International Journal of Science and Research Archive
eISSN: 2582-8185
Cross Ref DOI: 10.30574/ijsra
Journal homepage: https://ijsra.net/

(RESEARCH ARTICLE)

Check for updates

Knowledge, attitude and practice pattern on pterygium among pterygium patients attending OPD

Sourav B [1,*], Sowmyashree R [2], Jayashree S Shah [3] and Lokesh HM [4]

[1] *Postgraduate, Department of Ophthalmology, Sri Siddhartha Medical College and Research Centre, Tumkur, Sri Siddhartha Academy of Higher Education, Tumkur, Karnataka, India.*
[2] *Assistant Professor, Department of Ophthalmology, Sri Siddhartha Medical College and Research Centre, Tumkur, Sri Siddhartha Academy of Higher Education, Tumkur, Karnataka, India.*
[3] *Professor and HOD, Department of Ophthalmology, Sri Siddhartha Medical College and Research Centre, Tumkur, Sri Siddhartha Academy of Higher Education, Tumkur, Karnataka, India.*
[4] *Professor, Department of Ophthalmology, Sri Siddhartha Medical College and Research Centre, Tumkur, Sri Siddhartha Academy of Higher Education, Tumkur, Karnataka, India.*

International Journal of Science and Research Archive, 2026, 18(01), 537-543

Publication history: Received on 08 December 2025; revised on 14 January 2026; accepted on 17 January 2026

Article DOI: https://doi.org/10.30574/ijsra.2026.18.1.0081

Abstract

Background: Pterygium is a common ocular surface disorder, particularly in populations exposed to sunlight, dust, and wind. Patients' knowledge, attitude, and practices (KAP) play an important role in prevention, early presentation, and treatment outcomes.

Objective: To assess the knowledge, attitude, and practices related to pterygium among patients attending the ophthalmology outpatient department.

Methods: This was a cross-sectional, questionnaire-based study conducted among patients presenting to the ophthalmology OPD. Data regarding awareness of pterygium, perceived risk factors, attitudes towards the disease and its treatment, and preventive practices were collected and analysed descriptively.

Results: While a majority of patients were aware of pterygium as a visible ocular growth, knowledge regarding its causes, potential visual impairment, and risk of progression was limited. Many patients did not recognize the role of ultraviolet exposure. Although most patients expressed concern regarding vision and cosmetic appearance, fear of surgery and misconceptions about treatment were common. Preventive practices such as regular use of sunglasses or protective headgear were suboptimal.

Keywords: Pterygium; Knowledge; Attitudes; Practice; Ultraviolet Rays; Eye Diseases; Preventive Health Services

1. Introduction

Pterygium is a wing-shaped or triangular encroachment of the bulbar conjunctiva which begins within the palpebral fissure and grows across the limbus to reach onto the cornea[1].

It is an elastotic degeneration of subconjunctival tissue which migrates from bulbar conjunctiva as a vascularized granulation tissue covered by conjunctival epithelium and invades the cornea, thus destroying the superficial layer of stroma and Bowman's membrane.[1]

* Corresponding author: Sourav B

In the present study, we attempted to evaluate the knowledge, attitude, and practices (KAP) regarding pterygium among patients diagnosed with pterygium attending the ophthalmology outpatient department. Pterygium is a common ocular surface disorder, particularly in populations exposed to sunlight, dust, and wind, and patient awareness plays a crucial role in prevention, early presentation, and treatment compliance.

Patients with pterygium are the primary stakeholders in disease prevention and management. Their level of knowledge regarding risk factors, progression, and treatment options, along with their attitude toward the condition and surgery, can significantly influence timely intervention and adoption of preventive practices such as the use of protective eyewear. Improved patient awareness can help reduce disease progression, visual impairment, and recurrence following surgery.

We observed that studies evaluating the knowledge, attitude, and practices related to pterygium among affected patients are limited in our country. Hence, this study was undertaken to assess the level of awareness, perceptions, and preventive practices regarding pterygium among patients presenting to the ophthalmology OPD.

2. Methods

This study was a cross-sectional and observational type of study. The study population included Pterygium patient attending OPD.

A predesigned, pretested, and a Closed ended questionnaire was given to the students for eliciting responses. The questionnaire consisted of 15 questions.

- There were 5 questions in knowledge evaluation, each question was evaluated as a correct or an incorrect response.
- There were 5 questions in the attitude evaluation which were evaluated again as a correct or incorrect response
- There were 5 questions in the practice evaluation which were evaluated again as a correct or incorrect response

2.1. Data collection and statistical analysis

Data were collected for two month in October and November 2025. Statistical analyses were performed using Statistical Package for the Social Sciences (SPSS 16.0). Descriptive tabulations and chi-square tests were applied to generate descriptive information from qualitative data assuming normalcy. Responses were made anonymous, and participants were made aware of this fact before participation in the study. Written consent was obtained from each participant. The study followed the approval from the Institutional Review Committee

3. Results

A total of 137 Pterygium patients participated attending OPD participated in this study.

3.1. Demography based

Table 1 Demography based

Questions	**No of responses**		**Percentage**	
Gender	**Males**	**Females**	**Males**	**Female**
	79	58	57.66%	42.34%
Occupation	Indoor	Outdoor	Indoor	Outdoor
	42	95	30.66%	69.34%
Residence	Urban	Rural	Urban	Rural
	52	85	37.96%	62.04%
Heard of word Pterygium	YES	NO	YES	NO
	82	55	59.85%	40.14%
Total	137		100%	

3.2. Knowledge based questions

Table 2 Knowledge based

Questions	Responses	Percentage (%)
1.Prolonged exposure to sunlight increases the risk of developing pterygium.		
Strongly Disagree	4	2.9
Disagree	8	4.4
Neutral	16	13.1
Agree	62	45.3
Strongly Agree	47	34.3
2. Pterygium can cause blurring of vision if left untreated.		
Strongly Disagree	3	2.2
Disagree	7	5.1
Neutral	20	14.6
Agree	61	44.5
Strongly Agree	46	33.6
3. Wearing protective glasses (sunglasses, hats) can help prevent pterygium progression		
Strongly Disagree	5	3.6
Disagree	9	6.6
Neutral	22	16.1
Agree	58	42.3
Strongly Agree	43	31.4
4. Dust, wind, and dryness are important risk factors for pterygium.		
Strongly Disagree	4	2.9
Disagree	8	5.8
Neutral	21	15.3
Agree	63	46.0
Strongly Agree	41	29.9
5. Surgery is the definitive treatment for progressive or vision-threatening pterygium		
Strongly Disagree	6	4.4
Disagree	10	7.3
Neutral	29	21.2
Agree	56	40.9
Strongly Agree	36	26.3

3.3. Attitude based questions

Table 3 Attitude based question

Questions	Responses	Percentage
1.Pterygium is a serious eye condition that should not be ignored.		
Strongly Disagree	5	3.6
Disagree	7	5.1

Neutral	23	16.8
Agree	61	44.5
Strongly Agree	41	29.9
2. Regular ophthalmology check-ups are important for patients with pterygium		
Strongly Disagree	4	2.9
Disagree	6	4.4
Neutral	19	13.9
Agree	64	46.7
Strongly Agree	44	32.1
3. Using sunglasses or protective eyewear is necessary even if symptoms are mild.		
Strongly Disagree	6	4.4
Disagree	11	8.0
Neutral	28	20.4
Agree	55	40.1
Strongly Agree	37	27.0
4. Surgery for pterygium is safe and beneficial.		
Strongly Disagree	7	5.1
Disagree	12	8.8
Neutral	31	22.6
Agree	54	39.4
Strongly Agree	33	24.1
5. Lifestyle modifications (avoiding dust, sunlight) can reduce recurrence after surgery.		
Strongly Disagree	5	3.6
Disagree	9	6.6
Neutral	26	19.0
Agree	60	43.8
Strongly Agree	37	27.0

3.4. Practice based Questions

Table 4 Practice based questions

Questions	Responses	Percentage
1. I regularly use sunglasses or protective eyewear when exposed to sunlight.		
Strongly Disagree	14	10.2
Disagree	26	19.0
Neutral	31	22.6
Agree	44	32.1
Strongly Agree	22	16.1
2. I avoid dusty and windy environments to protect my eyes.		
Strongly Disagree	12	8.8
Disagree	25	17.5
Neutral	35	25.5
Agree	43	31.4
Strongly Agree	23	16.8

3. I seek medical advice promptly if I notice eye redness, irritation, or growth on the conjunctiva.		
Strongly Disagree	8	5.8
Disagree	15	10.9
Neutral	29	21.2
Agree	53	38.7
Strongly Agree	32	23.4
4. I follow doctors' instructions regarding treatment and follow-up for pterygium.		
Strongly Disagree	6	4.4
Disagree	12	8.8
Neutral	25	18.2
Agree	56	40.9
Strongly Agree	38	27.7
5. I would undergo surgery if advised by the doctor for vision-threatening pterygium.		
Strongly Disagree	9	6.6
Disagree	18	13.1
Neutral	34	24.8
Agree	46	33.6
Strongly Agree	30	21.9

4. Discussion

Pterygium is a common ocular surface disorder in tropical and subtropical regions, and its occurrence is closely associated with environmental and occupational exposure. In the present KAP study conducted among 137 pterygium patients attending the ophthalmology OPD, we observed reasonably good knowledge and attitude, but suboptimal preventive practices, highlighting a clear knowledge–practice gap.

4.1. Knowledge regarding pterygium

In the present study, the majority of participants recognized prolonged exposure to sunlight as an important risk factor for pterygium, with nearly four-fifths of patients either agreeing or strongly agreeing with this statement. This finding is comparable to studies by Marmamula et al.and Asokan et al., who reported moderate to good awareness of sunlight and ultraviolet exposure as etiological factors among patients in South India(2,3). However, a considerable proportion of patients in our study still remained neutral or unaware, indicating incomplete understanding of disease causation.

Awareness regarding visual impairment due to untreated pterygium was relatively high in our cohort, with more than three-quarters acknowledging its potential to cause blurring of vision. Similar observations were reported by Shrestha et al., who found that cosmetic concerns and fear of vision loss were common motivators for seeking medical care(4). Nonetheless, misconceptions regarding disease progression persist, suggesting the need for targeted patient education.

Knowledge about protective measures, such as the use of sunglasses and hats, was satisfactory in our study and comparable to findings reported by Al-Bodour et al., where most patients were aware of the preventive role of protective eyewear(5).Awareness of dust, wind, and dryness as risk factors was also high in our population, likely reflecting occupational exposure, as a majority of patients were outdoor workers.

Regarding treatment, although a significant proportion of patients agreed that surgery is the definitive treatment for progressive or vision-threatening pterygium, a notable percentage remained neutral or disagreed. This finding mirrors the results of Rao et al., who reported uncertainty and fear related to surgical intervention among pterygium patients.(6)

4.2. Attitude towards pterygium and its management

The present study demonstrated a generally positive attitude toward pterygium. Most patients considered pterygium a serious eye condition that should not be ignored and acknowledged the importance of regular ophthalmic check-ups.

These findings are consistent with reports by Marmamula et al. and Nirmalan et al., who observed favourable attitudes toward eye care among patients already accessing ophthalmic services. (2,9)

However, attitudes toward surgery were relatively cautious. Although many patients believed surgery to be safe and beneficial, a sizeable proportion expressed neutrality or disagreement. Fear of surgery, misconceptions regarding recurrence, and lack of detailed counselling may explain this hesitancy, as also reported by Shrestha et al. and Al-Bodour et al.(4,5) Lifestyle modification as a preventive strategy was positively perceived by most participants, aligning with existing literature emphasizing the role of environmental control in reducing recurrence.

4.3. Practices related to prevention and treatment

Despite reasonable knowledge and positive attitudes, preventive practices were inadequate in the present study. Regular use of sunglasses or protective eyewear was reported by less than half of the participants. This knowledge–practice gap has been consistently reported in previous studies, including those by Asokan et al. and Rao et al., where awareness did not necessarily translate into behavioural change. (3,6)

Avoidance of dusty and windy environments was practiced by only a minority of patients, which may be attributed to occupational constraints, particularly among outdoor workers. Encouragingly, most patients reported seeking medical advice when symptoms appeared and adhering to doctors' instructions, suggesting trust in medical care once access is obtained. Willingness to undergo surgery if advised was moderate, reflecting persistent apprehension despite adequate counselling.

5. Conclusion

The present study demonstrates that patients with pterygium attending the ophthalmology OPD have reasonable knowledge and positive attitudes toward the disease; however, preventive practices remain inadequate. The observed gap between knowledge and practice highlights the need for focused health education, regular counselling during OPD visits, and promotion of protective measures such as sunglasses and environmental modification. Improving patient awareness and reinforcing behavioural change may help reduce disease progression, visual impairment, and recurrence following surgery.

Compliance with ethical standards

Acknowledgments

To all the staff and juniors in the department of ophthalmology, SSMC, Tumkur are Acknowledged.

Disclosure of conflict of interest

No conflict of interest

Statement of informed consent

Informed consent was obtained from all individual participants included in the study

References

[1] Duke-Elder S. *System of Ophthalmology*. Vol 8. London: Henry Kimpton; 1965.

[2] Marmamula S, Khanna RC, Rao GN. Population-based assessment of awareness of eye diseases in southern India. *Indian J Ophthalmol*. 2013;61(5):224-230.

[3] Asokan R, Venkatasubbu RS, Velumuri L, Lingam V, George R. Prevalence and associated factors for pterygium and pinguecula in a South Indian population. *Ophthalmic Physiol Opt*. 2012;32(1):39-44.

[4] Shrestha GS, Sujakhu D, Joshi P. Knowledge, attitude and practice regarding eye diseases among patients attending eye camps. *Nepal J Ophthalmol*. 2011;3(2):150-155.

[5] Al-Bodour MD, Al-Layouni JK. Awareness of pterygium among patients attending ophthalmology clinics. *Middle East Afr J Ophthalmol*. 2009;16(3):121-124.

[6] Rao GN, Khanna R, Payal A. The global burden of pterygium. *Curr Opin Ophthalmol*. 2012;23(4):349-354.

[7] Thong NH, Hanh TT. Current status of pterygium, knowledge, attitude, practice and some related factors among the elderly in 03 communes of Khoai Chau district, Hung Yen Province in 2021.

[8] Padhy S, Dash R, Dash S. Changing trends of demographic profile in patients of pterygium – a hospital based study. IOSR J Dent Med Sci. 2019;18(12):42-46.

[9] Nirmalan PK, Katz J, Robin AL, Krishnadas R, Ramakrishnan R, Thulasiraj RD. Awareness of eye diseases in an urban population in southern India. *Indian J Ophthalmol*. 2004;52(4):301–306.

[10] Veena M S B, Alaka Priyadarshani D, Gaurav B. Pterygium - a study which was done on a rural based population. J Clin Diagn Res. 2013 Sep;7(9):1936-7. doi: 10.7860/JCDR/2013/6107.3361.

[11] Chavan WM, Kamble MG, Giri PA. *Prevalence and socio-demographic determinants of pterygium patients attending tertiary teaching hospital. Int J Res Med Sci*. 2015;5(4):1384-1387.

[12] Rajendran N, Jacob KK, Indrapal PS, Solanke PV, Jacob D. *A study on prevalence of pterygium at Sree Mookambika Institute of Medical Sciences. Int J Innov Res Med Sci*. 2017;2(05)