

Determination of Patient Satisfaction with Laboratory Services in a Tertiary Care Center

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ABSTRACT

Objective: To determine the level of patient satisfaction regarding the laboratory services at a tertiary care center in Islamabad.

Methodology: A cross-sectional study was done in the Pakistan Institute of Medical Science, Islamabad, from September to November 2017. Sampling was done by non-probability, convenient sampling. Data was collected using a questionnaire from the patients coming to the Pathology Laboratory at PIMS, Islamabad. The laboratory services included accessibility to the lab, time required to get the results, hygiene and cleanliness of the laboratory, availability and attitude of laboratory staff, and reliability of laboratory results. Data was analyzed by SPSS version 24. Quantitative responses were represented as means. Qualitative responses were presented as frequency tables and percentages.

Results: Mean age of the 220 participants was 43.7 ± 15.97 years. There were 132 (60%) males and 88 (40%) females. The total satisfaction rate was 87.7%. Availability of the laboratory staff was the highest rated indicator of the questionnaire, whereas most participants were unsatisfied with the waiting time for the service. 80.91% participants said they would return to the PIMS laboratory for future investigations.

Conclusion: The Majority of the patients were satisfied with the laboratory services at PIMS, Islamabad. While most patients were well-satisfied with the availability of the lab staff during their visit and the guidance provided about the procedure, improvement is required to reduce the waiting time for the service.

Keywords: Patient satisfaction, Hospital, Laboratory services, Waiting time

Authors' Contribution:

^{1,3}Conception; Conception of the work idea, data collection, ^{1,2}analysis and interpretation, drafting the manuscript, reviewing and final approval.

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Introduction

Patients are the major determinants of the quality of the health care services provided to the community by the health care authorities.¹ Therefore, patient satisfaction is an important tool to determine whether the quality of services provided by any corporation is adequate or not.¹⁻³ It tells about the adequacy of the health services provided by the health facility and whether the services are according to the expectations and needs of the community.¹ So, surveys regarding patient satisfaction from the health care facilities are important to assess the quality of health services provided to the public.⁴

The adequacy of the health care services provided by the health care centers in any country shows the overall progress of that country.^{2,5} Health care services are provided to the community mainly by the public hospitals.⁶ In Pakistan, the average cost of healthcare is 66.5%.^{2,7} This is much more than the other countries of the world, where the average cost of health care is 18.147%.⁷ Also, it is suggested that the number of patients who are unsatisfied with healthcare facilities in Pakistan is gradually increasing.^{8,9} This suggests that there is a gradual decrease in health care facilities in our country.



The pathology laboratory is a very important component of any hospital. Laboratories are places where diagnostic facilities are available, which help the community in making diagnoses by carrying out investigations on patients' body fluids and specimens.¹⁰ The physicians manage the patients based on the laboratory reports.¹⁰ So, it is necessary that the test reports be accurate as well as precise.¹⁰ It is the patient who is utilizing the laboratory services.^{11,12} So, by determining the level of satisfaction of patients, one can determine the quality of health-related services provided by that particular laboratory.¹³ Also, the determination of the level of satisfaction is important for accreditation of the laboratories and quality assurance programmes.^{11,12}

There is scant data regarding patient satisfaction from laboratory services in our setup. So, the present study was done to assess the level of patient satisfaction regarding pathology laboratory services in Pakistan Institute of Medical Sciences (P.I.M.S), Islamabad.

Methodology

A cross-sectional descriptive study was conducted in Pakistan Institute of Medical Sciences (PIMS) from September to November 2017. PIMS is a public sector, tertiary care hospital in Islamabad, Pakistan. A total of 220 participants coming to the laboratory were included in the study. The participants were chosen by non-probability, convenient sampling. The study included patients above 15 years of age of both genders, coming to the Pathology Laboratory at PIMS, Islamabad, during the above-mentioned period. Informed verbal consent was obtained from the subjects. Patient responses were recorded on a preformed 15-part questionnaire which included patient demographics of age, education, and their

satisfaction. Patients were asked to rate services as Excellent:5, Good:4, Average:3, Unsatisfactory:2, Poor:1. Laboratory services assessed included accessibility of the lab, time required, hygiene, availability and attitude of lab staff, reliability of lab results, and overall experience. The responses were then recorded and analyzed using SPSS version 24. Quantitative responses are represented as means. Qualitative responses are presented as frequency tables and percentages.

Results

Data was collected from 220 participants for the prescribed investigations. The mean age of the participants was 43.7 years with a standard deviation (S.D) of 15.97. The age range was 16-83 years. About 132 (60%) were males and 88(40%) were females. Most of the patients were referred to the laboratory by the attending physician at PIMS (41%), followed by referral from local general practitioners (34.2%), self-referral (23.6%). Most commonly requested investigations include Liver Function Tests (LFTs), followed by HbA1C and Fasting Blood Sugar (FBS). (Figure 1)

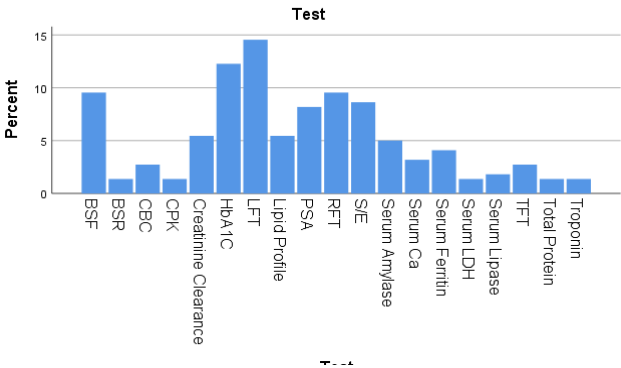


Figure I. Common laboratory investigations.

Table I: Rating of different laboratory services.

	Excellent	Good	Average	Unsatisfactory	Poor	Total
INDICATORS						
Accessibility of lab	13.6%	48.2%	19.1%	17.7%	1.4%	100.0%
Time spent on service	19.1%	42.3%	19.5%	16.4%	2.7%	100.0%
Hygiene of lab	15.0%	52.3%	24.5%	5.5%	2.7%	100.0%
Availability of lab staff	13.6%	59.1%	27.3%	0.0%	0.0%	100.0%
Courtesy of staff	13.6%	35.9%	38.2%	12.3%	0.0%	100.0%
Cooperation by lab staff	9.5%	46.8%	31.4%	12.3%	0.0%	100.0%
Guidance about procedure	6.8%	50.5%	40.0%	2.7%	0.0%	100.0%
Difficulty encountered	12.3%	38.6%	32.7%	15.0%	1.4%	100.0%
Wait for service	16.4%	39.5%	17.7%	20.9%	5.5%	100.0%
Satisfaction	25.9%	59.1%	10.9%	4.1%	0.0%	100.0%
Overall Experience	28.6%	27.7%	31.4%	10.9%	1.4%	100.0%

Of the tested variables, 'availability of laboratory staff' was the highest rated indicator, followed by 'guidance provided by the lab staff' about the required procedure. 'Waiting time' for the service was the lowest scored indicators as 26.4% patients remained unsatisfied. Majority of the patients were satisfied with the overall experience at the laboratory. (Table I) The tendency to return to the PIMS laboratory for future investigations was fairly high (80.91%) while 19.09% of the participants did not wish to return. (Figure 2)

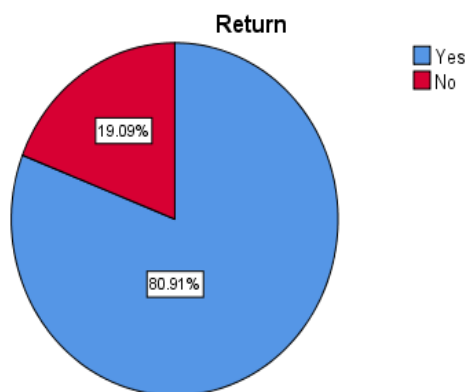


Figure 2. Tendency to return to PIMS laboratory.

Discussion

Usually, the patients are quite aware and sensitive about the quality of the services provided to them by the Laboratories.¹ Response or feedback from the patients regarding services provided by the Laboratory is important. This is so because it acts as a tool to assess the efficiency and performance of the laboratory in terms of the provision of healthcare services to the community.¹⁴ It also provides an opportunity to make improvements in neglected areas of health care services.¹ Yet, in Pakistan, patient satisfaction is rarely used as a tool to assess the quality of health care services provided.¹

In the present study, the mean age of the study sample was 43.7 ± 15.97 years (range of 16 – 83 years). About 132 (60%) cases were males, and 88(40%) cases were females. The male-to-female ratio was 1.5:1. In a study done by Chaudhary S in 2017 in Pakistan, the mean age of the study sample was 38.18 ± 11.87 years, and the male-to-female ratio was 3:1.¹⁵ In another study done by Attiq S in 2018 in Malir, the mean age of the study sample was 38.1 ± 12.3 years.¹ So, the demographic data of our study is similar to that in other studies mentioned above.

In the present study, it was seen that the overall satisfaction rate of patients about laboratory services was quite high, i.e, 87.7%. This is quite high compared to other studies done so far. In a study done by Attiq S in 2018 in the Combined Military Hospital, Malir, the overall satisfaction of patients regarding the pathology laboratory was 82.29%.¹ This figure is comparable to that reported in the present study. In another study done by Abera RG in 2017 in Ethiopia, the total patient satisfaction regarding the pathology laboratory was about 59.7%¹⁶ This is quite low as compared to that reported in the present study. Similarly, overall patient satisfaction of 87.6% and 70.5% was reported in different studies done by Taklemariam Z and Koh YR, respectively.^{17,18} The lowest overall satisfaction rate reported so far is 59.2% reported by Chaudhary S from Lahore in his study done in 2017.¹⁵ So, the overall patient satisfaction in our study was quite high as compared to other studies so far. This difference may be due to the more recent construction of the Pakistan Institute of Medical Sciences (PIMS) and hence, better conditions for incoming patients. It may also be due to the recent upgrade of the laboratory infrastructure at PIMS.

In the present study, it was seen that the patient showed the highest satisfaction regarding the availability of the laboratory staff and the manner of the laboratory staff. More stringent and accountable employee management has resulted in increased efficiency of the laboratory staff, as shown by the favorable responses of the survey participants about availability, courtesy, and guidance offered by the laboratory staff to the incoming patients and attendants. However, a significant number of participants complained about the long waiting times at the laboratory. This shortcoming is due to the heavy patient load at PIMS. The influx of patients is much more as compared to its present infrastructure and number of staff. Also, patients arrive from all over Pakistan, so long queues are a common sight at the laboratory. Similar dissatisfaction regarding prolonged waiting time was reported by Chaudhary S from Lahore in 2017.¹⁵ In a study done by Attiq S in 2018 in Malir, the highest satisfaction rate was seen regarding staff behavior, while the lowest satisfaction was regarding the patient waiting time.¹ In a study done by Abera RG in 2017 in Ethiopia, overcrowding in the laboratory and lack of space in the phlebotomy section were the most

frequently reported complaints.¹⁶ In another study done by Naqvi S et al in 2019 in Karachi, laboratory services were lacking in factors such as notification about abnormal test results.¹⁰

Due to the increase in the burden of patients at Pakistan Institute of Medical Sciences (PIMS), it is necessary that the laboratory services be expanded to a larger area. Also, there is a need to employ a larger number of trained staff to provide a higher quality of service and improve patient satisfaction and compliance with prescribed healthcare.

A limitation of the study was that this study was carried out in only one single tertiary care centre. In the future, bigger studies should be done involving multiple hospitals and using a large sample size. These findings highlighted that hospital management teams need to focus on a timely delivery of services, and for that, there is a need to employ more staff.

Conclusion

The majority of the patients were satisfied with the laboratory services at PIMS, Islamabad. While most patients were well-satisfied with the availability of the lab staff during their visit and the guidance provided about the procedure, improvement is required to reduce the waiting time for the service.

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