

## THE PHARMA INNOVATION - JOURNAL

# To study quality of life assessment and comparison across various forms of low vision

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**Background:** There are 0.7% blind people and 4.6% people with eye problems for every 100 people in India. The study's goal was to look at and compare the quality of life of people with different types of poor vision.

**Materials and Methods:** This study had two cohorts of 80 patients each who attended the outpatient department of the Kamineni Institute of Medical Sciences, Narketpally, Telangana, India. This study was conducted between February 2012 to January 2013. Category 1 comprised eighty patients with low eyesight classified as having minor visual impairment. Category 2 comprised eighty age-matched patients with significant visual impairment.

**Results:** When comparing the two groups, the mean of a number of IOL-related questions asked during the study time was found to be statistically significant. It shows that people in Category 2 have more trouble reading normal newspaper text, watching how other people react to situations, going to street fairs and events, and reaching their full potential because they have visual impairments. Their view made them too dependent on other people.

**Conclusions:** Both categories of patients have a lower quality of life because of their bad vision, but category 2 patients have a harder time reading and need more help when they are outside because of their eye condition.

*Keyword:* Quality of life, categories, low vision, blindness

### Introduction

Visual disability includes both being blind and having trouble seeing. Visual acuity in the better eye between 6/24 and 6/60 is considered category 1 bad vision, and visual acuity below this level is considered category 6. It is estimated that 0.7% of people in India are blind and 4.6% of people with vision impairment are blind. It is believed that 285 million people around the world have trouble seeing, and 39 million are blind<sup>[1-3]</sup>.

Uncorrected refractive flaws and cataracts are the main reasons why people can't see well. Cataracts are the most common reason people go blind. Eighty percent of the world burden is caused by things that can be avoided. Vision is important for doing well in both social and practical areas

of life<sup>[2-4]</sup>. Vision is responsible for about 80% of the functions of all five senses put together. So, visual impairment limits all areas of life, including VRQOL, by limiting activities related to moving around, having fun, daily tasks, religious and social participation, and jobs that require a lot of visual effort. Visual impairment is also linked to worry, dissatisfaction, and sadness because of the impairment itself, as well as the fear that the disease may get worse or the difficulties of getting used to doing less<sup>[5-7]</sup>. Eye pain, doing things close up and far away, socializing, mental health, role problems, dependence, driving, color perception, peripheral vision, general health, and visual acuity. In India, the most common reasons people can't see clearly

are cataracts, refractive errors [6-8], glaucoma, problems with the posterior segment, and problems during surgery, corneal blindness, and posterior capsular opacification. As far as we know, these questionnaires have not been used in any study that looked at the link between quality of life and worsening eyesight in patients [7-9]. The goal of this study is to find out how satisfying life is for people who have trouble seeing.

**Materials and Methods**

Two groups of 80 patients each came to the outpatient area of the Kamineni Institute of Medical Sciences, Narketpally, Telangana, India, for this study. This study was conducted at February 2012 to January 2013. 80 people with low vision were in Category 1, which was called "minor visual impairment." Eighty patients of the same age who had serious visual impairment made up Category 2. Category 1 included 80 adults over 21 who went to the outpatient service and had vision in their better eye ranging from 6/24 to 6/60.

**Results**

The biggest percentages of Category 1 patients who did not need glasses or contacts for their right eye exams were 6/24, 6/60, and

6/36, which is 23%, 24%, and 17%, respectively. In Category 2, on the other hand, most of the patients had vision scores of 3/60, 4/60, and 5/60, which means 16%, 35%, and 27%, respectively. In the same way, looking at the left eyes of Category 1 patients showed that the largest percentages had vision scores of 6/24, 6/36, and 6/60, which are 33%, 18%, and 21%, respectively. Compared to Category 1, most of the patients in Category 2 had vision scores of 3/60, 4/60, or 5/60, which is equal to 18%, 33%, or 34%, respectively. One subject from each of Categories 1 and 2 had one eye that did not test positive for PL.

This is one of many problems that happen in Indian jails, such as not enough food and not enough air flow. Human Rights Watch has said that India has high rates of cancer. In this study, 60 people with Category 1 cataracts and 70 people with Category 2 cataracts took part. Seven percent of those in Category 1 and six percent of those in Category 2 had lenticular and corneal opacities, and three percent and two percent of those in both groups had problems with their corneas. A study of the number of people with HIV in Indian jails found that 9.5% of female inmates and 1.7% of male inmates had the virus. The national rate of HIV in women is only 0.22% and the national rate for men is 0.32%.

**Table 1:** Compare questionnaire mean scores across two categories

Sr. No.	Questionnaires	Category 1 (Mean ± SD)	Category 2 (Mean ± SD)
1	Q.1	35.26±16.12	39.66±16.45
2	Q.2	32.21±14.80	38.12±31.50
3	Q.3	40.3±31.78	4133±21.32
4	Q.4	85.31±21.39	81.41±21.33
5	Q.5	61.34±32.71	35.33±30.34
6	Q.6	46.24±29.80	43.88±41.21
7	Q.7	40.33±34.88	41.33±41.52
8	Q.8	45.88±31.74	45.70±30.60
9	Q.9	41.22±46.55	40.51±41.90
10	Q.10	54.12±45.78	52.33±11.23
11	Q.11	81.42±33.45	61.88±33.52

The mean comparison of the different questions asked during the study time is shown in Table 1. Question 5 and 11 from Part 1 of the different surveys were found to be statistically significant

when two groups were compared. It means that people in Category 2 have more trouble reading standard newspaper text, figuring out how other people are reacting to situations, going to street

fairs and festivals, not reaching their full potential because of their vision problems, relying too

much on other people's opinions, and needing a lot of help because of their eyesight.

**Table 2:** Compare questionnaire mean scores across two categories

Sr. No.	Questionnaires	Category 1 (Mean ± SD)	Category 2 (Mean ± SD)
1	A.1	39.66±16.45	35.26±16.12
2	A.2	38.12±31.50	32.21±14.80
3	A.3	4133±21.32	40.3±31.78
4	A.4	81.41±21.33	85.31±21.39
5	A.5	35.33±30.34	61.34±32.71
6	A.6	43.88±41.21	46.24±29.80
7	A.7	41.33±41.52	40.33±34.88
8	A.8	45.70±30.60	45.88±31.74
9	A.9	40.51±41.90	41.22±46.55
10	A.10	52.33±11.23	54.12±45.78
11	A.11	61.88±33.52	81.42±33.45

In Table 2, you can see how the means of the different surveys used in this study compare. Parts 1A.3, 1A.6, and 1A.7 show examples of questions that show differences between the two groups that are statistically significant. People

who rate in Category 2 on the VFQ-11 have more trouble reading small print on legal papers, phone books, and medicine labels when they wear glasses.

**Table 3:** Two categories had significant questionnaire mean scores

Sr. No.	Questionnaires	Category 1 Mean±SD	Category 2 Mean±SD
1	Q.5	61.34±32.71	4133±21.32
2	Q.11	46.24±29.80	81.41±21.33
3	Q.8	40.33±34.88	35.33±30.34
4	Q.9	45.88±31.74	43.88±41.21
5	Q.4	41.22±46.55	41.33±41.52
6	A.3	54.12±45.78	45.70±30.60
7	A.6	61.34±32.71	40.51±41.90
8	A.7	46.24±29.80	52.33±11.23

Sports or hobbies that require a lot of physical effort or time spent outside may be hard to do, as well as recognizing friends from a distance. The other surgeries were not very important. Table 3 only shows the surveys' important mean scores.

## Discussion

Part 1 was statistically significant based on the comparison of the means of the different questionnaires that were looked at during the study time. It shows that Category 2 people have more trouble reading standard print in newspapers, deciphering small print in phone books, on medicine containers, or on legal documents while wearing glasses, judging how other people are reacting in different situations,

going to street fairs and festivals <sup>[10-12]</sup>, not reaching their full potential because of visual impairments, relying too much on what others say, and needing a lot of help because of their eyesight <sup>[13-15]</sup>.

People who are in Category 2 of the NEI-VFQ-11 have more trouble recognizing familiar faces from far away and doing their favorite sports or outdoor activities, like walking or running. The rest of the treatments were not very important. There have been many studies done in and outside of India, mostly in South India, that look at the validity and trustworthiness of the NEI-VFQ-11. The NEI-VFQ for measuring the quality of life of people who are blind or have low vision

has been defined and translated into many languages around the world <sup>[16-18]</sup>.

Our search turned up one study that focused on glaucoma patients, even though there aren't many studies like this one. The researchers came to the conclusion that glaucoma patients had lower scores on the NHANES for peripheral and distance vision. However, their overall VFQ-9 results were the same as those of the control group. It doesn't matter if a person has clinical signs of glaucoma; just thinking that they have been identified with the disease lowers their quality of life. The VFQ-9 is a suggested tool for measuring the quality of life of people with glaucoma in large-scale population-based studies. Because this is the first study of its kind to be done in a North Indian village and got those results, it can't be compared to other studies that have already been done <sup>[18-20]</sup>.

People in group two are more worried about making mistakes in social situations where there isn't a lot of direct light. People in Category 2 feel sad or depressed because they can't see well in low light, they can't reach all of their goals, and they can't help others as much as they'd like to. The quality of life in both groups was also looked at in this study. In the same way, people in Category 2 had problems with their corneas. A posterior section was seen in 4% of patients in Category 1 and 5% of patients in Category 2. Most patients' vision problems were caused by things that could be treated <sup>[21-23]</sup>.

### Conclusion

As the eyesight of both groups deteriorates, the quality of life suffers, according to the study's findings. It was more difficult for people in category 2 with significant visual impairments to read ordinary newspaper text, understand how others were responding, participate in street fairs and festivals, and perform to their potential due to their reliance on others' words. Because of their vision impairments, they also required substantial assistance. Individuals in group 2 not only struggle with distant face recognition, but they also find it challenging to participate in sports and other outdoor activities that bring them joy. The small print in phone books, on medicine

containers, and on legal papers becomes more difficult to see when they wear glasses. None of the other therapies really mattered. Persons in Category 2 have a more difficult time with the following vision impairments: driving in the dark, navigating dimly lit theaters, distinguishing between colors at night, finding dark furniture in dimly lit rooms, seeing in candlelight, having problems in bright sunlight, observing in darkness, driving in the rain at night, and operating vehicles at dawn or dusk due to glare.

### Conflict of Interest

None

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Nil

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