

## Original Article

## Social impact of glaucoma on aging populations in patients presented in eye OPD HFH

Hussnain Abbas,<sup>1</sup> Sidra Jabeen,<sup>2</sup> Muhammad Waseem,<sup>3</sup> Muhammad Rizwan khan,<sup>4</sup> Sehrish Akram,<sup>5</sup> Anam<sup>6</sup>

### Abstract

**Objective:** The objective of my study was to evaluate social impact of glaucoma on aging population.

**Study design:** It was a Cross sectional study design.

**Place and duration of study:** The study was conducted from July 2023 to December 2023 at Holy Family Hospital Rawalpindi

**Material and Methods:** The study, which began on July 1, 2023, evaluated glaucoma causes in 100 patients at Holy Family Hospital Rawalpindi. The patients underwent detailed examinations, including visual acuity assessment, anterior chamber and fundus examination using slit lamp bio-microscopy, ophthalmoscopy, Tonometer, and B-Scan ultrasounds if necessary.

**Results:** The study examines the psychosocial impact of glaucoma conditions on a sample population, focusing on gender distribution, age-wise demographics, family and professional status, daily life challenges, treatment burden, driving difficulties. The majority of participants are males, with a majority aged 50-60 years. Majority of patients were married and 70% of patients were unemployed. Majority of patients faced problems while driving during day time

**Conclusion:** Participants faced psychological challenges like frustration and feelings of illness, along with self-image concerns and daily life challenges. The burden of treatment includes medication adherence issues. Driving difficulties, anxiety about potential blindness, and concerns about surgery are prominent. Confidence in healthcare varies, emphasizing the need for targeted interventions and support systems for this population. The study contributes valuable insights for healthcare professionals and policymakers aiming to enhance the well-being of individuals with glaucoma

### 1. Introduction

Glaucoma is a group of eye diseases that damage the optic nerve, which transmits visual information from the eye to the brain. If left untreated, glaucoma may result in blindness. It's called the "silent thief of sight" because, as a general rule, visual impairment develops gradually. Glaucoma, a progressive optic neuropathy that causes irreversible blindness, is a major public health problem worldwide, especially in the elderly.

Globally, glaucoma, a progressive optic neuropathy that results in permanent blindness, is a significant public health issue, particularly among the elderly. The elderly are primarily impacted by its complexity, which includes social, economic, and medical aspects. Geographical differences in prevalence rates can be caused by factors like socioeconomic status, access to health care, and heredity. Cases that haven't been

diagnosed are a big problem, especially in the early stages. Routine eye examinations are essential for early detection and treatment. It is anticipated that the number of people with glaucoma will rise as the world's population gets older. To lessen its impact, new treatments, early detection, and greater awareness are essential. Angle-closure glaucoma and open-angle glaucoma are the two most common types of glaucoma.<sup>(1)</sup> The most normal sort, open-angle glaucoma, progresses step by step and is often asymptomatic. Normal-tension glaucoma (NTG) occurs when optic nerve damage occurs despite normal intraocular pressure (IOP). Point conclusion glaucoma is a health related crisis brought about by an unexpected blockage of the seepage point in the eye, which causes the intraocular strain to rapidly rise.<sup>(2)</sup>

Internee at Benazair Bhutto hospital, Rawalpindi,<sup>1</sup> Associate Professor at Holy Family Hospital, RWP,<sup>2</sup> Assistant Professor Jinnah Medical College,<sup>3</sup> Associate Professor and HOD Ophthalmology Dept. Faisalabad Medical University and Allied Hospitals,<sup>4</sup> Ophthalmology department, Holy family hospital, RWP,<sup>5</sup> Internee, Pak Emirates Military Hospital.<sup>6</sup>

**Correspondence:** Sehrish Akram, Ophthalmology department, Holy family hospital, RWP

**Email:** sehri.blouch123@gmail.com

Blockage of the drainage system can likewise result from auxiliary glaucoma brought about by injury, peeling, or color scattering.

Secondary glaucoma occur when intra ocular pressure is raised as a result of other ocular conditions .It can be brought on by uveitis and retinal detachment.<sup>(3)</sup> Normal pressure glaucoma is characterized by progressive optic nerve damage, even in the face of persistent. The progressive damage to the optic nerve head that is characteristic of glaucoma can be identified by examining changes in the optic disc.<sup>(4)</sup> A loss of peripheral vision is common, and in the worst cases, it can lead to a loss of central vision. The quality of a person's life can be severely impacted by glaucoma. Glaucoma can have an impact on employment, which can result in job changes, shorter working hours, or early retirement.<sup>(5)</sup> Moreover, mental misery and disintegration of mental prosperity might be related with dread and uneasiness coming about because of vision misfortune. Emotional well-being, sadness, and social withdrawal can result from visual impairment caused by glaucoma.<sup>(6)</sup> It can also make it hard to adjust, like learning new skills or using technology that helps. Patients' daily functioning and overall well-being can be impacted by ongoing medical care, such as prescription drugs or surgery. It is vital to give early recognition, complete administration and emotionally supportive networks like low vision. restoration and directing for individuals with glaucoma to restrict its belongings and work on their general personal satisfaction.

Determination of glaucoma includes a complete eye assessment and assessment of different variables. The measurement of intraocular pressure (IOP), the examination of the visual field, the examination of the optic nerve head, fudoscopy, gonioscopy, pachymetry, imaging studies, the examination of visual acuity, and the measurement of corneal hysteresis are important components. To determine a person's overall risk of glaucoma, risk factors such as age, family history, ethnicity, and medical history are evaluated .The treatment of glaucoma aims to lower the intraocular pressure (IOP) and stop further optic nerve damage.<sup>(7)</sup>

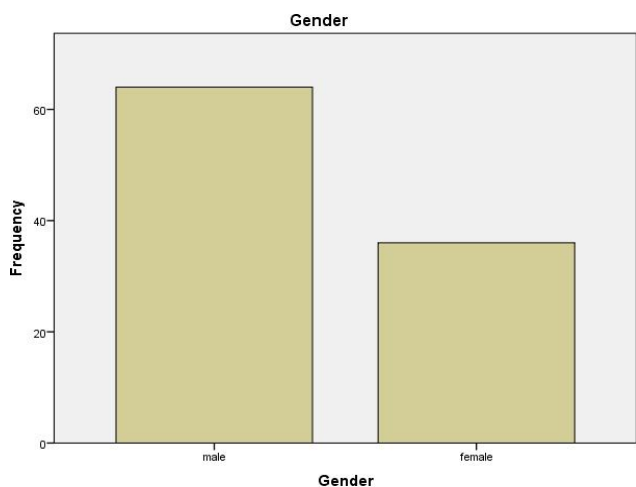
Depending on the kind of disease and its stage, treatment plans may include surgery, laser therapy, or both. Eye drops, laser therapy like selective laser trabeculoplasty (SLT), and surgical procedures like trabeculectomy and minimally invasive glaucoma surgery are all common methods. Glaucoma waste gadgets assist with controlling eye strain by working with liquid seepage.<sup>(8)</sup> To evaluate the efficacy of treatment, regular follow-up visits are required. Long-term management depends on patient education about the condition, medication adherence, and lifestyle factors that affect IOP.<sup>(9)</sup> To improve overall eye health, co-morbidities like diabetes and hypertension must be treated. Preserving vision and avoiding blindness depend on early detection and ongoing management. deterioration.

## 2. Materials & Methods

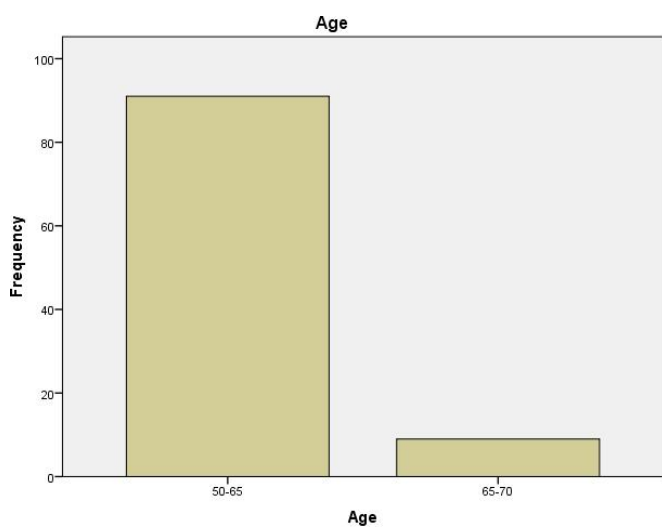
Descriptive cross-sectional hospital based study of 06 months duration from July 2023 to December 2023 evaluated glaucoma causes in 100 patients at Holy Family Hospital Rawalpindi. The patients underwent detailed examinations, including visual acuity assessment, anterior chamber and fundus examination using slit lamp bio-microscopy, ophthalmoscopy, Tonometer, and B-Scan ultrasounds if necessary. The data of patients was obtained on specially designed proforma. Patients of any age, patients of both gender, patients with stable mental condition, patients having complain of painful loss of vision, confirmed patient of glaucoma were included in this research. I excluded the Patients who did not cooperate, Mentally handicapped patients and Patients who were not willing to be a part of research.

## 3. Results

In this research it was found that out of sample size of 100 patients gender wise distribution of 64% males and 36% females were glaucoma patients.



Age-wise demographics indicated a predominant representation of individuals aged 50-60 years (91%), and 60-70 years (7%)



Results of my research showed that majority of patients (93%) were married and 7% were unmarried.

The research showed that out of 100 glaucoma patients, 65% were employed and 35% were unemployed. Results of my research indicated that daily life challenges included difficulties in reading small writing (20%), accurately locating points (5%), following screen movements (10%), identifying people at a distance (20%), performing daily activities (10%), receiving more help from others (10%), tripping up (10%), and working differently (10%).

Pie-chart Representation of patients facing problems while driving.

**Figure 1**

.Managing a treatment plan was challenging for many patients. Treatment burden:

Question	No of patients	Percentage
Having to take medication everyday	40	40%
Remembering to take medication	10	10%
Having to take medication several times a day	10	10%
Putting Eye drops incorrectly without spilling	20	20%
Adapting to modifications in treatment regimen	20	20%

**Social impact of glaucoma aging population:**

The research focus on social impact of glaucoma on aging population which mainly includes psychological well being , daily activities, self image, burden of treatment, confidence in healthcare provision and anxiety in glaucoma patients . the results indicates that glaucoma affect all these factors positively. According to correlation analysis there is strong and direct positive affects of social factors which affects glaucoma.

	1	2	3	4	5	6	7	8
<b>GL</b>	1	0.96*						
<b>PWB</b>		1	.237					
<b>DRV</b>			1	.895				
<b>AT</b>				1	.697**			
<b>CIH</b>					1	.538*		
<b>BOT</b>						1	.837**	
<b>SI</b>							1	.828*
<b>DL</b>								1

**4. Discussion**

Glaucoma is one of the leading causes of permanent blindness. About 80 million of the world population suffers from glaucoma. Since it has no symptoms in the early stages, glaucoma is referred regarded as the ‘silent blinder’. The purpose of the study is to find the impact of glaucoma on aging populations. The study revealed that 64% of the patients among the given sample size were males while 36% were females. Demographics based on age showed that glaucoma prevailed more commonly in the age group of 50-60 years (91%), and 60-70 years (7%) . According to the findings of the study, 93% of the patients were married and 7% were single.

Results of my research indicated that daily life challenges included difficulties in reading small writing (20%), accurately locating points (5%), following screen movements (10%), identifying people at a distance (20%), performing daily activities (10%), receiving more help from others (10%),

tripping up (10%), and working differently (10%).

Driving problems were also manifested by the patients. Concerns regarding difficulty in driving during the daytime was reported by (20%) while night driving and driving for extended periods was complained by (50%) a nd (30%) respectively.

This results also indicates that psychological well being , daily life activities, self image , confidence in healthcare ,treatment burden and driving are significantly and positively impact by glaucoma

Confidence in healthcare is explored through regular checkups,adherence to ophthalmologist advice, perceived medication effectiveness, and the availability of sufficient information about eye diseases and treatments. The present study illuminates the complex psychological obstacles encountered by people with eye disorders, offering significant perspectives for medical practitioners and policymakers who want to augment support structures and augment the general welfare of this demographic.

**Conclusion:**

The investigation of the psychological ramifications of glaucoma uncovers a multifaceted network of obstacles that effect people from different backgrounds. The results highlight the psychological impact, everyday challenges, and medical costs incurred by glaucoma patients. A holistic approach to treating glaucoma is necessary due to the high frequency of anxiety, self-image issues, and difficulties in day-to-day living. This approach should prioritise practical assistance and emotional well-being in addition to treating the medical aspects of glaucoma. These findings may be used by policymakers and healthcare providers to better target treatments, improve patient education, and create a caring atmosphere that enables glaucoma patients to manage their illness with resilience and increased general well-being.

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