

**Psychiatric co-morbidities in patients with Functional Visual Loss**

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**How to citation this article:** Dr. Pallavi Sharma, Dr. Kanavdeep Kapoor, Dr. Dinesh Malhotra, Dr. Seema Sharma, Dr. Deepak Kapoor, Sarthak Sharma, Anisha Kapoor, “Psychiatric co-morbidities in patients with Functional Visual Loss”, IJMACR- September – October - 2022, Vol – 5, Issue - 5, P. No. 178 – 183.

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**Type of Publication:** Original Research Article

**Conflicts of Interest:** Nil

**Abstract**

A decrease in visual acuity or a field defect in the absence of an organic pathological cause is known as the Functional visual loss (FVL). The visual impairment put a great impact on each aspect of human life. It results in poor quality of life of affected individuals. FVL is the major health concern globally which put a great impact on emotional, social and economic aspects of an individual’s life. The patient with functional visual loss suffers from loneliness, social isolation, anxiety, fear and psychological distress. The present study aimed to study psychiatric co-morbidities in patients with Functional Visual Loss. In this prospective cross-sectional a total of 50 patients with functional visual loss (FVL – bilateral involvements of eyes) were involved. The result showed that the majority of the patients were in the 28-37 years

age group with the male female ratio 1.27:1. A statistically significant association was found among psychiatric co-morbidities with age of the patient, gender, marital status, occupation and family type. The study concluded that the functional visual loss results in significant psychiatric manifestations and co-morbidities in study subjects.

**Keywords:** Psychiatric illnesses, Ophthalmologic problems, Co-morbidities & Vision loss.

**Introduction**

The Vision 2020: The right to sight, is a global initiative for preventing the avoidable blindness.<sup>1</sup> Globally around 2.2 billion people have vision impairment. Among these 2.2 patients, the most of the patients (1 billion) are affected with moderate or severe distance vision

impairment or blindness (associated with refractive errors). The old age people are commonly affected.<sup>2</sup>

A decrease in visual acuity or a field defect in the absence of an organic pathological cause is known as the Functional visual loss (FVL). The prevalence of FVL is increasing gradually around 1.7% globally and it is estimated that the prevalence of FVL is 24.5% in India.<sup>3</sup>

The visual impairment put a great impact on each aspect of human life. It results in poor quality of life of affected individuals. The various studies have reported that the visual impairments / functional visual loss is associated with fall injuries, decreased self-care deficits, impaired daily routine activities and increases the dependency level which also results in low self-esteem among patients.<sup>4</sup>

It was reported that the FVL is deteriorating the overall health of the patients. Further, FVL is the major health concern globally which put a great impact on emotional, social and economic aspects of an individual's life.<sup>5</sup>

The patient with functional visual loss suffers from loneliness, social isolation, anxiety, fear and psychological distress. Among most of the patient's; depression was the common co-morbid illness. About one-third of people with visual impairment experience subthreshold depression and anxiety, while around 5% to 7% have a major depressive disorder and 7% have an anxiety disorder.<sup>6,7</sup>

Thus, the present study was undertaken to analyse the psychiatric co-morbidities in functional visual loss.

### **Aims and Objectives**

To study psychiatric co-morbidities in patients with Functional Visual Loss.

### **Material and methods**

The present prospective cross-sectional study was conducted in the Department of Psychiatry at Acharya

Shri Chander College of Medical Sciences and Hospital, Jammu, during the period of 1 year (May 2021 to April 2022) after obtaining approval from the institute ethical committee.

A total of 50 patients with functional visual loss (FVL – bilateral involvements of eyes) were involved in the study after obtaining the informed consent.

### **Inclusion criteria**

1. All age groups.
2. Patients presented to ophthalmology OPD with functional visual loss.

### **Exclusion criteria**

1. Patients with ocular injuries and with other ocular diseases.
2. Patients who were not willing to participate.
3. Patients with vision loss due to neurological pathology.

A detailed history was taken from all the patients and full ophthalmic examination including; torch light examination, slit lamp examination, fundus examination, visual acuity, refraction test, optokinetic nystagmus test, finger to finger test, menace reflex, bar reading tests and mirror test were done. All the patients underwent clinical examination and diagnosis on the basis of psychiatric interview with valid clinical scales.

The data was recorded into the Microsoft excel sheet and coded or decoded for withdrawing the inferences. Statistical package for social science software (SPSS), version 22 was used to analyse and interpret the data. Chi-square was done to determine the association of psychiatric co-morbidities with demographic variables among patients with significant functional visual loss.

### **Observation and Results**

Age range was from 18 to 57 years; the youngest patient was 18 years old and the oldest was 57 years old with

maximum cases were found in the age range of 28-37 years as depicted in table no. 1.

Table 1: Age distribution

Years	No. of cases	Percentage
<18	0	0
18-27	12	24
28-37	27	54
38-47	6	12
48-57	5	10
58-67	0	0
> 67	0	0

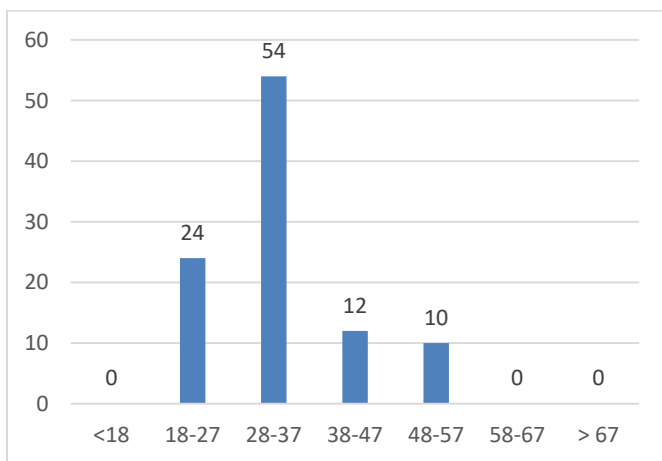


Figure 1: Age distribution

In the present study majority of the cases were males 56% and 44% cases were females with the male female ratio of 1.27:1 as depicted in table no. 02.

Table 2: Gender distribution

Gender	No. of cases	Percentage
Male	28	56
Female	22	44

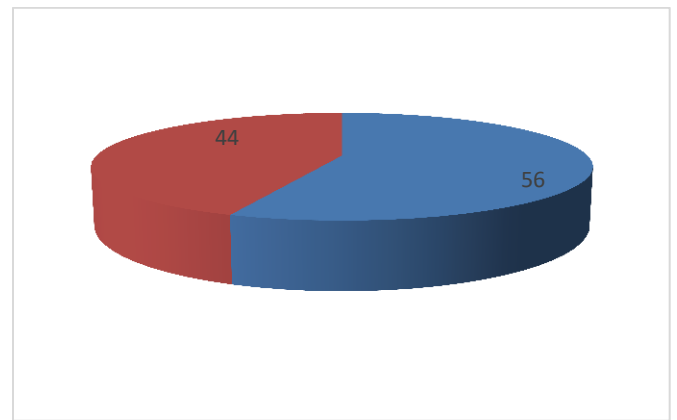


Figure 2: Gender distribution

In the present study 78% patients were married, followed by unmarried (18%) and others (4%) as shown in figure 3.

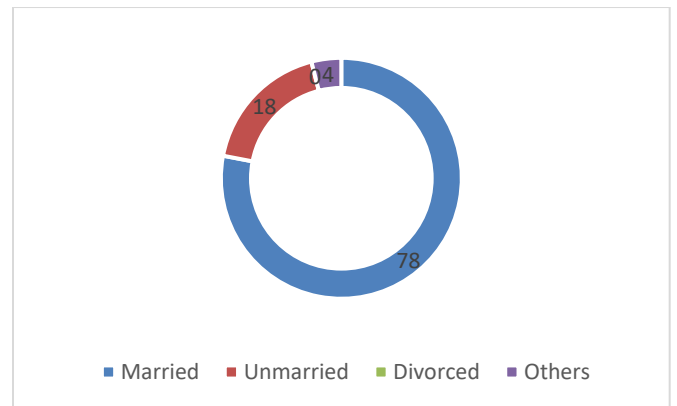


Figure 3: Marital status

The study represent that the majority of the patients were from rural area and were living in a joint family as depicted in table 3.

Table 3: Residence and Family type

Residence	Percentage	Family type	Percentage
Rural	53	Nuclear	42
Urban	47	Joint	58

In the present study the majority of the study participants were unemployed (52%) as depicted in table 4.

Table 4: Occupation

Occupation	Number	Percentage
Employed	2	4
Unemployed	26	52

House wife	6	12
Labourer	4	8
Businessman	2	4
Student	1	2
Miscellaneous worker	9	18

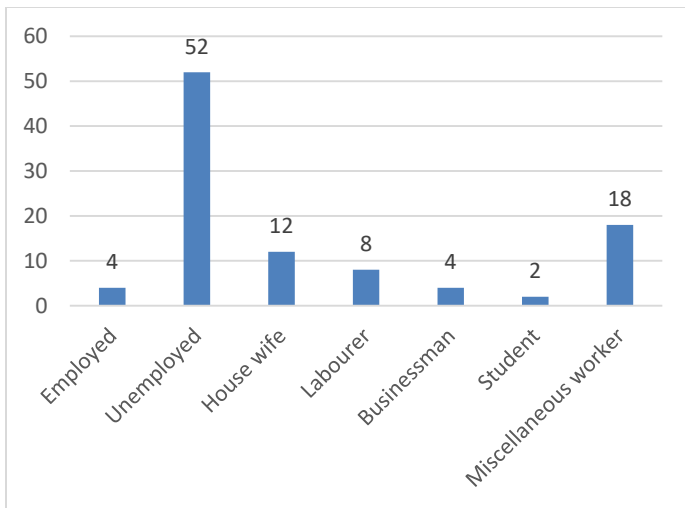


Figure 4: Occupation

Table 5 depicted the socio-economic status. Majority of the study participants were from middle class (56%), followed by low class (34%) and high class (10%).

Table 5: Socio-economic status

Socio-economic status	Number	Percentage
Low	17	34
Middle	28	56
High	5	10

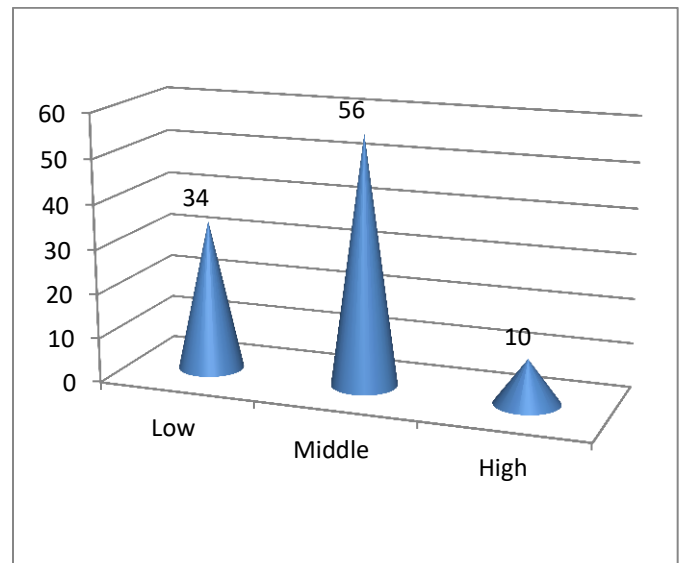


Figure 5: Socio-economic status

The findings indicated that all 24% patients had FNSD (Conversion disorder, sensory symptoms) and mostly unmarried females reported with FNSD, 12% had major depressive disorder, 2% had malingering and 1% had factitious disorder as shown in table 6.

Table 6: Psychiatric co-morbidities / manifestations

Psychiatric co-morbidities /manifestations	Number	Percentage
FNSD (Conversion disorder, sensory symptoms)	12	24
Major depressive disorder	6	12
Malingering	2	4
Factitious disorder	1	2

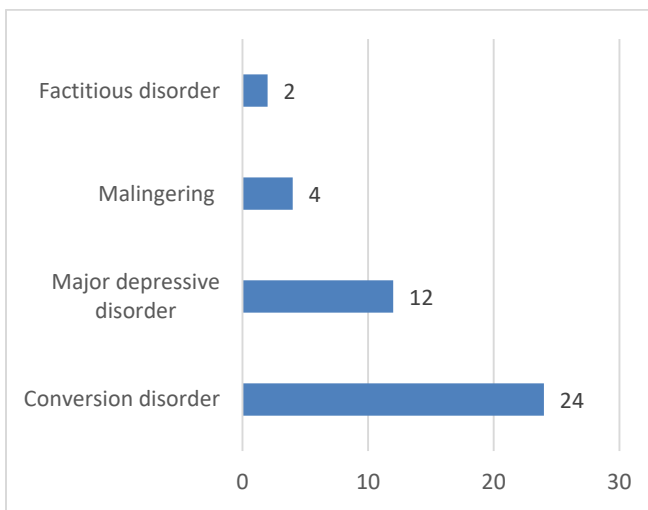


Figure 6: Psychiatric co-morbidities / manifestations

The present study further observed the statistically significant association among psychiatric co-morbidities with age of the patient, gender, marital status, occupation and family type ( $P < 0.05$ ) among patients with functional visual loss.

### Discussion

The present study analysed the psychiatric co-morbidities among 50 patients with functional visual loss. The data was analysed and discussed with previous literature.

In the present study the majority of the patients were in the 28-37 years age group with the male female ratio 1.27:1. Most of the participants were married, reside in rural area. The majority of patients belongs to joint family and majority were unemployed. The findings are correlated with the similar study conducted by Munaw MB et al., (2022) observed that majority of the study participants were in the 18-45 years and 57-65 years age group and male were affected commonly with vision impairment. Most of the patients were married, resides in joint families, were from rural area and farmer were commonly affected.<sup>7</sup>

The study findings revealed that 24% patients had FNSD (Conversion disorder, sensory symptoms) and mostly

unmarried females reported with FNSD, 12% had major depressive disorder, 2% had malingering and 1% had factitious disorder. A statistically significant association was found among psychiatric co-morbidities with age of the patient, gender, marital status, occupation and family type. The findings are consistent with the study conducted by Court H et al., (2014), reported that visual impairment was significantly associated with psychiatric co-morbidities and majority of the patients had anxiety and depression.<sup>4</sup> In similar study conducted by Brody BL et al., (2001) found that visual impairment was a risk factor of developing depression.<sup>8</sup> In another study conducted by Demmin DL et al., (2020) observed that depression and anxiety were very common among patients with visual impairments.<sup>9</sup>

### Conclusion

The present study concluded that the functional visual loss results in significant psychiatric manifestations and co-morbidities in study subjects. All the patients were clinically examined and diagnosed on the basis of psychiatric interview with valid clinical scales and it was observed that out of 50 study subjects 21 (42%) had psychiatric co-morbidities and

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