Analyzing Quality Gap of Nursing Services in the Selective Academic Hospitals

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Abstract

Background & Objectives: The first fundamental stage to design plans for quality promotion is to recognize service customers' perception & expectation on service quality, to identify the gap & to take measures to bridge the gap. The study aims to analyze nursing services quality gap in the selective academic hospitals in Mazandaran province in 2011.

Materials & Methods: This study has been performed using a descriptive, cross sectional method. The sample consist of patients who have been inpatients for at least 2 days. A total of 210 individuals were selected based on accessible sampling in a 10-day period of time. Collecting data was done by a researcher-developed questionnaire. To analyze data, variance analysis, t- test and Doncan tests were applied.

Findings: The results indicate that the lowest gap is in human behavior and dignities aspect, whereas the highest gap is in physical and tangible one. Service quality mean in perception dimension was assessed equal to 2.83 on a scale of 1 to 5, whereas the expectation was scored 4.13 on a scale of 1 to 5. Moreover, the gap between perception and expectation had a mean of 1.26.

Conclusion: The results show that the quality gap was meaningful in all aspects. Besides, in none of the aspects, it was beyond the respondents' expectation; thus special attention by managers should be made in order to promote the quality of services offered in aspects with the highest gap is inevitable.

Keywords: Analysis, Gap, Perception, Expectation, Nursing services

Introduction

Today, quality is defined by customers' demand & customer's perceptions and expectations are considered as the most fundamental determinant factors of quality. Five aspects of service are: tangible one (physical space and conditions of the environment offering service such as facilities, equipment, staff & communication channels), confidence aspect (the capability to offer service in a confident, and reliable manner), responsiveness (the willingness to collaborate & help the customer), assurance (staff eligibility, ability to induce confidence, and trust in customer) and congeniality or empathy (special encounter with each of the customers regarding their morale so that customers are convinced that the organization has understood them).[1]

In defining quality, to know the rightful group's various perspectives including the patients, care providers, costs payers and the public is important in order to design quality assurance and to promote through more accurate knowledge of their perspectives. On the other hand, nurses are the largest group among the health personnel; hence legally and morally, they have to be responsive to the quality of care offered. Thus, their view about health care quality definition has special importance.[2] Although service organizations have emphasized the need for quality modification and have provided lots of plans for reforming service quality, yet service quality is the biggest obstacle for this organization to progress.[3] Customers or service receivers evaluate the services received through comparing them with their own expectations and perceptions.

Often there is no symmetry between managers' interpretation of service customers' perception and expectation, as well as their real perception and expectation which would harm service quality. One of the reasons is lack of direct communication with customer and not studying about his/her perceptions and expectations. In such a case, decision makers are not able to determine the priority of affairs and this causes service performance not to respond customers' expectation and as a result, a gap appears.

Parasuraman et al. also define service quality gap as the difference degree between customers' expectations & perception of service performance.[7]

The fundamental step to compensate for this gap is to know customers' perception & expectation of service quality & to determine the gap degree. In this case, not only to prioritize consciously & to allocate guiding resources are facilitated, but also a basis is created to promote the quality of service offered and to satisfy service customers and to encourage them to receive services more than before.[5] This study aims to analyze the quality gap of nursing services in Mazandaran province-located selective academic hospital in 2011. The merits of implementing the plan are to enhance the quality of services offered by nurses and to identify the difference of patient's perceptions and expectations of nursing services in order to increase their knowledge about this difference to manage correctly for enhancing patients and their families' satisfaction, while preventing quality loss. Also it aims to better allocate the available limited financial resources in such a way that organizations performance be boosted in areas where they have the highest impact on customers perception and expectation of service quality. Such an evaluation is critical in today competitive world and to decrease costs and finally we hope organization offer services beyond their customers expectation.

Methods

The present study has been performed through a descriptive, cross sectional method. Its community includes patients who have been inpatients at least for 2 days; sampling was based on goal & accessible as 210 individuals selected in a 10 day time period. Data was collected using questionnaire developed by the researcher. The questionnaire included 42 questions in 6 aspects, namely physical (6 questions), confidence (7 ones), capability (10 ones), responsiveness (7 ones), behavior (8 ones), and accessing services (4 ones).

The respondents answered the questionnaire twice. Once, they expressed their perception regarding the services offered so perception scores were gained. And for a second time, they stated their expectation of service they, the expectation scores were achieved. To determine the quality gap, the expectation scores were subtracted from perception scores. To establish the questionnaire validity, convergent validity method was utilized and reliability was obtained 89% using Cronbach's alpha. Information analysis was done by descriptive statistics & for analysis, variance analysis, t- test, Doncon and vilkakson tests were used.

Findings

Samples distribution in 15 words of imam Khomeini hospital is: 11.9% in orthopedic ward, 1.9% in hematology ward, 10.5% in surgery ward, 9% in nerve- cerebral ward 3.8% in urology one, 14.3% in women surgery, 9.5% in obstetrics & gynecology word, 6.7% women internal word, 7.6% in men internal, 4.3% in oncology, 3.3% in men surgery, 8.6% in emergency, 4.3% in I.C.U, 3.4% in digestion word. The highest quality gap was observed in physical aspect & the lowest one in behavior (treatment) aspect. Vilkakson test result indicated that quality gap was meaningful in all aspect (p=0) (Table 2). Out of 42 phrases related to service quality, the maximum quality gap was observed in information giving phrase (Table 3), the minimum quality gap in the phrases for nurses & doctors being confidant (table 4). Quality gap level (perception & expectation difference) has a direct relation with age (p=0.091) & (r=0.159). According to variance analysis, gap difference is equal in different genders, residency, income potential in diverse hospital words & are (p=0.258), (p=0.413), (p=0. 407) & (p=0.532) respectively. Concerning Doncan test, it has been identified that gap is different in various education levels. Gap in individuals with academic education differs from that of the other 3 groups. The other 3 levels are in one group (p=0.013). Various jobs too show a different gap based on variance analysis table (p=0.010). At the end, the highest service quality gap was respectively seen in physical dimension, then in service accessibility and provision, responsiveness, hospital capability, humane behavior and observing humane dignities or values.

Discussion & Conclusion

The results suggest that quality gap score in all 5 aspects of service is negative so that the highest quality gap was seen in physical aspect. By physical aspect, we mean physical conditions & space of service offering environment such as facilities, equipment, and staff & communicating

channels. Higher gap level in this service aspect implies that hospital clean lines & neatness is taken for granted, particularly information giving system has the biggest gap. The lowest quality gap customers are convinced that the organization has understood them. Since treatment aspect has a signification effect on service customers, paying attention to nurses & doctors' treatment with patients is especially important for managers. The study by Kebriaei et al., at health centers in Kashan and Karydis et al., at dental services in Greece & research by Kim & Tang on patients in Singapore showed the highest gap in responsiveness aspect.[4,5,6] In a study done by berry et al., in 5 U.S service organizations (two banks, two insurance companies & one credit card company) & research by hart in health care centers in England, the biggest gap was in confidence and in Donnelly's study conducted in Scotland library services, the highest gap was observed in tangible dimension.[7,8] In this research, the lowest gap revealed in human behavior & dignities (values). In the study by Kebriaei et al., it was in tangible aspects in the research by Berry et al., and the study by Hart, and a study by Kim & Tang, the lowest gap was seen in tangible aspect.[4,6,7]

Based on Donnelly's research, the lowest gap was in confidence & in the study by Gagliane, the smallest gap gained in service assurance aspect.[8,9] Out of 42 phrases related to service quality, in this research, the highest gap was evaluated in physical aspect that is in information giving in hospital. In the study by Kebriaei et al., the highest gap in congeniality aspect was in the phrase ″understanding the special needs of the individuals referring by the staff″, and in the research by Lim & Tang, the highest gap in responsiveness aspect was seen in the phrase waiting duration to receive service.[4,6] Out of 42 phrases on service quality, in this study, the lowest gap was evaluated in behavior dimension i.e., nurses & doctors being confidant. In the research by Kebriaei et al., the lowest gap in congeniality aspect was seen in the phrase "personnel's hearty interest in individual's referring" and in the study by Lim & Tang, the lowest gap was observed in one phrase of accessibility dimension.[4,6]

In this study, quality gap level has a direct relationship with age. Gap difference is equal in different genders, residency, earning potential and various hospital wards. Gap difference in diverse education level is different. The gap in individuals with academic studies differs from that of the other 3 ones and the other 3 levels are in the same group. Different jobs showed various gap. In the research by Kebriaei et al., age, education & service receiving location variables had meaningful relation with quality gap scores. In Gagliane study, regarding 3 qualities of race, marital status & income (at 0.1 level), differences were observed in quality gap scores. Whit people compared with non- white ones have mentioned quality gap more in service assurance aspect ($p< 0.03$), married individuals ($p< 0.0008$), and the ones earning high income ($p<0.07$) have stated quality gap in confidence dimension. About the two qualities of age and gender, there was no meaningful difference.[4,9] The studies performed indicate that one of the major obstacles to implement quality projects is resource deficiency.[10] Another remarkable point is the presence of gap and imperfection in one aspect which has an intensifying effect. It means that it brings about quality loss in other aspect in service customers' view.[11] The highest and lowest perceptions and expectations of people referring of the present and favorable condition determine the priority of planning to some extent. Health & treatment service directors and planners have to enhance information communicating system in hospital & the possibility of accessing a doctor at night and offering services in the least time period have to be prioritized on order to promote quality based on the highest expectation of individuals referring. And finally, to

make personnel capable with factors such as training appropriate behavior to the staff, encouraging decent work, supplying sufficient resources, providing progress opportunities, setting clear- cut goals for all units and staff, treatment along with respect and dignity and applying code in a fair manner are recommended.

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Table 1: Patients' frequency distribution based on personal characteristics & demographic ones

Features	Frequency condition	Number	Percentage (%)
Gender	Male	85	40.0
	Female	123	58.6
Age	Below 30 years old	41	19.5
	31-45	37	17.6
	46-55	13	6.2
	56-65	8	3.8
	Over 66	16	7.6
Residency	Urban	113	53.8
	Rural	61	29.0
Education Level	Primary	52	24.8
	Secondary	36	17.1
	Diploma- holder	65	31.0
	Academic	47	22.4
Income	Less than 500,000 Tomans (roughly 200 USD)	176	83.8
	More than 500,000 Tomans	17	8.1
Job	Employed	79	37.7
	Unemployed	71	33.9

Table 2: The mean of perception, expectation & service quality gap scores in 6- folded aspects

Quality aspects Score mean	Perception	Expectation	Quality Gap	Vilkakson statistical value	P-value Vilkakson
Physical and tangible	3.5	4.45	-0.95	-10.47	0
Confidence	3.76	4.32	-0.56	-7.38	0
Hospital capability	3.5	4.22	-0.72	-8.7	0
Responsiveness	3.45	4.22	-0.79	-8.77	0
Treatment and observing humane values	3.85	4.22	-0.37	-5.22	0
Services access and provision	3.14	4.06	-0.92	-9.14	0
Total	3.54	4.24	-0.7	-10.16	0

Table 3: The mean of perception, expectation, quality gap scores in six phrases with the highest quality gap (physical & tangible elements aspect)

Quality aspects Score mean	Perception	Expectation	Quality Gap	Vilkakson statistical value	P-value Vilkakson
Hospital area cleanness	3.42	4.36	-0.94	-8.62	0
Hospital room cleanness	3.55	4.47	-0.92	-8.7	0
Hospital facilities cleanness	3.57	4.48	-0.91	-8.9	0
Hospital equipment cleanness	3.56	4.54	-0.98	-9.37	0
Staff appearance neatness	3.79	4.38	-0.59	-7.02	0
Information communicating in hospital	3.06	4.48	-1.42	-10.32	0

Table 4: The mean of perception, expectations and quality gap scores in & phrases with lowest quality gap (behavior & observing humane dignities aspect).

Quality aspects Score mean	Perception	Expectation	Quality Gap	vilkakson statistical value	P-value vilkakson
Doctors modesty and being humble	3.78	4.16	-0.38	-4.25	0
Nurse modesty and being humble	3.72	4.13	-0.41	-4.51	0
Doctor being confidant	3.98	4.27	-0.29	-3.19	0
Nurses being confidant	3.94	4.23	-0.29	-2.87	0
Observing humane dignities by doctors	3.96	4.26	-0.3	-3.282	0
Observing humane dignities by nurses	3.89	4.24	-0.35	-4.13	0
Doctors being well- behaved	3.87	4.29	-0.42	-4.75	0
Nurses being well- behaved	3.75	4.23	-0.48	-5.03	0