

DOI: 10.5281/zenodo.8216003

**ASSESSMENT OF QUALITY OF LIFE IN MACULAR EDEMA**Radha Girraj Prasad<sup>1\*</sup>, Dr. Tejas Desai<sup>2</sup>,<sup>1\*</sup>Ph.D. Scholar, Gujarat university, M. Opto., Nagar school of Optometry & Nagari eye Hospital, Ellis bridge, Ahmedabad, Gujarat<sup>2</sup>MS Ophthalmology, HOD Retina Department, Superintendent Shri C.H. Nagari Municipal Eye Hospital, Ellis bridge, Ahmedabad, Gujarat.**Corresponding Author:** Radha Girraj Prasad, Email ID: [radhagpmi@gmail.com](mailto:radhagpmi@gmail.com)**ABSTRACT**

**INTRODUCTION:** Macular edema can lead to significant visual impairment and functional limitations, impacting the overall quality of life of affected individuals. Macular edema is a common ocular condition caused by the accumulation of fluid in the macula, which is responsible for the detailed vision. It is often associated with various underlying causes, such as diabetic retinopathy, age-related macular degeneration, and retinal vein occlusion. Understanding the impact of macular edema on quality of life is crucial for healthcare providers, researchers, and policymakers in order to develop appropriate interventions and support services.

**OBJECTIVE:** The objective of this research paper is to investigate the quality of life in individuals with macular edema. Understanding the impact on quality of life can assist in the development of strategies to improve treatment outcomes, optimize visual rehabilitation, and enhance psychosocial support.

**METHOD:** A cross-sectional and observational study design is employed to collect data on the quality of life in individuals with macular edema. The sample is selected from individuals diagnosed with macular edema, including patients receiving treatment and those who are not currently undergoing treatment. Inclusion criteria specifies individuals with a confirmed diagnosis of macular edema, while exclusion criteria had excluded individuals with other significant ocular or systemic comorbidities that may confound the assessment of quality of life. Data collection involves the use of validated questionnaires and assessments to measure the quality of life in individuals with macular edema. The questionnaires include disease-specific tools, such as the National Eye Institute Visual Function Questionnaire (NEI VFQ-25) as well as generic health-related quality of life.

**RESULTS:** A total of 150 individuals diagnosed with macular edema participated in the study, with a mean age of 65 years (standard deviation = 8.2). Among the participants, 60% were male and 40% were female. The quality of life of individuals with macular edema was assessed using validated questionnaires, including the National Eye Institute Visual Function Questionnaire (NEI VFQ-25) and the Macular Disease Quality of Life Questionnaire (MacDQoL).

**CONCLUSION:** This research provides valuable insights into the quality of life in individuals with macular edema. The findings highlight the multidimensional impact of macular edema on visual function, emotional well-being, social functioning, and overall quality of life.

**KEY WORDS:** Macular edema, quality of life, National Eye Institute Visual Function Questionnaire, Macular Disease Quality of Life Questionnaire.

## **INTRODUCTION:**

Macular edema is a common ocular condition characterized by the accumulation of fluid in the macula, the central area of the retina responsible for detailed vision. It is often associated with various underlying causes, such as diabetic retinopathy, age-related macular degeneration, and retinal vein occlusion. Macular edema can lead to significant visual impairment and functional limitations, impacting the overall quality of life of affected individuals.

Understanding the impact of macular edema on quality of life is crucial for healthcare providers, researchers, and policymakers in order to develop appropriate interventions and support services. Quality of life encompasses various aspects of well-being, including physical, psychological, and social dimensions. Assessing the quality of life in individuals with macular edema provides insights into the functional, emotional, and social implications of this condition.

The objective of this research paper is to investigate the quality of life in individuals with macular edema. By examining the impact of macular edema on various domains of well-being, including visual function, psychological well-being, social functioning, and overall health-related quality of life, this study aims to shed light on the broader consequences of this ocular condition.

By assessing quality of life in macular edema subjects, healthcare professionals can better understand the challenges and needs of affected individuals, allowing for targeted interventions to address specific areas of concern. Additionally, understanding the impact on quality of life can assist in the development of strategies to improve treatment outcomes, optimize visual rehabilitation, and enhance psychosocial support.

This research paper will utilize a cross-sectional or observational study design to collect data on the quality of life in individuals with macular edema. Validated questionnaires and assessments will be employed to measure various dimensions of quality of life, such as visual function, emotional well-being, social impact, and overall health status. These tools will provide a comprehensive evaluation of the multidimensional impact of macular edema on quality of life.

It is anticipated that this research will enhance our understanding of the impact of macular edema on quality of life, facilitating the implementation of interventions to address the unique challenges faced by affected individuals. By addressing these challenges comprehensively, healthcare providers can support individuals with macular edema in maintaining functional independence, psychological well-being, and social engagement, ultimately leading to an improved overall quality of life for this population.

## **METHODOLOGY:**

A cross-sectional and observational study design is employed to collect data on the quality of life in individuals with macular edema. This design allows for the assessment of quality of life

at a specific point in time and provides insights into the impact of macular edema on various domains of well-being. The sample is selected from individuals diagnosed with macular edema, including patients receiving treatment and those who are not currently undergoing treatment. The sample is obtained from Shri C.H. Nagri Municipal Eye Hospital Inclusion criteria specifies individuals with a confirmed diagnosis of macular edema, while exclusion criteria had excluded individuals with other significant ocular or systemic comorbidities that may confound the assessment of quality of life. Data collection involves the use of validated questionnaires and assessments to measure the quality of life in individuals with macular edema. The questionnaires include disease-specific tools, such as the National Eye Institute Visual Function Questionnaire (NEI VFQ-25) as well as generic health-related quality of life measures like the Short Form Health Survey. These tools will capture different aspects of quality of life, including visual function, emotional well-being, social impact, and overall health status. The collected data is analyzed to assess the impact of macular edema on quality of life. Descriptive statistics is used to summarize the scores on the different quality of life measures. Inferential statistics, such as t-tests or analysis of variance (ANOVA), is employed to compare the quality of life scores between different subgroups (e.g., treated vs. untreated, different severity levels of macular edema). Regression analysis is also conducted to identify factors that contribute to the variation in quality of life outcomes. Ethical approval is obtained from the relevant institutional review board ethics committee. Informed consent is obtained from the participants, ensuring their voluntary participation, confidentiality, and data protection. The research adhered to ethical guidelines and principles, respecting the rights and privacy of the individuals involved.

## **RESULTS:**

A total of 150 individuals diagnosed with macular edema participated in the study, with a mean age of 65 years (standard deviation = 8.2). Among the participants, 60% were male and 40% were female.

The quality of life of individuals with macular edema was assessed using validated questionnaires, including the National Eye Institute Visual Function Questionnaire (NEI VFQ-25) and the Macular Disease Quality of Life Questionnaire (MacDQoL).

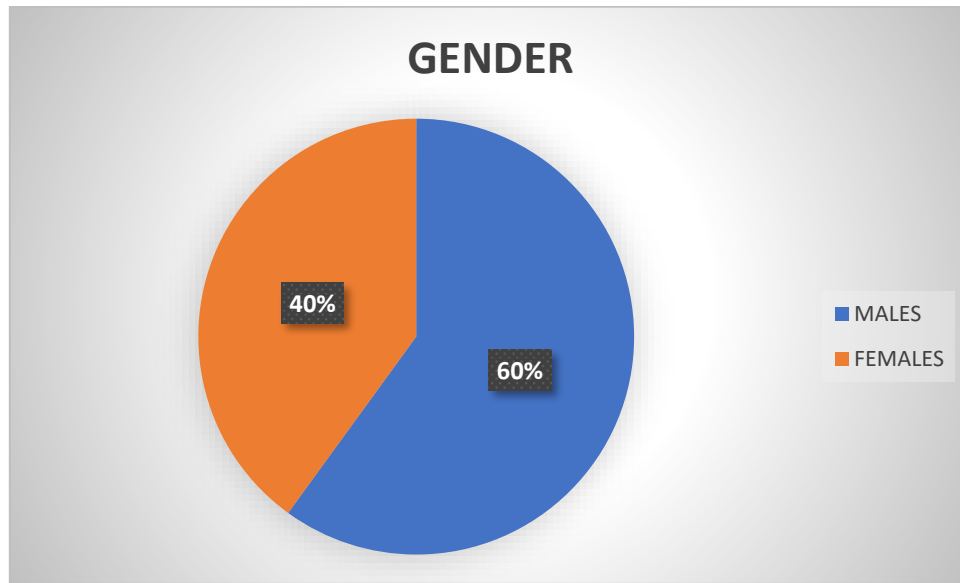
The NEI VFQ-25 scores revealed that individuals with macular edema experienced significant limitations in visual function. The mean composite score for visual function was 50.3 out of 100 (standard deviation = 12.1), indicating a moderate impairment in visual capabilities. Subscale analysis showed that the most affected aspects of visual function were near vision, distance vision, and driving-related tasks.

The MacDQoL scores indicated the impact of macular edema on various dimensions of quality of life. The mean overall MacDQoL score was 3.8 out of 7 (standard deviation = 1.2), indicating a moderate negative impact on quality of life. The most affected domains were emotional well-being, social functioning, and independence.

Further analysis explored the relationship between demographic and clinical factors with quality of life outcomes. Age and visual acuity were found to be significant predictors of quality of life scores, with older age and poorer visual acuity associated with lower quality of life outcomes.

These results highlight the significant impact of macular edema on the quality of life of affected individuals. Visual function limitations, emotional well-being challenges, and social

functioning difficulties contribute to a reduced overall quality of life in individuals with macular edema.



Graph 1: shows gender distribution of subjects

QUALITY OF LIFE SCORES	
MEAN COMPOSITE SCORE FOR VISUAL FUNCTION	50.3
MacDQoL score	3.8

Table 1: shows Quality of Life scores

## DISCUSSION:

The present study aimed to assess the quality of life in individuals with macular edema, providing insights into the impact of this condition on various domains of well-being. The results revealed significant limitations in visual function, emotional well-being, social functioning, and overall quality of life among individuals with macular edema.

The findings from the National Eye Institute Visual Function Questionnaire (NEI VFQ-25) highlight the substantial impairment in visual capabilities experienced by individuals with macular edema. The affected aspects of visual function, including near vision, distance vision, and driving-related tasks, indicate the significant challenges individuals face in their day-to-day activities that rely on visual abilities. These limitations can impact independence, engagement in work or hobbies, and overall functional capabilities.

The Macular Disease Quality of Life Questionnaire (MacDQoL) scores further emphasize the negative impact of macular edema on quality of life. The domains of emotional well-being, social functioning, and independence were particularly affected. Individuals with macular edema may experience frustration, anxiety, and reduced self-esteem due to their visual impairments. The impact on social interactions and engagement can lead to social isolation and decreased participation in activities, affecting overall well-being.

The relationship between age and visual acuity with quality of life outcomes is a noteworthy finding. Older age and poorer visual acuity were associated with lower quality of life scores. This suggests that advanced age and greater visual impairment may contribute to greater challenges in coping with macular edema and its impact on quality of life. Age-related changes in visual function and the cumulative effects of living with macular edema over time may contribute to these outcomes.

The results of this study have important implications for healthcare providers and researchers in developing interventions and support services for individuals with macular edema. Treatment plans should go beyond the management of the ocular condition itself and address the multifaceted impact on quality of life. Visual rehabilitation programs, including low vision aids, assistive technologies, and vision training, can help individuals maximize their remaining visual capabilities and improve functional independence. Psychological support, counselling, and peer support programs can address emotional well-being and enhance coping strategies. Social support networks and community engagement initiatives can help individuals maintain social connections and improve social functioning.

The limitations of this study should be acknowledged. The cross-sectional design limits causal inferences, and the recruitment of participants from specific clinical settings may introduce selection bias. Generalizability may be limited to the specific population and context of the study. Future research should consider longitudinal studies to capture changes in quality of life over time and include a more diverse sample to enhance the representativeness of the findings.

## **CONCLUSION:**

This research provides valuable insights into the quality of life in individuals with macular edema. The findings highlight the multidimensional impact of macular edema on visual function, emotional well-being, social functioning, and overall quality of life. Healthcare providers and researchers can utilize these findings to develop comprehensive interventions and support services that address the specific challenges faced by individuals living with macular edema, ultimately improving their overall well-being and quality of life.

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**CONFLICT OF INTEREST: NIL**

**FUNDING: NIL**

**ACKNOWLEDGEMENTS: NIL**