ORIGINAL ARTICLE

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Educational Quality Gap from Students' Viewpoints; Results from a Survey in Mashhad University of Medical Sciences

Introduction: Students are the main clients for an educational system. It is believed that using their viewpoints to determine the educational gap is of great value. This can also help to promote educational programs. The aim of this study was to evaluate educational service quality based on students' points of view in Mashhad University of Medical Sciences (MUMS) in 2016.

Method: In a cross-sectional design, 540 students from all seven faculties of MUMS were surveyed. Quota-stratified-cluster sampling method was used to recruit post third-semester students. We used the validated SERVQUAL questionnaire which had 27 paired questions for measuring service quality in 5 domains: Assurance, Responsiveness, Empathy, Confidence and Tangibles. SPSS 16 with $p < 0.05$ was used for data analyses.

Results: Mean age was 22.7 ± 4.2 years. Sixty-one percent (327) were female. There was a significant negative gap in all domains in all faculties ($p < 0.001$). The highest and lowest gap of MUMS was in responsiveness (-33.8 ± 22.2) and confidence (-26.9 ± 20.9), respectively. Dentistry (-41.4 ± 21.6) and medicine (-30.7 ± 15.7) faculties had the highest and nursing (-25.6 ± 17.2) and health (-25.8 ± 14.9) faculties had the lowest educational quality gap. No gender difference was found. Increasing semester worsened the quality gap in four domains (from $r = -0.09$, $p = 0.04$ up to $r = -0.20$, $p < 0.001$).

Conclusions: A negative gap in all domains in all faculties shows that students' expectations are not met properly. We believe that some of these gaps can be easily solved by proper management and reconstruction of presenting services.

Keywords: Quality of services, Educational Services, Gap, SERVQUAL Model

الفجوة النوعية في الخدمات التعليمية من وجهة نظر الطلاب، نتائج دراسة جامعة مشهد للعلوم الطبية

الخلاصة والهدف: الطلاب هم المراكز الرئيسيين للنظام التعليمي. يُعتقد أن استخدام وجهات نظرهم لتحديد الفجوة التعليمية له أهمية كبيرة. يستطيع هذا الموضوع المساعدة في تطوير البرنامج التعليمي. هدفت هذه الدراسة إلى تقييم جودة الخدمات التعليمية بناء على وجهات نظر طلاب جامعة مشهد للعلوم الطبية عام ١٣٩٥.

الطرق: في دراسة مستعرضة، تم فحص ٥٤٠ طالباً من سبع كليات. تم استخدام أخذ العينات على مستوى المجموعة العنقودية لفحص طلاب الفصل الدراسي الثالث وما بعده. استخدم نموذج سيرفكوال، الذي كان فيه ٢٧ سؤالاً ثنائياً لقياس نوعية الخدمات في ٥ أبعاد: الضمانة، والإستجابة، والإطمئنان والعطف والملموس. تم إستخدام برنامج SPSS ذو النسخة ١٦ من أجل تحليل البيانات والمعطيات مع الأخذ بعين الإعتبار بأن P<0.05.

النتائج: معدل الأعمار كان ٢٢/٧±٤/٢ سنة. كانت السيدات تشكل ٦١٪ (٣٢٧). كان هناك معيار منفي على كافة الأبعاد وفي كافة الكليات (p<0.001). أكبر وأصغر فجوة للجامعة كانت وبالترتيب، في الإستجابة: (٣٣/٢ ± ٢٢/٨-) والإطمئنان (٢٠/٩ ± ٢٦/٩-). كليات طب الأسنان (٢١/٦ ± ٤١/٤-) والطب البشري (١٥/٧ ± ٣٠/٧-) وكليات التمريض (١٧/٢ ± ٢٥/٦-) والصحة (١٤/٩ ± ٢٥/٨-) كان فيها أقل فجوة في جودة التعليم. لم يتم العثور على اختلافات بين الجنسين. وأدت الزيادة في الفصل الدراسي إلى تقرير فجوة أكثر عمقاً في أربعة أبعاد. (من r=0.09, p=0.04 إلى r=-0.20, p<0.001).

النتيجة: الفجوة السلبية في جميع الأبعاد وفي الكليات كافة تبين أن توقعات الطلاب لم يتم تلبيتها بشكل صحيح. ونعتقد أن بعض أوجه القصور هذه يمكن حلها بسهولة عن طريق الإدارة المناسبة وإعادة هيكلة تقديم الخدمات التعليمية.

الكلمات الدليلية: جودة الخدمات، الخدمات التعليمية، فجوة، نموذج سيرفكوال.

شکاف کیفیت خدمات آموزشی از منظر دانشجویان؛ نتایج مطالعه دانشگاه علوم پزشکی مشهد

مقدمه: دانشجویان مشتریان اصلی سیستم آموزشی هستند. اعتقاد بر این است که استفاده از دیدگاه‌های آنها برای تعیین شکاف آموزشی ارزش زیادی دارد. این مساله همچنین می‌تواند به ارتقا برنامه‌های آموزشی کمک کند. هدف این مطالعه، ارزیابی کیفیت خدمات آموزشی بر اساس دیدگاه دانشجویان دانشگاه علوم پزشکی مشهد در سال ۱۳۹۵ بود.

روش‌ها: در یک طرح مقطعی، ۵۴۰ دانشجو از هفت دانشکده تابعه مورد بررسی قرار گرفتند. نمونه‌گیری به روش خوشه‌ای-طبقه‌ای-سهمیه‌ای برای بررسی دانشجویان ترم سوم و بعد از آن مورد استفاده قرار گرفت. از پرسشنامه معتبر سرواکوآل که دارای ۲۷ سؤال زوج برای اندازه‌گیری کیفیت خدمات در ۵ بعد بود، استفاده گردید: تضمین، پاسخگویی، همدلی، اطمینان و فیزیکی. برای تجزیه و تحلیل داده‌ها، نرم‌افزار SPSS نسخه ۱۶ با در نظر گرفتن سطح معنی‌داری p<0.05 استفاده شد.

یافته‌ها: میانگین سنی ۲۲/۷±۴/۲ سال بود. ۶۱٪ (۳۲۷) را خانم‌ها تشکیل می‌دادند. شکاف منفی معنی‌داری در تمامی ابعاد در تمام دانشکده‌ها وجود داشت(p<0.001). بزرگترین و کوچکترین شکاف دانشگاه به ترتیب در پاسخگویی (۲۲/۲ ± ۳۳/۸-) و اطمینان (۲۰/۹ ± ۲۶/۹-) بود. دانشکده‌های دندانپزشکی (۲۱/۶ ± ۴۱/۴-) و پزشکی (۱۵/۷ ± ۳۰/۷-) بیشترین و دانشکده‌های پرستاری (۱۷/۲ ± ۲۵/۶-) و بهداشت (۱۴/۹ ± ۲۵/۸-)کمترین شکاف کیفیت آموزشی را داشتند. هیچ تفاوت جنسیتی یافت نشد. افزایش ترم تحصیلی منجر به گزارش شکاف عمیق‌تری در چهار بعد شده بود. (از r= -0.09، p=0.04 تا r=-0.20 p<0.001).

نتیجه‌گیری: شکاف منفی در تمامی ابعاد در تمام دانشکده‌ها نشان میدهد که انتظارات دانشجویان به درستی برآورده نشده است. ما معتقدیم که برخی از این کمبودها را می‌توان به آسانی با مدیریت مناسب و بازسازی نحوه ارائه خدمات آموزشی حل کرد.

کلیدواژگان: کیفیت خدمات، خدمات آموزشی، شکاف، مدل سرواکوآل

طلبا کی نظر میں تعلیمی خدمات میں نقص۔ مشہد یونیورسٹی آف میڈیکل سائنسس کی تحقیق

بیک گراونڈ: میڈیکل طالب علم میڈیکل تعلیمی خدمات کے بنیادی گاپ ہیں، یہ سمجھا جاتا ہے کہ تعلیم کو اچھا بنانے اور اس میں موجود نقائص دور کرنے کے لئے طلباء کی رائے لینا نہایت ضروری ہے۔اس طرح سے تعلیم کو بہتر بنانے میں مدد ملے گی۔ اس تحقیق کا ہدف مشہد یونیورسٹی آف میڈیکل سائنسس میں طلبا کی نظر میں تعلیم کے معیار کو پرکھنا ہے۔

روش: اس تحقیق میں پانچ سوچالیس طلباء نے شرکت کی۔ ان طلباء کا تعلق مشہد میڈیکل یونیورسٹی کے ذیلی شعبوں سے تھا۔اس تحقیق میں تیسرے ٹرم اور اس کے بعد کے طلباء کو شریک کیا گیا تھا۔ اس میں سرواکوآل سوالات سے استفادہ کیا گیا تھا۔اس میں ستائیس جوڑوں سوال تھے جن سے پانچ میدانوں میں تعلیمی سروس کا جائزہ لیا گیا تھا۔اطمینان، طلباء کے سوالوں کےجواب دینا،طلبا کے ساتھ ہمدردی اور فزیکل لحاظ سے اطمینان ہونا ان میدانوں میں سوال کئے گئے تھے۔ ڈیٹا کا تجزیہ ایس پی ایس سولہ سے کیا گیا۔

نتیجے: اس تحقیق میں شرکت کرنے والوں کی اوسط عمر بائیس سال تھی اور اکسٹھ فیصد خواتین شامل تھیں، تمام فیکلٹیوں میں تمام میدانوں میں خاصہ اختلاف پایا گیا۔ ڈینٹیسٹری کے شعبے اور میڈیسن کے شعبے میں سب سے زیادہ اختلاف پایا گیا، لیکن نرسنگ اور بیلتھ کے شعبوں میں تعلیم کے معیار کے بارےمیں بہت کم اختلاف پایا گیا۔جینڈر کے لحاظ سے کوئی فرق نہیں دیکھنے کو ملا۔تعلیمی مدت میں اضافہ کرنے کے بعد تعلیم کے معیار میں نقائص پائے گئے۔

سفارش: تمام فیلڈوں میں اور تمام میدانوں میں اختلافات کہ پیش نظر یہ کہا جاسکتا ہے، تعلیمی لحاظ سے طلباء کے مطالبات پورے نہیں ہورہے ہیں۔ہم یہ سمجھتے ہیں کہ ان نقائص کو صحیح مینجمینٹ اور خدمات کا جائزہ لے کر ختم کیا جاسکتا ہے۔

کلیدی الفاظ: تعلیمی معیار، خدمات، تعلیمی خدمات،نقائص۔

INTRODUCTION

Sustainable development of the educational system requires a harmonious and balanced development of quantitative and qualitative aspects (1). This has led to an increase in paying attention to the quality of service in recent years. Evaluation of quality of service is defined as the comparison of customers' expectations and perceptions (2). It is believed that this issue determines the success and survival of every organization.

In the medical education system, the quality of service has other important aspects: the graduates of this system deal with the lives of people. It can be said that education authorities are responsible for the consequences due to the inefficiency in education (3). This may be the reason for the transition from quantitative to qualitative university development (4).

Students are the main customers of educational systems, so their opinion can be a mainstay to improve educational quality. This paradigm can attract attention about resource insufficiency: managers can use their limited resources in areas which are important from the students' point of view (5, 6).

There are different tools to evaluate the services quality. One of the most famous instrument for this purpose is SERVQUAL Model (7, 8). It evaluates the quality gap (i.e. the difference between ideal status and current status) in five dimensions: tangible (physical facilities, equipment, and appearance of personnel), confidence (ability to perform the promised service dependably and accurately); responsiveness (willingness to help customers and provide prompt service); assurance (knowledge and courtesy of employees and their ability to inspire trust and confidence) and empathy (caring, individualized attention the firm provides its customers)(9). Several studies in various countries have been conducted with the use of this model. For example, at the University of Singapore, the highest gap is in the assurance dimension (10). The negative gap is reported in all dimensions of educational quality in Canada and China (11, 12). Another study performed in the USA showed that appropriate educational services are not delivered to them (13). Low-quality educational services in Australia had made some students to drop out (14). Some universities in Iran have done similar research which showed negative educational quality gap (4, 15-18). Although a single study in medical faculty has been reported from Mashhad (19), no other study has compared various faculties of this university. Due to this knowledge gap and the importance of students' viewpoint about educational quality of services, which can guide decision makers to conduct proper interventions, the present survey was performed to evaluate the educational quality in seven faculties of Mashhad University of Medical Sciences (MUMS).

METHODS

This cross-sectional study was performed in all seven faculties (medicine, dentistry, paramedical, health, nursing, pharmacy, traditional medicine) of Mashhad University of Medical Sciences, Mashhad, Iran in 2016. The sample size was calculated based on similar studies (2, 4). We used a quota stratified cluster sampling method. Total sample size was dedicated to each faculty based on its' quota of total students in the university. In the second step, different educational grades were considered in each faculty, and cluster sampling was performed from the students grouped in a classroom. The only inclusion criterion was being in the third semester or higher.

Student Advisory Committee which is a junction between students and Education Development Center (EDC), had the responsibility for data gathering. In each faculty, the sub-branch of Student Advisory Committee has its members which try to find the educational problems and transfer them to higher levels of decision makers.

The questionnaire of this study was the SERVAQUAL questionnaire which has been validated in several studies in Iran (15-19). However, we also checked its reliability based on expert opinion and the validity of Cronbach's alpha of 0.91. It had two main parts: a) demographic including gender, age, term and being native b) 27 pair of questions about the current and ideal status of educational quality. These issues were categorized into 5 domains including tangibles, responsiveness, empathy, confidence, and assurance. For each question, the respondent should choose among a four Likert scale (*current status*: 4-very good to 1-very bad, *ideal status*: 4-very important to 1- very unimportant). We converted this scale into percentages. In this scale, the difference of ideal from current situation shows the quality gap in educational services. Participating in this study was completely voluntary for the students. Mashhad University of Medical Sciences Ethics Committee approved the study (IR.MUMS.REC.1395.137).

Descriptive analysis including frequency, mean and standard deviation and inferential analysis including t-test, ANOVA test, and Spearman correlation coefficient were performed by Statistical Package for Social Sciences version 11.5. All tests were two-tailed with a significance level of <0.05.

RESULTS

A total number of 540 students with a mean age of 22.7 ± 4.2 years were included. The majority were females (327, 61.5%) and native (324, 63%). Participants were studying at their 6.3 ± 3.6 semester.

As Table 1 shows, all faculties had a negative gap in all domains of educational quality of service. The greatest quality gap was observed in dentistry (-41.4 ± 21.6) and medicine (-30.7 ± 15.7) faculties, respectively. On the other hand, nursing (-25.6 ± 17.2) and health (-25.8 ± 14.9) faculties had the lowest educational quality gap, respectively. The main gap in medicine, paramedical, nursing and pharmacy faculties was responsiveness domain while assurance in health and traditional medicine faculties was the most important problem. According to dentistry students, empathy was the main issue.

There was no significant difference between two genders in terms of total quality gap score or in each individual domain. Non-native students perceived a rather higher gap in all domains. Among the various items, responsiveness ($p=0.001$) and empathy($p=0.02$) domains showed

Table 1. The percentage of educational quality gap (mean±SD) in five main domains in different faculties of Mashhad University of Medical Sciences

	Tangibles	Responsiveness	Empathy	Confidence	Assurance	*Total*
Medicine	-25.1±19.5	-36.2±22.5	-32.7±20.1	-28±21.2	-31.5±20.4	*-30.7±15.7*
Dentistry	-39.6±23.8	-44.9±24.7	-46.7±26.1	-37.2±25.4	-38.6±26.2	*-41.4±21.6*
Paramedical	-26.3±19.6	-30±18.1	-27.6±16.7	-24.6±16.7	-27.7±18.7	*-26.6±13.7*
Health	-27±19.1	-28.6±21.8	-18.4±18.1	-24.4±18.2	-32.7±22	*-25.8±14.9*
Nursing	-28.8±22.1	-29.2±20	-23.8±22.8	-22.2±19.6	-25±22	*-25.6±17.2*
Pharmacy	-30.3±18.6	-30.7±23	-26.7±20.5	-26.1±20.9	-27.1±22.9	*-27.9±17.2*
Traditional medicine	-22.9±15.9	-31.6±11.1	-23.7±14.6	-22.6±10.4	-42.3±14.8	*-28.2±9.27*
P-value	0.001	<0.001	<0.001	0.004	0.005	<0.001

Table 2. The percentage of educational quality gap (mean±SD) in five main domains regarding gender and being native in Mashhad University of Medical Sciences

	Gender			Native		
	Male	Female	P-value	Yes	No	P-value
Tangibles	-27.2±19.5	-29.1±20.8	0.29	-27.6±21.2	-29±19.2	0.49
Responsiveness	-31.4±20.9	-35±22.6	0.07	-31.1±22.3	-37.8±21.3	0.001
Empathy	-28.1±20.7	-31.3±22.1	0.10	-28.4±22.2	-33±20.7	0.02
Confidence	-27.5±20	-26.4±21.2	0.56	-26.5±21.9	-27.7±18.3	0.49
Assurance	-30.7±20.5	-29.7±22.3	0.61	-29.4±21.9	-30.9±21.3	0.46
Total	*-28.6±15.4*	*-30.2±17.6*	*0.31*	*-28.5±17.7*	*-31.2±15.4*	*0.09*

statistically significant difference (Table 2).

Increasing the semester of students resulted in worsening the educational gap of four-fifth of domains. This was r=-0.16(p<0.001) for responsiveness, r=-0.20(p<0.001) for empathy, r=-0.18(p<0.001) for confidence, r=-0.09(p=0.04) for assurance and r=-0.19(p<0.001) for total educational quality gap.

In the University, the highest and lowest gap is in responsiveness (-33.8±22.2) and confidence (-26.9±20.9), respectively. Interestingly, the educational gap is symmetrical in different dimensions (Figure 1).

DISCUSSION

The results of each individual faculty and possible contributing factors are discussed as follows:

Traditional medicine: The assurance domain had the highest gap in this faculty. Besides this domain also has the highest gap comparing to this specific domain in other faculties. The traditional medicine faculty is the newest faculty of MUMS which was built in 2011(20) and still is improving its educational system. A limited number of educator which are generally busy with administrative duties is another problem from students' point of view. Currently, there is no externship period for students which seems to be highly needed. Moreover, there is no particular hospital for practising traditional medicine. This can lower the practical education of students (21). The decision makers should pay special attention to improving the practical performance of traditional medicine.

Pharmacy: The results obtained from the school of pharmacy, revealed that the least and the greatest negative quality gaps were in the confidence and responsiveness domains, respectively. These findings are in concert with the findings reported by Aghamolaei *et al.* from Hormozgan University of Medical Sciences and Kebriaei *et al.* from Zahedan University of Medical Sciences (15, 22). The highest quality gap in the responsiveness domain is solved by time allocation to students to improve student-educator as well as student-administration inter talk. The high ratio of students to supervisors and the involvement of academic staff with
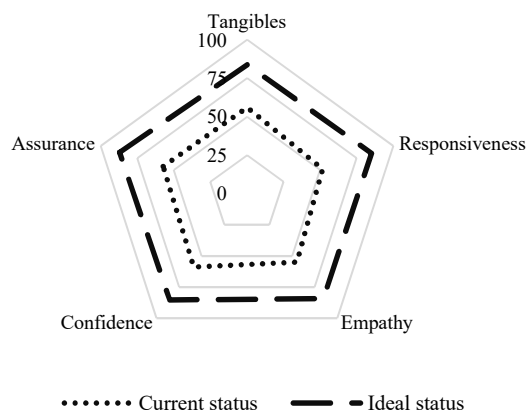

Figure 1. Current and Ideal status (percentage) of five various dimenions of educational quality in Mashhad University of Medical Sciences

administrative duties have worsened the problem. The curriculum should be revised considering students' feedbacks and comments. Well educated academic staff with high enthusiasm and the academic standard have led to the least gap in confidence domain. Also, course plan for general and PhD pharmacy students have been provided and uploaded on the faculty website, and professors are required to adhere to the course plans.

Dentistry: There was a negative gap in all domains of this school. Bahreini *et al.* reported a negative gap in educational services from Shiraz in 2012 (23). Jafari *et al.* reported the highest negative gap in responsiveness in Gilan dentistry school (24). Similar findings were reported by Mohebi et al from Ghom (25). This can be due to the high expectation of dentistry students as the best-ranked students in the National University Entrance Exam. Thus, engaging the students in decision making might be a solution to cover this gap.

Health: The highest gap was in assurance domain. A recent study from Tehran health faculty reported the highest gap in tangibility and the lowest gap in confidence (26). Three research projects had previously focused on this domain. A recent study about academic advisors showed that 57% of respondents had a reasonable satisfaction (27). Our study showed that among the different faculties the students of this faculty reported the second least quality gap and their expectations from the educational system were rather fulfilled. This might be due to a limited number of students and a proper student-academic staff relationship. As mentioned earlier the academic advisors of this faculty have a key role in such relations which have improved the educational system. Another qualitative research on nearly all course plans of health school showed that academic staff properly adhere to the approved course plans (28). According to Student Advisory Committee of health faculty, the most beneficial courses for the students' future career, reproductive health course, mother and child health course and applied nutrition course scored the highest ranks from students' points of view (unpublished data).

Nursing: The highest negative gap in our study was in tangibles domain but in some other universities such as Gilan, Kerman, and Urmia, responsibility domain was blamed as the main problem (29,30,31). Re-evaluation of physical standards, adjustment of student admission with physical capacity, as well as using modern, efficient technologies can reduce the educational gap in this faculty. The lowest gap in assurance and confidence domains show a proper management of theoretical and practical education to be in line with the students' future needs. The curriculum revision performed by the Ministry of health and increasing the clinical externship period has led to a reduced gap in assurance and confidence domains. Focusing on the future career and practical needs of graduate students has been emphasized by several researchers in MUMS (32, 33).

Paramedical: This study found that responsiveness and confidence as the highest and lowest negative gap, respectively. This is similar to the findings of Sohrabi *et al.* in Tehran and Kebriaei *et al.* in Zahedan (15, 34). The similarity of the lowest gap among different universities may stem from inherent conditions of this major. However, the variety of highest gap may be due to different environmental conditions. Improving the responsiveness domain is not difficult could be considered by educational system policymakers.

Medicine: Most published studies have focused on medical school. Similar to the results of the current study, a negative gap in this faculty has been reported from a variety of medical universities including Hormozgan, Zahedan, Zanjan, Kashan, and Tehran (4, 15, 16, 17, 18, and 22). In our investigation, the responsiveness domain had the highest gap. It seems reasonable that paying attention to the possibility for students to express their points of view, accessibility to educators, and the acceptable responsivity of educational personnel in time of problems might reduce this quality gap (35).

University: In total, no gender difference in the quality gap in this study is congruent with previously reported ones (4,35) although being native was not studied before, the significant higher gap reported by non-native students in responsiveness and empathy domain seems logical due to their feeling of being a guest in MUMS.

According to this study, we can categorize the five domains into three priority levels for resource allocation. The top priority dedicates to responsiveness. Workshops for educational staff to improve their service delivery qualities is also recommendable. In addition, efficient system for collecting suggestions can reduce the gap.

This was the first study covering all faculties of MUMS to evaluate educational quality gap. Sampling method, high response rate, and engagement of student advisory committee are the strengths points which increase the generalizability of the finding. A study to evaluate educational quality gap from educators' point of view can broaden our knowledge in this field.

CONCLUSION

The negative gap shows that students' expectations are not fulfilled. We believe that some items can be easily modified by management interventions and revising processes for educational services. The important issue is that these domains are correlated: improving one can improve others.

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REFERENCES

1. 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 University of Medical Sciences journal 2013; 7(Suppl 1): 2-9. [In Persian].

2. Sahney SD, Banwet K, Karunes S. An integrated framework for quality in education: Application of quality function deployment, interpretive structural modeling and path analysis. Total Qual Manag 2006; 17(2): 265-85.

3. Shakibaei D, Iranfar SH, Montazeri N, Rezaei M, Yari N. Faculty views on some educational indicators in Kermanshah University of Medical Sciences. Behbood journal 2007; 8(1): 17-27. [In Persian].

4. Tofighi Sh, Sadeghifar J, Hamouzadeh P, Afshari S, Foruzanfar F, Taghavi Shahri SM. Quality of educational services from the viewpoints of students; Servqual model. Educational strategies journal of medical sciences 2011; 4(1): 21-26. [In Persian].

5. Sahney S, Banwet DK, Karnues S. An integrated framework for quality in education: Application of quality function deployment, interpretive structural modeling and path analysis. Total Qual Manag 2006; 17(2): 265-85.

6. Sirvanci MB. Critical issues for TQM implementation in higher education. TQM Magazin 2004; 16(6): 382-6.

7. Zafiropoulos C. Students' attitudes about educational service quality. Cyprus J Sci 2006; 4: 13-23.

8. Arambewela R, Hall J. A comparative analysis of international education satisfaction using SERVQUAL. J Serv Res 2006; 6: 141-63.

9. Parasuraman A, Zeithmal V, Berry LL. SERVQUAL: A multiple-item scale for measuring consumer perception of service quality. J Retail 1988; 64(1): 12-40.

10. Tan KG, Kek SW. Service quality in higher education using an enhanced Servqual approach. Quality High Educ 2004; 10(1): 17-24.

11. Chua C. Perception of quality in higher education. AUQA occasional publication 2006. [cited Apr 10, 2012]. Available from: URL; http://www.auqa.edu.au/auqf/2004/program/papers/Chua.

12. Bradley RB. Analyzing service quality: The case of post-graduate Chinese students 2006. [cited Apr 10, 2012]. Available from: URL; http://www.leeds.ac.uk/researchProgs/filead min/user_upload/documents.

13. Richard E, Adams JN. Assessing college student perceptions of instructor customer service to students questionnaire: Assessment in higher education. J Assess Evalu High Educ 2006; 31(5): 535-49.

14. Peter S, Michael H, Debra H. Why do they leave, why do they stay? Perception of service quality at a new university. ANZMAC 2000: 1197-200.

15. Kebriaei A, Roudbari M, Rakhshani Nejad M, Mirlotfi P. Assessing quality of educational services at Zahedan University of Medical Sciences. Tabib-e-Shargh 2005; 7(2): 9-15. [In Persian].

16. Arbooni F, Shoghli A, Badri Poshte S, Mohajeri M. Studying the gap between expectations and educational services provided to students of Zanjan University of Medical Sciences in 2006. Steps in develop of medical education 2009; 5(1): 17-25. [In Persian].

17. Zavvar T, Behrangi MR, Asgarian M, Naderi E. Evaluating service Quality in Educational Centers of University of Payam-e-Noor in east and west. Quarterly journal of research in planning high education 2008; 13(4): 67-90. [In Persian].

18. Sabahi-Bidgoli M, Mousavi GA, Kebriaei A, Seyyedi SH, Shahri S, Atharizadeh M. The quality of hospital services in Kashan educational hospitals during 2008-9: The Patients' Viewpoint. Feyz 2011; 15(2): 146-52. [In Persian].

19. Khadem Rezaiyan M, Mousavi Bazaz SM. Quality gap in educational services based on SERVQUAL model in Mashhad Medical School. Research in medicine 2016; 40(1): 17-23. [In Persian].

20. School of Persian Medicine of Mashhad University of Medical Sciences. Available from http://tim.mums.ac.ir/index.php. Accessed on 1 February 2017.

21. Tradtinal medicine curriculum. [cited 1 February 2017]. Available from: URL; http://traditional.sbmu.ac.ir/?fkeyid=&siteid= 251&pageid=40617

22. Aghamolaei T, Zare S. Quality gap of educational services in viewpoints of students in Hormozgan University of medical sciences. BMC Med Educ 2008; 18(8): 34.

23. Bahreini M, Momeni Danaei S, Shahamat S, Khatoni A, Ghodsi S, Hashemi M. The quality of educational services: Gap between optimal and actual status according to dentistry students. Iranian journal of medical education 2012; 11(7): 685-95. [In Persian].

24. Zaker Jafari HR, Hamkar B, Mirfarhadi N. The interval of educational services quality: Distance of current and desirable situation from viewpoints' of dentistry students of Guilan University of Medical Sciences in 2014. Research in medical education 2014; 7(3): 64-70. [In Persian].

25. Mohebi S, Adeli SH, Arsang Sh. A study of quality of educational services from the viewpoint of students of Qom University of Medical Sciences based on servqual model, 2013, Iran. Qom University of Medical Sciences journal 2015; 9(6): 66-76. [In Persian].

26. Zarei E, Alijanzadeh M, Moosazadeh AR. An evaluation of educational service quality gap in the Faculty of Health at Shahid Beheshti University of Medical Sciences: Using SERVEQUAL techniques. Journal of medical education development 2016; 8: 39-49. [In Persian].

27. Ebrahimipour H, Arazi R, Shadnam Z, Nasrollahi S, Ebrahimipour S, Lael-Monfared E. Duties and performance of academic advisors from the students' perspective. Research in medical education 2015; 7(2): 69-77. [In Persian].

28. Vafaee Najar A, Laelemonfared E, Nasrollahi S, Ebrahimipour H. Content analysis of course plans presented by teachers in the School of Health of Mashhad University of Medical Sciences (2012-2013). Future of medical education journal 2014; 4(4): 3-7.

29. Miry S, Nikban M, Javadi M, Abbaszade A, Borhani F. The survey of Kerman University nursing students' viewpoints about educational services quality provided for them. Journal of qualitative research in health sciences 2010; 9(1-2): 20-27. [In Persian].

30. Jafari Asl M, Chehrzed MM, Shafipour SZ, Ghanbari A. Quality of educational services from viewpoint's of nursing and midwifery students of Guilan University based on Servqual model. Research in medical education 2014; 6(1): 50-58. [In Persian].

31. Beheshtirad R, Ghaleei AR, Ghalavandi H. Educational services quality distance between current and desirable situations. Educational strategy in medical sciences 2013; 6(1): 49-54. [In Persian].

32. Mirzakhani K, Jahani Shorab N, Golmakani N, Tafazoli M, Ebrahimzadeh S. Evaluation of clinical skills in midwives graduated from Mashhad nursing and midwifery faculty and employed in Mashhad health care centers. Journal of Urmia nursing and midwifery faculty 2012; 9(6): 472-80. [In Persian].

33. Khadem-Rezaiyan M, Avval FZ, Youssefi M. Nursing students' viewpoints about basic sciences. Int J Educ Res 2015; 3(10): 109-16.

34. Sohrabi Z, Majidi Z. Educational services quality gap: Perspectives of educational administrators, faculty members and medical students. Payavard 2014; 7(5): 376-88. [In Persian].

35. Khadem Rezaiyan M, Zahedi Avval F, Ghazvini K, Youssefi M. Medical and dentistry students' viewpoint about physician-scientists as their basic science educators. Journal of medical education development 2016; 9: 122-9. [In Persian].