

KNOWLEDGE, ATTITUDE, AND PRACTICES OF SELF-MEDICATION AMONG ADULT PATIENTS AGED 18 YEARS AND ABOVE RECEIVING HEALTH CARE SERVICES IN THE EYE CLINIC OF JINJA REGIONAL REFERRAL HOSPITAL. A CROSS-SECTIONAL STUDY.

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Page | 1 **ABSTRACT**

Purpose of the study

This was to determine the knowledge, attitude, and practices of self-medication among adult patients aged 18 years and above receiving health care services in the eye clinic of Jinja Regional Referral Hospital, carried out from November 2022 to April 2023.

Study methods

A cross-sectional descriptive study design employing both quantitative and qualitative methods of data collection was used in the form of a questionnaire, 30 patients aged 18 years and above who agreed to be included in the study were used.

Results

Concerning knowledge about self-medication, it revealed that respondents could identify OTC drugs they always use, data analysis and interpretation revealed that respondents' attitude towards the use of self-medication is still high (50%). Concerning practices of self-medication, between 1st December 2022-1st March 2023, the majority (43.5%) had practiced between January and February 2023, 30% had practiced within the last two weeks according to the time frame of the study, and only 26.1% had last used in December 2022, which showed that self-medication practice is still high within the region.

Conclusion

Given these findings, there is still a high need to sensitize the population about the knowledge of OTC drugs, the dangers associated with frequent and prolonged use of these drugs, and how to use them safely.

Recommendations

The government through the Ministry of Health should sensitize the population about the risk factors of wrong use of OTC drugs and the dangers of traditional medicines. It should also extend its health facilities to all areas of the country, and as well make them active by providing drugs and qualified personnel and as well improve the services of the already existing facilities so that people can get help.

Keywords: Knowledge, Attitude, Practices, Self-Medication, Eye Clinic, Jinja Regional Referral Hospital

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Background to the study

Self-medication involves the use of medical products by the consumer to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of medication prescribed by a physician for chronic or recurrent diseases or symptoms (WHO November 2017).

Self-medication has been traditionally defined as; "the taking of drugs, herbs or home remedies on one's initiation or the advice of another person without consulting a doctor. Proper self-medication can reduce health expenses and physical waiting time. However, prescription or Over-the-counter drugs are considered unsafe when used irrationally. According to the research conducted in Thailand, the most commonly used drug groups were NSAIDs (34.8%) and antibiotics (30.2%), particularly in the working-age population, of which (42.6%) of these were not completely cured, and (0.6_6.6) % of these people experienced drug

reactions as a result of self-medication. (Sineenart Chautrakarn, August 2021).

Anti-microbial resistance is a major global health concern with increasing reports of microorganisms resistant to most of the available antibiotics (Irene Nabaweese et al, 2021).

The global prevalence rate of self-medication ranges from 11.2% to 93.7%, among the working-age population in metropolitan areas of Thailand. (Balbuena et al, 2019).

This means that a large population of the world's population uses drugs without first consulting a doctor or health worker. According to the research conducted in Africa, particularly in Sub-Saharan Africa, the existing data mainly concern the overall self-medication rate, which varies from 11.9% to 75.7%; where self-medication appears to be more common in women and is associated with low socioeconomic level (Joseph Y Drabo and Innocent Pierre Guissou, 2015).

In Uganda, there are limited data on antibiotic practices necessitating this study however due to the low accessibility to public health facilities in most of the rural areas, low-skilled manpower in the health sector compared to the population, inadequate drugs in the public health facilities, and the physical waiting time at the facilities constitute a lot in diverting to the local pharmacies and other traditional means by the population to get relieved. To determine the knowledge, attitude, and practices of self-medication among patients receiving eye care services in the eye clinic of Jinja Regional Referral Hospital.

Specific objectives

- 1) To determine the knowledge about self-medication among patients receiving eye care services in the eye clinic of Jinja Regional Referral Hospital.
- 2) To determine the attitude about self-medication among the patients receiving eye care services in the eye clinic of Jinja Regional Referral Hospital.
- 3) To assess the practices of self-medication among the patients receiving eye care services in the eye clinic of Jinja Regional Referral Hospital.

METHODOLOGY

Study design

This was a cross-sectional descriptive cross-sectional study employing both quantitative and qualitative methods of data collection. The study design was selected because it takes a short period during data collection.

Study Area

The study area was the eye clinic of Jinja RRH. The hospital is located in the Eastern region of the country in Jinja Central division, Jinja City near the source of the Nile which is 80 km east of Kampala Capital city of Uganda. It was founded in 1962 and has a bed capacity of 600. The hospital serves several clients/ patients across the region, some of whom are referred from other hospitals and health center IVs while others are self-referred. Among the services provided daily include immunization, HIV testing and counseling, reproductive health services, and safe male circumcision, SMC among others. The hospital has 15 wards which include Surgical Female/Male, Medical Female/Male, TB, Eye, Urology, Grade A, Annex, Psychiatric and Children's wards, Intensive Care Unit, Postnatal, Special Unit, Gynecological and Maternity wards. The study was carried out from August 2022 to May 2023

Study Population

The population was all the patients 18 years and above receiving eye care services in the eye clinic at Jinja Regional Referral Hospital.

Sample size determination rationale

Thirty (30) patients were selected and interviewed for the study.

A small number of respondents were chosen for easy data collection.

Using Button's (1965) formula to calculate the sample size, 30 respondents were selected and interviewed during the study.

$S = GR/O$

Where s = Sample size

G = Number of people interviewed

R = Maximum number of days for data collection

Maximum time the interviewer spends on each respondent

There, $S = 5 \times 3 / 0.5$

= **30 respondents**

Sampling technique

A simple random Sampling technique was used to select 30 respondents. Because everyone in the target group had equal chances of being included in the study, 60 papers were written on **Yes** and **No** which were distributed to them in the eye clinic. Only the 30 respondents who picked the **Yes** papers were included in the study.

Inclusion criteria

Only patients 18 years and above found in the eye clinic at Jinja Regional Referral Hospital who agreed to consent to the study were included in the study.

Dependent variables

- Knowledge about self-medication practice
- The attitude of self-medication practice
- The practices of self-medication practice by the patients

Data collection tool

Self-administered questionnaires will be used as the major data collection tool. The questionnaire will consist of both open and close-ended questions.

Data collection procedure

Before giving out the questionnaires, the researcher fully explained the questions to the respondents. Each filled-in questionnaire was checked for accuracy and completeness and kept in a safe place by the researcher. Data was collected for 5 days as 6 respondents taking 20-30 minutes were interviewed daily until the required sample size was obtained.

Pre-testing the study

The study tool was pre-tested on a few patients attending the eye clinic before the day for data collection and necessary adjustments were made where errors were identified to ensure validity and reliability.

Data quality control

This was done through pre-visiting, training of research assistants, and pre-testing of the questionnaire data.

Data analysis and presentation of the report

The data collected was manually analyzed through tallying and was presented in tables, figures, and statements. A computer was used to type the report

Ethical consideration

On approval of the research proposal by the school, a letter of introduction was provided by the Principal Ophthalmic

Clinical Officers Training School and then it was delivered to the hospital director Jinja Regional Referral Hospital who granted permission to the researcher to undertake the study in the hospital. The researcher then introduced himself to the in-charges of the eye clinic and to the respondents to get their consent after a clear explanation of the objectives of the study. The respondents were assured of absolute confidentiality and anonymity throughout the study.

RESULTS

Socio-demographic characteristics of the respondents

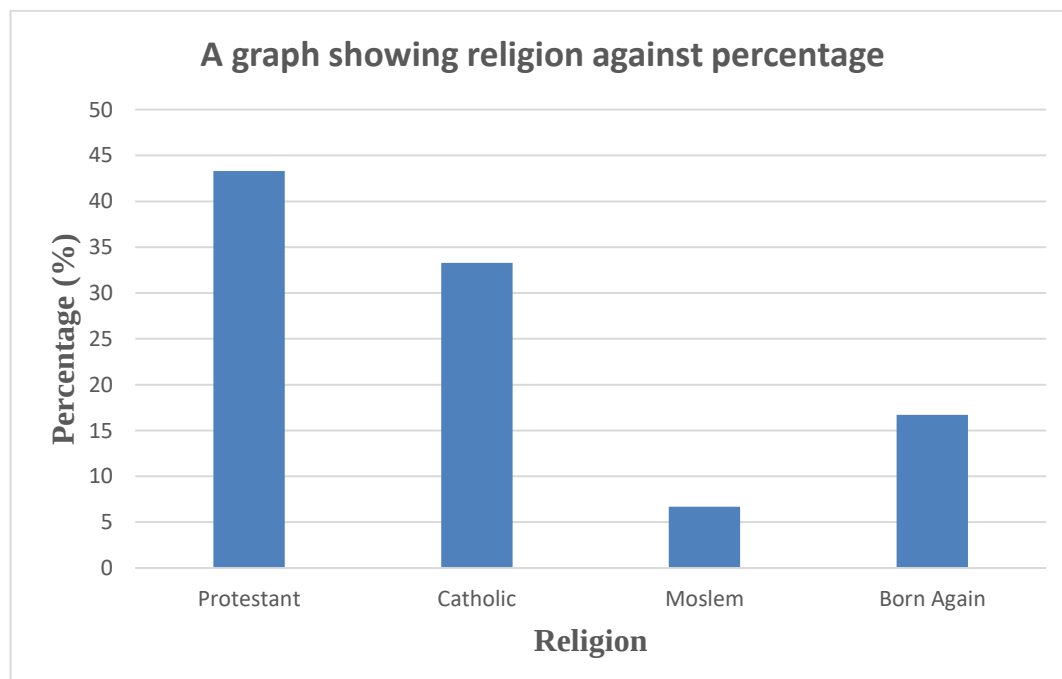
Table 1: Shows the age and tribe of the respondents (n=30).

Responses	Frequency (n=30)	Percentage %
Age (years)		
18-30	10	33.3
31-40	12	40
50 and above	8	26.7
Total	30	100
Tribe		
Buganda	7	23.3
Busoga	20	66.7
Bunyankole	3	10
Total	30	100

According to demographic data of respondents on age, most of the respondents, (40%) were between 31-40 years, while the minority (26.7%) were 50 years and above.

On tribe, most of the respondents (66.7%) were Basoga, while the minority (10%) were Banyankole.

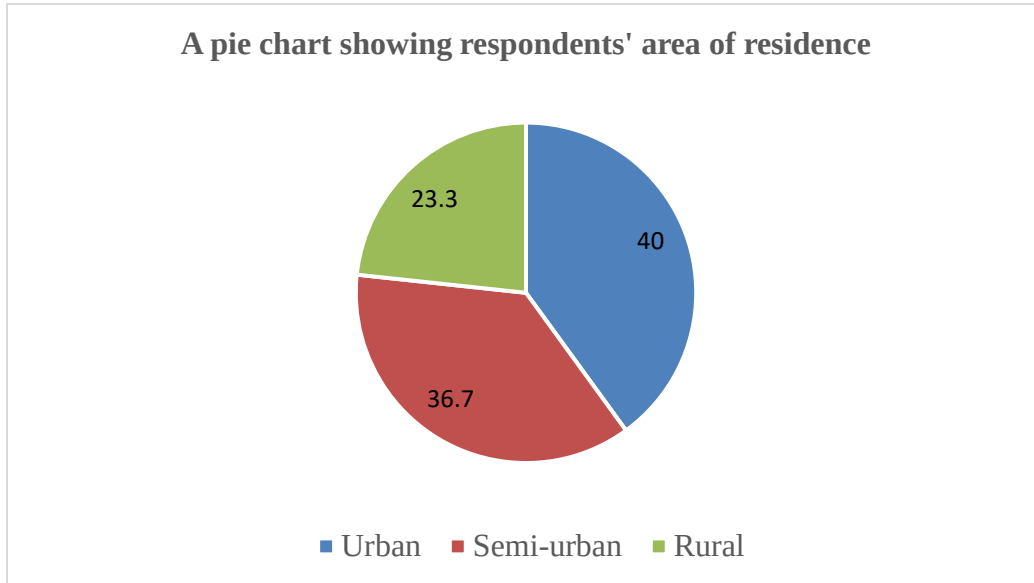
Figure 1: Showing the respondents' religion (n=30).



Most of the respondents according to religion were Protestants (43.3%), while the least (6.7%) were Moslems.

Figure 2: Showing respondents' area of residence (N=30).

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Concerning the area of residence, the majority of the respondents (40%) were from urban areas, and the minority (23.3%) were from rural areas.

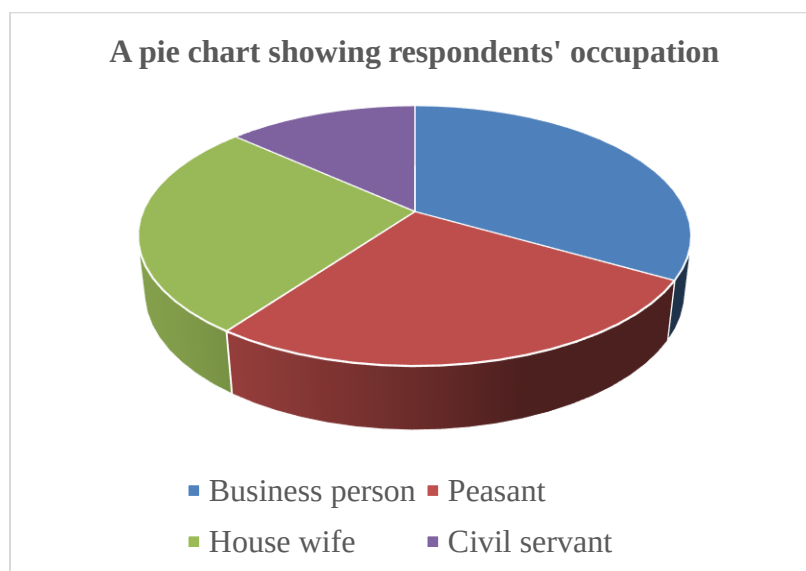
Table 2: Showing respondents' marital status and education level (n=30).

	Frequency	Percentage (%)
Marital status		
Single	11	36.6
Married	14	46.7
Separated	5	16.7
Total	30	100
Education level		
Primary	9	30
Secondary	12	40
Tertiary	9	30
Total	30	100

Marital status of the respondents established that the biggest percentage, (46.7%) were married, while the smallest, (16.7%) were separated/ divorced. According to education

level, most of the respondents (40%) had reached secondary, (30%) were primary dropouts while 9/30 (30 %) had attained a tertiary school level of education

Figure 3: showing respondents' occupation (N=30).



On occupation, most (33.3%) of the respondents were business people, while the least (13.3%) were civil servants.

Knowledge about self-medication

Table 3. Showing respondents' knowledge about self-medication.

Responses	Frequency (n=30)	Percentage (%)
Mention any drugs that can be obtained without a health worker's guidance.		
TEO eye ointment and (or) CAF eye drops	15	50
Paracetamol (Panadol)	4	13.3
TEM (Pounded leaves and roots)	5	16.7
Amoxicillin / Ampiclox capsules	6	20
Which ones have you ever used?		
TEO eye ointment and (or) CAF eye drops	10	33.3
Amoxicillin / Ampiclox capsules	5	16.7
Paracetamol (Panadol)	3	10
TEM (Pounded leaves and roots)	5	16.7
Never used self-medication	7	23.3
Which diseases were you treating?		
Cough and cold	5	16.7
Eye diseases	19	63.3
Body pain	4	13.3
Abdominal pain	2	6.7
From where did you get the drugs?		
Shop	19	63.3
Friend	7	23.3
Garden	4	13.3

Do you know any problems of self-medication?		
Yes	15	50
No	5	16.7
Not sure	10	33.3

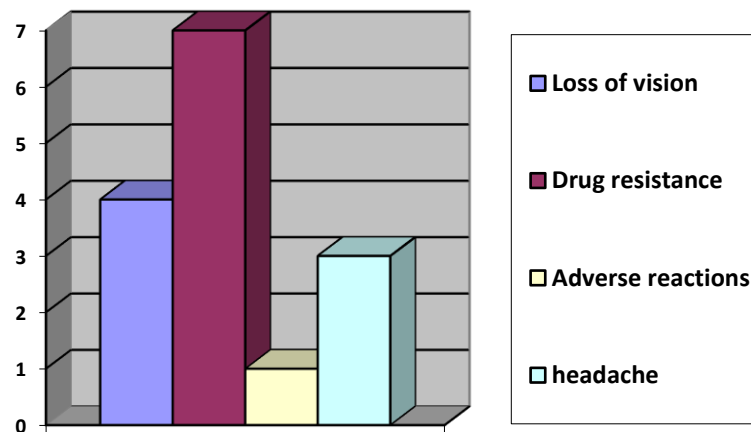
According to Table 2, when respondents were asked to mention any drugs, they know that can be obtained without a health worker's guidance, half (50%) mentioned TEO eye ointment and (or) CAF eye drops, while a few (13.3%) mentioned paracetamol (panadol).

Regarding the self-medications, they have used, the majority of the respondents (33.3%) mentioned TEO eye ointment and (or) CAF eye drops, while only (10%) mentioned paracetamol.

Concerning the conditions that respondents were managing, most of them (63.3%) mentioned eye conditions, well as the least (6.7%) mentioned abdominal conditions.

Regarding the source of medication, the majority (63.3%) had bought them from shops, while the minority (13.3%) from gardens. When respondents were asked whether they knew of any side effects of self-medication, half 15 (50%) answered yes, 10/30 (33.3%) were not sure of any side effects, and 5/30 (16.7%) answered no.

Figure 4: showing the side effects of self-medication (n=15)

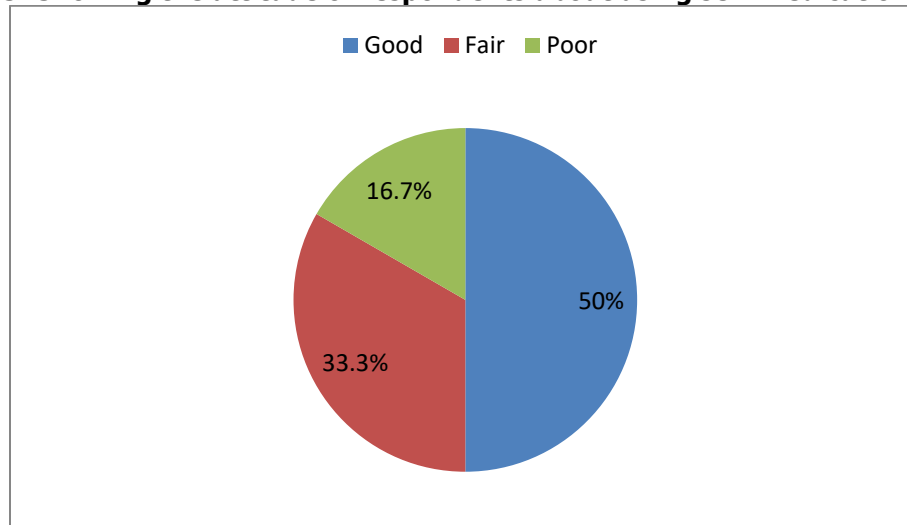


According to Figure 4 above, among the 15 respondents who knew the side effects of self-medication in Table 2 above, 7/15 (46.7%) mentioned drug resistance, 4/15

(26.4%) mentioned loss of vision, 3/15 (20%), mentioned headache, while 1/15 (6.7%) mentioned adverse reactions.

Attitude about self-medication

Figure 5: Showing the attitude of respondents about using self-medication (n=30).



Concerning the attitude of using self-medication by the respondents, the majority (50%) showed a good attitude. Only (16.7%) showed a poor attitude towards the use of self-medications.

Practices of self-medication

Table 4: Showing the practice of self-medication by the respondents between 1st December 2022- 1st March 2023 (n=23).

When did you use self-medication	Frequency (n=23)	Percentage (%)
Last used in December 2022	6	26.1
Between Jan and Feb 2023	10	43.5
Within the last 2 weeks	7	30

According to the study findings, the majority of the respondents (43.5%) had used self-medication between January and February 2023, while the least (26.1%) had last used in December 2022.

Discussions

According to socio-demographic data of respondents on age, the target was those aged 18 years and above and the findings showed that the majority (40%) of the respondents were aged between 31-40 years, followed by those from 18-30 years with a percentage of (33.3%) while the minority (26.7%) was above 50 years. This implies that the age bracket of 31-40 years is the one mostly associated with eye conditions.

On tribe, the majority of the respondents (66.7%) were Basoga, an indication that it is the dominant tribe in the area. On religion, the majority (43.3%) were Protestants while the minority (6.7%) was the Moslems. Concerning the area of residence, most of the respondents were from urban, an indication that most of them were from within the area.

Concerning marital status, the highest number (80%) was married which was important as people with eye conditions require social support due to poor sight and immobility. The education level of the respondents established that (40%) of the respondents were secondary dropouts, followed by (30%) who were primary dropouts. Such people often have poor health-seeking behaviors as they tend to self-medicate instead of seeking treatment from qualified personnel.

Knowledge about self-medication

The objective of the study was to determine the knowledge about self-medication among patients receiving eye care services in the eye clinic of Jinja Regional Referral Hospital. Data analysis and interpretation revealed the following major findings under this objective. It revealed that all respondents were able to list the drugs that can be obtained without a prescription, and (50%) of the respondents mentioned TEO eye ointment and CAF eye drops because the eye clinic is where there are many patients with eye conditions, (20%) mentioned Amoxicillin and Ampiclox capsules, (16.7%) mentioned TEM (pounded leaves and

roots), while (13.3%) mentioned paracetamol. These findings indicate that respondents are aware of the OTC drugs. This is probably because they always use these drugs as their first aid, they are available and cheap on the market and they get relieved after use of these drugs. These findings agree with a study done by Hashmzaei et al. BMC medical education. 2021 in South East of Iran where participants were asked to name three OTC drugs (70%) knew self-medication, and only (30%) had no idea. This implies that people can identify the OTC drugs that they always use.

Regarding the use of OTC drugs by the respondents, (33.3%) had used TEO eye ointment and / CAF eye drops, (16.7%) had used Amoxicillin / Ampiclox capsules, (16%) had used TEM (pounded leaves and roots), (10%) had used paracetamol, and (23.3%) had never used self-medication. This is an indication that the majority of the respondents use self-medication. This is probably because of the availability of these drugs in shops, and that others (TEM) can easily be got from their gardens, it is time-saving, which agrees with research conducted in Bahrain, by Henry James et al. 2006, where patients' knowledge about self-medication was that it was time-saving, economical, convenient and providing quick relief in common illnesses.

According to the study results about which conditions respondents were treating, (63.3%) mentioned eye conditions, (16.7%) mentioned cough and cold, (13.3%) mentioned body pain while (6.7%) mentioned abdominal conditions. These findings indicate that the above conditions are very common in the region and given the right prescription of the above-stated drugs by a physician, these conditions can easily be managed. This is probably because conditions like cough and a common cold can be managed by antibiotics like Amoxicillin/ Ampiclox capsules, body pain, and headache can be managed by paracetamol, TEO eye ointment, and CAF eye drops can manage some bacterial eye conditions, given a right prescription of all the above. These findings agree with a study conducted by Henry James et al 2018, in Bahrain, where the most common conditions for self-medication were to relieve the symptoms of headache (70.9%), cough, cold and sore throat (53.7%), stomachaches (32.8%) and fever (29.9%).

Regarding the source of medication, findings revealed that the majority of the respondents (63.3%) obtained their drugs from shops, (23.3%) from friends, and (13.3%) from a garden. This shows that the major source of these OTC drugs is shops, because even those who get them from their friends also get them from shops, and then gardens indicate that people are still using TEM. The above is so because drug shops are found everywhere all over the country and can easily be accessed compared to health centers and hospitals, after using the drugs for some time and they get relieved, they stop the medication and give the rest to their friends. These findings agree with those of Cecilia S Sambakunsi et al. Dec 2019, where a majority of the drugs were from market vendors and pharmacies without prescription, leftovers from previous treatment, and shared with friends and family.

When patients were asked about any side effects of self-medication, results showed that half of the respondents (50%) knew about the side effects, (33.3%) were not sure, and (16.7%) had no idea about side effects. This shows that of the (50%), some know because they have used the drugs many times and they just realized, those who have no idea either use but have not taken time to realize the side effects, or they are among those few (23.3%) who have not used self-medication, and each of the (50%) who knew the side effects was able to mention the side effects they got after using OTC drugs, as summarized in figure 1 above. These findings agree with a study conducted by Elong Enkabi G-A et al 2019, where overall respondents believed that abuse of antibiotics can lead to side effects, where over half (58.2%) were able to name the side effects related to the consumption of antibiotics.

Attitude of self-medication

The objective of the study was to determine the attitude of self-medication practice by the patients receiving eye care services at the eye clinic of Jinja Regional Referral Hospital. Data analysis and interpretation revealed that the majority of the respondents (50%) had a good attitude, followed by (33.3%) whose attitude was fair, and just a few, (16.7%) had a poor attitude towards the practice. These findings indicate that there is still a high attitude towards self-medication practice. This is probably because of the easy access to OTC drugs from shops, being locally available (herbal medicine), the low price of OTC drugs, and long distances to reach health facilities. These findings agree with (Razan Khalid Alduraibi et al 2021-2022.) according to a study conducted in Buraydah, Saudi Arabia among the natives in rural areas, where their attitude towards self-medication was high due to the availability of OTC medicines and the belief in its safety, which carried a score of 3.9/5 as the main cause according to the study.

This means that as long as the population can get access to OTC drugs and herbal medicines, the majority of them will continue to practice self-medication.

The practices of self-medication

The objective of the study was to determine the practices of self-medication by the patients receiving eye care services at the eye clinic of Jinja Regional Referral Hospital. When respondents were asked how often they had used self-medication between 1st December 2022-1st March 2023, data analysis revealed that the majority (43.5%) had practiced between January and February 2023, meaning that they do it almost monthly, (30%) had practiced within the last two weeks according to the time frame of the study, while only (26.1%) had last used in December 2022. These findings indicate that the rate of self-medication practice is high in this region. This may be due to a lack of awareness, and lack of knowledge about the dangers of self-medication, all of which may result in increased use of OTC drugs. The findings to some extent agree with (Razan Khalid Alduraibi and Waleed Mohammad Altowayan 2021-2022.) in a study

conducted in Saudi Arabia, among the clients attending the family planning services at Oassin Hospital, where more than half (63.9%) of the respondents reported that they had practiced self-medication in the last six months according to the study. This implies that self-medication practice is still at a high rate in the population, and for the health of people, control measures have to be put in place.

Conclusions

This study specifically sought to determine the knowledge, attitude, and practices of self-medication among the patients receiving eye care services at the eye clinic of Jinja Regional Referral Hospital. The study established that respondents were aware of the common OTC drugs used which included TEO eye ointment, CAF eye drops, paracetamol, TEM (pounded leaves and roots), amoxicillin, and anilox capsules, treating conditions like; eye conditions, body pains, abdominal conditions, cough and cold, obtaining them from shops, friends and gardens. Half of the respondents (50%) didn't know about the side effects of these drugs.

Findings indicate that the respondents' good attitude towards self-medication is high, (over 50%) which is a concern to be addressed. The self-medication practice rate is so high, whereby (76.7%) of the respondents had used self-medication from 1st December 2022-1st March 2023, they have no limit on when, how, and why to use these drugs. Given these findings, there is still a high need to sensitize the population about the knowledge of OTC drugs, the dangers associated with frequent and prolonged use of these drugs, and how to use them safely.

Recommendations

All drug shops should have skilled personnel to attend to their customers, interact with them, come up with the right diagnosis, and explain to their patients the right doses needed to minimize the misuse of drugs. This should be reinforced by the government through strict rules about this. The government through the Ministry of Health should sensitize people on the dangers of self-medication, and the dangers of traditional medicines. Similarly, health workers especially eye professionals should sensitize people to the dangers of TEM on the eyes.

The government should extend its health facilities to all areas of the country, and as well make them active by providing drugs and qualified personnel and as well improve the services of the already existing ones so that people get help.

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LIST OF ABBREVIATIONS

AMR: Antimicrobial Resistance

JRRH: Jinja Regional Referral Hospital

NSAIDS: Non-steroidal Anti-inflammatory Drugs

OTC: Over-the-Counter

TEM: Traditional Eye Medication

UAHEB: Uganda Allied Health Examinations Board

WHO: World Health Organization

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Conflict of interest

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