

# ASSESSING QUALITY OF LIFE IN PATIENTS WITH GLAUCOMA USING THE GLAUCOMA QUALITY OF LIFE-15 QUESTIONNAIRE

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## INTRODUCTION

Glaucoma is a chronic optic neuropathy, resulting in irreversible loss of the visual field and it is the second leading cause of irreversible blindness worldwide. Glaucoma is often asymptomatic and therefore recognized as the silent cause of blindness. It has a huge impact on a patient's life. Clinical measurements fail to fully describe activity limitations of glaucoma patients. Hence, a comprehensive assessment of the impact of the disease and its treatment on patients from their perspective has become important for the measurement of glaucoma impact and treatment outcomes.

A number of glaucoma-specific questionnaires or instruments have been developed in the past two decades. The Glaucoma Quality of Life-15 (GQL-15) questionnaire is concise and easy to administer.

It is a 15 item, 4- domain tool that is short and easy to use. The instrument is based on the premise that perceived visual disability (dark adaptation, glare, outdoor mobility tasks and activities using peripheral vision) is significantly associated with binocular visual field loss.

## AIM OF THE WORK

The aim of this study was to assess the quality of life (QOL) for Egyptian patients with glaucoma using GLAU-QOL15 -item questionnaire (the Arabic version with public Egyptian language adaptations).

## SUBJECTS AND METHODS

### Patients:

This cross sectional analytical study was conducted on 100 glaucoma patients who were previously diagnosed with glaucoma attending for regular follow up aged 18 years or more.

### Excluding:

- Pregnant females.
  - Patients with medical history of psychosis, pre psychotic illness.
  - Patients with impaired visual function for reasons other than glaucoma such as cataract and age related macular degeneration.
  - Patients with local ocular or systemic complications of diabetes mellitus.
- all patients included in the study will be subjected to:**

### Complete clinical ophthalmological examination including:

- Full medical and ophthalmological history.
- Best corrected visual acuity.
- Fundus examination.
- IOP measuring using GoldmannApplanation Tonometry.
- Gonioscopy.
- Visual field testing.
- An Arabic translation of GLAU-QOL15 item questionnaire will be presented to patients by the examiner.

## RESULTS

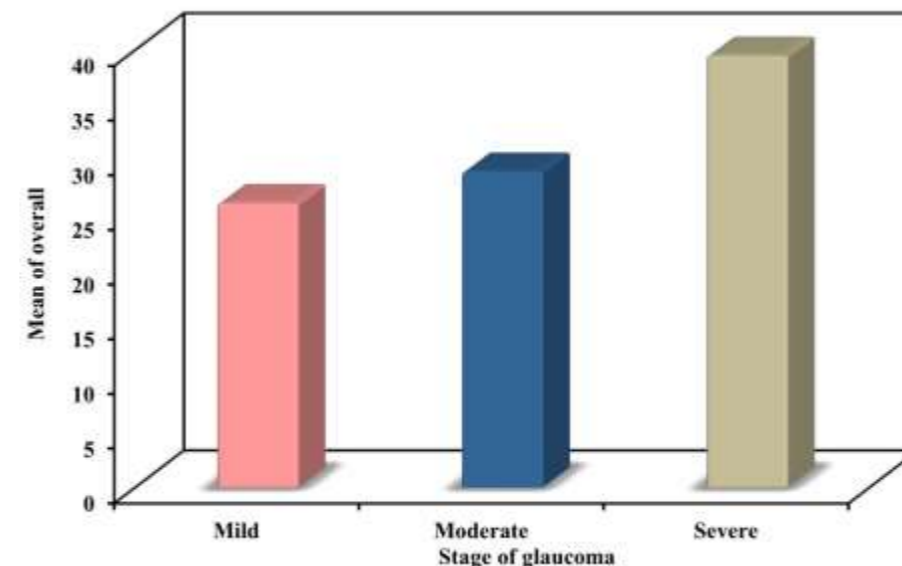


Figure: Comparison between the three studied groups according to overall score

Table: Comparison between the three studied groups according to total score of GQL-15 questionnaire

	Total (n = 100)	Stage of glaucoma			H	p
		Mild(n = 43)	Moderate (n = 23)	Severe (n = 34)		
<b>Peripheral vision</b>						
Range.	1.0 – 28.0	6.0 – 19.0	1.0 – 28.0	6.0 – 28.0	14.600*	0.001*
Mean ± SD.	11.71 ± 5.98	9.65 ± 3.51	10.78 ± 7.19	14.94 ± 6.35		
Median (IQR)	10.0(7.0–15.0)	8.0(7.0–12.0)	8.0(6.0–13.0)	13.50(10.0–21.0)		
Sig. bet. grps		p <sub>1</sub> = 0.856,p <sub>2</sub> <0.001*,p <sub>3</sub> = 0.004*				
<b>Dark adaptation and glare</b>						
Range.	0.0 – 26.0	6.0 – 22.0	0.0 – 25.0	7.0 – 26.0	19.660*	<0.001*
Mean ± SD.	13.28 ± 5.88	11.26 ± 4.41	11.87 ± 7.54	16.79 ± 4.66		
Median (IQR)	13.0(8.0–18.0)	10.0(8.0–14.0)	11.0(6.0–6.50)	16.0(13.0–20.0)		
Sig. bet. grps		p <sub>1</sub> = 0.766,p <sub>2</sub> <0.001*,p <sub>3</sub> = 0.001*				
<b>General and near vision</b>						
Range.	0.0 – 10.0	1.0 – 8.0	0.0 – 9.0	1.0 – 10.0	8.977*	0.011*
Mean ± SD.	4.12 ± 2.40	3.51 ± 2.13	3.96 ± 2.57	5.0 ± 2.42		
Median (IQR)	4.0(2.0–6.0)	3.0(2.0–4.50)	3.0(2.0–5.0)	4.0(4.0–7.0)		
Sig. bet. grps		p <sub>1</sub> = 0.369,p <sub>2</sub> = 0.003*,p <sub>3</sub> = 0.094				
<b>Outdoor mobility</b>						
Range.	0.0 – 5.0	0.0 – 5.0	0.0 – 5.0	1.0 – 5.0	11.611*	0.003*
Mean ± SD.	2.13 ± 1.50	1.56 ± 1.10	2.26 ± 1.68	2.76 ± 1.56		
Median (IQR)	1.0(1.0–3.50)	1.0(1.0–2.0)	1.0(1.0–4.0)	3.0(1.0–4.0)		
Sig. bet. grps		p <sub>1</sub> = 0.125,p <sub>2</sub> = 0.001*,p <sub>3</sub> = 0.154				
<b>Overall</b>						
Range.	1.0 – 64.0	15.0 – 43.0	1.0 – 62.0	20.0 – 64.0	19.136*	<0.001*
Mean ± SD.	31.24 ± 14.04	25.98 ± 9.46	28.87 ± 17.75	39.50 ± 12.53		
Median (IQR)	29.0(20.0–39.0)	22.0(18.0–35.0)	22.0(16.0–39.0)	37.0(29.0–49.0)		
Sig. bet. grps		p <sub>1</sub> = 0.508,p <sub>2</sub> <0.001*,p <sub>3</sub> = 0.003*				

## CONCLUSION

Glaucoma significantly reduces quality of life in patients and every effort should be made to preserve visual function in them. Quality of life assessments help treating physicians to better appreciate the impact of a disease from the patient's own point of view and suggest priority areas in the individual management plan of patients.