

Problems, Needs, and Complications Encountered by Patients with Eye Floater

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Abstract

Background: Vitreous floaters represent a commonly encountered problem in clinical settings. The etiology of floaters range from pathological conditions such as vitreous hemorrhages, injuries, diabetes, or uveitis, to natural age-related changes in the vitreous body. Diagnosis and treatment strategies are tailored based on the severity of symptoms. **The aim of the study aimed to:** assess problems, needs and complications which encountered by patients with eye floater. **Design:** This study used a descriptive research approach. **Setting:** The research was carried out in the Zagazig University Hospitals' Ophthalmology outpatient clinics. **Subjects:** The study enrolled a total of 105 patients diagnosed with eye floater. **Tools:** Four methods were implemented: 1) Patient assessment sheet, 2) Laser floaters questionnaire to assess patient problems, 3) Questionnaire to assess patient needs which designed by the researcher, and 4) Questionnaire to assess complications encountered eye floater patients which designed by the researcher. **Results:** The findings revealed that 90.5% of studied clients aged ≥ 50 years old and 91.4% of them were married. The biggest proportion of studied sample was female (77.1%) and were unemployed. The findings also demonstrated that significant majority of the participants in the study (89.5%) felt sudden change in the vision, and 78.1% of them told that they bothered by flashes of light and poor night vision. and majority of them (88.6%) had high needs level for the care. **Conclusion:** The study Found that the majority of the patients with eye floaters had vision problems and high needs level for the nursing care. **Recommendation:** It was suggested that Provide comprehensive education to patients about the nature of eye floaters, emphasizing their problems, needs and complications.

Keywords: Problems, Needs, Complications, Encountered, Eye, Floater

Introduction

The vitreous humor, filling the eye's posterior segment, plays a key role in maintaining optical clarity. However, this delicate gel undergoes degeneration over time, predominantly due to aging or various diseases, which is a common occurrence in life. (Ankamah al., 2021).

Vitreous floaters are entoptic phenomena caused by opacities in the vitreous cavity. A significant number of patients seek consultation at retina clinics due to symptomatic degenerative floaters (Son et al., 2021). Vitreous floaters are result from deteriorative or pathological changes

in the vitreous ultrastructure and are seen as shadows or fly-like obstructions in vision (Zeydanli et al., 2020).

The aging process of the vitreous is intricate, involving both biochemical and morphological changes. Patients experience floaters as Tiny, drifting spots or specks in their vision. These floaters can take on various shapes, like lines, circles, dots, cobwebs, clouds, or tiny insects (Lumi et al., 2015).

Even though Symptoms of floaters often diminish and resolve within a few months, becoming asymptomatic after they appear, they can still cause visual disturbances like blurred vision, glare, and haze, affecting daily activities

for an extended period. Furthermore, degenerating vitreous floaters associated with posterior vitreous detachment can be more serious, potentially leading to pathological conditions such as vitreous hemorrhage, retinal tears, or retinal detachment. (Son et al., 2021).

Despite the potential association of symptomatic vitreous floaters with retinal breaks or serious retinal detachment, particularly when there is a sudden onset of more floaters accompanied by light flashes, they are generally considered harmless and a natural part of the aging process. Consequently, clinicians often overlook the discomfort reported by patients. However, the subjective discomfort experienced by patients with floaters can be significant. (Kim et al., 2017).

Vitreous floaters are a frequent visual phenomenon that can significantly impair the quality of life for a small yet noteworthy subset of symptomatic individuals. The underlying reasons for the varied tolerance to floater symptoms remain unclear, though both psychological and physical factors are believed to contribute. (Harmer et al., 2021).

The impact of vitreous floaters differs greatly among individuals. Ophthalmologists often struggle to determine whether to intervene, as decisions cannot be based solely on visual acuity and reported symptoms. (Woudstra-de Jong et al., 2023).

Yttrium-aluminum-garnet (YAG) laser vitreolysis has garnered considerable interest in recent years for treating bothersome vitreous floaters due to its potential benefits. However, the existing evidence to support its clinical use is sparse and inconsistent, making the technique highly controversial. (Katsanos et al., 2020).

Although most patients with vitreous floaters are advised to undergo clinical observation, many find it difficult to endure the associated visual symptoms and opt for additional treatment. Vitrectomy offers a clear therapeutic benefit, but being an intrusive technique, it carries greater risks of complications and higher costs, which still limits its acceptance among many clinical practitioners. (Hangshuai. et al., 2023).

Vision is an essential part of the lives of nurses who provide care to patients. The nurse must be able to provide safe care that is directed at: performing assessments, recording data for electronic medication records, dispensing medications, teaching at the individual patients' bedside or walking in the hallways or into rooms in the daylight, evening, and /or night lighting influencing eye vision (De Natale .,2022).

Significance of the study

Vitreous floaters, which are opacities within the eye's vitreous body, represent a common visual concern. Most floaters arise from age-related vitreous syneresis, the liquefaction of the vitreous. Less commonly, they indicate conditions such as posterior or panuveitis, potentially accompanied by other symptoms that affect quality of life (Jong et al., 2023). As a result, the purpose of this study was to assess problems, needs and complications which encountered by eye floater patients.

Aim of the study

The aims of this study were as follows: Evaluate problems, needs and complications which encountered by patients with eye floater,

Throughout the following:

1. To assess the problems which encountered eye floater patients
2. To assess the needs of eye floater patients
3. To assess the complications which encountered eye floater patients

Research questions:-

1. What are the problems which encountered eye floater patients?
2. What are the needs of eye floater patients?
3. What are the complications which encountered eye floater patients?

Subjects and Methods

Research Design

-The study employed a descriptive research design. Descriptive design is a type of research method that focuses on describing the characteristics of a phenomenon or a population being studied (Creswell., 2014).

Setting

This research was carried out at outpatient clinic of ophthalmology on the second floor of Zagazig University Hospitals. The clinic features a waiting hall furnished with numerous chairs and two corridors extending to the right and left. Each corridor consists of 6 rooms and the second room in the right corridor was for examination.

Study Subjects:

The study included a convenience sample comprising (105) patients diagnosed with eye floater who were attending the ophthalmology outpatient clinics at Zagazig University hospitals.

- Sample size = $(0.05)^2 + (1.96)^2 \cdot 0.144 \cdot 0$, sample size = 104.9

- The required sample size for the investigation, as calculated, was 105.

Data Collection Instruments

To accomplish the study's aims, four instruments were employed for data collection:

Tool I: Patient Assessment Form

The researcher developed this questionnaire based on current national and international literature, containing two distinct sections:

Section 1: Socio-demographic Information about patient:

Age, sex, marital status, job, educational attainment, income level, and residence utilized to analyze demographic patient data.

Section 2: It was used to assess patient knowledge about eye floater; it composed of eight questions about definition, causes, risk factors, diagnosis, symptoms, treatment and prevention of eye floater.

Tool II: Laser floaters questionnaire to assess problems encountered patients with eye floater. (Insight Vision Group., 2018) created it to measure the grade how floaters affect your life.

Scoring system

The Laser floaters questionnaire included 25 items, separated into three parts: part 1), visual functioning, which had eight items; and part 2), symptoms, which had 15 items. The total score is the sum of the 23 items' scores. There right or wrong answers and I am not having any problems =0, Can do with minimal difficulty= 1, Can do with moderate difficulty= 2, Can do with great difficulty= 3, I am mostly unable to do the activity= 4, and Not applicable- not noticed= n/a, "The response that most accurately characterizes you. An average Score of 3 or more generally qualifies for treatment.

Tool III: Questionnaire sheet to assess patient needs which designed by the researcher, it is composed of fourteen questions, and There are right or wrong answers. Yes or no questions as the following: need for how to deal with eye floaters, the extent of progress in patient' health condition regarding eye floaters, information about the psychological effects on patient as a result of eye floaters, detailed explanation about the different types of treatments available for eye floaters, ...etc

Tool IV: Questionnaire sheet to assess patient complications which designed by the researcher, it is composed of ten questions (MCQ questions) such as: retinal detachment, endophthalmitis, a retinal tear, ...etc

Fieldwork:

This study was executed as follows:

Administrative Arrangement:

Official authorization to conduct the research was secured from the relevant authorities at ophthalmology outpatient clinics at Zagazig University hospitals. To guarantee the credibility and consistency of the tools, they underwent necessary revisions by nursing experts.

Validity and Reliability Assessment:

Five distinguished professors specializing in nursing and medicine evaluated the instruments for clarity, relevance, comprehensiveness, understandability, applicability, and user-friendliness. Minor adjustments were implemented based on their feedback, resulting in the final version.

Pilot Study:

A preliminary study was carried out in November 2023 to assess the feasibility and practicality of the tools. Ten percent of the sample (10 patients) participated, providing insight into the tools' usability and estimating the time required for completion.

Data Collection Process:

Data collection commenced after obtaining all necessary formal approvals. Researchers introduced themselves to patients to facilitate rapport. From December 2023 to May 2024, data collection spanned six months; accommodating patients during morning and afternoon shifts until 1:30 p.m. Participants completed the four questionnaire instruments during individual interviews. The Researchers began data collection with face-to-face interviews, explaining the research's aim and approach to obtain informed consent from each patient. Assessment included demographics, knowledge, and symptoms, manifestation, and treatment of eye floater, also, problems, needs and complications as self-reported by eye floater sufferers

Administrative and Ethical Considerations:

Patients were verbally briefed on the study's objectives and provided informed consent. They were guaranteed of their privacy and the option to opt out from the study at any time. Stringent measures were taken to maintain privacy and confidentiality during data collection, ensuring no risk to the participants.

Statistical Analysis:

Collected data were reviewed, coded, and entered into a personal computer (PC). Statistical Package for Social Sciences (SPSS) version 20 was employed for data entry and analysis. Results were presented using frequencies, percentages, mean standard deviation, and the significance of findings was assessed using the Chi-square test, with $p < 0.05$ considered statistically significant.

Results

Table (1): Reveals that 90.5% of studied clients aged ≥ 50 years old and 91.4% of them were married. The biggest proportion of studied sample was female (77.1%), and were unemployed. A substantial majority of the study participants (78.1%) were residing in rural areas.

Table (2): Reveals that all patients knew preventive measures that can help in reducing the risk of developing eye floaters. 90.5% of the studied subjects reported that didn't receive any treatment for eye floaters. Almost of them (95.2%) knew the complication of eye floaters. 78.1% of the studied subjects had knowledge about the diagnosis of eye floaters and a significant majority of the participants in the study (77.1%) knew the symptoms of eye floaters.

Figure (1): shows that over two-thirds of the study sample (68.6%) had total satisfactory knowledge level about eye floaters.

Table (3): Illustrates that 45.7% of the study patients reported that didn't have any problem during navigating the steps. 44.8% and 46.7% of them told that had moderate difficulty

limited their activities and during practicing sport.

Figure (2): Shows that a significant majority of the participants in the current study (84.8%) didn't qualify for treatment.

Table (4): Displays that all studied patients bothered from seeing floating and seeing persistent floaters. A significant majority of the participants in the study (89.5%) felt sudden change in the vision, and 78.1% of them told that they bothered by flashes of light and poor night vision.

Figure (3): Reveals that more than half of patients (57.1%) reported that had bad vision and required laser surgery to reduce the number of floaters.

Figure (4): Displays that about two-thirds of the studied patients (65.7%) had eye floater in the eye.

Table (5): Illustrates that all studied clients reported that eye floaters cause anxiety or stress for them and affected on the patients' mood or overall sense of well-being. More than half of the patients (54.3%) noticed the eye floaters constantly.

Table (6): Displays that all studied clients need to know how they deal with eye floaters, need to know the extent of progress in their health condition regarding eye floaters, need to know the psychological effects of the eye floaters on them, need to know a detailed explanation about the different types of treatments available for eye floaters, need the nursing care due to the presence of eye floaters, and they need meet other patients who have experienced with the same disease. Almost of the patients (94.3%) didn't need abandoned or isolated by others.

Figure (5): Shows that majority of the patients (88.6%) had high needs level for the care

Table (7): Displays that all studied clients reported that diabetic retinopathy are floaters caused by bleeding inside the eye, and retinal tear that is associated with an increase in floaters may progress to retinal detachment. Majority of patients (86.7%) reported that sudden shadow or curtain over part of vision requires immediate medical attention to prevent severe vision loss and dilated eye examination is the first diagnostic test typically performed for patient presents with new floaters and flashes of light. 87.6 % of them told that Posterior vitreous detachment involves the vitreous gel separating from the retina, potentially leading to retinal tears.

Figure (6): Shows that majority of the patients (75.2%) had high awareness level about complications of eye floaters disease.

Table (8): According to this study, significant statistical relation was observed between age, educational level, income level, residence and patient' knowledge level.

Table (9): This study found statistically meaningful connections between occupation and patients 'problems.

Table (10): According to this study, A statistically significant relationship was observed between age, educational level, marital status, occupation, residence, income level and patients' needs.

Table (11): According to this study, A statistically significant relationship was observed between patients' socio-demographic and complications.

Table (12): According to this study, A statistically significant relationship was observed between complications, Patient needs and problems

Figure (7): This study revealed a statistically significant correlation between Patient needs and problems.

demographic characteristics	n	%
Age (Years)		
< 50	10	9.5
50 or More	95	90.5
Gender		
Male	24	22.9
Female	81	77.1
Educational level		
Illiterate	42	40.0
Secondary	49	46.7
University	14	13.3
Marital status		
Single	9	8.6
Married	96	91.4
Occupation		
Employed	24	22.9
Unemployed	81	77.1
Income level		
Enough	46	43.8
Not enough	59	56.2
Residence		
Urban	23	21.9
Rural	82	78.1

Knowledge about eye floaters	Incorrect		Correct	
	n	%	n	%
Definition of eye floaters	34	32.4	71	67.6
What is a common cause of eye floaters?	35	33.3	70	66.7
Which of the following is considered a risk factor for developing eye floaters?	46	43.8	59	56.2
How eye floaters are typically diagnosed?	23	21.9	82	78.1
Which of the following symptoms is commonly associated with eye floaters?	24	22.9	81	77.1
What complication can eye floaters potentially lead to?	5	4.8	100	95.2
Which of the following is a common treatment option for persistent eye floaters?	25	23.8	80	76.2
Are you currently receiving any treatment for eye floaters?	95	90.5	10	9.5
What preventive measures can help reduce the risk of developing eye floaters?	0	0.0	105	100.0
Total knowledge level	n		%	
Unsatisfactory Knowledge	33		31.4	
Satisfactory Knowledge	72		68.6	

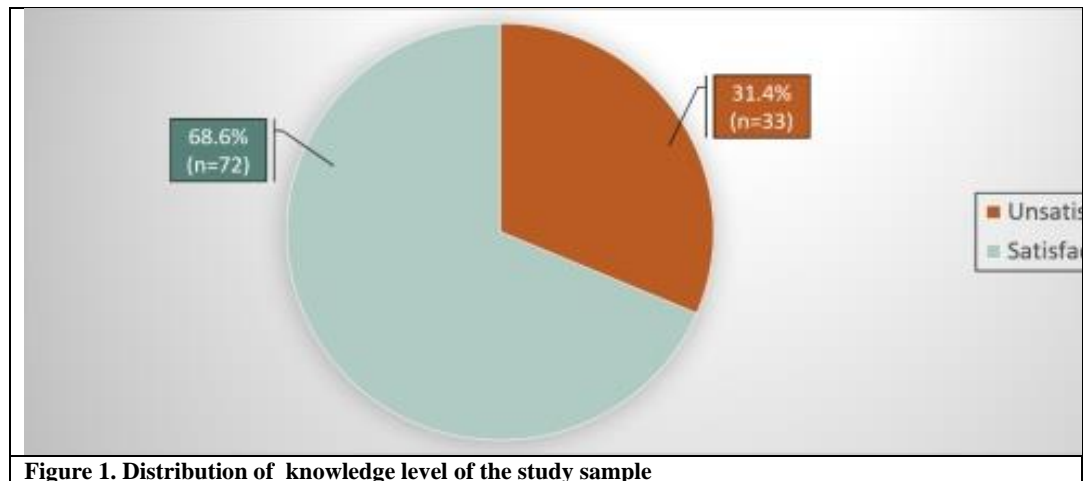


Figure 1. Distribution of knowledge level of the study sample

	I am not having any problems		Can do with minimal difficulty		Can do with moderate difficulty		Can do with great difficulty		I am mostly unable to do the activity	
	n	%	n	%	n	%	n	%	n	%
How many problems are floaters causing regarding										
limiting my activities	23	21.9	35	33.3	47	44.8	0	0.0	0	0.0
Reading	35	33.3	12	11.4	22	21.0	0	0.0	36	34.3
Doing fine handwork	34	32.4	11	10.5	12	11.4	23	21.9	25	23.8
Sports	45	42.9	0	0.0	49	46.7	0	0.0	11	10.5
Playing games	35	33.3	24	22.9	34	32.4	12	11.4	0	0.0
Driving	23	21.9	11	10.5	34	32.4	12	11.4	25	23.8
Watching television	24	22.9	12	11.4	24	22.9	11	10.5	34	32.4
Navigating steps	48	45.7	23	21.9	10	9.5	24	22.9	0	0.0
Laser floaters questionnaire scale score			n				%			
Doesn't qualify for treatment			89				84.8			
Qualifies for treatment			16				15.2			

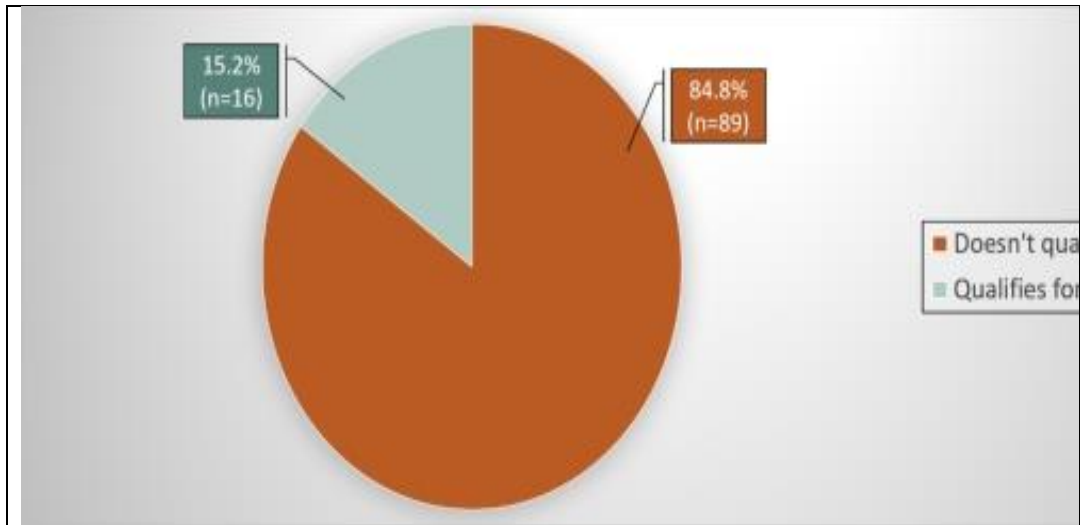


Figure 2. Distribution of the problems of the study participants

Table 4. Distribution of the Floaters Symptoms of the study sample

	n	%
Have you been bothered by		
Seeing persistent floaters	105	100.0
Seeing floating	105	100.0
Generally blurred vision	72	68.6
Double vision	71	67.6
Eye pain	70	66.7
Flashes of light	82	78.1
Glare	70	66.7
Poor color vision	58	55.2
Poor night vision	82	78.1
Poor vision in low or dim light	70	66.7
Seeing a “curtain coming down” over an eye	59	56.2
Sudden change in vision	94	89.5
Unusual, even painful, sensitivity to light	69	65.7

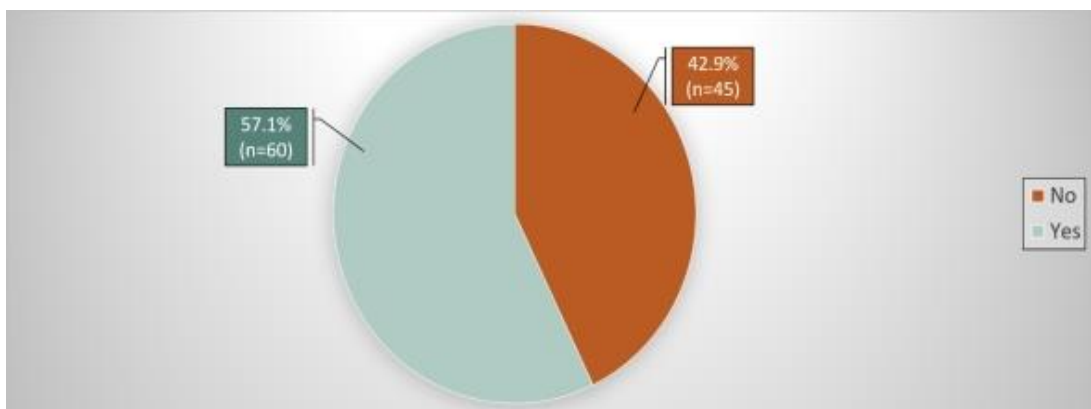


Figure 3. Distribution of feelings regarding if vision is bad enough to consider laser surgery now in order to reduce the number of floaters

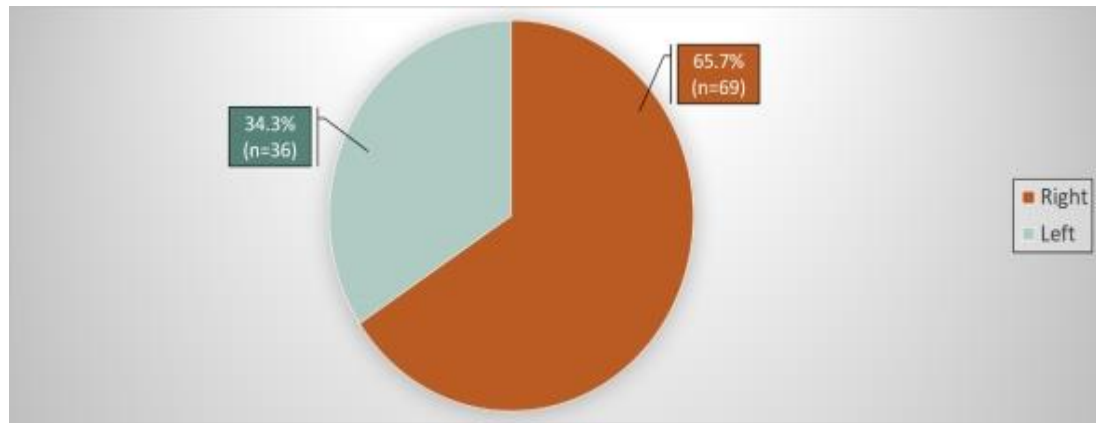


Figure 4. Distribution of the location of the eye floater in the eye

	n	%
Does eye floaters cause you anxiety or stress?	105	100.0
Has the eye floater affected your mood or overall sense of well-being?	105	100.0
How often do you notice the eye floater?		
Occasionally	24	22.9
Frequently	24	22.9
Constantly	57	54.3

	n	%
Do you need to know		
how to deal with eye floaters?	105	100.0
the extent of progress in your health condition regarding eye floaters?	105	100.0
about the psychological effects on you as a result of eye floaters?	105	100.0
a detailed explanation about the different types of treatments available for eye floaters?	105	100.0
nursing care due to the presence of eye floaters?	105	100.0
about assistance with eating, changing clothes, or going to the bathroom?	12	11.4
about services beyond what the hospital provides?	82	78.1
attention than nursing care?	80	76.2
about your privacy respected in the hospital?	94	89.5
guidance from a doctor to ensure your health?	93	88.6
guidance from nurses regarding your health condition?	93	88.6
about a psychiatrist due to anxiety and feelings of frustration caused by eye floaters?	80	76.2
other patients who have experienced this condition?	105	100.0
that you are not abandoned or isolated by others?	99	94.3
Total patient needs level	n	%
Low need	12	11.4
High need	93	88.6

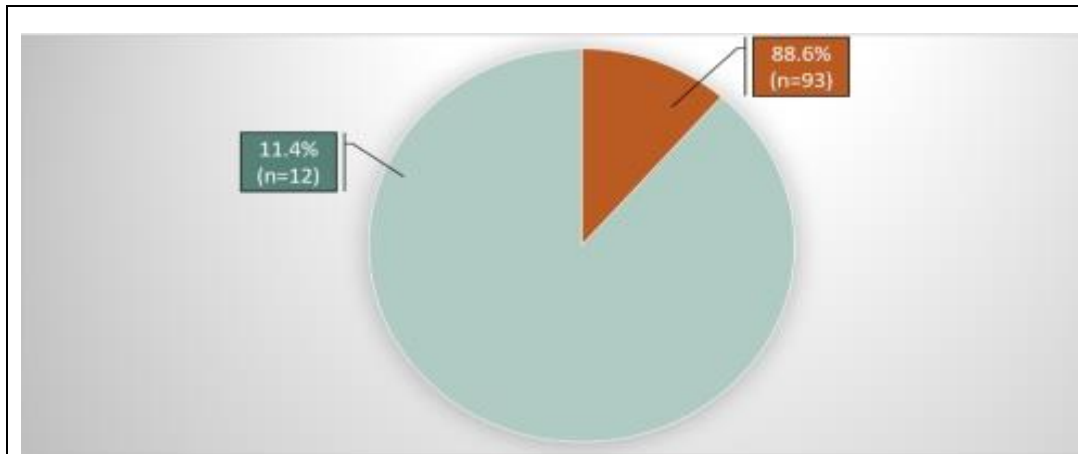


Figure 5. Distribution of the needs level of the study participants

Table 7. Distribution of the Complication encountered the study sample

	n	%
Eye floaters can potentially lead to complications such as	5	4.8
A sudden increase in floaters and flashes of light may indicate	66	62.9
The condition involving the vitreous gel separating from the retina, potentially leading to retinal tears, is	92	87.6
Inflammation of the uvea, causing floaters, is known as	66	62.9
Severe vision loss can be prevented by immediate medical attention if floaters are accompanied by signs like a sudden increase in flashes of light, loss of peripheral vision	91	86.7
Condition are floaters caused by bleeding inside the eye, often associated with diabetes	105	100.0
Endophthalmitis, a serious eye infection that can cause floaters, typically requires	79	75.2
The primary concern with a retinal tear that is associated with an increase in floaters	105	100.0
When a patient presents with new floaters and flashes of light, the first diagnostic test typically performed is	91	86.7
Common treatment approach if a patient has a retinal tear but no detachment yet	79	75.2

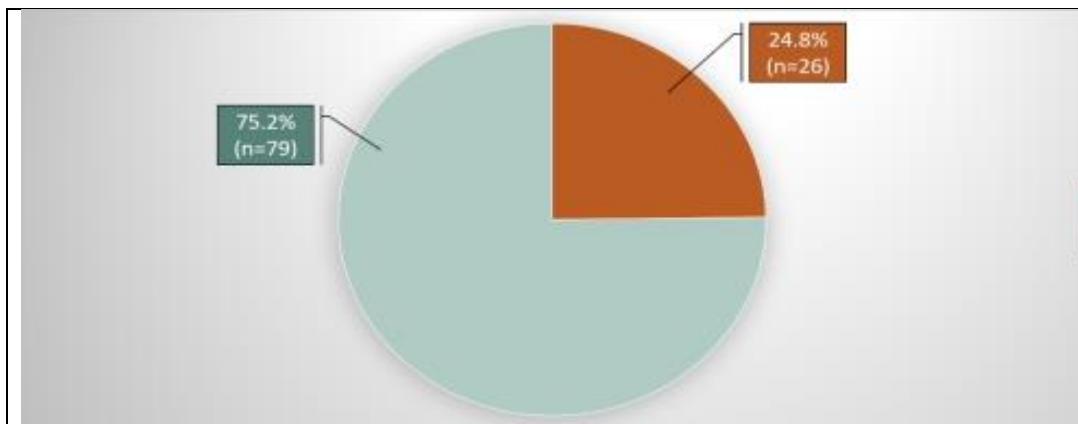


Figure 6. Distribution of the Complication awareness of the study sample

Table 8. Association between the socio-demographic characteristics and levels of knowledge

	Unsatisfactory Knowledge (n=33)		Satisfactory Knowledge (n=72)		Fisher's exact test	
	n	%	n	%	X ²	P
Age (Years)						
< 50	10	30.3	0	0.0		
50 or More	23	69.7	72	100.0	24.115	<0.001**
Gender						
Male	10	30.3	14	19.4		
Female	23	69.7	58	80.6	1.513	0.218
Educational level						
Illiterate	24	72.7	18	25.0		
Secondary	9	27.3	40	55.6		
University	0	.0	14	19.4	23.182	<0.001**
Marital status						
Single	5	15.2	4	5.6		
Married	28	84.8	68	94.4	2.659	0.102
Occupation						
Employed	9	27.3	15	20.8		
Unemployed	24	72.7	57	79.2	0.532	0.465
Income level						
Enough	23	69.7	23	31.9		
Not enough	10	30.3	49	68.1	13.101	<0.001**
Residence						
Urban	3	9.1	20	27.8		
Rural	30	90.9	52	72.2	4.619	0.031*

Table 9. Association between the socio demographic characteristics and patients' problems

	Doesn't qualify for treatment (n=89)		Qualifies for treatment (n=16)		Fisher's exact test	
	n	%	n	%	X ²	P
Age (Years)						
< 50	10	11.2	0	0.0		
50 or More	79	88.8	16	100.0	1.987	0.159
Gender						
Male	19	21.3	5	31.3		
Female	70	78.7	11	68.8	0.754	0.385
Educational level						
Illiterate	34	38.2	8	50.0		
Secondary	43	48.3	6	37.5		
University	12	13.5	2	12.5	0.822	0.662
Marital status						
Single	6	6.7	3	18.8		
Married	83	93.3	13	81.3	2.496	0.114
Occupation						
Employed	24	27.0	0	0.0		
Unemployed	65	73.0	16	100.0	5.593	0.018*
Income level						
Enough	38	42.7	8	50.0		
Not enough	51	57.3	8	50.0	0.294	0.587
Residence						
Urban	23	25.8	0	0.0		
Rural	66	74.2	16	100.0	5.295	0.021*

	Low need (n=12)		High need (n=93)		Fisher's exact test	
	n	%	n	%	X ²	P
Age (Years)						
< 50	10	83.3	0	0.0		
50 or More	2	16.7	93	100.0	85.658	<0.001**
Gender						
Male	4	33.3	20	21.5		
Female	8	66.7	73	78.5	0.843	0.358
Educational level						
Illiterate	0	0.0	42	45.2		
Secondary	6	50.0	43	46.2		
University	6	50.0	8	8.6	19.113	<0.001**
Marital status						
Single	6	50.0	3	3.2		
Married	6	50.0	90	96.8	29.672	<0.001**
Occupation						
Employed	9	75.0	15	16.1		
Unemployed	3	25.0	78	83.9	20.891	<0.001**
Income level						
Enough	12	100.0	34	36.6		
Not enough	0	0.0	59	63.4	17.377	<0.001**
Residence						
Urban	12	100.0	11	11.8		
Rural	0	0.0	82	88.2	48.303	<0.001**

	Low Awareness (n=26)		High Awareness (n=79)		Fisher's exact test	
	n	%	n	%	X ²	P
Age (Years)						
< 50	10	38.5	0	0.0		
50 or More	16	61.5	79	100.0	33.583	<0.001**
Gender						
Male	21	80.8	3	3.8		
Female	5	19.2	76	96.2	65.729	<0.001**
Educational level						
Illiterate	24	92.3	18	22.8		
Secondary	2	7.7	47	59.5		
University	0	0.0	14	17.7	39.494	<0.001**
Marital status						
Single	9	34.6	0	0.0		
Married	17	65.4	79	100.0	29.910	<0.001**
Occupation						
Employed	17	65.4	7	8.9		
Unemployed	9	34.6	72	91.1	35.445	<0.001**
Income level						
Enough	26	100.0	20	25.3		
Not enough	0	0.0	59	74.7	44.323	<0.001**
Residence						
Urban	0	0.0	23	29.1		
Rural	26	100.0	56	70.9	9.693	0.002*

	Complication awareness	
	r	p
Patient needs	0.492	<0.001**
Visual Functioning Scale	0.937	<0.001**

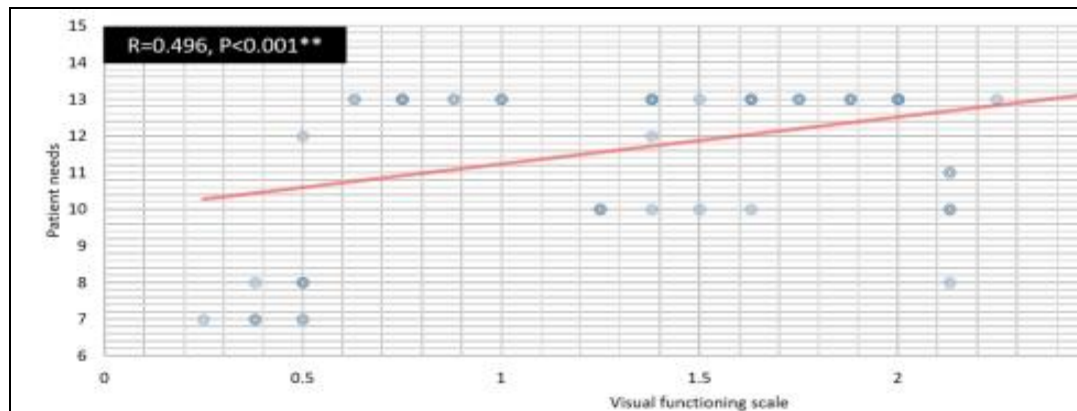


Figure 7. Correlation between Patient needs and problems

Discussion

Floater are frequently reported in ophthalmic care, often occurring alongside posterior vitreous detachment (PVD). Phacoemulsification can heighten the risk of PVD. Floaters are typically described as gray or dark spots moving within the visual field and can persist for months or even years (Kim et al., 2018).

In the ongoing study, majority of the patients were aged ≥ 50 years old. Furthermore, more than three quarters of studied sample were females. These findings were similar to the finding obtained in a study done by (Hidayah et al., 2018), who said that 215 eyes from 169 patients with floaters over one year. In their study, 36.1% of patients were male and 63.9% were female. The age of patients ranged from 15 to 80 years, with an average age of 49 years, and the highest frequency was observed among those aged 51-60 years."

In the current study, less than half of studied clients told that had moderate difficulty limited their activities and during practicing sport. all studied patients bothered from seeing floating and seeing persistent floaters. A

significant majority of the participants in the study felt sudden change in the vision, and bothered by flashes of light and poor night vision. More than half of patients (57.1%) reported that had bad vision and required laser surgery in order to reduce the number of floaters. These findings were similar to the finding obtained in a study done by (Cañote et al., 2020), who said that floaters have a more significant negative impact on quality of life compared to both ocular and systemic diseases. The study reported that patients were willing to accept an 11% risk of death and a 7% risk of blindness to alleviate symptoms related to floaters. These findings underscore the importance of treating symptomatic vitreous floaters.

About two-thirds of the studied patients reported that the location of eye floaters in the right eye, this finding align with the results of the study conducted by (Mannaa et al., 2023) research, who reported that The right eye was affected in 27 cases (54%), while the left eye was impacted in 23 cases (46%).

According to the continuing study, all studied clients need to know how they deal with eye floaters, need to know the extent of progress in their health condition regarding eye floaters,

need to know the psychological effects of the eye floaters on them, need to know a detailed explanation about the different types of treatments available for eye floaters, need the nursing care due to the presence of eye floaters, and they need meet other patients who have experienced with the same disease. Almost of the patients (94.3%) didn't need abandoned or isolated by others. The study done by (**Duncan et al., 2018**) who found that Addressing how to reduce the prevalence of vitreous floaters has become a critical issue. Additionally, it highlights the growing demand for ophthalmic healthcare services and expands the scope of services provided by professionals in this field."

According to the continuing study, all studied clients reported that diabetic retinopathy are floaters caused by bleeding inside the eye, and retinal tear that is associated with an increase in floaters may progress to retinal detachment. These findings were similar to the finding obtained in a study done by (**Jindachomthong et al., 2022**) who found that Out of 389 patients, a total of 389 eyes were diagnosed with acute and symptomatic posterior vitreous detachment, without concurrent retinal tears or detachments.

Conclusion

Based on the present study's results, the majority of the patients with eye floaters had vision problems and high needs level for the nursing care.

Recommendations

1. To broaden the applicability of the results, it is advised to duplicate the study using a more extensive participant pool drawn from diverse Egyptian medical facilities.

2. It is suggested that nursing personnel administer ongoing health education initiatives to patients attending outpatient ophthalmology clinics as a means of enhancing their management of eye floaters symptoms.

References

Ankamah E., Green-Gomez M., Roche W., Ng E., Welge-Lüssen U., Kaercher T., & Nolancorresponding J M.,(2021): Dietary

Intervention With a Targeted Micronutrient Formulation Reduces the Visual Discomfort Associated With Vitreous Degeneration, *Transl Vis Sci Technol*; 10(12): 19.

Creswell J. W., (2014): Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.4th ed, Sage publications, P.42.

De Natale M L., (2022): Health Promotion and Eye Vision Health for Nurses, *International Journal of Nursing and Health Care Research*; 5: 1305.

Hangshuai Z., Yanhua J., Yao Z., Guangjin Z., Hongyan W., & Fanlian C., (2024); Efficacy and safety of early YAG laser vitreolysis for symptomatic vitreous floaters: the study protocol for a randomized clinical trial, *Trials*;25: 48

Harmer S W., Luff A J., & Gini G (2021): Optical Scattering from Vitreous Floaters, *Bioelectromagnetics*;43(2):90-105.

Hidayah F K., Dewi N A.,& Refa S.,(2018):Profile of Patients with Floaters in Saiful Anwar Hospital Malang, *International Journal of Retina (IJRETINA)*; 1: 2.

Insight Vision Group., (2018): Laser Floaters Questionnaire, Available from: <https://insightvisiongroup.com/userfiles/2054/files/FloatersQuestionnaire.pdf>

Jindachomthong k K.,Cabral H., Subramanian M L., Chhablani J.,Hsu SX.,& Chen X.,(2022):Incidence and Risk Factors for Delayed Retinal Tears after an Acute, Symptomatic Posterior Vitreous Detachment, *ophthalmology retina*; 7(4): P318-324

Katsanos A., Tsaldari N., Gorgoli K., Lalos F., Stefanidou M., & Asproudis I.,(2020): Safety and Efficacy of YAG Laser Vitreolysis for the Treatment of Vitreous Floaters: An Overview, *Advances in Therapy*; 37:1319–1327.

Jong J E W., Charalampidou S S M., Vingerling H., Busschbach J J., & Pesudovs K.,(2023): Patient-reported outcomes in patients with vitreous floaters: A systematic literature review, survey of ophthalmology;68:875-888.

Kim J., Lee H J., Park I W., &Kwon S L.,(2018): Comparison of Floaters after Cataract Surgery with Different Viscoelastics, *International Journal of Medical Sciences*;15(3):223-227.

- Kim Y., Moon S Y., Yim K M., Seong S J., Hwang J Y., & Park S P.,(2017):** Psychological Distress in Patients with Symptomatic Vitreous Floaters; *Journal of Ophthalmology*;3191576:9.
- Lumi X., Hawlina M., Glavač D., Facskó A., Moe M C., Kaarniranta K., Petrovski G.,(2015):** Ageing of the vitreous: From acute onset floaters and flashes to retinal detachment, *Ageing Research Reviews*;21:71-77.
- Son G., Sohn J., & Kong M., (2021):** Acute symptomatic vitreous floaters assessed with ultra-wide field scanning laser ophthalmoscopy and spectral domain optical coherence tomography, *Scientific Reports* volume;11: 8930.
- Woudstra-de Jong J E., Manning-Charalampidou S S., Vingerling H., Busschbach J J., & Pesudovs K.,(2023):** Patient-reported outcomes in patients with vitreous floaters: A systematic literature review, *Surv Ophthalmol*;68(5):875-888.
- Zeydanli EO., Parolini B., Ozdek S., Bopp S., Adelman R A., Kuhn F., Gini G., Sallam A B., & Aksakal N.,(2020):** Management of vitreous floaters: an international survey the European VitreoRetinal Society Floaters study report, *Springer Nature*; 34:825–834.