SELF MEDICATION PRACTICES AMONG PATIENTS SEEN IN A SUBURBAN TERTIARY EYE CARE CENTRE IN NIGERIA

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"Self medication is a common practice all over the world. When consumers self-medicate without first consulting the eye care giver, issues of safety and inappropriateness of use arise with the potential to cause varying degrees of long term visual impairment, including avoidable blindness"

ABSTRACT

Objective: To identify practice and pattern of self-medication use among new patients in ophthalmology clinic in a suburban community.

Background: Self medication is a common practice all over the world. When consumers self-medicate without first consulting the eye care giver, issues of safety and inappropriateness of use arise.

Methods: A cross sectional, analytic and questionnaire based study of 470 consecutive patients seen between April and June 2011 in a tertiary eye care centre in Nigeria was conducted. Data were analyzed using SPSS and p value <0.05 was considered significant.

Results: The mean age was 43 ±24 years with a M: F ratio of 1:1.3. There was utilization of an initial medication in 73.6% (346) of the respondents before presentation. Of the group that utilized medication, 108(31.3%) could neither mention name nor show sample of medication used. Only 14.9% of patients consuming nonprescription drugs sought assistance from any health professional regarding proper selection or use. Majority (73.6%) of the patients got their medication following assistance sought from retail outlets of non-prescription medicine, friends, relations or self prescription. The utilized medications were inappropriate in 90% of the respondents who utilized them. The most common symptoms necessitating the utilization of initial medication were blurring of vision and itching.

Conclusion: There was a high rate of self medication with blurring of vision and itching as the commonest complaints among the patients. There is still a very low incidence of preventive eye care in terms of ophthalmic check-up among our people.

Keywords: Self-medication, eye patients, suburban, tertiary eye care centre, practices.

INTRODUCTION

Self medication can be defined as the use of drugs to treat self diagnosed disorders or symptoms or the intermittent or continued use of prescribed drug for chronic or recurrent disease or symptoms.[1] Apart from being a common phenomenon all over the world it has been reported to be very common in the developing countries.[2] While first aid measures are being widely advocated for cuts, foreign particles, chemical splashes and physical trauma to the eyes, the providers and techniques of administration are well specified[3] to lessen the risk of permanent damage caused by eye injuries. Pharmacists, trained primary eye care givers, general medical practitioners have key roles to play in providing patients with assistance, advice and information about medicines available for self-medication. It will be a responsible act for patients to seek assistance from any health professionals regarding proper selection or use of non prescription drugs. The public interest will best be served when self-medication is responsible, only undertaken when it is appropriate to do so and advice is always given to seek a consultation with a physician when that is necessary.

In view of the potential risk of blindness that could be associated with inappropriate use of drugs for what may seem like a minor eye problem we carried out this study to determine the rate, type, appropriateness and influencing factors of self-medication among patients presenting with eye complaints in a tertiary eye care centre in a Nigerian community.

MATERIALS AND METHODS

This was a timed prospective study of all consecutive patients seen in the ophthalmic consulting room of a Tertiary Health Institution in Southwest Nigeria between April and June 2011. The clinic serves the rural and semi urban communities of Ekiti state largely and few others from the neighboring states of Ondo and Osun states. Patients were either referred or self presented to the eye clinic. All the new patients were seen by trained General Ophthalmologists. The study was carried out in line with the ethical standards according to the Helsinki Declaration of 1975 as revised in 1983. Informed consent was obtained from all patients. Information was obtained by direct administration of a structured questionnaire by the ophthalmologist. Information obtained included all demographic characteristics consisting of age, gender, marital status, education level, occupation and history of application of any medication to the eyes before presentation. All patients had pen torch, slit lamp, direct and indirect ophthalmoscopy examinations done to make a diagnosis. Information obtained was imputed into SPSS version 16. Data were analyzed for simple frequency. Variables were compared using a chi square and statistical significance was inferred at P<0.05.

RESULTS

A total of 470 patients comprising 215 males (45.7%) and 255 females (54.3%) with a male: female ratio of 1:1.3 were seen during the period of the study. Age range was 2months to 100years. The mean age was 43.4± 23.9 years. One hundred and seventy six (37.4%) patients had tertiary education, ninety eight (20.9%) had secondary education, eighty four (17.9%) had primary education while one hundred and twelve (23.8%) had no formal education. As shown in Table 1, majority of the respondents were employed while few 5(1.1%) were unemployed.

There was utilization of an initial medication in 73.6% (346) of the respondents while only 26% (124) did not use any medication before presentation. Of the group that utilized medication, majority 238(68.7%) could give the name or sample of medication used while 108 (31.3%) could neither mention name nor show sample of medication used.

Antibiotics constituted the highest group of medications used in 133(38.4%) of respondents as shown in Table 2. The commonest complaint among those who utilized self medication was blurring of vision in 172 (49.7%) as shown in Table 3. Only 7(1.5%) of the respondents came to the clinic just to check the eyes in case there were treatable asymptomatic conditions even though they had no eye complaints. The medication was inappropriate in 300(90%) and appropriate in only 34(10%) while names of drug could not be ascertained in 12 respondents. Only 70 (20.2%)of patients consuming nonprescription drugs sought assistance from any health professional regarding proper selection or use while the majority of the patients 79.8% (276) got their medication following

Table 1. Occupational distribution of respondents

Occupation	Frequency	Percentage
Civil servant	130	27.7
Student	127	27.0
Trading	100	21.3
Dependant	41	8.7
Farming	41	8.7
Artisan	16	3.4
Clergy	10	2.1
Unemployed	5	1.1

Table 2. Group of Eye medications used by patients

Eye medication	Frequency	Percentage
Antibiotics	133	38.4
Antiallergic	39	11.3
Steroids	25	7.2
Non orthodox	20	5.8
Antiglaucoma	15	4.3
Others	6	1.7

Table 3. Presenting Complaint and utilization of Medication

Complaints	Self-Medication		
	Yes	No	Total
Blurring of vision	172(49.7%)	67(54.0%)	239(50.8%)
Itching	82 (23.7%)	20(16.1%)	102(21.7%)
Redness	34(9.8%)	4(3.2%)	38(8.1%)
Eye ache	34(9.8%)	5(12.1%)	49(10.4%)
Growth on the eye	15(4.3%)	5(4.0%)	20(4.3%)
Watering	9(2.7%)	6 (4.8%)	15(3.2%)
No complaint	-	7(5.6%)	7(1.5%)

assistance sought from retail outlets of non prescription medicine, friends, relations or self prescription.

Many more people got their medications from non medical sources regardless of their literacy status. There was no greater odd of utilization of initial treatment with illiteracy. Risk ratio= .896 C.I .628-1.278 P= .313 (Table 4) Risk Ratio for non appropriateness CI = 1.091(1.022-1.163) was higher with the illiterate compared with literate. P value: .029 there was no significant greater odd of utilization of first aid measure among males than females (RR 1.179 CI .780-1.784 P: 0.249).

Majority of the respondents 402 (85.5%) presented at the eye clinic more than 1week after the onset of symptoms while only 68(14.5%) presented within 1 week of the onset of symptoms. Among those who had utilized medication 299 (86.4%) presented more than 1 week after the onset of symptoms (RR 1.205 CI .814-1.785 P: 0.221) there was a greater risk for early presentation among those who did not utilize any first help measures.

Nearly 80% of all ophthalmic diagnosis was sight

Table 4. Prescriber and Appropriateness of Medication versus the Educational class of respondents

	Illiterate n(%)	Literate n(%)
Self- Medication	0(23.1)	266(76.9)
Prescriber		
Medical	17(4.9)	53(15.3)
Non medical	63(18.2)	213(61.5)
Total	80(23.1)	266 (76.8)
Appropriateness of medication		
Yes	3(0.9)	31(9.0)
No	72(20.8)	228(65.9)
Total	75(21.7)	259(74.9)

Figure 1. Final Diagnosis among patients who utilized medications
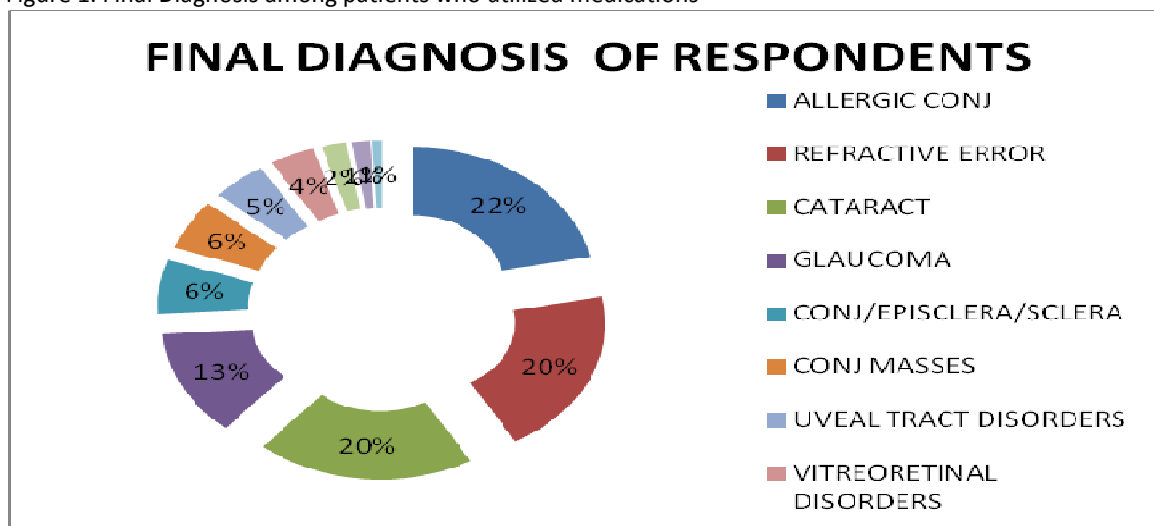
threatening conditions which required treatment with either spectacles for refractive errors, operations for cataract and lid/ conjunctival masses or vitroretinal intervention for vitreoretinal disorders.

DISCUSSION

There were more female respondents than males although this was not statistically significant. There rate of self medication use among the patients in this study was 73.6%. This goes along with the worldwide trend of health problems being treated annually with one or moremore nonprescription drugs as primary therapy or major adjunctive therapy.[4] A hospital based Tazanian study [5] among eye patients reported a 59.8% rate of self medication which was lower than we have reported in this study. Varying rates of self medication utilization have been reported among different populations in different parts of the world. In a study carried out in an ophthalmic outpatient department in a neighboring state of the study location, it was found that majority (79%) of the respondents practiced self medication using an array of drugs [6] and comparable with findings among adolescents in Kuwait which was 92%.[7] This high prevalence of nonprescription drug use, as well as the potential for therapeutic misadventures is a serious health issue and requires the attention of all

stakeholders to reduce the burden.

Blurring of vision constituted the commonest symptom necessitating self-medication utilization among the patients. This implies that visual incapacitation was the major indication for self medication use among our patients. This is contrary to other studies where it has been reported that patients with redness [8] and itching [7,9] engaged in self medication more than others.

Antibiotics were the commonest group of drugs utilized before presentation to the eye care centre even though blurring of vision and itching were the leading symptoms among the respondents. This finding is consistent with another study in which antibiotic use was reported in 73.9% of patients, [10] even though higher than the 38.4% found in our study. The burden of antibiotics abuse is so high to the extent that concerns have been raised by WHO which necessitated a call on the public, prescribers, policy makers, pharmaceutical industry to ensure a responsible use of this category of pharmaceutical agents.[11] The use of antibiotics in our study population was mostly for non infective eye conditions. In this study, patients with major eye problems sought help by self medication with eye drops although most of them were having major sight threatening conditions like cataract, glaucoma, vitreoretinal disorders.

Unfortunately, a very low percentage of the patients (14.9%) consuming nonprescription drugs sought assistance from any health professional regarding proper selection or use. There is therefore a little wonder to find out that almost 90% of the medications used were inappropriate for the condition for which they were utilized. Unassisted nonprescription drug use and selection often lead to therapeutic misadventures and adverse clinical consequences for patients. Onajole et al in Lagos established that 71% of their respondents admitted to drug misuse.[12]

This is contrary to the report from South Africa where a panel of doctors who were consulted in 1988 held the view that self-medication were used as appropriate complement to medical consultation rather than as an alternative.[13] The reason for this may be because the South Africans utilize the over- the- counter care as a complement to medical consultation. Some patients could neither recall names nor present samples of self medication drug used. This could put the health worker in a difficult position when trying to help a patient.

The factors that were observed to influence self medication use are literacy status and gender of the patients. There was a lower likelihood of utilization of self medication among the illiterates than the literates (Risk ratio .903, CI .563-1.448). This finding is similar to some other studies in India, [14] Nepal, [15] and Spain [16] where it was observed that literate people were more likely to self-medicate than illiterate people. The risk for inappropriateness of medication used for diagnosis in question was however higher among the illiterates than the literates (RR 1.091 C.I 1.0221-1.163).

There was no significant greater odd of utilization of first aid among males than females (Risk ratio 1.179 CI .780-1.784). This is contrary to the finding in a study carried out in Spain where it was observed that women utilized self medication more than men.[16]

Many of the respondents presented at the clinic more than 1 week after the onset of symptoms (more than 80% of the respondents). This suggests a delayed presentation among the respondents with a greater degree of delay among those who had utilized self medication (RR 1.205, CI .814 -1.785). The practice of preventive regular eye check for asymptomatic patients was found to be very low in our centre as only 7 patients came to the hospital to have their eye checked for presence of any asymptomatic treatable eye lesion. This habit needs to be promoted in our environment particularly to allow potentially blinding conditions like glaucoma to be detected at an early stage.[17]

In conclusion there was a high rate of self medication utilization among the eye patients and high level of inappropriateness of the medications. Antibiotics were the drugs mostly used while blurring of vision was the most reported symptom. Most of the conditions required more specialized care than use of over the counter medications. There is therefore a need for health education of the populace on the need to desist from self medication for eye care without seeking health advice from appropriate health care professionals.

We therefore recommend that the populace be educated on dangers of self medication, that sale of

drugs without prescription should be limited to the over the counter drugs with emphasis on the need to visit health facilities if symptoms persist beyond 3 days.

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Authors Contributions:

IAA: Concept and Design of the study, analysis and interpretation, manuscript preparation, critical revision of the manuscript, data collection, statistical analysis, and literature search.

OJO: Conceived and designed the study, Drafted and critically revised the manuscript.

KOA: Concept and Design of the study, analysis and interpretation, manuscript preparation, critical revision of the manuscript.

COF: Manuscript preparation.
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EAA: Analysis and interpretation, manuscript preparation critical revision of the manuscript.

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