

# ASSOCIATION OF DEPRESSION IN PEDIATRIC AND ADULT PATIENTS WITH CONGENITAL OR ACQUIRED VISION LOSS

Dina Akhdar, Azra Fazil Jamal, Emily Aslakson, OD  
Michigan College of Optometry

FERRIS STATE  
UNIVERSITY

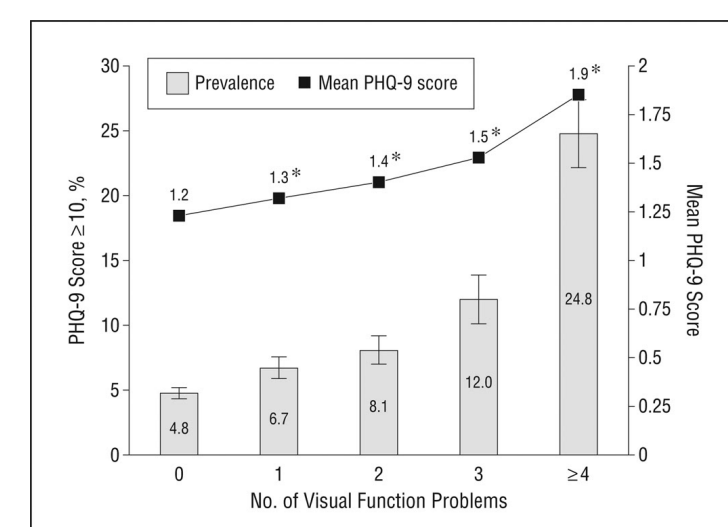
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## Introduction

- Hereditary retinal dystrophies interfere with visual function and pose a great challenge for affected patients.
- With no cure, patients often look to low vision and occupational therapists for help at home and in professional environments. Many are often left distressed with an unsure prognosis.
- It is no surprise that this immense impact on vision in an individual's life, let alone a child's, has been associated with depression.
- This literature review is aimed to demonstrate the relationship between depression and congenital or acquired vision loss in pediatric and adult patients.

## Methods

- Relevant research articles were collected from credible online journals of science and/or medicine.
- A total of 10 articles outlining the effect vision loss has on an individual's mental state were reviewed.
- It was ensured that all sources were published no older than 13 years ago.
- Some of these articles include conducted studies and others were literature reviews themselves.
- Similarities and dissimilarities between these sources were reviewed, analyzed, and condensed into one review outlining whether a significant relationship exists between depression and patients with vision loss from retinal hereditary disorders or from acquired conditions.



The above table demonstrates weighted percentages of depression (PHQ-9 score  $\geq 10$ ) from the NHANES 2005-2008. “\*P < 0.01 for comparison with mean PHQ-9 score by number of visual function problems.”<sup>1</sup>

## Results

- The prevalence of depression in individuals suffering from congenital hereditary retinal disorders or acquired conditions was higher than in those who did not suffer from the same diseases. Furthermore, there was a positive relationship between the progression of vision loss and depression.<sup>1</sup>
- The prevalence of depression in one study analyzing patients diagnosed with Retinitis Pigmentosa (RP) was “25.7%, much higher than the 10% prevalence in the general population”.<sup>4</sup>
- A cross-sectional study of 40 blind vs. 40 sighted students (mean age of 12.82 +/- 1.7 years) demonstrated that when compared to their sighted peers, visually impaired adolescents have similar depression levels and self-concept characteristics, however they tend to have higher levels of anxiety.<sup>6</sup>
- A study surveying 40 students enrolled in a school for the blind in Bahawalpur, Pakistan showed that with a lack of visual input, limited level of physical exercise, and the perception of reduced attractiveness and abilities, students with visual impairment are more likely to be isolated from their normal sighted peers.<sup>7</sup>
- In one study, patients diagnosed with ARMD from specialized retinal disease clinics in France, Germany, and Italy revealed that “self-rated depression in patients with AMD was associated with VA severity level.”<sup>10</sup>
- Individuals surveyed using the NHANES by the CDC proved that those affected by the ability to perform activities of daily living (ADLs) such as driving, writing a check, reading labels on medications, recognizing faces, etc. were more prone to being depressed than those who were not.<sup>1</sup>
- An article analyzing longevity and its effect on vision loss and depression demonstrated that roughly one third of visually impaired individuals and those suffering of disabling ocular diseases experience mild depressive manifestations, while 10.7-45.2% of study samples demonstrate clinically significant moderate-to-severe depressive manifestations.<sup>11</sup>
- A cross-sectional study analyzing vision loss and depression in those over the age of 60 or older revealed that the prevalence of major depressive and anxiety disorders, as well as the prevalence of subthreshold depression and anxiety, were significantly higher in visually impaired older adults as compared to their sighted peers.<sup>12</sup>

## Conclusions

- The relationship between mental health and vision loss is crucial to understand in both adult and pediatric patients.
- Given this relationship, it is recommended that optometrists screen patients with vision loss for depressive symptoms at yearly eye examinations using clinically validated surveys such as the PHQ-A for pediatric patients and the PHQ-9 for adult patients.
- Better understanding of how congenital or acquired vision loss impacts patients' mental health will allow optometrists to more effectively coordinate interprofessional care that is centered around the patient and their needs.
- Increased awareness of depression possibly linked with visually devastating hereditary or acquired diseases can foster compassionate doctor-patient interactions, improve low vision rehabilitation outcomes, and facilitate patient education.

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