

Patient Satisfaction with Glaucoma Services Providers in Public Sector versus Private Sector

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ABSTRACT

Aim: This study aimed to explore factors influencing glaucoma patients' satisfaction and medical care in public and private sector hospitals in Lahore.

Study Design: A comparative cross-sectional study.

Duration and Settings of the Study: From October to December 2023 in public and private sector hospitals in Lahore.

Method: The total sample size was 126, of which 63 were from the public sector and 63 were from the private sector. Participants above 30 years of age with a diagnosis of primary open-angle glaucoma (POAG), ocular hypertension, or glaucoma suspect were included. Participants who had not yet started treatment were excluded. Data were collected using the PSQ-18 questionnaire. Data was entered and analyzed using SPSS-26. Using the Chi-Square test, the P value < 0.05 was considered significant.

Results: In this study, most of the patients (61.4%) were satisfied with their medical care and with doctors' responses to their queries ($p = 0.04$). Among the participants, 18.2% showed concern about the availability of resources, the coldness of the doctor, the accuracy of the diagnosis, and the lack of clarity in the explanations of medical tests. The study found that doctors provide comprehensive care, ensuring patients receive glaucoma treatment without financial burden ($p = 0.02$). Financial difficulties were also a concern for 7.9% of patients.

Conclusion: Based on the PSQ-18, the overall satisfaction of glaucoma patients was good. The majority of glaucoma patients respond favorably to the present conventional, widely accepted style of therapy.

Keywords: Glaucoma, Open-angle Glaucoma, Secondary Open-angle Glaucoma, Health Services, Patients' satisfaction.

INTRODUCTION

Glaucoma is a group of optic neuropathies characterized by progressive degeneration of retinal ganglion cells.¹ Over 12 percent of irreversible blindness is caused by glaucoma, a degenerative optic neuropathy that causes abnormalities in visual fields all over the world. Retinal Ganglion Cells (RGC) and the Retinal Nerve Fiber Layer (RNFL) gradually deteriorate first, and as the condition worsens, RNFL thickness and cpCD gradually decrease.² Glaucoma affects an

estimated 35% of people over age 40 years worldwide. By 2040, there will be 112 million more cases of glaucoma. Variations in prevalence by ethnicity are also observed.³ About 1.8 million glaucoma sufferers in Pakistan have irreversibly lost their sight as a result of delayed diagnosis and treatment.⁴ Since almost 90% of people are ignorant of the condition, the number of cases of irreversible blindness is rising.⁴

Because RGC axons are harmed by tension and stress on the lamina cribrosa, high Intra-Ocular Pressure (IOP) raises the risk of glaucoma. Age-related increases in glaucoma prevalence include older patients with a higher incidence (7.4% vs. 1.6%), which can be attributed to progressive optic neuropathy and visual field loss. This is because older people are more likely to contract the disease.⁵

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Studies show that as people age, glaucoma also becomes more common.⁶ The most prevalent type of the condition is Primary Open-Angle Glaucoma (POAG). However, research indicates that Asian patients are more likely than White patients to have it. Patients of Asian descent are more likely to have myopia, and as myopia gets worse, POAG becomes more common.

Families are greatly impacted by glaucoma because of the disease's high medical expenses and low productivity, especially in developing countries. The commitment to treatment may be hampered by financial difficulties, and treatment costs may rise as patients' conditions deteriorate. Identification of glaucoma risk at an early age is essential in primary care settings.⁷

During routine eye exams, optometrists and ophthalmic nurses are the primary healthcare providers who check for glaucoma. Instead of using specialized skills, they concentrate on external variables to identify patients who are at risk. After determining who is at risk, IOP readings are used to refer those patients to specialized care.

An IOP measurement called tonometry is used in the initial assessment of glaucoma. Three diagnostic groups are identified for the disease: individuals with glaucoma, those with ocular hypertension, and those without a possible diagnosis. Particular morphological alterations at the RNFL and optic nerve head are present in progressive optic glaucoma neuropathies, which result in ganglion cell development, loss of visual field, and cell death.⁹

Retinal microvascular changes in glaucoma can be better understood with the use of Optical Coherence Tomography (OCT). Topical medicine, eye drops, and selective laser trabeculoplasty are used in treatment. Although minimally invasive surgical tools are available now, but trabeculectomy is still the most effective method of

lowering IOP. It is anticipated that developments in the administration of medicines, such as drug-eluting implants and equipment, will enhance patient-doctor communication and treatment adherence.⁸

The World Health Organization stresses the significance of raising awareness of glaucoma and enhancing the effectiveness of treatment.¹⁰ More public health education is required to lessen the social impact of blindness caused by glaucoma.

Simple treatment plans, patient comprehension of glaucoma, and clear justifications for medical attention are essential elements.¹¹ The quality of medical care is largely dependent on patient satisfaction. How healthcare professionals treat patients, the speed of treatment, the length of time patients must wait, the simplicity of sending information, and doctors' willingness to explain the issue in plain English before giving specific instructions about medications and environmental factors all have an impact on patient satisfaction.¹²

METHODS

The Ethical Review Board of the College of Ophthalmology and Allied Vision Sciences, Mayo Hospital approved the research (Ref # 15011/2023). The study took place in the public and private sector hospitals in Lahore from October to December 2023. A sample size of 126 was calculated taking a confidence level of 90%, using a convenient probability technique.¹³ Sixty-three were from the government sector and 63 were from the private sector.

The comparative cross-sectional study aimed to identify individuals from a scheduling list who had undergone glaucoma services and had previously been diagnosed with glaucoma by providers of glaucoma care from various public

and private health sectors. Participants who were Urdu or English speaking, above 30 years of age, diagnosed with POAG, ocular hypertension or glaucoma suspect were included. Participants who had not yet started treatment or health care system outside Lahore city were excluded.

Participants gave written informed permission after a clear explanation of the study's nature and objectives. The patient demographic questionnaire contained data regarding their age, gender, educational attainment, and employment status. The PSQ-18, a patient satisfaction questionnaire, uses a 5-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree) to evaluate patient satisfaction with glaucoma treatment providers.

This examination covered various aspects including technical proficiency, interpersonal manners, communication, economic considerations and duration of interaction with the doctor, and accessibility and convenience. Data was analyzed using SPSS-26. P-value < 0.05 was considered significant. The Chi-square test was used for data analysis.

RESULTS

Of the total 126 patients included in this research, 49.2% were male. Age groups were as follows:

those between 30 and 40 (16.7%), 41 and 50 (27%),

Table: Patient Satisfaction in public verses private sector

| Questions | Government Sector | | | | | Private Sector | | | | | P-Value |
|---|------------------------|---------------|-----------------|------------------|---------------------------|------------------------|---------------|-----------------|------------------|---------------------------|---------|
| | Strongly Agree n(%) | Agree n(%) | Neutral n(%) | Disagree n(%) | Strongly Disagree n(%) | Strongly Agree n(%) | Agree n(%) | Neutral n(%) | Disagree n(%) | Strongly Disagree n(%) | |
| I think my doctor's office has every thing needed to provide complete care. | 25 (39.64) | 31 (49.20) | 7 (11.12) | 0 (0) | 0 (0) | 17 (13.49) | 42 (33.33) | 2 (1.59) | 2 (1.59) | 0 (0) | 0.047 |
| I feel confident that I can get the glaucoma medical care I need without being financially setback. | 4 (3.17) | 19 (15.08) | 11 (8.73) | 25 (19.84) | 4 (3.17) | 10 (7.94) | 36 (28.57) | 6 (4.76) | 9 (9.14) | 2 (1.59) | 0.002 |
| I have to pay for more of my medical care than afford. | 8 (6.35) | 21 (16.67) | 6 (4.76) | 22 (17.46) | 6 (4.76) | 2 (1.59) | 6 (4.76) | 8 (6.35) | 35 (27.78) | 12 (9.52) | 0.002 |
| I have easy access to the glaucoma specialists I need. | 7 (5.56) | 27 (21.43) | 9 (7.14) | 16 (12.70) | 4 (3.17) | 19 (15.08) | 37 (29.37) | 4 (3.17) | 3 (2.38) | 0 (0) | 0.00 |
| I find it hard to get an appointment for glaucoma care right away. | 1 (0.79) | 20 (15.87) | 4 (3.17) | 32 (25.40) | 6 (4.76) | 1 (0.79) | 6 (4.76) | 10 (7.94) | 31 (24.60) | 15 (11.90) | 0.007 |

N=Number, %=Percentage

51 and 60 (27%), 61 and 70 (16.70%), and 71 to 80 (12.7%). Regarding occupational status, 57% were presently employed and 69% were unemployed.

Findings from this study revealed that 61.4% of respondents were satisfied with their medical care. Among the participants, 93.7% showed satisfaction with the way their doctors described the disease and answered their queries. However, 18.2% of patients expressed concerns about resources, doctor coldness, diagnosis veracity, and unclear medical test explanations. Access to care was also a concern, with 19.8% experiencing delays in emergency treatment and 20.6% finding it difficult to arrange quick consultations. Financial difficulties were also a concern for 7.9% of patients.

Private sector patients reported higher levels of satisfaction with their treatment, with 73% stating it was "just perfect" compared to 49% in the public sector. The private sector had better access to timely appointments and more faith in their doctor's capacity to detect and cure glaucoma. Private sector patients reported higher levels of confidence in their care, satisfaction, and likelihood of suggesting their service provider to others. Overall, the study highlights the need for improved communication and patient satisfaction in the glaucoma treatment.

DISCUSSION

The doctor's interpersonal style, clinic accessibility, and doctor-patient communication were found to be barriers to care. Prior studies by Glen, et al discovered that patients frequently mentioned the quality of patient-doctor communication and the convenience of traveling to the clinic as obstacles to receiving treatment.¹⁴ In our study, the doctor-patient relationship was very good. The doctors spent significant time with the patients.

Peterson, et al reported a study with 10 participants with a history of glaucoma, POAG, or a suspected diagnosis of glaucoma. They completed both the baseline demographics survey and the Patient Satisfaction Questionnaire-18. With a mean satisfaction rating of 4.62, the treatment plan of the metropolitan tertiary care glaucoma clinic was deemed to be well-received in every respect.¹³ This study is consistent with our study in terms of patient satisfaction and the results are quite similar to ours.

Literature shows that patients with recently diagnosed glaucoma who received more counseling about their disease process experience lower anxiety levels. Understanding patient satisfaction in urban tertiary care clinics can improve patient care and potentially prevent additional vision loss. Understanding patient satisfaction in this subgroup is crucial for ensuring adherence to treatments and reducing the risk of further optic nerve damage and vision loss. Future studies should explore using web-based technologies like telemedicine and online tools to monitor glaucoma changes remotely.¹⁵ Similarly, in our study of satisfaction level, the majority of the doctors' clinics have all the equipment required for medical care.

A study by Spackman, et al reported 95% of

patients found waiting times to be similar to or better than traditional clinics, 97% were satisfied with the thoroughness of the virtual glaucoma clinic, and 85% were satisfied with the information provided in the follow-up letter from the clinician, with 94% feeling the same or better than traditional clinics.¹⁶ In our study also, the doctors were good at explaining the reasons for medical tests and diagnosis.

A study employing a combination of methods discovered that glaucoma virtual clinics are deemed acceptable by both professionals and patients, irrespective of the intricacy of the disease. The study revealed that patients had a strong sense of trust in the individual administering the tests and were inclined to endorse the service among others. The study revealed that dissatisfaction was correlated with inadequate communication or inefficient operations within the service.¹⁷ Our study is consistent with this in terms of the diagnosis of doctors. The majority of the patients were satisfied with their diagnosis and counseling.

The objective of this scoping review was to determine the most suitable questionnaires for evaluating the influence of glaucoma on quality of life (QoL). Through a comprehensive review of the literature and evaluation of quality criteria, a total of 41 questionnaires were identified. Among them, the top 10 questionnaires obtained the highest scores and were deemed most appropriate for addressing the study objective. The results were confirmed by a global jury of ophthalmologists from twenty-three different countries.

The study determined that there is no universally applicable design for a quality of life (QoL) questionnaire in glaucoma research. It suggests that future efforts could focus on creating a

structured weighting system to evaluate the quality of QoL surveys.¹⁸

The study examined the characteristics that influence the quality of life of glaucoma patients with a high standard of care. The analysis was based on data collected from 847 outpatients who had been using eye drops for a maximum of two years. Variables such as age, gender, presence of other medical conditions, and educational attainment were taken into account. The treatment regimen consisted of daily administration of the prescription eye drops. The assessment of QOL was conducted utilizing the EQ-5D and EQ-VAS scales. The findings indicated that both higher schooling and therapeutic satisfaction had favorable impacts on QOL, both directly and indirectly. Conversely, comorbidities were found to have negative indirect relationships with QOL.¹⁹ In our study, also educated people were more aware of glaucoma, its procedures, and its risk factors.

A study conducted at King Fahd Hospital in Saudi Arabia examined patients who were undergoing minimally invasive glaucoma surgery (MIGS) using phacoemulsification. The findings indicated a noteworthy decrease in the usage of anti-glaucoma medications, enhanced social well-being for 36.6% of the individuals, and no alteration in professional life for 85.2%. The operation's outcome was satisfactory for 86% of patients, and 79% reported a general enhancement in their quality of life.²⁰ In our study, the patients in the private sector were more satisfied with the treatments, methods, and medications, thus enhancing their quality of life.

Another study examined the efficacy of a shared approach to care for stable glaucoma patients at a primary eye care clinic in Singapore, comparing the level of care provided and the cost advantages in contrast to a tertiary specialist outpatient clinic. A

randomized trial was done to assess the possibility of equivalency across different treatments. The study included 233 patients. The results indicated that the Primary Eye Care (PEC) model delivered glaucoma clinical treatment that was comparable to the SOC method, with a rate difference of 6.83%. The PEC achieved comparable levels of patient satisfaction while managing to reduce direct expenditures for each patient visit by 43%.²¹ This study is consistent with our study, as through government sectors, the expenditure of the patients for receiving glaucoma medical care is reduced.

CONCLUSION

Based on the PSQ-18 measured parameters, the overall satisfaction of glaucoma patients with their care was good. The majority of glaucoma patients respond favorably to the present conventional, widely accepted style of therapy.

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Author(s) Contributions

WSH: Conceptualization and design of the study, drafting, review and final approval of the final manuscript and agrees to be accountable for all aspects of the work.

SA: Data acquisition, review and approval of the final manuscript and agrees to be accountable for all aspects of the work.

MS: Data analysis, review and final approval of the final manuscript and agrees to be accountable for all aspects of the work.

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