European Journal of Biology and Medical Science Research
Vol.3, No.3, pp.46-53, June 2015
Published by European Centre for Research Training and Development UK (www.eajournals.org)

THE EVALUATION OF OUTPATIENT QUALITY SERVICES IN PHYSIOTHERAPY IN THE TEACHING HEALTH CENTERS OF SHAHID BEHESHTI UNIVERSITY BASED ON SERVQUAL TOOLS

Sima Marzban[1] Marziye Najafi[2], Mahboobe GH Etedal[3], Soghra Moradi[4], &Roya Rajaee[5].

[1]Health Department, in Shahid Beheshti University of Medical Science, PHD, Professor in university.
[2] MSc student in Health Management in Shahid Beheshti University of Medical Science. Employee in Emam Khomini Hospital in Tehran University of Medical Sciences.

[3] MSc student in Health Management in Shahid Beheshti University of Medical Science, Employee in Tehran University, Health Network, Shahre Rey, Iran.

[4] Health Administrative in Emam Khomeini hospital. Tehran.Iran.

[5]MSc student in Health Management in Shahid Beheshti University of Medical Science, Employee in Sabze Parvar Health center, Department of Health in Alborz University of Medical Science.

ABSTRACT: *Introduction: Service quality plays an important role in industrial services such as banks, hospitals, clinics, transportation and so forth. Such quality is, also, prominent with respect to meeting customers' satisfaction and providing sufficient grounds for organizational survival. This study aims to investigate the quality of outpatient services in physiotherapy in the teaching health centers of Shahid Beheshti University based on SERVQUAL tools. Methodology: The current study is regarded as cross-sectional. Moreover, the data of this research were collected and analyzed in 2015. The participants of this study consisted of patients in the teaching health centers of Shahid Beheshti University. Furthermore, the standard questionnaire of SERVQUAL (1988) which enjoys high levels of reliability and validity was utilized in this research. Last but not least, t-test, Paired t-test and Friedman test were calculated though SPSS software for analyzing the data.Findings: The results of the present study indicate that all the dimensions of service quality in the centers under study were reported to be at the optimum level. Also, a significant difference between perceptions and expectations of patients based on five dimensions of service quality were reported to be tangible factors, assurance, responsiveness, empathy, and reliability in the centers under study. The patients regarded assurance dimension as the most significant with the score of 4.88 and considered physical factors as the least significant with the score of 2.21.Conclusions: Nowadays, managers need to be informed of their hospitals' functioning. Through using these tools optimally, managers are enabled to evaluate service quality from the customer's perspective so that they are equipped with critical eyes to distinguish their weaknesses and to try to ameliorate them.*

KEYWORDS: *Customer satisfaction, service quality, physiotherapy services, SERVQUAL*

ISSN 2053-406X(Print), ISSN 2053-4078(Online)

INTRODUCTION

Satisfaction of patients in order to establish a comprehensive understanding of their needs and opinions with respect to the received services is considered to be an important issue. Such an understanding helps patients to utilize the necessary tools for measuring the quality of health care (Vadhana, 2010). Quality is regarded as one of the main indexes in health and therapy services which include three features, namely the customer, technical, as well as service qualities. Firstly, customer quality is a set of abilities which are needed by the service receiver to effectively be utilized in health services process, important decisions, and appropriate interferences. Secondly, technical quality is linked with the clinical feature of health care which is reflected by service providers, care processes, and care results. This type of quality shows the relationship between appropriate health system and unique conditions. Finally, service quality refers to insanitary and unhealthy features; hence, it reflects the relationship between the customer and the provider of therapy process (Value in health, 2013).

Service quality is the most powerful weapon of most care organizations. In addition, it is regarded as an effective tool for managing organizations (Havasbeigi and etal., 2013). It is considered as a level of providing service based on standards which brings about service security and improves health capacity based on current resources. Also, service quality paves the way for providing health-related needs with the lowest price. Traditionally, service quality was evaluated through some specific standards and the experts' views with reference to this phenomenon were ignored (Junna and Manogi., 2009). Health-related service quality is faced with two prominent factors: technical quality of service and functional quality of service. The former refers to the tools accuracy and diagnostic services which are measured by the professional unit related to it. Hence, patients do not meddle with this phenomenon; rather, they only receive the functional quality of service (Chakravarty, 2011). In fact, the patients' satisfaction of the received services is considered as the results of providing such services (Hakonbjorngaard, 2008). Nevertheless, due to the prominence of providing services which are linked directly to human beings' lives in the health and therapy section, the improvement of such services is of highest priority. Hence, the demand for managing quality activities in service and care organizations has increasingly been expanded (Tabibi and etal., 2012).

In a hospital, a set of different services such as therapy, medicine, dentistry, nursing, training, as well as equipment are provided. Moreover, physiotherapy section is regarded as an important part of hospitals in providing physiotherapy services for patients in the rehabilitation centers (Mahdzir and etal., 2013). World Health Organization has defined rehabilitation services as pioneer, dynamic, limited, and purposeful processes which identify an individual suffering from disorders and help him or her to reach the level of optimum level of physical- mental, cognitive, and social performance. Moreover, outpatient physiotherapy services are carried out in outpatient rehabilitation centers (Physiotherapy Rehabilitation, 2005). Such services provide rehabilitation packages for patients and help them to do their chores in order to meet their goals (Outpatient Physiotherapy, 2013). An understanding of the factors which influence on the satisfaction of patients enables the physiotherapist to combine these features with health services; hence, he or she can come to better clinical results (Samah and etal., 2013).

ISSN 2053-406X(Print), ISSN 2053-4078(Online)

For measuring the quality of outpatient physiotherapy services, there has been an urgent need for a tool based on evidence and high level of quality (Physiotherapy, 2013). In the mid 80s, a comprehensive change occurred in health care from the viewpoints of patients as consumers of such care. Through applying this change, scholars in the field concluded that the consumers' satisfaction can be regarded as an important tool in evaluating the public health quality. Scholtte et al. measured physiotherapy quality in the patients' viewpoints through three dimensions which included inter-individual and organizational performances (Scholte and et al., 2014). According to the previous researches, one of the most critical problems in organizations is paying little attention to or ignoring the customers' needs and wants. The present study aims to investigate the quality of outpatient services in physiotherapy in the teaching health centers of Shahid Beheshti University based on SERVQUAL tools.

METHODOLOGY

The present study is regarded as cross-sectional. Furthermore, the data of this research were collected and analyzed in 2015. The participants of this study consisted of patients in the teaching health centers of Shahid Beheshti University. Also, due to the limited amount of time and finance, three hospitals were chosen to be investigated in this study since they were all large and in the vicinity of downtown. The current research used simple random sampling (N=260). In addition, the questionnaires were distributed in person by the researcher. Due to the large number of hospitals Cochran formula was used to determine sample size. In this study, the possibility of %95 and the estimation accuracy of %5, the sample size of 260 was obtained; hence, among the distributed questionnaires, only 211 questionnaires were analyzed for the purposes of this study.

$$n=\frac{N\times z^{2}_{\alpha/2}\times p\times q}{\varepsilon^{2}\times(N-1)+z^{2}_{\alpha/2}\times p\times q}=\frac{۸۰۰\times(۱.۹۶)^{2}\times۰.۵\times۰.۵}{(۰.۰۵)^{2}\times۷۹۹+(۱.۹۶)^{2}\times۰.۵\times۰.۵}\approx۲۶۰$$ (Formula 1)

Furthermore, the researchers provided a list of teaching hospitals of Shahid Beheshti University and allotted a specific number to each one of them through simple random sampling; therefore, three hospitals by the tag numbers of 1, 2 , and 3 were chosen due to time and financial limitations. In addition, for collecting the necessary data the standard questionnaires of SERVQUAL Berry, Paasuraman, and Zeithaml (1988) (Parasuraman and Zeithaml, 1998), which enjoy high levels of reliability, validity, physical conditions, staff accountability, service assurance, and empathy, were utilized in this research.

The questionnaire consisted of 22 items for measuring perception (i.e., investigating the status quo) and 22 items for assessing expectation (i.e., investigating the optimal situation) of patients related to questions of perception and expectation that the perception of patients). Finally, the scoring of the items were based upon a 5- Likert scale (very low = 1 and very high = 5) and the gap between perception and expectation of outpatient treatment was obtained. The reliability of the questionnaire was approved in previous studies, including the study carried out by Tabibi (7). Last but not least, for the analysis of data, t-test, Paired t-test and Friedman test were calculated though SPSS software 17 for analyzing the data.

ISSN 2053-406X(Print), ISSN 2053-4078(Online)

FINDINGS

Considering the dimension of physical conditions, the widest gap was reported to be for the optimum level of allocated time with reference to the received services (-2.02) and the lowest gap was calculated to be for the cleanliness and neatness of hospitals (-.56). Regarding the dimension of reliability, the widest gap was found to be for providing simultaneous services with the determined amount of time (-1.44) and the lowest gap was reported to be for the level of staff satisfaction in doing their jobs and providing services for their patients (-.99). Besides, considering the dimension of responsiveness, the widest gap was calculated to be for the accurate time for providing services (-1.78) and the lowest gap was found to be for the doctor's listening to his or her patients (-1.45). Regarding the dimension of assurance, the widest gap was reported to be for the optimal social conduct of staff in talking to their patients (-1.02) and the lowest gap was calculated to be for the optimal social conduct of doctors in talking to their patients (-.76). Finally, considering the dimension of responsiveness, the widest gap was calculated to be for the patients' understanding of their expectations from the staff (-1.56) and the lowest gap was found to be for the specific attention to patients' emotion and values (-1.45) (Table 1).

The results of the present study indicate that all the dimensions of service quality in the centers under study were reported to be at the optimum level. Also, a significant difference between perceptions and expectations of patients based on five dimensions of service quality were reported to be tangible factors, assurance, responsiveness, empathy, and reliability in the centers under study. The patients regarded assurance dimension as the most significant with the score of 4.88 and considered physical factors as the least significant with the score of 2.21.

Table 1: Average Scores with RSeference to Perception, Expectation, and the Quality Gap between Each of the Dimensions Relating to Service Quality in the Hospitals of Shahid Beheshti University

Mean scores			Items Expectation	Quality Dimensions
Gap	**Expectation**	**Perception**		
-0/56	4/78	4/30	Neatness of hospital environment	**Physical Factors**
-0/63	3/48	3/70	Sufficient medical equipment	
-0/9	4/98	4/55	Clothing styles of doctors and staff	
-0/91	4/5	3/56	Visible signs	
-0/54	4/34	3/87	Optimum arrangement in the waiting hall	
-1/37	4/32	3/8	peripheral facilities	
-2/02	4/87	3/76	The appropriate time to get the service	**Reliability**
-0/99	4/54	3/87	The level of the employees' interest to provide quality service for the patients	
-1/41	4/76	3/12	Detailed information about the hospital procedures and patients' affairs	
-1/01	4/54	3/87	Providing services in accordance with the commitments given	

ISSN 2053-406X(Print), ISSN 2053-4078(Online)

-1/44	4/65	2/87	Providing services in accordance with the time given	
-0/5	4/54	3/87	Recordkeeping for patients	**Responsiveness**
-1/23	4/65	3/87	Acting quickly to resolve the issues with reference to treatment	
-1/45	4/62	3/87	Doctors listening to patients discourse	
-1/78	4/54	3/87	The exact time for providing service quality	
-0/76	4/65	3/29	Doctors' appropriate social conduct when dealing with patients	**Assurance**
-1/02	4/13	3/43	Staff's appropriate social conduct when dealing with patients	
-0/88	4/33	3/7	Patients' trust in medical staff	
-0/79	4/62	3/54	Feeling safety and comfort in dealing with staff	
-1/43	4/80	3/56	Paying special attention to patients' emotions and values	**Empathy**
-1/18	4/50	3/29	Suitability of hours for providing quality service for patients	
-1/56	4/65	3/45	Staff's understanding of the patients' expectations	

Table 2: Mean Scores of Perception, Expectation, and the Gap among Each of the Dimensions Relating to the Physiotherapy of Service Quality

Significant Level	Gap	Expectation	Perception	Dimensions of Service Quality
0/0001	-1/34	4/67	3/08	**Physical Factors**
0/0001	-1/12	4/55	3/72	**Reliability**
0/0001	-0/653	3/34	3/09	**Assurance of Services**
0/0001	-1/25	4/65	3/67	**Empathy**
0/0001	-1/065	4/74	3/54	**The Offered Service Quality**

Table 3: Quality Rankings

Score	Quality Dimensions
2/21	**Physical Factors**
3/76	**Reliability**
4/43	**Responsiveness**
4/88	**Assurance**
3/31	**Empathy**

ISSN 2053-406X(Print), ISSN 2053-4078(Online)

DISCUSSION

This study aimed to investigate the service quality provided for the patients who referred to the physiotherapy section of the hospitals under study. The difference between perception and expectation of all the factors reported to be negative. Also, the score of expectation obtained from the patients are higher than their score on perception. It can be inferred from the results that the patients assess the service quality of hospitals as significantly weak. In fact, none of the hospitals were able to respond to the wants and expectations of the patients under study. In a similar vein, Tabibi carried out his research on the evaluation of clinical services and found that the hospitals were not able to meet the necessary qualifications (Tabibi and etal., 2012).

Moreover, Tabrizi analyzed the data obtained from the stage before mediation on six dimensions of service quality (i.e., selection of the service provider, authority, respect, safety, prevention, as well as inappropriate access and quality of service). He performed the designed mediations to improve all of the features. The total service quality possessed 8.58 scores less than 9 which indicated inappropriate service quality based on the service receivers' viewpoints. The highest scores on service quality were availability, will power, respect, prevention, safety, and selection of the service provider, respectively. Younger and more educated patients enjoyed less satisfaction in terms of two of the aforementioned features and demanded more involvement in the therapy process, higher levels of training, and more appropriate conduct on behalf of the service providers (Tabrizi and etal., 2013).

With respect to the inter-cultural comparison of the patients' level of satisfaction with reference to physiotherapy care in Australia and Canada, the factors of communications and respect, comfort, time quality, and personal care were regarded to be prominent (HUSH AND ETAL., 2013). In his study, Gharibi investigated twelve features of quality including selection of the service provider, communications, solidarity, continuous care, primary appropriate quality, safety, ranking, timeliness, prevention and early diagnosis of disease, availability and accessibility, confidentiality, as well as complaints system. He concluded that the highest score was devoted to timeliness, confidentiality, and complaints system, respectively. On the other hand, having respect for the service provider's choice, safety, and prevention had the lowest scores. Also, the scores obtained from the six features of service quality which consisted of the service provider's choice, safety, prevention and early diagnosis, ranking, solidarity, as well as availability referred to an unacceptable quality (Gharibi, 2014). Regarding the measurement of factors, assurance is regarded as the most significant component in the viewpoints of service receivers in terms of ranking which is in line with Mohammadi and Karampour's findings(Karampour, 2004. Mohammadi and Shoghi, 2008). In this vein, there is, also, an urgent need for the doctors to be knowledgeable, competent, and kind with regard to their job status in society. In addition, the managers should take the necessary measures to hold job training workshops, seminars, and training classes to heighten their staff level of knowledge. Besides, the existence of a complaints system, an appropriate response system, and a reward system within an organization can be beneficial to the improvement of service quality.

ISSN 2053-406X(Print), ISSN 2053-4078(Online)

CONCLUSIONS

Since service quality is considered as one of the most effective factors in competitiveness and efficiency of hospitals, a comprehensive investigation of this phenomenon brings about improvement and success in heightening our knowledge regarding the betterment of providing high-quality service. The results of this study indicated that paying attention to patients' expectations can enable managers and experts to assess their own performance and to plan future activities. Indeed, the efforts to reduce the gap between expectations and perceptions of patients may lead to their satisfaction, loyalty, and future readmissions.

Acknowledgements
We, hereby, thank every individual who provided insightful recommendations for the improvement of this paper.

REFERENCES

ChakravartyC.(2011), Evaluation of service quality of hospital outpatientdepartment services. MJAFI;67:221–224. doi: 10.1016/S0377-1237(11)60045-2.

Gharibi f, Tabrizi J, EterafOskouei A, AsghariJafarabadi M.(2014), Effective Interventions on Service Quality Improvement [in a Physiotherapy Clinic. *Health Promotion Perspectives, 4(1), 61-67* ,doi: 10.5681/hpp.2014.008.

HåkonBjørngaard J.(2008) Patient satisfaction with outpatientmental health services – the influence of organizational factors. Thesis for the degree of philosophiae doctor.Trondheim, Juni.

HavasBeigi F, Sharahi B, Mohammadi S, Ahmadi A(2013). Service quality provided to outpatients in public hospitals Ilam and Kermanshah cities based on the SERVQUAL instrument..The journal of Ilam University, vol21.

Hush JM, Lee H, Yung V, Adams R, Mackey M, Wand BM, Nelson R, Beattie P, Maney WS.(2013) Intercultural comparison of patient satisfaction with physiotherapy care in Australia and Korea: an exploratory factor analysis. Manual and Manipulative Therapy 2013, 21(2 103).

Juma D, Manongi R.(2009) Users' perceptions of outpatient quality of care in Kilosa District Hospital in Central Tanzania.*196 Tanzania Journal of Health Research, Vol. 11, No. 4, October.*

Karampour A(2004). Evaluation of the quality of health care with developed model gaps quality services[Thesis in Persian]. Tehran: Higher Education and Research Institute of Management and Planning.

Mahdzir N, Aniza I, NorFaridah A.R, Sulha A.(2013) Assessing the service quality of physiotherapy services: A cross sectional study at teaching hospital. Malaysian Journal of Public Health Medicine, Vol. 13 (2):27-37.

Mohammadi A, Shoghli AR(2008). Survey on Quality of Primary Health Care's in Zanjan District Health Centers. Journal of Zanjan University of Medical Sciences; 16(65): 89-100[Article in Persian].

Parasuraman A, Zeithaml VA, Berry LL(1998). SERVQUAL: a multiple-item scale for measuring consumerperceptions of service quality. Journal of Retailing; 64(1): 12-40.

Physiotherapy Rehabilitation - Ontario Health Technology Assessment Series (2005); Vol. 5, No. 8.

Outpatient Physiotherapy. The Royal Marsden NHS Foundation Trust. London. (2013).

ISSN 2053-406X(Print), ISSN 2053-4078(Online)

Samah ZA, Ibrahim N, Amir JS(2013). Translating Quality Care Factors to Quality Space: Designcriteria for outpatient facility. Social and Behavioral Sciences 105 , 265 – 272.

Scholte M, Calsbeek H, Nijhuis-van der Sanden M, Braspenning J(2014). Quality of physiotherapy from a patient's perspective; factor analysis on web-based survey data revealed three dimensions on patient experiences with physiotherapy. BMC Health Services Research, 14:266.

Tabibi J, Gohari M, Shahri S, Aghababa S(2012). Quality of service provided at clinicsBased on SERVQUAL model in hospitals in Tehran.The journal of Tehran University of Medical Science.5(4).49-56.

Tabrizi JS, Gharibi F, EterafOskoi MA, AsghariJafarAbadi M(2013). Effects of interventions to improve the quality of service in Tabriz School of Rehabilitation Therapy Clinic die 2010-2011 years. Fasauniversity of medical scince journal, 3(4). 348.

Vadhana M(2010). Assessment of Patient satisfaction in an outpatient department of an autonomous hospital..Ritsumeikan Asia Pacific University, Public Health Management.Thesis.

Value in health. 1 6 (2 0 1 3). A323–A636.

Acknowledgment

We would like to couch our gratitude to our colleagues who helped us conduct the present research.

ISSN 2053-406X(Print), ISSN 2053-4078(Online)