

Relationship between Cardiac Catheterization Patients' Expectations and their Satisfaction with Health Service Quality in Selected Hospitals

WAFAA M. MOSTAFA, M.Sc.*; MAGDAA A. ABD EL-FATAH, D.Sc.N.* and AHMED A. MOHAMED, D.Sc.M.**

The Departments of Nursing Administration, Faculty of Nursing and Critical Care Medicine, Faculty of Medicine**, Cairo University*

Abstract

Background: Health service quality has become important for customers when deciding on services; which are intangible and depends on their perceptions and expectations.

Aim of Study: Was to identify the relationship between cardiac catheterization patient's expectations and their satisfaction with health service quality in selected hospitals.

Subjects and Methods: A descriptive, correlational design was conducted to achieve the aim of the study. The study was conducted in the Cardiac Catheterization Units at El-Manial University Hospital (ISO non-certified hospital) and the New El-Kasr Al-Ainy Teaching Hospital (ISO certified hospital), Egypt. A convenient sample of 147 patients from both units participated in the current study. A modified service quality (SERVQUAL) tool was adopted to collect the data.

Results: There was a highly significant relation between levels of expectations and satisfaction of patients with health service quality.

Conclusion: Most of the patients with high expectation had also high satisfaction while most of the patients with moderate expectation had moderate satisfaction. The most important factors contributing to expect quality was reliability and responsiveness while the most important factors contributing to satisfaction with quality was empathy.

Recommendations: Hospital managers and health care providers should identify patient's expectations before health services delivery to enhance their satisfaction and health service quality.

Key Words: Cardiac catheterization – Health service quality – Patient's expectation – Patient's satisfaction.

Introduction

DEMAND for cardiac catheterization procedures to diagnose and treat patient with coronary artery

Correspondence to: Dr. Wafaa M. Mostafa, The Department of Nursing Administration, Faculty of Nursing, Cairo University, Egypt

disease is apparently increasing [1]. In the last 3 decades, there has been increasing interest in the quality of health care services; as standards of living have changed and there is a demand for better medical care to improve lifestyles, and majority of patients have become more fully aware of their rights to the quality of health care services provided by hospitals [1].

Therefore, the consumers of health care services have higher expectations and demand a higher level of accuracy, reliability, empathy and responsiveness from providers of service [2,3]. Consequently, there is a widespread recognition of the importance of evaluating services from consumer perspectives; what the people expect from their health services compared with their experiences may influence their satisfaction with it [4].

Patient's expectations of health service continue to increase and this is something that needs to be managed adequately in order to improve the outcomes and decrease the liability [5]. Whereas, patient expectation was defined as the aspects of the hospital characteristics anticipated by prospective patients, regardless of preference, or what could be considered ideal [6].

Understanding patient's expectations can enhance their satisfaction level, although various studies explored the relationship between patient's expectations and patient's satisfaction in developed countries, there is a lack of research evidence where the meeting of patient's expectations could be related to his/her satisfaction [5].

Patient satisfaction has become an important outcome in the treatment of several diseases,

including cardiovascular disease [7]. Through the Hospital Consumer Assessment of Healthcare Providers and Systems survey, hospitals are able to look quantitatively at how they managing patient care and potentially improve the quality of care that they provide to patients [7]. In the healthcare facilities, many researchers found significant relationship between health care quality and patient's satisfaction [8]. A patient is satisfied when the hospital service quality matches with their expectations and requirements, consequently, the patient's satisfaction increases [9].

Significance of the study:

Recently, it is very important to evaluate services from the consumer's perspectives [4]. Indicators of patient's satisfaction can save hospitals money by reducing the amount of time spent in resolving patient's complaints [11].

Moreover, it was observed by the investigator for a long time at the current hospitals that there was a significant increase in the number of cardiac catheterization patients. For this reason, the investigator was studying this phenomenon of patient satisfaction and expectation at both certified hospital and non-certified hospital to identify the difference between the two systems. Therefore, the study would allow the certified and non-certified hospitals for additional opportunity to understand patients' preferences by measuring the service quality through its dimensions.

Additionally, information that gathered would assist cardiac catheterization laboratories management, and policymakers to identify opportunities to improve care by addressing any unmet needs, and allow future service development to be better aligned with the individual needs and expectations of cardiac catheterization patients, thereby increasing their satisfaction with care, and improving the overall quality of care delivered. As well, this study would add to the existing nursing literature on examining patient's expectations and satisfaction with cardiac catheterization' service quality in the selected hospitals.

For this reason, it was hoped that this study returns in benefits on the practice and generally increases the body of knowledge of the administrative field and specifically for nurses as regards the concepts included in the study. Thus the current study would highlight the importance and potential advantages to identify the relationship between cardiac catheterization' patients' expectations and their satisfaction with health service quality in a selected hospitals.

Aim of the study:

The current study was aimed to identify the relationship between cardiac catheterization' patients' expectations and their satisfaction with health service quality in a selected hospitals.

Research question:

The present study was carried out to answer the following research question:

- 1- To what extent is there a significant relationship between cardiac catheterization patient's expectations and their satisfaction with health service quality in selected hospitals?

Subjects and Methods

Research design:

Descriptive, correlational design was utilized to achieve the aim of the study.

Setting:

The study was conducted at 2 Cardiac Catheterization Units where they belonged to 2 selected hospitals, one of them had got the (ISO9001-2008) certificate, New El-Kasr El-Ainy Teaching Hospital, and the other one was non-certified hospital, El-Manial University Hospital in the period from January 2015 to March 2015.

Subjects:

A convenient sample of 52 adult male and female patients at the ISO certified hospital and of 95 adult patients at the ISO non-certified hospitals were participated at the current study. Generally for 3 months, the selected patients for the current study were diagnosed with cardiac disease of the heart muscle, valves or coronary arteries and prepared for cardiac catheterization as diagnostic and treatment procedure.

Tools of the study:

The data was collected through utilizing the modified (SERVQUAL) questioner which developed by [11], it covers two parts as follows.

1st part: Demographic data sheet, it includes demographic characteristics of participants such as age, gender, level of education, length of stay and etc.

2nd part: Patient expectations and satisfaction with health service quality questionnaire. It consists of 22 items to measures cardiac catheterization patient's expectations and satisfaction with health service quality and these items were loaded into 5 dimensions of quality services including tangibles (4 items), reliability (5 items), responsiveness (4

items), assurance (4 items) and empathy (5 items). Both items of patient's expectation and satisfaction have the same statements in which the items of patient's expectation were typed using the future tens, while the items of patient's statements were typed using the in the past. The scoring system of 5 points Likert scaling type was used as follows: Strongly disagree (1), disagree (2), undecided (3), agree (4) and strongly agree (5).

The levels of expectations and satisfaction of patients are as follows:

- Low: <75%.
- Moderate: 75%-90%.
- High: >90%.

Tool validity:

Content and face validity of the tool was examined through 5 academic experts, 3 academics were from Nursing Administration Department and 2 academics were from Critical Care and Emergency Nursing Department, Faculty of Nursing, Cairo University.

Pilot study:

A pilot study was conducted on 10% of the total study sample which constituted the patients who was admitted to both units (25 patients: 9 patients from Cardiac Catheterization Unit of the certified hospital and 16 patients from Cardiac Catheterization Unit of the non-certified hospital) to ensure the clarity, feasibility of the developed tool and to assess the time needed to fill the questionnaire.

Tool reliability:

Internal consistency and reliability were determined for the tool using Cronbach's alpha=0.94.

Ethical and legal considerations:

A primary approval of the Scientific Research Ethical Committee at Faculty of Nursing, Cairo University was obtained to carry out the study. The ethical issues consideration includes explaining the purpose and nature of the study; study participants were informed that they have the right to withdraw from participating in the study at any time without experiencing any negative consequences. Informed consents were obtained from all eligible participants who agreed to participate in the study. Data confidentiality and patients' privacy were secured. After the final data were collected from all participants, the final approval letter was obtained from Scientific Research Ethical Committee, Faculty of Nursing, Cairo University to confirm that all participants were accepted to

participate in this study based on their informed consents.

Procedures:

Prior to data collection, an official permission was obtained from the Vice Dean of Higher Studies and Researches at the Faculty of Nursing, Cairo University and forwarded to the directors of selected hospitals. The purpose of the study and process planned for data collection were explained for doctors and nursing staff of all selected wards for chronic patients to gain support and corporations. Fixed time and room were determined for data collection.

Overall, the process of data collection started and finished for almost 3 months (i.e. from the beginning of January 2015 until the end of March 2015). The data collection process for the eligible patients at both cardiac catheterization units in selected hospitals using the modified (SERVQUAL) questioner, took place through 5 days per week during the morning shift from 9Am to 1Pm. The time consumed to answer each questionnaire sheet ranged from 45-60 minutes.

Statistical analysis:

Data were coded, scored, tabulated, and analyzed by compute using "Statistical Package for Social Science" (SPSS windows) Version 21. Numerical data were expressed as mean \pm SD, and range. Correlation coefficient was used to determine direction and strength of the relationship of selected variables. This study used *t*-tests and Chi square test. To identify the significance differences between the selected variables. The significant level of all statistical analyses was at 0.05 (*p*-value).

Results

Table (1) showed that the highest percent of the studied sample (75%) were males, there was (50.3%) in the age group of 50-59 years old, (66%) had secondary school diploma, while (80.3%) stayed from 1:2 days in hospital and (61.9%) was first time admission.

Table (2) and Fig. (1) exhibited a statistical significant difference between total mean score of the expectation and satisfaction with tangibles in ISO certified hospital where expectation mean score was higher by 0.09 than satisfaction mean score.

Table (3) and Fig. (2) presented the statistical insignificant difference between total expectation and satisfaction dimensions of quality of health services.

Table (4) indicated that there was a highly statistical significant relation between patients' levels of expectations and levels of satisfaction with health service quality. Where, most of the

patients with high expectation level also had a high level of satisfaction. Furthermore, most of the patients with moderate expectation level also had a moderate level of satisfaction.

Table (1): Percentage distribution of the study sample according to their demographic data (n=147).

Variable	Values	Cardiac catheterization patient units					
		ISO certified hospital (N=52)		ISO non-certified hospital (N=95)		Total (N=147)	
		No.	%	No.	%	No.	%
<i>Gender:</i>							
	Male	42	80.8	69	72.6	111	75.5
	Female	10	19.2	26	27.4	36	24.5
<i>Age (years):</i>							
	0-49	9	17.3	24	25.3	33	22.4
	50-59	32	61.5	42	44.2	74	50.3
	60-69	10	19.2	22	23.2	32	21.8
<i>Education level:</i>							
	Secondary school diploma	34	65.4	63	66.3	97	66.0
	Technical school diploma	5	9.6	3	3.2	8	5.4
	Bachelor degree	13	25.0	29	30.5	42	28.6
<i>Length of stay (days):</i>							
	1:2	25	48.1	93	97.9	118	80.3
	3 and more	27	51.9	2	2.1	29	19.7
<i>Frequency of admission:</i>							
	First time	30	57.7	61	64.2	91	61.9
	Second time	22	42.3	34	35.8	56	38.1

Table (2): Difference between expectation and satisfaction with quality of health service total dimensions in ISO certified hospital (n=52).

Quality of health service dimensions	Expected quality of health service Mean ± SD		Satisfaction with quality of health service Mean ± SD		Total (N=52) Mean ± SD		Difference	t-value	p-value
Tangibles	4.35	0.51	4.26	0.53	4.31	0.52	-0.09	2.3	0.02*
Reliability	4.57	0.41	4.59	0.41	4.58	0.41	0.02	0.9	0.3
Responsiveness	4.54	0.42	4.60	0.45	4.57	0.44	0.06	1.3	0.1
Assurance	4.55	0.42	4.59	0.42	4.57	0.42	0.04	0.9	0.3
Empathy	4.56	0.52	4.55	0.48	4.56	0.50	-0.01	0.1	0.85
Total	4.52	0.39	4.52	0.41	4.52	0.40	0	0.2	0.8

*: Significant.

Table (3): Difference between expectation and satisfaction with quality of health service dimensions in ISO non-certified hospital (n=95).

Quality of health service dimensions	Expected quality of health service Mean ± SD		Satisfaction with quality of health service Mean ± SD		Total (N=95) Mean ± SD		Difference	t-value	p-value
Tangibles	4.58	0.40	4.60	0.36	4.59	0.38	0.02	0.3	0.7
Reliability	4.56	0.40	4.56	0.26	4.56	0.33	0	0.08	0.9
Responsiveness	4.52	0.40	4.74	1.36	4.63	0.88	0.22	1.5	0.1
Assurance	4.49	0.39	4.53	0.32	4.51	0.36	0.04	0.8	0.3
Empathy	4.47	0.42	4.49	0.35	4.48	0.39	0.02	0.4	0.6
Total	4.52	0.34	4.58	0.33	4.55	0.34	0.06	1.2	0.2

*: Significant.

Table (4): Relation between levels of expectations and satisfaction of patients with health service quality.

Expectation of health service quality	Satisfaction with health service quality				
	Low	Moderate	High	Total	
<i>Low:</i>					
No.	1	0	1	2	Chi-square =121.6
% within expectation of health service quality	50.0%	.0%	50.0%	100.0%	
<i>Moderate:</i>					
No.	0	40	16	56	<i>p</i> -value =0.0001*
% within expectation of health service quality	.0%	71.4%	28.6%	100.0%	
<i>High:</i>					
No.	0	13	76	89	
% within expectation of health service quality	.0%	14.6%	85.4%	100.0%	
<i>Total:</i>					
No.	1	53	93	147	
% within expectation of health service quality	.7%	36.1%	63.3%	100.0%	

*: Significant.

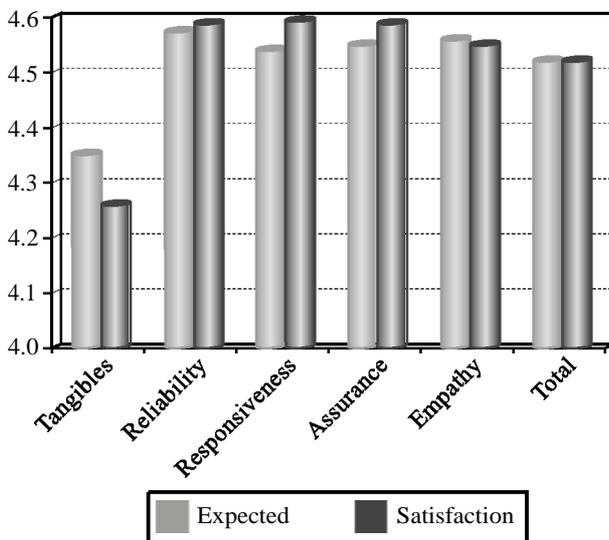


Fig. (1): Difference between expectation and satisfaction with quality of health service total dimensions in ISO certified hospital (n=52).

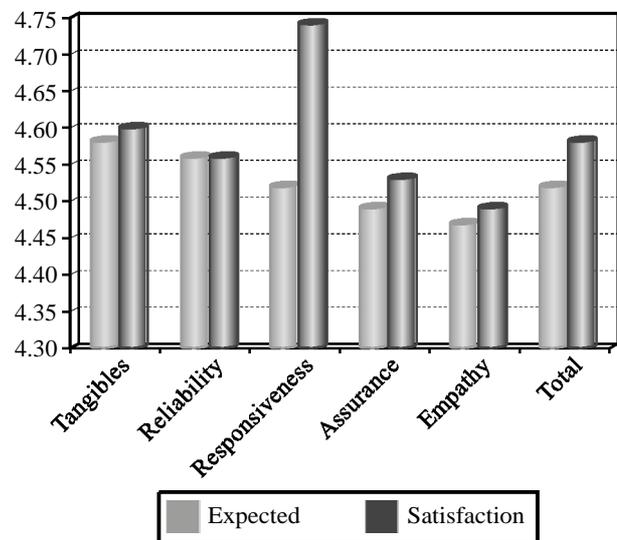


Fig. (2): Difference between expectation and satisfaction with quality of health service total dimensions in ISO non-certified hospital (n=95).

Discussion

Patient experience and satisfaction are the first priority for health care executives above clinical quality, cost reduction, and many other burning issues [9]. Many research studies have determined that nursing care is an important characteristic of overall health care satisfaction [10].

As regard to the demographic data of the study sample, the findings revealed that the majority of the studied sample were males, half of them were in the age group of 50-59 years old, near to two thirds of them hold secondary school diploma degree, while majority of them stayed from 1:2 days in the hospital and over than half were admitted to the hospital for the first time.

Concerning the difference between expectations and satisfaction of health service quality total dimensions as perceived by cardiac catheterization patients in both hospitals, the current study revealed that there was a statistical significant difference between the total expectation and satisfaction specifically in the ISO certified hospital where patient expectation exceeded their satisfaction. Meanwhile, there was no statistical significant difference between the total expectation and satisfaction dimensions of quality of health service in the ISO non-certified hospital.

The investigator have viewed the lower mean score of patient's satisfaction with health service quality than their expectation mean score in ISO certified hospital, as an unexpected result. It may

be due to the difference between patient's expectations and their received services increases over time regardless of the new approaches or actions.

The current findings were in accordance with a study by [12] who found a lower level of agreement between expectations and satisfaction for the items of tangibles (e.g. visually beautiful and pleasant physical structures), reliability (e.g. the hospital complies with scheduled procedures), responsiveness (e.g. the nursing staff is available to fulfill patient requests), and assurance (e.g. the nursing staff has appropriate knowledge to answer patients' questions).

While, [12] additionally concluded that the highest levels of agreement between expectations and satisfaction were observed for the items of tangibles (e.g. the nursing staff has well-cared for appearance and outfits, appropriate for the working environment), reliability (e.g. the hospital presents reports, documents and information regarding the patient without errors), assurance (e.g. the nursing staff helps its patients).

The measurement of the gap between expectation and satisfaction dimensions as a measure of quality was in agreement with the study conducted by [13] who defined patient's satisfaction as an expression of the gap between the expected and perceived health care service. As well as, [14] who explained that meeting patient's expectations is one measure of the quality of health care system in addition to [15] who demonstrated that, patient-reported experiences and fulfillment of expectations were the most important predictors of overall patient satisfaction.

This finding was confirmed by the results of the study by [16] in which negative results were found in all 5 dimensions of nursing services. These gap scores indicated that, these areas need improvement, and the study population felt strongly about their needs and choices, specifically for 'responsiveness' and 'reliability' items of nursing services.

The present study has investigated 5 dimensions, where 2 dimensions showed a significant gap. This was contradictory with [17] who investigated hospital quality and its effect on patient's expectations and satisfaction and found that each dimension has a relationship with the quality of health care. This was also incongruent with the study by [18] who found that there was a highly significant equal gap between the desires of the patients and their perceptions.

With regard the relation between levels of patients' expectations and satisfaction with health service quality, the current study findings indicated that there was a highly statistical significant relation between patients' levels of expectations and levels of satisfaction with health service quality. Where, most of the patients with high expectation level also had a high level of satisfaction. Furthermore, most of the patients with moderate expectation level also had a moderate level of satisfaction.

Some studies used the concept of met expectations as a valid measure of satisfaction with the provided service, suggesting a direct relationship between unmet expectations and dissatisfaction, and vice versa [17]. However, other studies showed controversial results regarding this relationship [14]. While others related the fulfilled expectations to a more important consultation outcome than satisfaction, for instance, seeking further medical care and adherence [18]. A previous study demonstrated that patient-reported experiences and fulfillment of expectations were the most important predictors of overall patient satisfaction [6].

From the investigator point of view, the possible explanation of the significant relation between levels of patient's expectation and their satisfaction could refer to the importance of evaluating the patient expectations to improve their level of satisfaction this could happen through improving the health service quality in its all dimensions. Using quality tools such as (SERVQUAL) would help hospital managers in evaluating hospitals service quality, enabling managers become aware of the source of the patient's expectations formation and their logical needs, and determining their own abilities and their organizations capabilities in meeting the patient's needs.

Conclusion:

The findings of the current study pointed out that:

- There was a highly statistical significant relation between patient's levels of expectations and levels of satisfaction.
- There was significant difference between total expectation and satisfaction with tangibles in ISO certified hospital where expectation mean score was higher than satisfaction mean score.
- Satisfaction with healthcare quality was higher than expectation in ISO non-certified hospitals regardless their insignificant difference.

Recommendations:

- Hospitals managers should determine patient's expectations to enhance patient's satisfaction and health service quality.

- Hospitals managers should evaluate the quality of health services from patient's perspectives and try to understand what they could expect.
- Managers and the relevant authorities should properly use the quality tools such as (SERVQUAL) in evaluating hospitals' service quality and identifying the grievances.
- The physicians and nurses and all health care providers should be well dressed and appear neat and keep the hospital environment clean.
- Additional studies should incorporate health service providers to assess the complete picture of patient satisfaction and the match in expectation between patients and health service providers. Future research is also needed to explore the reasons that patients felt the extent of influence on consultations had a negative association with satisfaction.

References

- 1- British Heart Foundation: What is expected in a cath. Lab.? Available at: <http://en.wikipedia.org/wiki/cath-lab> . 2017.
- 2- ROCHVILLE J.: Understanding Quality Measurement. Available at: <http://www.ahr.gov/professional/quality-patient-safety/quality-resources/chtoulsbx/understand/inbox.html> www.Patient_experience.org/resources, 2017.
- 3- Stand Ford Health Care: Stanford medicine, Stanford children's health & Stanford University. U.S.A. Available at: <https://www.stanford.edu/>, 2017.
- 4- JENSEN R.E., et al.: The Role of Technical Advances in The Adoption And Integration of Patient-Reported Outcomes in Clinical Care. *Med. Care*, 53: 153-9, 2015.
- 5- ADUGNAW B. and FIKRE E.: Patient Expectations and Their Satisfaction in the Context of Public. *Journal of emergencies, trauma and shock*, 4 (2), 2014.
- 6- SCHOENFELDER T., KLEWER J. and KUGLER J.: Determinants of Patient Satisfaction: A Study among 39 Hospitals in an In-Patient Setting in Germany. *Int. J. Qual. Health Care*, 23 (5): 503-9, 2011.
- 7- Centers for Medicare and Medicaid Services: Hcahps: Patients' perspectives of care survey. Available at: www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment instruments/HospitalQualityInits/Hospital-HCAHPS.html, 2014.
- 8- NAIDU S.: Expert consensus statement; Best Practices in Cardiac Catheterization Laboratory. *Catheterization and Cardio Vascular Inter Venations*, 88 (3): 407-23, 2016.
- 9- CHAHAL L. and KUMARI P.: Development of multidimensional scale for healthcare service quality (HCSQ) in Indian context. *Journal of Indian Business Research*, 2 (4): 230-55, 2010.
- 10- PARSONS N., GRIFFIN X., ACHTEN J. and COSTA M.: Outcome Assessment After Hip Fracture: Is EQ-5D the answer? *Bone Joint*, 3: 69-75, 2014.
- 11-PARASURAMAN A., BERRY and ZEITHAML V.: SERVQUAL: A multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, 64 (1): 12-40, 1988.
- 12- BRAZIER J.E., YANG Y., TSUCHIYA A. and ROWEN D.L.: A review of Studies Mapping (or Cross Walking) Non-Preference Based Measures of Health to Generic Preference-Based Measures. *Eur. J. Health Econ.*, 11: 215-25, 2010.
- 13- HUTCHINGS A., NEUBURGER V.J. and BLACK N.: Estimating Recruitment Rates For Routine Use Of Patient Reported Outcome Measures And The Impact On Provider Comparisons. *B.M.C. Health Serv. Res.*, 14: 66, 2014.
- 14- BOWLING A., ROWE G. and MCKEE M.: Patients' Experiences of Their Healthcare in Relation to Their Expectations and Satisfaction: A Population Survey. *J. R. Soc. Med.*, 106 (4): 143-9, 2013.
- 15- LOYD H., et al.: Patient Reports of the Outcomes of Treatment: A Structured Review of Approaches. *Health Qual Life Out.*, 12: 5, 2014.
- 16- UZUN O.: Patient Satisfaction with Nursing Care at a University Hospital in Turkey. *J. Nurs. Care Qual.*, 16: 24-33, 2016.
- 17- GRØNDAHL V.A., WILDE-LARSSON B., KARLSSON I. and HALL-LORD M.L.: Patients' experiences of care quality and satisfaction during hospital stay: A qualitative study. *Eur. J. Pers. Cent. Healthc*, 1 (1): 185-92, 2012.
- 18- LICINA P., JOHNSTON M., EWING L. and MARK P.: Patient expectations, Outcomes and Satisfaction: Related, Relevant or Redundant? *Evid. Based Spine Care J.*, 3 (4): 13-9, 2012.

العلاقة بين توقعات القسطرة القلبية ورضاهم عن جودة الخدمة الصحية في المستشفيات المختارة

أصبحت جودة الرعاية الصحية مهمة للغاية عند إتخاذ أى قرار بشأن الخدمات المقدمة للمرضى خاصة فى أقسام رعاية الحالات الحرجة مثل وحدات القسطرة القلبية. من الصعب قياس جودة الخدمات الصحية وخصوصا عند مقارنتها بالقطاعات الأخرى بسبب طبيعتها وخصائصها الغير الملموسة، لذلك فإنها تعتمد على تصورات العملاء وتوقعاتهم فتعتبر توقعات ورضا المرضى المؤشر الرئيسى لتقييم جودة الخدمة فى منظمة الرعاية الصحية. لذا إستهدفت الدراسة الحالية إلى تقييم العلاقة بين توقعات مرضى القسطرة القلبية ورضاهم عن جودة الخدمة الصحية فى وحدات القسطرة القلبية. وقد تمت الدراسة على عينة مكونة من المرضى الذين تم تشخيصهم بأمراض القلب وكان عددهم ٥٢ مريض من وحدة القسطرة القلبية لمستشفى معتمدة (القصر العينى التعليمى الجديد) وعدد ٩٥ مريض من وحدة القسطرة القلبية بالوحدة الأولى بمستشفى غير معتمدة (القصر العينى التعليمى القديم). تم استخدام إستمارة إستبيان (SERVQUAL) والتي قام بتطويرها الباحث من الأبحاث السابقة لقياس توقعات ورضا المرضى عن جودة الخدمة الصحية المقدمة لهم حيث أعلم المشاركون فى الدراسة بكافة حقوقهم وإن إشتراكهم فى الدراسة تطوعى. بشكل عام إستغرقت عملية جمع البيانات ٣ أشهر تقريبا بواقع ٥ أيام فى الإسبوع، بدءا من بداية يناير ٢٠١٥ وحتى نهاية مارس ٢٠١٥. أسفرت هذه الدراسة إلى عدة نتائج هامة تتضح فيما يلى: مستوى رضا المرضى يقل عن توقعاتهم عن جودة الخدمة الصحية بالمستشفى المعتمدة، هناك إختلاف واضح فى مستوى توقعات ورضا المرضى للأشياء الملموسة فى المستشفيات المختارة حيث إزداد توقعات ورضا المرضى فى المستشفى الغير معتمدة، لم يكن هناك فرق ذو دلالة إحصائية بين رضا المرضى وتوقعاتهم بالمستشفى الغير معتمدة بالرغم من إرتفاع مستوى رضاهم، كانت هناك علاقة ذات دلالة إحصائية عالية بين مستويات توقعات المرضى ومستويات رضاهم. وبعد الإنتهاء من الدراسة فقد إقترح الباحث أن يتوجب على مدراء المستشفيات تحديد توقعات المرضى لتعزيز رضاهم وجودة خدماتهم الصحية، يجب على مدراء المستشفيات تقييم جودة الخدمات الصحية من وجهة نظر المريض ومحاولة فهم ما يمكن أن يتوقعوه، يجب على الأطباء، والمرضات وجميع مقدمى الرعاية الصحية أن يرتدوا ملابسهم وأن يبدوا أنيقين وأن يحافظوا على بيئة المستشفى نظيفة. يجب أن تتضمن الدراسات الإضافية مقدمى الخدمات الصحية لتقييم الصورة الكاملة لرضا المريض المتوقعة بين المرضى ومقدمى الخدمات الصحية. هناك حاجة للبحث فى المستقبل أيضا لإستكشاف الأسباب التى جعلت المرضى يشعرون بمدى إرتباط تأثير المشاورات السلبى على رضا المرضى.