

## A study of patient perception for biochemistry laboratory services in a tertiary care hospital – A qualitative study

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### Abstract

**Introduction:** Patients' evaluation of care is a realistic tool to provide opportunity for improvement, enhance strategic decision making, reduce cost, meet patients' expectations, frame strategies for effective management, monitor healthcare performance of health plans and provide benchmarking across the healthcare institutions. Surveys have become a tool to quantify the consumer experience. To the best of our knowledge, there is till date very little data reviewing the patient satisfaction for clinical biochemistry laboratory. Thus, this study is planned to find out the perception of patients for laboratory services for its improvement.

**Materials and Methods:** Using the patient perception for laboratory services as a surrogate marker for quality and value of health care delivery, we reviewed the experience of 100 patients through well designed pre-validated questionnaires, having 11 closed ended and two open ended questions and evaluating the association between quality and patient reported experience for discussing the future opportunities and methods of improvement in Clinical Biochemistry Laboratory, SGRDIMSAR, and Amritsar.

**Results:** The overall satisfaction level for laboratory services was very high being 100% for cleanliness and referring the laboratory services to others. It was 97.3% indicating excellent staff behaviour whereas the least was for locating the laboratory i.e. 89.19%.

**Conclusion:** The overall degree of patient satisfaction was very high especially regarding the cleanliness of toilets & behaviour and guidance of the laboratory staff. This would really help in boosting their morale and future willingness to work harder and serve patients in a better manner.

**Keywords:** Patient perception, Laboratory, Surveys, Patient centered care, Questionnaire.

### Introduction

Over the past 20 years, patient satisfaction surveys have gained increasing attention as a meaningful and essential source of information for identifying gaps and developing an effective action plan for quality improvement in a healthcare organization.<sup>1</sup> The healthcare managers that endeavour to achieve excellence take patient perception into account when designing the strategies for quality improvement of care. Recently, the healthcare regulators shifted towards a market – driven approach of turning patient satisfaction surveys into a quality improvement tool for overall organizational performance.<sup>2</sup> Diagnostics play a major role in improving patient care and helping to limit healthcare spending, which is a major economic issue in every hospital. Biochemistry Clinical Laboratories are an important part of healthcare organizations. Issuing of timely and correct reports may be life saving in many cases.

Patient satisfaction is a set of attitudes and perceptions of patients towards health services. It is the degree to which an individual regards health-care as useful, effective and beneficial.<sup>3,4</sup> In other words it is the judgment of the patients about their needs and expectations met by the care provided<sup>5,6</sup> or an evaluation based on the fulfilment of expectations of the user.<sup>7</sup> It is actually determined by the interplay of two factors i.e. patient expectations and experience of real services.<sup>8,9</sup>

Patients' evaluation of care is a realistic tool to provide opportunity for improvement, enhance strategic decision making, reduce cost, meet patients' expectations, frame strategies for effective management, monitor healthcare performance of health plans and provide benchmarking across the healthcare institutions.<sup>10</sup> In addition, due to the tendency of healthcare industries to concentrate on patient-centered care; patient satisfaction reflects patients' involvement in decision making and their role as partners in improving the quality of

health There are various factors which influence customers expectations of services. They include efficiency, confidence, helpfulness, personal interest reliability. These are intrinsic factors. They influence the response of the hospital staff to the patient and his relatives. Intrinsic factors are susceptible to training. They can be improved by training when the performance does not reach the set standards. Accordingly, external factors exist. These are the outside reasons given by the employee. They include media influence, experience of others and contribute to customer expectations.

To the best of our knowledge, there is till date very little data reviewing the patient satisfaction for clinical biochemistry laboratory. Thus, this study is planned to find out the perception of patients for laboratory services for its improvement.

### Materials and Methods

The present cross-sectional study, after taking institutional Ethical committee permission, was conducted in patients attending Clinical Biochemistry Laboratory of Sri Guru Ram Das Institute of Medical Sciences & Research, Vallah, Sri Amritsar. People of the area were sensitized regarding the study. A pilot study was done on 20 patients /attendants who visited Sri Guru Ram Das Institute of Medical Sciences & Research, Vallah, Sri Amritsar, by taking their interview. The data for the study was also collected through observation method. Observation method, till now is the most important and extensively used method.

After their interview, a semi structured feedback questionnaire was prepared in two languages – English & Punjabi (vernacular language understood by most patients of Amritsar, Punjab). The Questionnaire was then validated by 7 faculty members and only those questions having a sum of 8

were included and rest discarded. The final questionnaire had 13 questions in total (11 closed ended and 2 open ended).

We randomly selected 100 patients / attendants visiting Clinical Biochemistry Laboratory at different times. Before giving them the questionnaire, they were explained the need for the same and their consent was taken. They were specifically requested not to read all the items at once, but go through each individual statement and answer it and then only move to the next. Respondents were assured of the confidentiality of their responses. Precautions were also taken to obtain unbiased results. The Reliability of the Feedback Questionnaire was determined by Crohnbach's Alpha with a score of 0.78. The feed questionnaires were collected, data entered on excel sheet and was statistically analyzed using SPSS software version. The analysis for closed ended questions was qualitative, whereas for open ended questions it was a descriptive analysis by coding system.

**Results**

In this cross-sectional study, a total of 100 (after excluding 3 patients who did not volunteer) patients were

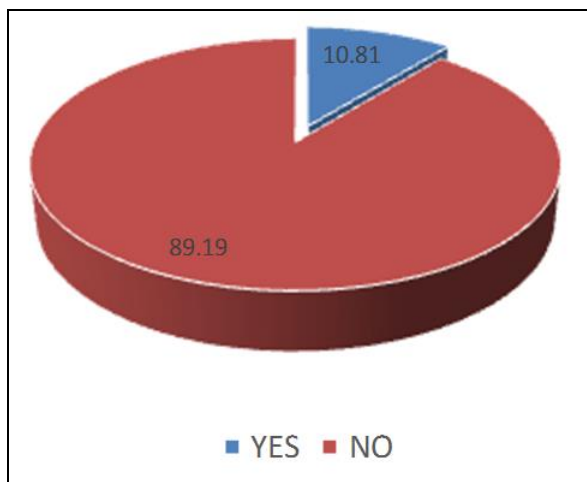
enrolled after a pilot study was conducted in 20 patients. Three patients declined to participate and thus were excluded because of considerable language barrier as they were from Srinagar and only understood Urdu. There were in total 13 questions in the questionnaire, 11 closed ended and 2 open ended questions. The closed ended questions included 3 questions regarding demographic detail and rest about perception for laboratory services. These questions were qualitatively analyzed. Question number 11 & 12 being open ended were analyzed using descriptive analysis by coding system. There were in total 3 codes generated for each question. (Table 1 and Table 2) Most of the patients were between the age group of 25-34 (45.95%), whereas the least belonged to the age group of 65-75 years (8.7%). Among all patients, 83.78% were Females and 81.08% were married. The overall satisfaction level for laboratory services was very high being 100% for cleanliness and referring the laboratory services to others. It was 97.3% indicating excellent staff behaviour whereas the least was for locating the laboratory i.e. 89.19%.

**Table 1: Codes and results of Open ended Question 11. What did you most liked about the laboratory?**

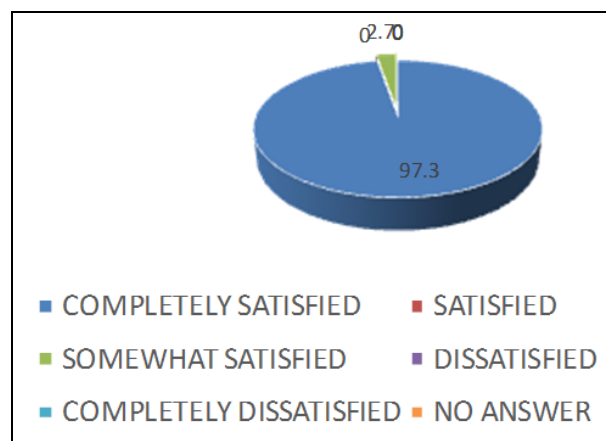
S. No	Responses	Codes	No. of Participants
1.	Everything Good	A	72
2.	Cleanliness	B	20
3.	Behaviour of Staff Good	C	8

**Table 2. Codes and results of Open ended Question 12. What did you least like about the laboratory?**

S. No	Responses	Codes	No. of Participants
1.	Everything Fine	A	81
2.	Reporting Time should be less	B	15
3.	Non Availability of Wheelchairs	C	4



**Fig. 1: Patient perception of laboratory location satisfaction**



**Fig. 2: Patient perception of slip counter satisfaction level**

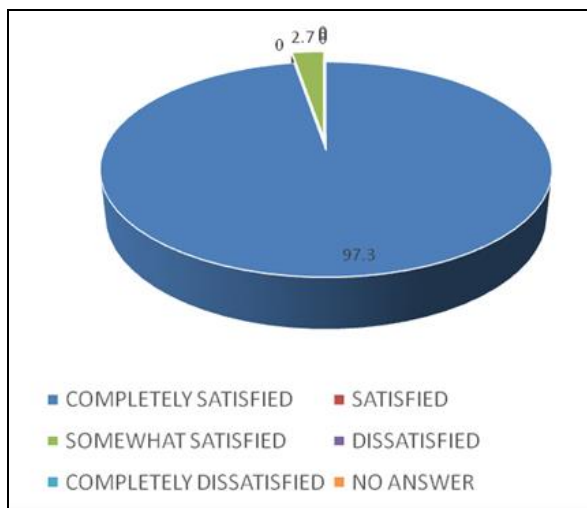


Fig. 3: Patient perception of sample collection satisfaction level

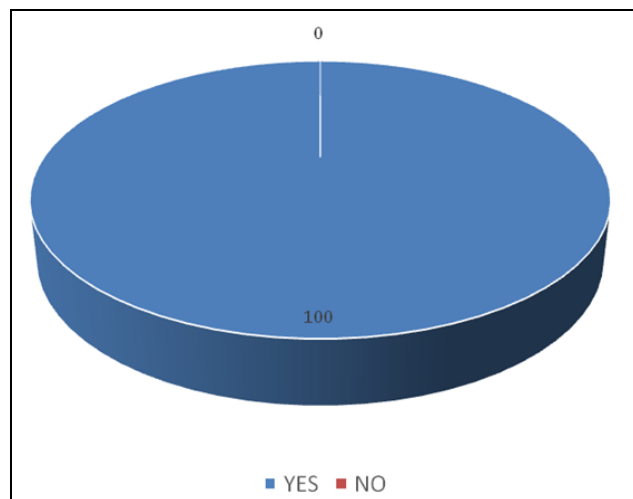


Fig. 6: Patient perception of laboratory referral

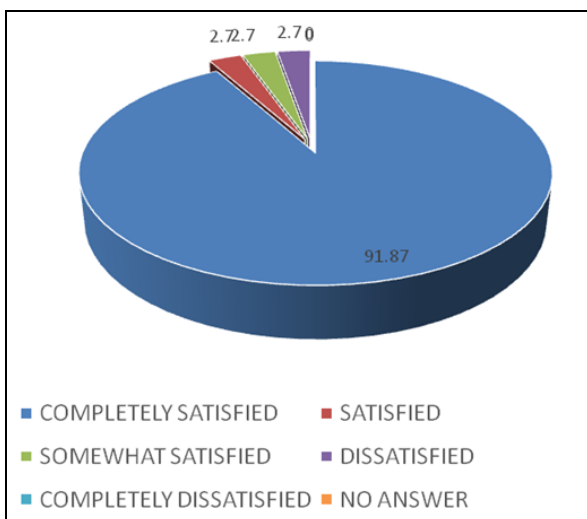


Fig. 4: Patient perception of report release time

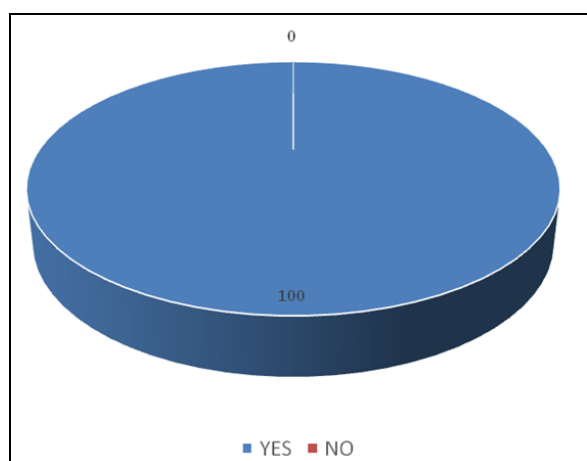


Fig. 5: Patient perception of toilet cleanliness

**Discussion**

Patient satisfaction results in enhanced compliance of the patients to the medical regimens, appropriate use of medical resources and quick recovery from illness. Besides this, feedback given by the patients makes medical staff aware of their strengths and weaknesses. Also, the employees get aware that that they will be held accountable to the patients as well as administration. Thus they tend to acknowledge patients rights and involve them in treatment decision. Patient’s decisions also help policy makers and planners to identify bottlenecks in the system, thereby introducing customized improvements in the services.

The consumer is becoming more aware of their rights in this internet era. Their expectations from healthcare organizations have increased and priorities changed. However today’s doctor being more dependent on technology is losing the skill of understanding patient perceptions, emotions and needs, in turn creating a gap between the requirements of patients and what doctors perceive as important. So, it is imperative quite rationale to periodically undertake surveys in healthcare facilities as often as possible.

There are innumerable studies on this important topic published, accessing patient satisfaction level for the hospital services. But to our knowledge till date, the core of the hospital, its laboratory services have mostly been neglected in these studies. Thus, this study was conducted to recognize the areas of improvement in the clinical Biochemistry Laboratory, SGRDIMSAR, Sri Amritsar from point of view with a thought for improvement to serve them better.

In our study, the patient satisfaction level was very high. They were highly satisfied with the respect, politeness, communication skills, helpfulness and technical competence which are strong predictors & attributes accessing patient satisfaction. The results of our study were in line with the findings of Ifthihar Ahmed et al. since patient satisfaction with the staff (the real caregivers) emerges as the most significant tool determining overall satisfaction.<sup>3,11,12</sup>

Our patients were highly satisfied with the cleanliness of the hospital (This is the major concern of SGRDIMSAR, being SAFE I accredited), the satisfaction level being 100% as all patients replied positive to this aspect. These findings were contrary to other studies which showed worst aspect of cleanliness.<sup>9</sup> All patients were ready to refer this laboratory to their friends & relatives due to their high satisfaction level.

The few concerns of the patients were delayed reporting (indicating high Turnaround Time- Time from sample collection to issue of the reports). This can be looked into and made the foremost quality Indicator for the coming months, thus monitoring improvement. To further improve this aspect, efforts are already being made to develop a good LIS (Laboratory Information Systems).

The other problem faced by some ill patients was the non availability of wheel chairs which will be informed to the administration and solved as soon possible. Overall patient satisfaction was very high with the study and attributes falling under satisfaction level will be addressed and solved to provide and ensure still better studies.

### Conclusion

The overall degree of patient satisfaction was very high especially regarding the cleanliness of toilets & behaviour and guidance of the laboratory staff. This would really help in boosting their morale and future willingness to work harder and serve patients in a better manner. Some people complained of high turnaround time and non availability of wheel chairs which would be looked upon by the laboratory department & hospital administration and solved as early as possible.

**Conflict of Interest:** None.

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