Research Article

Quality Break in Educational Services of Medical Students of Iran and AJA Universities of Medical Sciences, 2016

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Abstract

Objectives: The current study aimed at evaluating the quality gap in educational services by the medical students of Iran and AJA universities of medical sciences.

Methods: The current cross sectional study was conducted on 82 medical students taking part voluntarily. The service quality (SERVQUAL) form was applied. This form assayed the quality break of educational service (security, responsiveness, empathy, reliability, and tangibility). The score of the break in quality of educational services was computed by perception minus expectation scores. Data were analyzed by the Wilcoxon and Mann - Whitney U tests. P < 0.05 was considered as the level of significance.

Results: There was quality break in all five dimensions of educational services in both universities. The largest and smallest breaks were detected in security and empathy, respectively, in both universities. There was no significant difference in the quality break between the two universities.

Conclusions: The medical students' expectations in Iran and AJA universities of medical sciences were higher than their perceptions of the existing situations; also, their expectations were not met in all dimensions of the services.

Keywords: SERVQUAL, Medical Education, Medical Student

1. Background

In today's world, the quality of education is one of challenges at the universities (1). The quality of university education is always of great importance (2). Evidence suggests that the educational systems can properly perform their duties when the quality of education is good (3). One of the responsibilities of higher education is to train expert and committed persons, since they perform a critical part in the development of any country. Therefore, the main concerns of any higher education system should be to provide appropriate services and an adequate level of quality that allows employing this valuable human capital in directing the country toward sustainable development (4). Nowadays, to assess the students' ideas about all aspects of the education provided in educational institutions is considered as an essential factor to monitor the quality of the university (5). In the medical education system, it is essential to pay more attention to the quality of education. Otherwise, it may lead to the ineffectiveness of graduates and may have many health and medical consequences (6).

There are several models to evaluate service quality (SERVQUAL) (3-5). In SERVQUAL scale, service quality is the break between expectations and perceptions of consumers of the services presented by provider organization in reality. This instrument measures the perceptions and expectations of customers in the five dimensions and finally processes the gaps between them. These five dimensions are 1) Tangibility: appearance of the physical facilities, equipment, staff, and communication facilities; 2) Reliability: reliability in performing the service continuously, accurately, and timely; 3) Responsibility: willingness of the staffs to help clients and provide them with quick services; 4) Assurance: knowledge, attention, and proficiencies revealed by the employees that inspire confidence and trust; 5) Empathy: an effort to recognize the viewpoint of the user through personal attitudes. Due to the flexible nature of this scale for use in various services, it can be also used to assess the quality of medical education (6).

According to the requirements of the educational services to assess their quality, it was decided to use the Persian standardized SERVQUAL questionnaire sample to in-

vestigate the quality of educational services in Firoozgar Hospital affiliated to Iran University of Medical Science and Imam Reza Hospital affiliated to AJA University of Medical Sciences, Tehran, Iran. The results may enable authorities of Firoozgar and Imam Reza hospitals to realize the deficiencies in the quality of their educational services. On the other hand, the current study may motivate the officials of the two hospitals to improve the quality of educational services with the needs and the expectations of their students.

2. Methods

In the current cross sectional study, 100 students were selected by stratified random sampling method. The population consisted of all of the general practitioner (GP) students of Iran University of Medical Sciences in Firoozgar Hospital and AJA University of Medical Sciences in Imam Reza Hospital in 2016. Fifty questionnaires were distributed in each hospital, out of which 41 completed questionnaires were returned from Firoozgar hospital and 41 from Imam Reza hospital.

Data were collected by SERVQUAL form (19 items) to survey the areas of tangibility (items 1 - 4), reliability (items 5 - 7), responsibility (items 8 - 11), security (assurance) (items 12 - 15) and empathy (items 16 - 19) regarding the measurement of educational quality in terms of expectations (an ideal and required medical education) and perceptions (the actual condition of the medical education) scored based on a seven - option Likert scale (from 7 for very much to 1 for very little) (7, 8). The reliability and validity of the Persian version of the questionnaire were proved by Heidarnia et al. (9). Scores of items in each area were added. The gap was derived by subtraction of the expectations' score from the perceptions' score for each participant response. A negative score was considered as negative gap if the current situation was distant from the desired situation.

Data were expressed as median $\pm$ inter quartile rang (IQR) and analyzed using the Mann - Whitney or Wilcoxon tests with SPSS. $P < 0.05$ was considered statistically significant.

3. Results

There were no significant differences in the expectations, perceptions, and the gap between AJA and Iran universities of medical sciences (Table 1).

There were significant differences between expectations and perceptions in all five areas in both universities (Table 2).

4. Discussion

Medical education is a very costly and important educational period. The current study aimed at examining the extent of the gap between expectations and perspectives among medical students in two universities. The median expectations of service quality were significantly higher than the median perceptions at both universities.

There was negative break between student expectations and perceptions in the quality of all areas of educational services. It means that quality of the delivered educational services was lower than what expected in both universities. The lowest gap score of quality was derived for empathy followed by responsibility, tangibility, and reliability, and the greatest gap was in the security. The obtained results were in agreement with those of other studies (4, 8-15). This suggested that attitudes of students towards the components of five dimensions were not positive. On the other hand, students' expectations were not fulfilled. It means that students of Iran and AJA universities of medical sciences were dissatisfied with the quality of services provided.

The causes of failing to meet the students expectations could be explained as follows: lack of adequate educational space for students to discuss in class, failure to present the job prospects of students, lack of easy access of students to teachers when needed, lack of information for specific hours to refer to teachers to resolve the problems in the lessons, not considering the students positive feedback, unsuitable time of holding classes, mismatch of students' tasks with their knowledge, unattractive appearance of physical facilities, and old school equipment and lack of amenities. The results regarding Iran and AJA universities of medical sciences were indicative that security (assurance) had the highest quality gap. This finding was consistent with the results of the studies by Tofighi et al., (16) Arbouni et al., (17), Chua (18), and Mahmoud et al. (19).

In all areas of quality, there were significant differences between expectations and realities in both universities. In this regard, throughout the year, university educators should have courses on effective ways of providing educational services and effective communication with students; also, use of modern educational methods, counseling skills, and student communication in the workshop program for faculty members. On the other hand, more financial resources should be allocated to improve the physical condition, spaces, and educational facilities. The difference between the expectations and the facts in the two universities may be related to the students' academic level, the educational system, or both. It was a limitation of the current study and should be considered later.

Table 1. Comparison of the AJA and Iran Universities of Medical Sciences in the Quality Gap of Educational Services in Each Area of SERVQUAL Questionnaire[a]

	Expectations, Score			Perceptions, Score			Gap		
	Iran	AJA	P	Iran	AJA	P	Iran	AJA	P
Tangibility (4 items)	28 ± 2	28 ± 2	0.655	16 ± 6	16 ± 9.5	0.956	-11 ± 7	-11 ± 10	0.944
Security (4 items)	27 ± 2	28 ± 2	0.155	14 ± 6	14 ± 14	0.816	-13 ± 9	-12 ± 16	0.993
Responsibility (4 items)	21 ± 1	21 ± 1	0.399	11 ± 6	12 ± 9.5	0.211	-10 ± 6	-7 ± 10	0.287
Reliability (3 items)	20 ± 2	20 ± 2	0.685	11 ± 4	11 ± 5	0.344	-9 ± 3	-9 ± 4	0.323
Empathy (4 items)	21 ± 1	21 ± 1	0.059	10 ± 5	13 ± 10	0.077	-9 ± 5	-8 ± 11.5	0.399

[a]Data are expressed as median $\pm$ inter quartile rang (IQR) and analyzed by the Mann - Whitney test.

Table 2. Comparison of the Median Scores of AJA and Iran Universities of Medical Sciences Students' Expectations and Perceptions about the Educational Services in Each Area of Quality[a]

	Iran University of Medical Sciences			AJA University of Medical Sciences		
	Expectations Score	Perceptions Score	P	Expectations Score	Perceptions Score	P
Tangibility	28 ± 2	16 ± 6	0.000[b]	28 ± 2	16 ± 9	0.000[b]
Security	27 ± 2	14 ± 6.5	0.000[b]	28 ± 2	14 ± 14	0.000[b]
Responsibility	21 ± 1	11 ± 5.5	0.000[b]	21 ± 1	12 ± 9.5	0.000[b]
Reliability	20 ± 2	11 ± 4	0.000[b]	20 ± 2	11 ± 5	0.000[b]
Empathy	20 ± 3	10 ± 5	0.000[b]	21 ± 1	13 ± 10	0.000[b]

[a]Data are expressed as median $\pm$ inter quartile rang (IQR) and analyzed by the Wilcoxon test.
[b]$P \leq 0.05$

4.1. Conclusion

The medical students' expectations in Iran and AJA universities of medical sciences were more than their perceptions of the present situations; therefore, their expectations were not met.

References

1. Pazargadi M. [International Advancements in Quality Measurment of Higher Education]. *Rahyaft*. 1998;**18**:29–43. Persian.
2. Parasuraman A, Zeithaml VA, Berry LL. Reassessment of Expectations as a Comparison Standard in Measuring Service Quality: Implications for Further Research. *J Market*. 1994;**58**(1):111. doi: 10.2307/1252255.
3. Shakibaei D, Iranfar SH, Montazeri N, Rezaei M, Yari N. [Faculty views on some educational indicators in Kermanshah University of Medical Sciences]. *Behbood J*. 2007;**8**(1):17–27. Persian.
4. Yazdi Abdoli N, Ganjouei Ashraf F, Pouyanfard A, Owlia MS. [Evaluation of the quality of educational services in the physical education faculties of iau branches across iran and designing a model for it]. *Eur J Exp Biol*. 2013;**3**(1):166–73. Persian.
5. Arambewela R, Hall J. A comparative analysis of international education satisfaction using SERVQUAL. *J Serv Res*. 2006;**6**:141.
6. Kebriaei A, Roudbari M. [Quality gap in educational services at Zahedan university of medical sciences: students viewpoints about current and optimal condition]. *IJME*. 2005;**5**(1):53–61. Persian.
7. Nekoei-Moghadam M, Amiresmaili M. Hospital services quality assessment: hospitals of Kerman University of Medical Sciences, as a tangible example of a developing country. *Int J Health Care Qual Assur*. 2011;**24**(1):57–66. doi: 10.1108/09526861111098247. [PubMed: 21456498].
8. Asefi F. Gap between the Expectations and Perceptions of Students regarding the Educational Services Offered in a School of Nursing and Midwifery. *J Clin Diagn Res*. 2017;**11**(4). doi: 10.7860/jcdr/2017/21483.9640.
9. Heidarnia MA, Riazi-Isfahani S, Abadi A, Mohseni M. [Cross cultural adaptation and assessing validity and reliability of SERVQUAL ques-
tionnaire in hospital service quality]. *Res Med*. 2014;**38**(2):98–105. Persian.
10. Yazdi-Feyzabadi V, Gozashti MH, Komsari S, Mohammadtaghizadeh S, Amiresmaili MR. Quality assessment of clinical education services in teaching hospitals located in Kerman, Iran. *Electron Physician*. 2015:1427–34. doi: 10.19082/1427.
11. Sabahi-Bidgoli M, Mousavi SGA, Kebriaei A, Seyyedi SH, Shahri S, Atharizadeh M. [The quality of hospital services in Kashan educational hospitals during 2008-9: the patients' viewpoint]. *KAUMS Journal (FEYZ)*. 2011;**15**(2):146–52. Persian.
12. Abbasian M, Chaman R, Mousavi SA, Amiri M, Gholami Taromsar M, Maleki F, et al. [Gap analysis between students' perceptions and expectations of quality of educational services using Servqual Model]. *Qom Univ Med Sci J*. 2013;**7**(2). Persian.
13. Rahim Khanli M, Daneshmandi H, Choobineh A. The students' viewpoint on the quality gap in educational services. *J Adv Med Educ Prof*. 2014;**2**(3):114–9. [PubMed: 25512931]. [PubMed Central: PMC4235544].
14. Nabilou B, Khorasani-Zavareh D. The Bridge Between real and Ideal: Students Perception on Quality Gap in Reality and Their Educational Expectations. *Iran Red Crescent Med J*. 2013;**16**(9). doi: 10.5812/ircmj.14254.
15. Mukhopadhyay DK. Students' perception of quality of medical education in a medical college in west Bengal, India. *Indian J Public Health*. 2016;**60**(1):4–9. doi: 10.4103/0019-557X.177256. [PubMed: 26911211].
16. Tofighi S, Sadeghifar J, Hamouzadeh P, Afshari S, Foruzanfar F, Taghavi Shahri SM. [Quality of educational services from the viewpoints of students SERVQUAL model]. *Edu Strat Med Sci*. 2011;**4**(1):21–6. Persian.
17. Arbouni F, Shoghli A, Badriposhteh S, Mohajery M. [The gap between students' expectations and educational services provided for them, Zanjan University of Medical Sciences, 2007]. *Strides Dev Med Edu*. 2008;**5**(1):17–25. Persian.
18. Chua C, editor. Perception of quality in higher education. *Proceedings of the Australian universities quality forum*. Australian University Quality Agency Melbourne; 2004. 181 p.
19. Yasin MM, Alavi J, Kunt M, Zimmerer TW. TQM practices in service organizations: an exploratory study into the implementation, outcome and effectiveness. *Manag Serv Qual*. 2004;**14**(5):377–89. doi: 10.1108/09604520410557985.