



## Original Article

## Patient Satisfaction from Services Provided at Low Vision Clinic in Tertiary Care Hospitals- A Cross-Sectional Study

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## ABSTRACT

Patients have always been the main stakeholders in the modern world of medicine. **Objective:** To assess the level of satisfaction of people with low vision with the provision of low vision services at Hayatabad Medical Complex in Peshawar. Moreover, to compare the satisfaction level of people with low vision concerning the degree of vision impairment. **Methods:** An interviewer-administered, questionnaire (PSQ-18), was used to collect data from 125 low-vision patients at a low-vision clinic. The survey used Likert's five-point rating scale to measure satisfaction with LV services. The data was analyzed using SPSS. **Results:** The results of the study demonstrated that the vast majority of study participants (n = 62, 50%) were delighted with the low vision care they received, followed by thirty-eight (30.4%) participants who remained satisfied, whereas twelve (9.6%) patients were dissatisfied. Male participants were more likely to be satisfied (94%) than female participants (63%). Amongst the total study participants, the proportion of participants with moderate vision impairment was approximately doubled as compared to those with severe vision impairment. **Conclusions:** The study found that moderate vision impairment participants were more satisfied than those with severe impairment, indicating an inverse relationship between satisfaction and the degree of vision impairment. 99% of participants were satisfied with the technical quality of the services provided.

## INTRODUCTION

The demand for affordable and high-quality healthcare services in developing countries has surged due to population growth. Eye care providers are striving to meet both quantitative and qualitative demands [1]. Healthcare services have evolved rapidly in the past three decades due to accessibility, affordability, marketing practices, and competition. This has broadened patient selection opportunities in hospitals. Patient satisfaction (PS) is an old concept in modern medicine, with patients and doctors playing key roles. However, newer concepts have defined clear boundaries between patient care and cure, allowing

patients to feel well cared for. Swan's 1985 study on patient satisfaction identified it as a positive emotional response, a cognitive process where patients compare experiences with subjective standards [2]. Riser defined it as the degree of congruency between ideal and real care [3]. In the modern healthcare landscape, patient satisfaction is crucial for hospitals to perform their duties effectively. Hospitals compete based on understanding patients' needs and demands, ensuring satisfactory services. The WHO introduced the concept of "Health for All" in 1990, emphasizing human-centered healthcare and investing in

quality services for patient satisfaction. This concept requires collaboration between medical and non-medical aspects, as patient satisfaction is influenced by their perception of needs and expectations from healthcare [4]. In 2015 it was reported that there were 253 million blind and moderate to severe distance vision impaired people, with 66% blind and 217 million MSVI, with 89% living in low and middle-income countries [5, 6]. Visual impairment affects daily activities and social interactions. Low vision (LV) rehabilitation is crucial for eye care services, improving functional abilities and enabling independent living [7]. WHO mandates the availability of LV services, and international NGOs like Sight Savers International and Christoffel Blind Mission establish clinics in developing countries. It is crucial to understand and meet patients' expectations and to measure their level of satisfaction because a satisfied customer not only acts like an agent to bring a few more customers but he is also loyal to these services for his remaining life [8]. Patient satisfaction is a crucial factor in determining health status and is a highly desired outcome of clinical care in hospitals. It measures the quality of services provided and serves as a necessary indicator for evaluating health facilities [9]. Patient satisfaction impacts their perception, leading to positive outcomes. Negative perception can result in low compliance and discourage others from seeking healthcare services, as seen in rare cases [10, 11].

Patient satisfaction measurement is crucial in the healthcare system as it helps in assessing healthcare delivery, analyzing the current situation, and planning improvement strategies. Hayatabad Medical Complex, the first public sector hospital in Pakistan to introduce LV services, is the first to use this method. The evaluation of these services will provide a true picture of service quality, aiding in the improvement of these services and their replication in other LV clinics. This approach is increasingly used as an outcome measure in healthcare assessment.

## METHODS

A cross-sectional study was conducted in the low-vision clinic at Hayatabad Medical Complex in Peshawar. The study duration was from June 2019 to December 2019. The study aims to assess the level of satisfaction of people with low vision with the provision of low-vision services. Moreover, to compare the satisfaction level of people with low vision concerning the degree of vision impairment, the study was approved by the ethics committee of AS&RB Khyber Medical University Peshawar and the Pakistan Institute of Community Ophthalmology, ensuring adherence to societal norms and confidentiality of participant information. The IRB No. was 168/HEC/B&PSC/19. All low-vision adults diagnosed and their guardians, aged 18 and younger, who gave consent, attended the clinic

for their second visit and onwards were included in the study. Patients too ill to participate in an interview or did not want to be interviewed were excluded from the study. According to OPD records patients attending LV clinic was averaging 5 per day, which makes a total of 125 per month. Average 2<sup>nd</sup> visit patients were almost half of 125. Thus, the sample size for the study was 125 individuals with Low vision for 2 months data collection. An interviewer-administered, pretested, and validated questionnaire (PSQ-18), was used to collect data from patients. Non-probability convenient Sampling technique was used. Likert's five-point rating scale was used for measuring satisfaction with different components of LV services. Responses were gathered into one of five categories. Points were awarded for each response. Those marking 'Highly satisfied' about the services were given 4 points; respondents marking 'Satisfied' were given 3 points; those marking 'uncertain/not applicable' were given 2 points; and those who were 'Highly Dissatisfied' from services were given 1 point; respondents marking 'Highly Dissatisfied' were given zero points. All the responses were then summed up and graded. Those respondents with a score of 81-100 was considered fully or highly satisfied; respondents with a score of 61-80 was grouped as partly satisfied; moderately satisfied were those respondents with a score of 41-60. Those with a score of 21-40 was labeled as "not satisfied." Finally, highly dissatisfied respondents were those with a score of less than 20 points [5]. Data from questionnaires were pre-coded and entered into SPSS (Statistical Package for Social Sciences version 20 software) for analysis.

## RESULTS

A descriptive cross-sectional study was conducted to determine the satisfaction of patients with the low vision (LV) services provided to them at the low vision clinic in Hayatabad Medical Complex Peshawar. One hundred and twenty-five (125) patients were included, and data was collected from these participants through a detailed pre-tested closed-ended questionnaire (PSQ-18), which assesses seven dimensions of satisfaction, including general satisfaction (two items) and satisfaction with six specific aspects of care, i.e., technical quality (four items), interpersonal manner (two items), communication (two items), time spent with the doctor (two items), accessibility and convenience (four items), and financial aspects (two items). Participant's responses regarding satisfaction with these aspects were determined. Likert's five-point rating scale was used for measuring satisfaction with different components of LV services. The results are hereby presented in descriptive and tabular form. Amongst a total of one hundred and twenty-five respondents, the proportion of males was more than half consisting of

eighty-seven (69.6%) while females were only thirty-seven (30.4%). Results showed that in the right eye, sixty-eight (54.4%) patients were with severe vision impairment. Amongst them forty-five (66%) were male and twenty-three (34%) were female, while forty-seven (37.6%) participants had moderate vision impairment. The proportion of males was (75%) and females were (25%) and left eye patients with severe visual impairment were sixty-seven (54.6%). Amongst them, forty-eight (71%) were male and nineteen (28.3%) were female. While fifty-two (41.6%) participants with moderate vision impairment in the left eye, the proportion of males was approximately double (67.3%) to females (32%)—details of participants presented in table 1.

**Table 1:** Severity of vision impairment

Gender	Vision Impairment RE			Total	Gender	Vision Impairment LE			Total
	Moderate VI	Severe VI	Profound VI			Moderate VI	Severe VI	Profound VI	
Male	35	45	07	87	Male	35	48	04	87
Female	12	23	03	38	Female	17	19	02	38
<b>Total</b>	47	68	10	125	<b>Total</b>	52	67	06	125

The study found that 62.50% of participants were highly satisfied with their low vision care, with 30.4% remaining satisfied and 9.6% dissatisfied, with males being more satisfied (94%)(Table 2).

**Table 2:** Patient's responses towards the general aspects of low vision care they have been receiving (n=125)

Gender	Total	Participants Satisfaction (General Aspects)					Total Satisfied	Total Dissatisfied
		Highly Satisfied (81 and above)	Satisfied (61-80)	Moderately Satisfied (41-60)	Dissatisfied (21-40)	Highly Dissatisfied (0-20)		
Male	87	46 (53%)	30 (34.4%)	6 (7%)	0%	5 (6%)	82 (94%)	5 (6%)
Female	38	16 (42%)	8 (21%)	0%	12 (31%)	2 (5%)	24 (63%)	14 (52%)
<b>Total</b>		62 (49.6%)	38 (30.4%)	6 (4.8%)	12 (9.6%)	7 (5.6%)	106 (84.4%)	19 (15%)

Results of the present study demonstrated that the majority of participants (n=116,93%) found the doctor to be courteous, listened attentively to the patients, explained the reasons for medical tests, and made the patient feel comfortable during examination amongst them 52% were highly satisfied and 28.8% participants remained satisfied. While 7% were dissatisfied. There was no gender difference regarding the question. Details are presented in the Table 3.

**Table 3:** Satisfaction of participants regarding communication (n=125)

Gender	Total	Satisfaction with communication					Satisfaction	
		Highly Satisfied (81 and above)	Satisfied (61-80)	Moderately Satisfied (41-60)	Dissatisfied (21-40)	Highly Dissatisfied (0-20)	Total Satisfied	Total Dissatisfied
Male	87	44 (50.5%)	26 (30%)	10 (11.5%)	5 (5.7%)	2 (2.3%)	92%	8%
Female	38	21 (55.26%)	10 (26.31%)	5 (13.15%)	2 (5.26%)	0%	95%	5%
<b>Total</b>		65 (52%)	36 (28.8%)	15 (12%)	7 (5.6%)	2 (1.6%)	93%	7%

Findings from the study showed that amongst a total of 125 participants, (n=55,44%) strongly disagreed and twenty-six (21%) disagreed respectively, while thirty-one (15%) agreed with the statement that they have to pay less for low vision devices than they can afford. There was no significant gender disparity regarding the answer to this question. Details are presented in Table 4.

**Table 4:** Responses of participants regarding affordability

Gender	Total	Satisfaction with Communication					Satisfaction	
		Strongly Disagree	Disagree	Uncertain/Not applicable	Agree	Strongly Agree	Total Satisfied	Total Dissatisfied
Male	87	46 (53%)	12 (14%)	6 (7%)	21 (24%)	2 (2.3%)	66.6%	27%
Female	38	9 (23.6%)	14 (37%)	4 (10.5%)	10 (26.3%)	1 (2.6%)	60.5%	29%
<b>Total</b>		55 (44%)	26 (21%)	10 (8%)	31 (15%)	3 (2.4%)	65%	27%

Accessibility of patients to low vision services was assessed in terms of easy access to low vision facilities, waiting time, and ease of getting their appointments, Study results showed that out of the total study participants, 83% remained satisfied amongst them fifty-five (44%) were moderately satisfied, while 17% participants were in the dissatisfied group regarding accessibility of low vision care. Male participants were more likely to be satisfied 90% as compared to female participants 68%. The percentage of participants satisfied or dissatisfied with the accessibility of LV is shown in the table below.

**Table 5:** Accessibility and convenience of LV services

Gender		Satisfaction with Communication					Satisfaction	
		Highly Satisfied (81 and above)	Satisfied (61-80)	Moderately Satisfied (41-60)	Dissatisfied (21-40)	Highly Dissatisfied (0-20)	Total Satisfied	Total Dissatisfied
Male	87	8 (9%)	23 (26.4%)	47 (54%)	4 (4.6%)	5 (5.74%)	90%	10%
Female	38	8 (21%)	10 (26.3%)	8 (21%)	8 (21%)	4 (10.5%)	68%	32%
<b>Total</b>		16 (12.8%)	33 (26.4%)	55 (44%)	12 (9.6%)	9 (7.2%)	83%	17%

## DISCUSSION

The current investigation evaluated patient satisfaction regarding different facets of low vision care at Hayatabad Medical Complex, Peshawar. Analysis revealed that the percentage of individuals experiencing moderate vision impairment nearly doubled (60.8%) compared to those encountering severe vision impairment (38.4%). Our study findings highlighted a notably elevated level of overall satisfaction, with 98% of participants expressing contentment with the services rendered at the low-vision clinic, HMC Peshawar. Patient satisfaction represents a multi-dimensional construct influenced not only by physician-related factors but also by various aspects of the patient's encounter with healthcare facilities [12]. Our investigation revealed that a significant majority of participants, constituting 80.4%, expressed satisfaction regarding the general aspects of the low vision care they received. Interestingly, male participants exhibited a higher likelihood of satisfaction (94%) compared to female participants (63%). Similar findings were documented in Upreti's 1994 study at Khmer-Soviet Friendship Hospital in Cambodia, where 71.1% of patients reported satisfaction [13]. Conversely, Pasaribu's 1996 study presented contrasting results, indicating patient dissatisfaction attributable to low quality of care and inadequate medication supply [14]. The quality of communication between doctors and patients during medical history-taking and discussions significantly influences patient health outcomes [15]. In our study, 93% of participants acknowledged the doctor's proficiency in explaining the reasons behind medical tests and attentiveness to patient responses. Similarly, research conducted in Switzerland underscored communication as the paramount factor in measuring patient satisfaction [16]. Moreover, a study in Australia highlighted that a physician's attitude, interaction with patients, and communication behavior significantly contribute to patient satisfaction with their healthcare provider [17]. Barry *et al.*'s study further emphasized that effective communication between practitioners and patients serves as the cornerstone for enhancing quality of life and consumer satisfaction [18]. Patients were surveyed regarding the availability and ease of access to healthcare facilities, with a majority expressing satisfaction in these areas. Similar findings were observed in a study conducted

by the University of North Carolina at Charlotte, where patients reported high satisfaction levels regarding waiting times, service accessibility, and facility cleanliness [19]. Channawangse *et al.*, highlighted that patient satisfaction may be influenced by the distance traveled for medical care, as well as the associated costs and inconveniences. The challenges of long-distance travel to hospitals may deter many patients from returning for follow-up appointments or even for free-of-cost daily dressing procedures [20]. Contrary results emerged from a study by the PIMS Institute in Islamabad, where patient satisfaction regarding ease of access to services, waiting times, confidentiality, and facility cleanliness was only 54% [21].

## CONCLUSIONS

The study found that moderate vision impairment participants were more satisfied than those with severe impairment, indicating an inverse relationship between satisfaction and the degree of vision impairment. 99% of participants were satisfied with the technical quality of the services provided.

## Authors Contribution

Conceptualization: AA

Methodology: AA, MIK

Formal analysis: NK

Writing-review and editing: AA, MIK, NK, FR, MI, KY

All authors have read and agreed to the published version of the manuscript.

## Conflicts of Interest

The authors declare no conflict of interest.

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