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Proportion of Ophthalmic Self-Medication and Associated Factors among Adult Ophthalmic Patients attending Primary health center

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ABSTRACT:
People use self-medication for a variety of common ocular symptoms like redness, watering, foreign body sensation, and itching of eye. Living far from the hospital and poor knowledge about the consequences of using self-medication are other common reasons for using self-medication. This study aimed to determine the proportion of ophthalmic self-medication practice and associated factors among adult ophthalmic patients attending Primary health center in a rural area of Tamil Nadu. This study is an institution based cross-sectional study. Duration of the study is 4 months. The study was done on a sample of 161 participants.The prevalence of self-medication was reported 59 participants **(36.6%).**The proportion of ophthalmic self-medication was high, which needs attention and proper action to be taken on those who dispense medicines without prescription. Awareness to the public and education regarding side effects of self-medication will help in decreasing the use of self-medication.

KEYWORDS: Self-medication, rural population, Primary health center.

I. INTRODUCTION

People use self-medication for a variety of common ocular symptoms like redness, watering, foreign body sensation, and itching of eye. Living far from the hospital and poor knowledge about the consequences of using self-medication are other common reasons for using self-medication.Globally, the prevalence of ophthalmic self-medication ranges from 25.6% to 73.6%.Using self-medication is common in developing countries than developed nations.Worldwide from all drugs purchased without any prescription, 80% accounted by developing countries.Using non appropriate medication for eye may lead to poor treatment outcome, progression of the current disease, adverse reaction and finally may lead to visual morbidity.When medications such as steroids are misused, they aggravate existing infections and may lead to blindness.Negative effects of self-medications include delay in diagnosis of problem so that the treatment can be delayed.There were limited published evidence specifically on ophthalmic self-medication and this study aimed to determine the proportion of ophthalmic self-medication practice and associated factors among adult ophthalmic patients attending Chettinad Hospital.The result of this study will be helpful to prevent the risks associated with self-medication practice.

AIM

Determine the proportion of ophthalmic self-medication practice and associated factors among adult ophthalmic patients attending a primary health center in a rural area of Tamil Nadu.

OBJECTIVE

To find the prevalence of ophthalmic self-medication among adult patients attending a PHC in a rural area.To find the factors associated with ophthalmic self-medication among adult patients attending ophthalmology OPD at primary health center in a rural area.

II. METHODOLOGY

It isan institution based cross-sectional study. Adult patients attending ophthalmology OPD in a primary health center in a rural area were included in the study. Patients ≥ 18 years of age were included in the study. Those attending OPD with ophthalmic emergency, people with poor comprehension / orientation / not able to speak andthose who doesn't gave consent to participate in the study were excluded. This study held in a primary health center in a rural area of Chennai, Tamil Nadu. Duration of the study is 4 months (From January 2022 to April 2022). Sampling technique is Consecutive sampling among patients attending OPD of Ophthalmology department.

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Sample size was calculated by Considering the prevalence of ophthalmic self-medication to be 29%[1] from a study done in central India from 2017-2018, power to be 80% and error of 5% and non-response rate of 10%, the sample size was calculated by the formula $4pq/l^2$ +10%. The required sample size was 161.Ethical clearance was obtained from Institutional ethics committee of Chettinad medical college and hospital.Written informed consent was obtained from each participant before enrolling into the study.Data were collected with a face-to-face interview by using a semi structured questionnaire. The questioner included questions to assess sociodemographic factors, socioeconomic factors, healthcare-related factors, knowledge, and practice of ophthalmic self-medication.

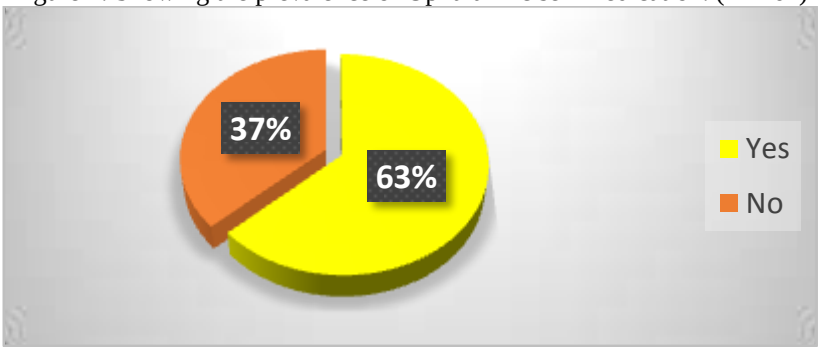
III. OPERATIONAL DEFINITION

Ophthalmic self-medication is defined as ophthalmic application of at least using one of the medications or substance without the advice of allopathic health care professional at least once in the last 2 years. This includes purchase of medicines without a prescription, use of remaining doses from previous prescription, self-renewal of prescriptions, breast milk application, using AYUSH drops, sharing drugs of family members.

IV. RESULT

The study was done on a sample of 161 participants.The prevalence of self-medication was reported 59 participants **(36.6%).**

Figure 1: Showing the prevalence of Ophthalmic self medication. (N=161)

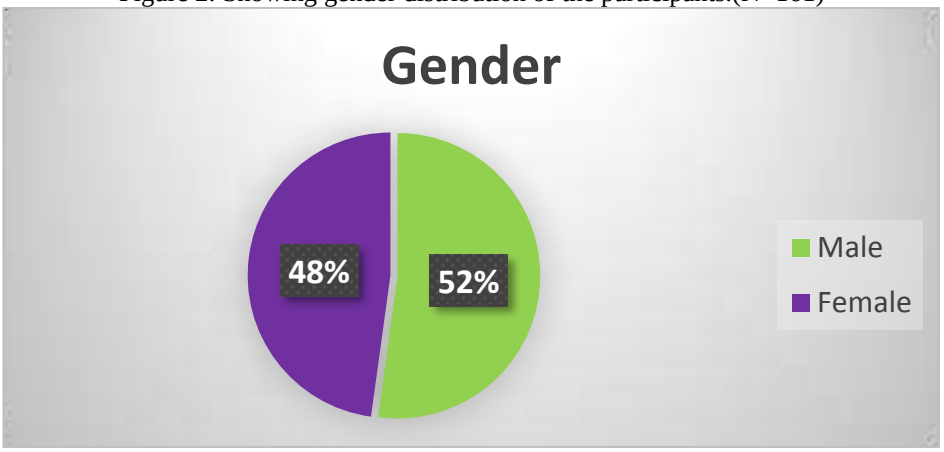


Sociodemographic data

The **Mean**(± SD) age: 41.7± 13.8 years. **Minimum** age: 22 years. **Maximum** Age: 80 years.

Gender

Figure 2: Showing gender distribution of the participants.(N=161)



Socio economic class

BG Prasad scale was used to assess the SEC

Table 1: Showing distribution of the participants according to SEC.(N=161)

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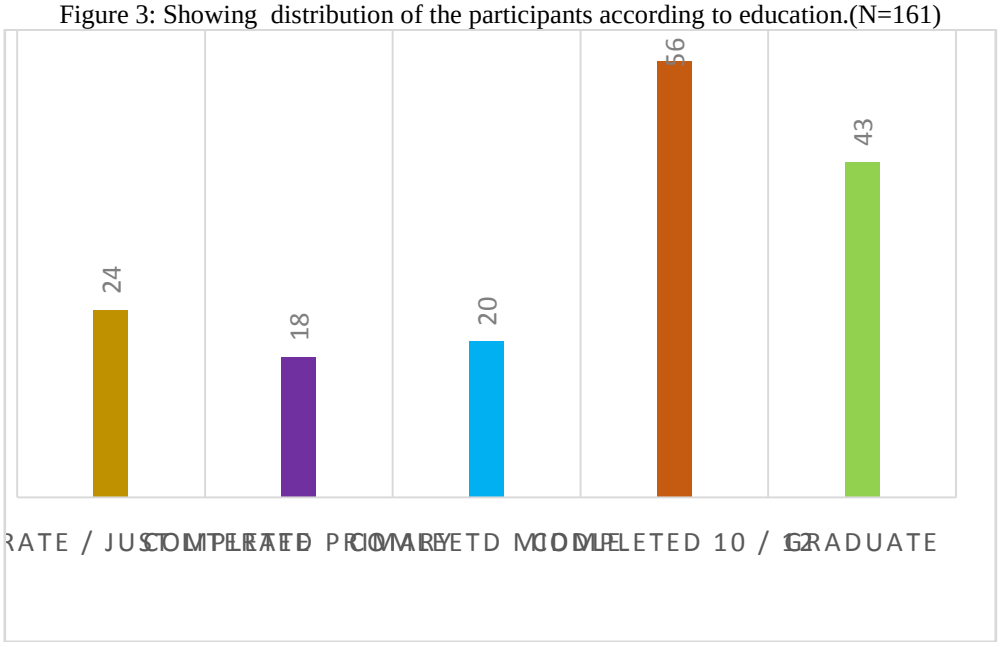
SEC	Frequency (%)
I	0 (0)
II	89 (55.3)
III	42 (26.1)
IV	20 (12.4)
V	10 (6.2)

Education

Figure 3: Showing distribution of the participants according to education.(N=161)



Distance to access an Ophthalmology service

The mean distance from home to a health care facility where ophthalmologist is available was 4.1± 2.8 km.

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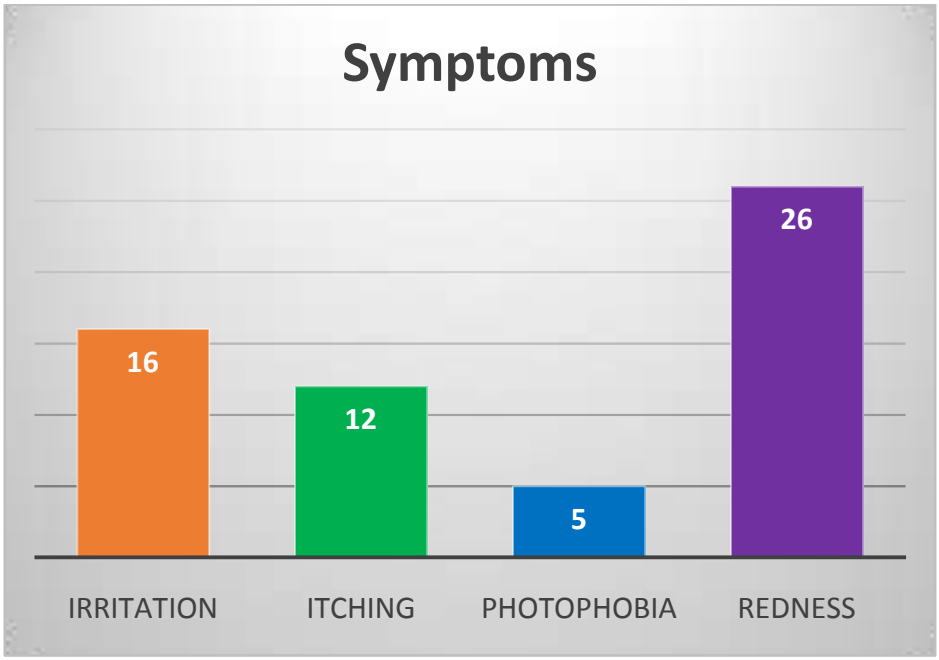
Table 2 : Association of self-medication with socio demographic details

Socio demographic variable	Did not Use self medication	Used self medication	Total	p value (chi-square test)
Gender Female	47 (61)	30 (39)	77	0.62
Male	55 (65.5)	29 (34.5)	84	
Education				0.06
Illiterate – Primary completed	30 (71.4)	12 (28.6)	43	
Completed middle school-completed school	41 (53.9)	35 (46.1)	42	
Graduate	31 (72.1)	12 (27.9)	76	
SES				0.36
II	61 (68.5)	28 (31.5)	89	
III	23 (54.8)	19 (45.2)	42	
IV	13 (65)	7 (35)	20	
V	5 (50)	5 (50)	10	
Distance from home to health care facility				0.56
≤ 5 km	79 (64.8)	43 (35.2)	122	
> 5 km	23 (59)	16 (41)	39	
Total	102 (63.4)	59 (36.6)	161	

Symptoms for which self-medication was taken

Among the 59 participants who had taken self-medication, majority 26 (44%) had taken it for redness of the eyes.

Figure 4: Showing distribution of the participants according to the eye symptom for which self-medication was taken.(n=59)



Factors associated with self medication (n=59)

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Factors associated	Frequency (%)
Choosing the drug	
Advertisement	4 (6.7)
Pharmacist	40 (67.7)
By self	15 (25.4)
Accessibility	
AYUSH shop	6 (10.2)
Home	18 (30.5)
Pharmacy	35 (59.3)
The drug was used by a family member previously	
Yes	8 (13.6)
No	51 (86.4)

Factors associated	Frequency (%)
Learn about the drug before using	
No	47 (79.6)
Yes	12 (20.3)

V. DICUSSION

The use of self-medication was 36.6% in this study it means 1/3rd patient uses self-medication. The rates were high compared to community based Indian study by Lipi Chakrabarty et al (28.99%)[1], in Adimassu et al (28.6%)[2] and study by Gabriel et al study (25.6%). Rates were comparable to Shallam et al (37.5%)[5], Kadri et al (35.47%). The rate was low when compared to study by Gupta R et al (41.2%)[3]. Discrepancy may

be due to the study population, study design, also accessibility to medications over that period of time and inclusion of both modern and traditional medications in the study. According to this study results there was not much of gender difference noted and the most common symptom for which patient seek self-medication is redness.Most common source where they get over the counter drugs isPharmacy which is similar to other Indian studies.Common drugs used according to this study were artificial tears, antibiotics, antibiotic with steroids, application of breast milk and some AYUSH drops.Adult ophthalmic patients with poor knowledge about the hazards of self-medication were more likely to practice self-medication than those who had good knowledge. This finding was agreed with study by Shafie et al, Marquez et al.[7,8]

VI. LIMITATION

The study was done in a hospital setting. Which reflects the study was done on people who are seeking health care services. Thus the prevalence of self-medication might be theoretically lower among these people.The study setting covered mostly only rural population. Hence urban rural difference could not be made.

VII. CONCLUSION

Irrespective of Socio-economic status, gender difference, education qualification, Practice of self-medication is common.The proportion of ophthalmic self-medication was high, which needs attention and proper action to be taken on those who dispense medicines without prescription.Use of self-medication may be as harmful as that the patient may even loose his vision.Awareness to the public and education regarding side effects of self-medication will help in decreasing the use of self-medication.

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