Patient Satisfaction: A Tool towards Quality Improvement

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ABSTRACT

Purpose: To determine the importance of patient satisfaction as a tool for quality improvement.

Study Design: Cross sectional survey.

Place and Duration of Study: Pediatric Ophthalmology Department of Al-Shifa Trust Eye Hospital, Rawalpindi, from May 2017 to September 2017.

Methods: This study included 500 individuals, who were caregivers of children visiting the hospital at the time of data collection. Individuals who visited departments other than pediatric department were excluded. Two groups were made. Group 1 included 300 individuals who were interviewed for to assess the patient satisfaction. On the basis of response, play area was made spacious, additional registration counters were placed and more reception staff members were hired to shorten the waiting and registration time, additional fans were installed in the waiting area and patient information was displayed on TV screens to aid uneducated patients and their attendants. Second group with 200 individuals were interviewed after these improvements. Pretested structured questionnaire was used to collect data regarding socio-demographic characteristics and experience of visit to the hospital. SPSS version 20 was used for descriptive and inferential data analysis.

Results: Participants in this survey showed high level of satisfaction after interventions 45 to 65%.There was statistically significant association between satisfaction level and improvement in services was found (p < 0.001).

Conclusion: Satisfaction level of patients depends upon the quality of services and medical care provided and it can be used as a good tool for improving the services in the hospitals.

Key Words: Satisfaction, Outpatient department, Hospital.

INTRODUCTION

Patient's satisfaction is an essential means of measuring the effectiveness of health care delivery and quality of services for the health and wellbeing of humans.[1] It indicates the provision of health care to the patients according to their requirements. Patient satisfaction surveys are conducted to identify possible problems and provide opportunity to resolve them before they become serious.[2] Patient satisfaction is a consumer's perception and an attitude regarding the total experience of health care.[3] It comprises of both cognitive and emotional features and is influenced by previous experience, expectations and social networks.[4,5] Outpatient department in any hospital is considered a shop window of the hospital. A simple and practical definition of satisfaction is the degree to which desired goals have been achieved.[6] Patient

satisfaction is a fundamental focus of healthcare delivery outcomes.[7] Higher levels of patient satisfaction is associated with time spent with the doctor, wait times and other factors.[8,9]

Al-Shifa Trust Eye Hospital, Rawalpindi is regarded as one of the leading tertiary care ophthalmology centers in Pakistan. It is believed that there exists a relationship between patient expectations and treatment outcomes. Therefore, it is imperative to understand the expectations of the patients in order to minimize dissatisfaction, and to enhance compliance, when planning clinical services. We conducted this survey to find out the relationship of patient satisfaction with the improvements in health care delivery.

METHODS

This was a descriptive cross sectional study conducted in Pediatric department of Al-Shifa trust eye hospital. The study was designed to assess relation of patient satisfaction with the services provided in outpatient pediatric department of Al-Shifa Trust eye hospital from May 2017 to September 2017. The standard used in this study was National Health Survey (NHS) tool. Sample size was calculated by using formula z^2pq/e^2, P (Prevalence) as 50%, q is $100 - p = 50\%$, allowable error was kept as 9% of the prevalence (50%), that came out to be 5 individuals. After putting all the values in the formula $z^2pq/e^2 = 1.96*1.96*50*50/5*5$, sample size came out to be 474. After adding a non response rate 5% (26) the sample size became 500. Final sample size was 500, which was divided into two groups. The first group comprised of 300 individuals who were interviewed to find out the baseline for assessing patient satisfaction. Second group comprised of 200 individuals who were presented the same questionnaire after the implementation of intervention. The interventions were based on the deficiencies pointed out by the group 1. Male and female caregivers of 20 – 50 years age who were accompanying the children at the time of data collection were included. Individuals who visited departments other than pediatric department were excluded.

Data was collected by using a structured questionnaire containing demographic characteristics and questions related to services provided. Formal permission from the Ethical Review Committee of Pakistan institute of Ophthalmology (PIO) was sought.

Separate identification numbers were assigned to each questionnaire to ensure the confidentiality of the participants. Reliability of the tool was also checked before start of study. The Crohn Bach's alpha value came out to be 0.814 which guaranteed that tool was reliable for the data collection. Data collection was done primarily by the principal researcher after taking informed consent from each participant. SPSS version 20 was used for descriptive and inferential data analysis.

In the current research, 5 areas of patient satisfaction level (Before appointment, waiting in the hospital, Environment, Seeing a doctor, Overall impression) were selected and modified according to respective settings. Likert scale was used for the responses of questions. On the basis of responses from the group 1, following deficiencies were identified:

- Congested children play-area with less toys and activities for children.

- Waiting time was for too long.

- Hot and humid waiting area.

- Difficulty in understanding the information charts displayed on the walls for uneducated persons.

Work was done on the problems identified by the patients' attendants and children play area was made spacious with more toys and games, additional registration counters were placed and more reception staff members were hired to shorten the waiting and registration time. Additional fans were installed in the waiting area and patient information was displayed on TV screens as well to aid uneducated patients and their attendants.

RESULTS

Participants of the survey got information about Al-Shifa pediatric department from different sources as shown in table 1. Satisfaction level before and after improvement of services was calculated by the computation of responses given by the participants. The normality of outcome variable was checked in SPSS. The outcome (satisfaction) was found to be normally distributed (K-S p value > 0.05). Afterwards that was categorized into poor and good satisfaction level by keeping mean as cutoff value. Overall satisfaction level raised from 45% to 63% after improvement of identified problems regarding services (Table 2).

Table 1: *Source of information about Al-Shifa Pediatric department (n = 500).*

Source	Number	%
Relative	100	20
Referred by Doctor	185	37
Referred by School	25	5
Friends	55	11
Panel	15	3
Live in the Area	40	8
Heard from someone else	45	9
Did not remember	35	7

Table 2: *Mean scores of Satisfaction Level (n = 500).*

	Before		After	
	Good	Poor	Good	Poor
Scores	> 20	< 20	> 20	< 20
Frequency	135	165	126	74
Percentage	45	55	63	37

Table 3: *Satisfaction about doctor's attitude and Cooperation (n = 500).*

	Strongly Disagree	Disagree	Neither	Strongly Agree	Agree
Simple Instructions	10 (2)	10 (2)	5 (1)	410 (82)	65 (13)
Doctor explained eye condition	15 (3)	15 (3)	50 (10)	285 (57)	135 (27)
Expectation Fulfillment	0 (0)	15 (3)	25 (5)	230 (46)	230 (46)

Table 4: *Association between Improvement in services and satisfaction level (n = 500).*

	Satisfaction Level		X^2 (500-2)	p-value
	Good	Poor		
Before	135 (45)	165 (55)	159.91	0.001
After	126 (63)	74 (37)		

DISCUSSION

Literature shows that the patients who are satisfied with their hospital visits are more adherent and compliant to their treatment and advices given by the treating physicians as compared to those who are not satisfied with the health care facilities.[10,11] It has been reported that a relation exists between the outcome of the healthcare and the patient satisfaction.[12,13] Umar A S et al have done different surveys on the same subject and the results showed that quality healthcare services always have impact on the patient satisfaction and retention of patients in the long-run.[14] One of the WHO's six building blocks of health systems is the delivery of health services that are safe, effective and good quality for those who require them.[15,16]

Experience of patients is a key indicator of measuring strength of health service delivery.[17] Patient satisfaction level with the NHS, UK varies from 60 to 65%.[18] In the current survey patient satisfaction

Ninety two percent participants reported that their expectations were fulfilled by the doctor (simple instructions, explained eye condition, answers of each query, good attitude and cooperation) (Table 3).

Best thing experienced by most of the participants (45%) was doctor attitude followed by good environment (28%) and after intervention doctor attitude was followed by cleanliness (30%).Worst experience by most of the participants was waiting time and after interventions most of the participants (58%) reported nothing as worst experience.

A Chi-square test for independence indicated significant strong association between improvement in services and satisfaction level, $[x^2$ (1, n = 500) = 159.91, p = 0.001, phi = 0.92] (Table 4).

improved from 45% to 63% after improving health care services and correcting the deficiencies pointed out by the patients. Arvind Sharma reported 73% satisfaction level in the OPD of a tertiary care hospital of India.[19] In Bangkok 91% satisfaction level was reported in a study.[20] This clearly visible difference is due to the fact that Thailand being a developed country has better quality of health care services than Pakistan and India.

The meta-analysis done by Zolnierek KB on 127 studies, concluded that patient adherence was associated statistically significantly to the communication of physicians. Better physician's communication with patients can improve that adherence. Physician communication skill in the medical setting may be a main factor to enhance patient adherence because it improves the transmission of clinical and psychosocial information and aids in decision-making. It builds harmony and trust to create comfort level for patient involvement to discuss benefits, risks, and barriers to adherence.[11]

In another study conducted by McMullen M et al satisfaction with the time spent waiting was most strong predictor correlated with overall satisfaction in the outpatient eye clinic. These findings recommend that clinics could effectively improve the overall

patient satisfaction by reducing the waiting time.[9]

Limitation of this study was that it was an interview based survey and subjectivity can be a source of bias. Secondly, it was a single department study and results cannot be generalized to the entire hospital. Before and after groups were comprised of different individuals. It is suggested that similar group of individuals should be interviewed before and after the intervention.

CONCLUSION

Satisfaction level depends upon the services provided, doctor and staff attitude, and cooperation. Patients who seek treatment with care and in a comfortable setting are more satisfied with hospital and this affects the compliance and adherence of patients with treatment that is necessary for their health.

Ethical Approval

The study was approved by the Institutional review board/ Ethical review board. **(ERC-25/AST-17).**

Conflict of Interest

Authors declared no conflict of interest.

REFERENCES

1. **Bintabara D, Ntwenya J, Maro II, Kibusi S, Gunda DW, Bonaventura C, et al.** Client satisfaction with family planning services in the area of high unmet need: evidence from Tanzania Service Provision Assessment Survey, 2014-2015. Reprod Health, 2018; **127:** 15. Doi: 10.1186/s12978-018-0566-8

2. **Wambua JM, Mbayaki R, Munyao PM, Kabue MM, Mulindi R, Change PM, et al.** Client satisfaction determinants in four Kenyan slums. Int J Health Care Qual Assur. 2015; **28:** 667–677.

3. **Gadalean I, Cheptea M, Constantin I.** Evaluation of patient satisfaction. Appl Med Inform. 2011; **29 (4):** 41-47.

4. **Jackson J, Chamberlin J, Kroenke K.** Predictors of patient satisfaction. Soc Sci Med. 2001; **52:** 609-620.

5. The Health Boards Executive. Measurement of patient satisfaction guidelines. Health Strategy Implementation Project, Ireland, 2003; 37.

6. **Boyer L, Francois P, Doutre E.** Perception and use of the results of patient satisfaction surveys by care providers in a French teaching hospital. Int J Qual Health Care, 2006; **18:** 359–364.

7. **Imam S, Syed K, Ali S, Ali S, Fatima K, Gill M, et al.** Patients' satisfaction and opinions of their experiences during admission in a tertiary care hospital in Pakistan – a cross sectional study. BMC Health Services Research, 2007; **7 (1).**

8. **Al-Abri R, Al-Balushi A.** Patient satisfaction survey as a tool towards quality improvement. Oman Med J. 2014; **29 (1):** 3-7. Doi: 10.5001/omj.2014.02.

9. **McMullen M, Netland PA.** Wait time as a driver of overall patient satisfaction in an ophthalmology clinic. Clin Ophthalmol. 2013; **7:** 1655-1660. Doi:10.2147/OPTH.S49382.

10. **Rasouli O, Zarei MH.** Monitoring and Reducing Patient Dissatisfaction: A Case Study of an Iranian Public Hospital. Total Qual Manag Bus Excell. 2016; **27 (5-6):** 531-559. Doi: 10.1080/14783363.2015.1016869

11. **Zolnierek KB, Dimatteo MR.** Physician communication and patient adherence to treatment: a meta-analysis. Med Care, 2009; **47 (8):** 826-834.

12. **Rao JK, Weinberger M, Kroenke K.** Visit-specific expectations and patient-centered outcomes: a literature review. Arch Fam Med. 2000; **9 (10):** 1148-1155.

13. **Sequist TD, Schneider EC, Anastario M.** Quality monitoring of physicians: linking patients' experiences of care to clinical quality and outcomes. J Gen Intern Med. 2008; **23 (11):** 1784-1790.

14. **Umar AS.** Patient waiting time in a tertiary health institution in Northern Nigeria, J Pub Health Epidemiol. 2011; **3 (2);** 78-82.

15. **WHO,** Everybody's Business: Strengthening Health Systems to Improve Health Outcomes, Geneva, Switzerland World Health Organization, 2007. Available at: https://apps.who.int/iris/handle/10665/43918

16. **USAID,** Sustaining Health Gains—Building Health Systems: Health Systems Report to Congress, Washington, DC United States Agency for International Development. 2009. Available at: http://purl.access.gpo.gov/GPO/LPS119458

17. **World Bank,** Healthy Development: The World Bank Strategy for Health, Nutrition, and Population Results, Washington, DC World Bank, 2007. Available at: https://openknowledge.worldbank.org/handle/10986/6843

18. **Cleary P, Edgman-Levitan S, Roberts M, Moloney T, McMullen W, Walker J, et al.** Patients Evaluate Their Hospital Care: A National Survey. Health Affairs, 1991; **10 (4):** 254-267. Doi: 10.1377/hlthaff.10.4.254

19. **Sharma A, Kasar PK, Sharma R.** Patient Satisfaction About Hospital Services: A Study From the Outpatient Department of Tertiary Care Hospital, Jabalpur, Madhya Pradesh, India. Natl J Community Med. 2014; **5 (2):** 199-203.

20. **Pongsupap Y, Van LW.** Choosing between public and private or between hospital and primary care: responsiveness, patient-centredness and prescribing patterns in outpatient consultations in Bangkok. Trop Med Int Heal. 2006; **11:** 81–89.

Authors' Designation and Contribution

Ume Sughra; Associate Professor: *Concepts, Design, Data analysis, Statistical analysis, Manuscript review.*

Mannal Siddiqui; Pre Medical Student: *Concepts, Design, Manuscript preparation, Manuscript review.*

Sorath Noorani; Professor and Head of Department: *Literature search, Data acquisition, Manuscript preparation, Manuscript review.*

Hassan Mansoor; Consultant Ophthalmologist: *Literature search, Data acquisition, Manuscript preparation, Manuscript review.*

Sultana Kausar; Research Assistant: *Data analysis, Statistical analysis, Manuscript preparation, Manuscript review.*

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