Gap Analysis, Services Quality

1. Background

In today's competitive world, with limited financial resources, service - providing organizations and centers must take serious actions to provide high - quality services to get much more customer attention and also to remain relevant in such an environment (1). One of the most significant challenges for universities and academic centers is to promote the capability to compete in providing high - quality services in their academic programs (2). Hence, assessing educational service quality plays an important part in its management and improvement (3).

Since one of the signs of quality in universities is the fulfillment of students' expectations from the educational services, more researchers have focused on the gap between the students' expectations and perceptions of the different educational aspects and dimensions (4). Until recently, researchers assessed service quality using one - dimensional scales; these scales are not suitable for multidimensional concepts like quality though (5). One of the best conceptual models for measuring customer satisfaction is the SERVQUAL model (6). This model is a strong instrument to analyze the service quality of academic scientific services (7) as it qualifies the services based on five aspects including empathy (clerks' perceived attachment and commitment to clients), reliability (ability to provide services in a reliable way), accountability (tendency to cooperate and help clients), assurance (clerks' competency and capability to induce trust and confidence in clients'), and tangibility (physical environment of service provision like equipment, facilities, personnel, and communication channels) (8, 9). Academic education has undergone many different reforms worldwide based on students' expectations. A system will not attain its objectives unless it has a

desirable educational quality (10). In the study by Akhlaghi et al., there existed quality gaps in all aspects of service quality, with the lowest and the highest mean score of the negative gap being for accountability and reliability, respectively (7). In another study, Thai students' perceptions and expectations from the service provided in the private universities indicated that the biggest gap was related to tangibility and the smallest one to reliability (11).

Since universities are among the organizations that provide educational services and their main clients are students, assessing the educational service quality and difference level between the current conditions and expected conditions may lead to finding strategies to reduce this gap and fulfill students' expectations. This study aimed to investigate the educational service quality in QUMS.

2. Methods

This cross - sectional study was conducted in 2014 on 327 students of QUMS, who were selected through simple random sampling, belonging to five faculties (medical, dentistry, public health, nursing and midwifery, and paramedic) according to their population. According to earlier studies, error of 5% and gap level of 30 percent were expected (12, 13). The response rate to the questionnaire was 100%.

The standard SERVQUAL questionnaire (expectations, perceptions) was used to collect the data. The questionnaire contains two parts: 1) Demographic variables (age and gender) with main questions about the five dimensions of educational service quality [tangibility (4 items), reliability (7 items), accountability (5 items), assurance (5 items), and empathy (6 items)] and 2) perceptions and expectations. The quality of educational services was measured based on the 5 - item Likert scale ranging from strongly agree to strongly disagree. A comparison was made between the scores of the current quality of educational services (perception) and students' scores regarding desirable quality (expectations) to measure the quality gap. Positive scores indicated that the provided services surpassed students' expectations, and negative scores showed that the current educational services did not meet the students' expectations, and a quality gap existed. A score of zero indicated the absence of a quality gap, implying that the service quality was at a level that the students expected.

The validity of the questionnaire in Iran was established by Kavoosi (12) and Zare'ei (13), and its reliability was measured by Cronbach's alpha 0.88 and test - retest 0.83. The inclusion criterion was students who passed at least one semester in the mentioned university, and the exclusion criterion was students' reluctance to participate in the study. Qazvin Social Determinants of Health Research Center approved the ethics of the study. The confidentiality of the participants' personal information was assured and explained to them. Finally, a consent form was filled out by the students.

Statistical software SPSS 21.00 and descriptive, inferential statistics were used to analyze the data. The significant relationship of the educational service quality gap was determined using the paired t - test, and t - test was used to identify the relationship between perceptions/expectations and gender. Kolmogorov - Smironov test showed the normality, and Leven test, the equality of variances.

3. Results

The students' average age was 22.16 $\pm$ 3.09 years; 62.4 percent (N = 204) were female. The students' average grade point was 16.56 $\pm$ 2.61. The highest level of gap in the assurance subclass was -2.03 and related to giving time to the students; the gap was -2.16 for employing students' ideas and recommendations in accountability subclass. In subclasses of empathy, reliability, and tangibility, the highest levels of gap were -1.85, -1.63, and -1.58 for class times, doing activities promised by professors, and physical attraction, respectively (Table 1).

Among the dimensions, the highest gap was -1.70 for accountability, and the lowest was -1.15 for tangibility. The lowest mean level of perceptions was 2.94 for accountability, and the lowest mean gap for expectations was 4.51 for empathy (Table 2).

The correlation between the participants' age and perceptions was -0.166, which was significant (P = 0.015). There was no significant relationship between the students' gender and their perceptions and expectations regarding the educational service quality (P > 0.05) (Table 3).

4. Discussion

The results showed that in all dimensions of educational service quality (assurance, accountability, empathy, reliability, and tangibility), a negative quality gap existed. The negative gap indicates that the students' expectations were beyond the current condition, and fundamental interventions and proper planning must be done to fulfill the students' expectations. The existence of quality gap in this study is consistent with the findings of Bayraktaroghlu et al. (14), Yar-Mohammadian et al. (15), and Rajabi and Rajabi (16) and also with that of the studies by Amelia et al. (17), Yusof et al. (18), and Legcevic (19) but not with the findings of Enayati et al. (10).

Table 1. Mean Score of Students Perceptions and Expectations and Quality Gap (N = 327)

Service Quality Dimensions	Comments Related to Each Dimension	Perceptions	Expectations	Gap	Confidence Interval
Tangibility	Professors and clerk's neat appearance	3.70	4.67	- 0.97	-1.10, -0.84
	Apparent attractiveness and physical facilities	3.18	4.77	- 1.58	-1.73, -1.48
	Educational equipment and materials being efficient	3.46	4.17	- 0.71	-0.86, -0.56
	Apparent attractiveness of tools and instructors used in education	3.23	4.59	- 1.35	-1.50, -1.21
Assurance	Facilitating discussions	3.58	4.84	- 1.25	-1.38, -1.13
	Preparing students for their future jobs	3.06	4.68	- 1.61	-1.76, -1.46
	Enough study resources	2.64	4.53	- 1.88	-2.05, -1.71
	Allocating time to respond and explain materials	2.56	4.60	- 2.03	-2.1, -1.87
	Professors having professional knowledge	3.21	4.59	- 1.38	-2.19, -1.87
Empathy	Assigning proper homework	3.11	4.29	- 1.18	-1.54, -1.23
	Professors flexibility	2.99	4.19	-1.19	-1.34, -1.01
	Appropriateness of class time	2.73	4.74	-1.85	-2.01, -1.01
	A peaceful study place in the university	2.94	4.75	- 1.79	-1.95, -1.63
	Good contacts between students and professors	3.24	4.66	-1.42	-1.58, -1.25
	Having respect for students	3.06	4.75	-1.69	-1.85, -1.52
Reliability	Presentation of lessons every session in a related and organized manner	3.70	4.72	- 1.021	-1.16, -0.88
	Informing students of the results of their work	3.48	4.67	- 1.190	-1.32, -1.05
	Presenting materials in an understandable way	3.07	4.44	- 1.370	-1.53, -1.21
	Giving higher marks for more efforts	3.21	4.69	- 1.48	-1.62, -1.34
	Keeping students' academic records without missing a point	3.57	4.53	- 0.96	-1.09, -0.82
	Easy access to study resources of the university	3.22	4.74	- 1.52	-1.66, -1.37
	Doing what has been promised in proper time by both professors and clerks	3.09	4.73	- 1.63	-1.78, -1.48
Accountability	Facilitating students' access to management	3.50	4.49	- 0.99	-1.13, -0.85
	Professors all - time availability	2.70	4.77	- 2.06	-2.22, -1.90
	Employing students ideas and recommendations on educational issues	2.63	4.79	- 2.16	-2.33, -2.00
	Presenting suitable further study resources to students	2.80	4.69	-1.89	-2.04, -1.73
	Allocating some time to students' references	2.71	4.52	-1.81	-1.96, -1.66

Table 2. Mean Score and Standard Deviation (SD) of Students' Perceptions and Expectations Regarding Educational Service Quality (N = 327)

Dimensions of Educational Quality	Mean ± SD of Expectations	Mean ± SD of Perceptions	Level of Quality Gap	P Value
Assurance	4.64 ± 0.43	3.01 ± 0.94	-1.62	< 0.001
Accountability	4.65 ± 0.39	2.94 ± 0.83	-1.70	< 0.001
Empathy	4.51 ± 0.59	3.04 ± 0.88	-1.52	< 0.001
Reliability	4.64 ± 0.42	3.33 ± 0.85	-1.31	< 0.001
Tangibility	4.55 ± 0.44	3.39 ± 0.81	-1.15	< 0.001
Service quality gap	4.60 ± 0.36	3.12 ± 0.81	-1.38	< 0.001

Determining the level of the education service quality gap can act as a suitable basis for planning, prioritizing, decision making, and resource allocation to promote the quality of the educational service to respond to the students' expectations. In this study, the highest mean educational service quality gap was -1.70 for accountability, which was similar to that seen in the study by Abbasian et al. (20), Shams et al. (21), and Rahimi et al. (22) who investigated the educational service quality in the medical sciences universities of Shahrood, Tehran, and Shiraz, respec-

Table 3. The Relationship Between Students' Gender and Their Perceptions and Expectations Regarding Educational Service Quality (N = 327)

Educational Quality	Gender	N	Mean ± SD	P Value
Perceptions	Male	123	3.11 ± 0.83	P = 0.06
	Female	204	3.13 ± 0.79	
Expectations	Male	123	4.61 ± 0.39	P = 0.33
	Female	204	4.60 ± 0.34	

tively. However, Towfighi et al. (23) and Enayati et al. (10) reported the highest level of quality gap for empathy and assurance, respectively, which was not consistent with the present study. It can be suggested that the negative quality gap in accountability results from providing improper services or lack of responses to students; however, the gap in accountability can be decreased by providing in-time services and improving professors' culture to help students and their interest in being responsible to the students.

The present study has also shown that the lowest mean educational service quality gap was for tangibility, which is consistent with the findings of Rajabi and Rajabi (16) and Rahimi et al. (22), but Yousapronpaiboon in Thailand (24) and Zeshan et al. in Pakistan (25) reported the lowest quality gap for reliability, not consistent with the present study findings. This difference could be related to the different socio - cultural elements in these countries.

According to this study, there was no significant relationship between the gender and students' perceptions and expectations regarding the educational service quality. In the study by Towfighi et al., the mean of the five dimensions was not significant for both males and females (23). In the study by Kavoosi et al. in Shiraz, there was no significant relationship between the educational service quality and gender (12), which is consistent with the present study findings; however, Yousapronpaiboon et al. (24) reported a significant relationship between the educational service quality and gender. Shams et al. reported a significant relationship only between assurance and gender (21), which is not consistent with the present study results. Some of the limitations were the absence of the students during free time.Although the SERVQUAL model was used in this study, which consists of only five factors or dimensions, the study survey conducted included a range of educational services much wider than the dimensions mentioned. The factors such as support services, information technology, library, and consulting services were not considered.

4.1. Conclusion

Since students are the main clients of higher education schools, services provided to them must be at a desirable level, and their expectations must be fulfilled; otherwise, some consequences such as quitting, dropout, unemployment, brain drain, and poor science production might occur. The higher gaps in accountability and assurance require more attention. Managers should consider implementing plans to reduce these gaps in educational quality and promote better educational services in these two sectors for the students.

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Footnotes

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