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THE PREVALENCE OF SELF-MEDICATION PRACTICE AMONG UNDERGRADUATE STUDENTS AT LIRA UNIVERSITY, LIRA DISTRICT. A CROSS-SECTIONAL STUDY.

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ABSTRACT.

Background:

The study aims to determine the prevalence of self-medication practice among undergraduate students, at Lira University, Lira district.

Methodology:

A cross-sectional study was conducted among undergraduate students, at Lira University. The study was conducted at Lira University. The university is located in Ayere village, Barapwo parish, Lira sub-county, Erute County in Lira district. It covers a total area of 621 acres (251.3 hectares). Lira University has 3 faculties i.e. faculty of Management Sciences, Health Sciences, and Education and it runs 17 programmes, with a total enrolment of 976 students (531 males and 445 females) by the academic year 2018/2019. The study population was all students enrolled in undergraduate programs at Lira University, Lira district. By use of the purposive sampling technique, Lira University undergraduate students were chosen. Stratified random sampling was used to divide the study population into strata of gender (male or female). Simple random sampling was used finally to identify the participants that were involved in the research from each stratum.

Results:

Out of those who participated in the study, 129(45.42%) were females and 155(54.58%) were male. The prevalence of self-medication was 82.95%.

Conclusions:

The prevalence of self-medication among undergraduate students was found to be 82.95% which was considerably high.

Recommendations:

National guidelines and policies on medical access should be developed, need for public medical insurance for all people in the community, needs to be investigated more on student-related factors.

Keywords: Prevalence, Self-Medication, Undergraduate, Practice, Lira University

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BACKGROUND OF THE STUDY.

Self-medication practice is the selection and use of medicines by individuals or a member of the individual's family without a physician's order to treat self-recognized or self-diagnosed conditions (Ebabu, Amsalu, Ayal, & Geta,2019). Self-medication with over-the-counter (OTC) remedies is therefore a common practice in both developed and developing countries (Uganda inclusive) which can have adverse effects and may contribute to the emergence of drug-resistant pathogens (Suleiman,2013). A study conducted by Ebabu et al., (2019) noted that Improper self-medication could lead to serious adverse drug reactions, overdose, drug toxicity, emergence of drug-resistant pathogens, drug dependencies, and wastage of resources, hence resulting in serious health hazards for the individuals and population at large. This study aims to document the prevalence of self-medication practice

among undergraduate students at Lira University, Lira district.

METHODOLOGY

Study design.

A cross-sectional study was conducted among undergraduate students at Lira University, Lira district

Study area.

The study was conducted at Lira University. The university is located in Ayere village, Barapwo parish, Lira sub-county, Erute County in Lira district. It covers a total area of 621 acres (251.3 hectares). Lira University is one of the Public universities in Uganda and started as a Constituent College of Gulu University in 2009 and attained autonomy as a fully-fledged Public University through an Act of Parliament under Statutory Instrument 2015 No. 35. The university has a fully constituted Council, Senate, Appointments Board and other committees to run its affairs. Lira University has currently 3 faculties ie faculty of Management Sciences, Health Sciences, and finally Education and it runs 17 programs in total. The university has a total enrolment of 976 students (531 males and 445 females) in the academic year 2018/2019.

Study Population.

The study population was all students enrolled in undergraduate programs at Lira University, Lira district.

Sample size Determination.

The sample size determination was based on Yamane (1967:886) with an error of 5% and a confidence interval of 95% (Yamane, 1967). By calculation as below, the sample size was 284 students.

Yamane (1967:886) .

Table 1: Sample size determination.

$n = \frac{N}{1 + N(e)^2}$ n = required sample size e= Level of precision 0.05 N = Population Size (Total number of students)	n= $\frac{976}{1+976(0.05)^2}$ = $\frac{976}{1+976(0.0025)}$ = $\frac{976}{1+2.44}$ = 284 n= 284

Sampling Procedure.

By use of the purposive sampling technique, Lira University undergraduate students were chosen since they would give a larger sample to represent the general population.

Stratified random sampling was used to divide the study population into strata of gender(male or female). Two lists of students with their telephone contacts separated according to gender were obtained from the university authority fully numbered from 1 up to 531 for males and 445 for females. From each list, a sample was obtained proportionately to reach the sample size required.

The formula was used to determine the sample size in each group.

X= (K/N) *n Where,

K= population in each stratum

N= Study population

X= Number of samples required from each stratum

N= sample size

Therefore, the numbers of males were 155 and females were 129.

Thereafter, simple random sampling was used to identify the participants involved in the research from each stratum. This was done by numbering small pieces of paper from 1 to 531 in one box for males and another box containing small pieces of paper numbered from 1 to 445 for the females. Therefore, the number chosen corresponded to the participant's number on the sampling frame and he/she stood a chance to be included in the research. That was repeated until the required number from each stratum was obtained.

Each selected student was contacted by phone, and their consent was taken by explaining what the research was all about and emphasizing confidentiality once the information was attained. Then the questionnaire was read to them while the research assistant recorded the answers on each day. That was done since students were not available at the university due to the guidelines passed by the government of Uganda in conjunction with the Ministry of Health to send students back home as an important intervention strategy for preventing the COVID-19 pandemic's spread.

The research team on each date of data collection established the number of students to participate in the study. Approximately, thirty respondents were interviewed daily from Monday to Friday for two weeks.

Data collection methods.

The data was collected over two weeks (30 respondents per day) from the participants who were selected using the above methods. Finally, completed questionnaires were collected and kept under lock by the researcher.

Quality Control

Validity.

The self-administered, semi-structured questionnaire was assessed for content validity by the research supervisor. They were edited, and questionnaires were pretested on 10 students to check on the errors and ensure accuracy and relevancy.

Reliability.

The questionnaire was developed by reviewing different literature. The pre-test was conducted and any ambiguity was modified based on pre-test findings.

A total of 6 data collectors were recruited for data collection. A day of training was given about the basic techniques of the data collection procedure.

Data processing and analysis.

Descriptive statistics such as frequency (%), mean, and SD were used to present participants and their characteristics as appropriate. The Epi Info 7 software was used for data analysis at the level of significance of $P<0.05$.

Ethical considerations.

The study was approved by the research committee of Mountains of the Moon University. The participants were informed of the aim and objectives of the study and written informed consent was obtained before data collection. Participants also had the right to withdraw from participating in the study at any time during data collection. Confidentiality of the data was assured by collecting information anonymously and not including personal identifiers.

RESULTS.

Table 2: Gender of students

Gender	Frequency	Percent
female	129	45.42%
male	155	54.58%
Total	284	100.00%

Out of those who participated in the study, 129(45.42%) were females and 155(54.58%) were male.

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Table 3: Religion of the students

Religion	Frequency	Percent
Anglican	80	28.17%
Born again	63	22.18%
Catholic	94	33.10%
Moslem	31	10.92%
others	16	5.63%
Total	284	100.00%

Most participants were catholic (33.14%), followed by Anglican (28.17%), Bornagain (22.18%), Moslem (10.92%) and others (5.63%).

Table 4: Faculty to which the students belonged

Faculty	Frequency	Percent
Education	56	19.72%
Health sciences	148	52.11%
Management sciences	80	28.17%
Total	284	100.00%

Majority of the students were from the faculty of health sciences.

Table 5: Year of study

Year of study	Frequency	Percent
Four	51	17.96%
One	68	23.94%
Three	99	34.86%
Two	66	23.24%
Total	284	100.00%

Majority of the respondents were in year three 99(34.86%)

Table 6: Marital status of the student

marital status	Frequency	Percent
Divorced	3	1.06%
Married	68	23.94%
Single	213	75.00%
Total	284	100.00%

213(75.00%) students were single, 68(23.94%) were married and 3(1.06%) divorced.

Table 7: Sponsors of tuition

Tuition	Frequency	Percent
parent/guardian	130	45.77%
Government	74	26.06%
Self sponsorship	80	28.17%
Total	284	100.00%

Most of the students were paid by their parents/guardian (45.77%), followed by self- sponsorship (28.17%) and finally government sponsorship (26.06%).

Table 8: Father's occupation of participants

Fathers occupation	Frequency	Percent
Business	72	25.35%
Government worker	62	21.83%
Non-government worker	39	13.73%
Others	9	3.17%
Peasant	102	35.92%
Total	284	100.00%

Most occupation of the fathers to the participants was peasant 102(35.92%).

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Table 9: Mother's educational level of the students

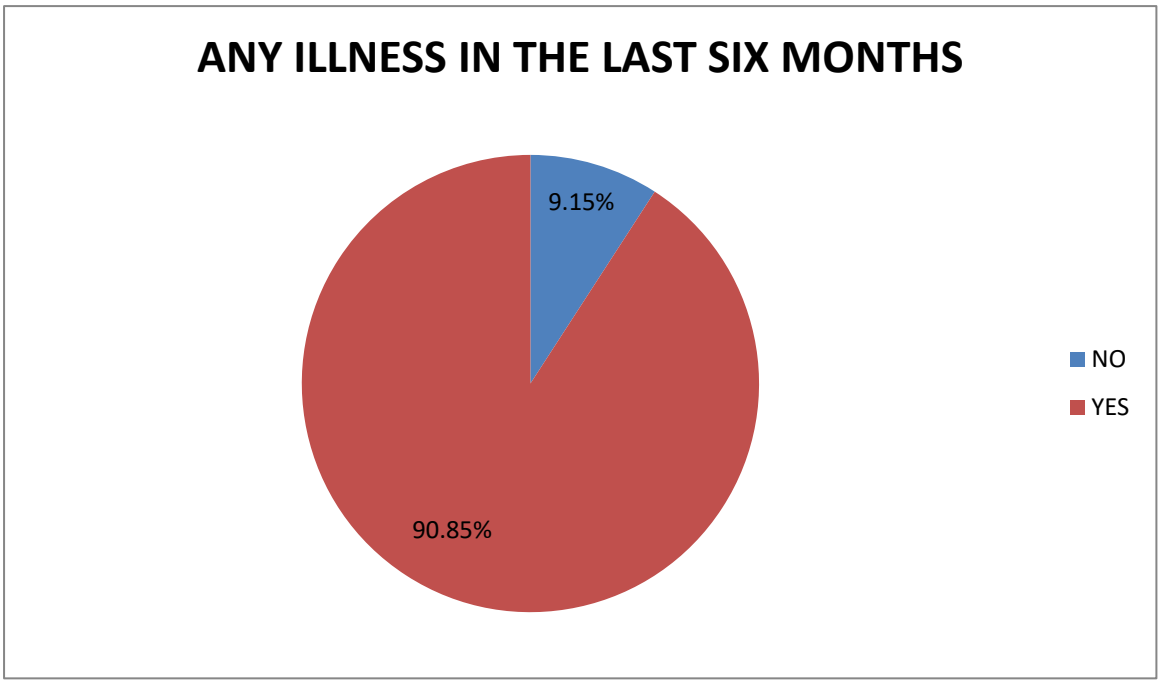
mother's education	Frequency	Percent
None	56	19.72%
Primary	97	34.16%
secondary	80	28.17%
Tertiary	51	17.95%
Total	284	100.00%

Most of the students had their mother's complete primary education 97(34.16%), followed by secondary 80(28.17%), none of them 56(19.72%), and Tertiary 50(17.95%).

The mean age is 25.

Prevalence.

Figure 1: Whether students suffered from any illness in the last six months



258(90.85%) had suffered from an illness in the last six months from the time of data collection. Only 26(9.15%) had not.

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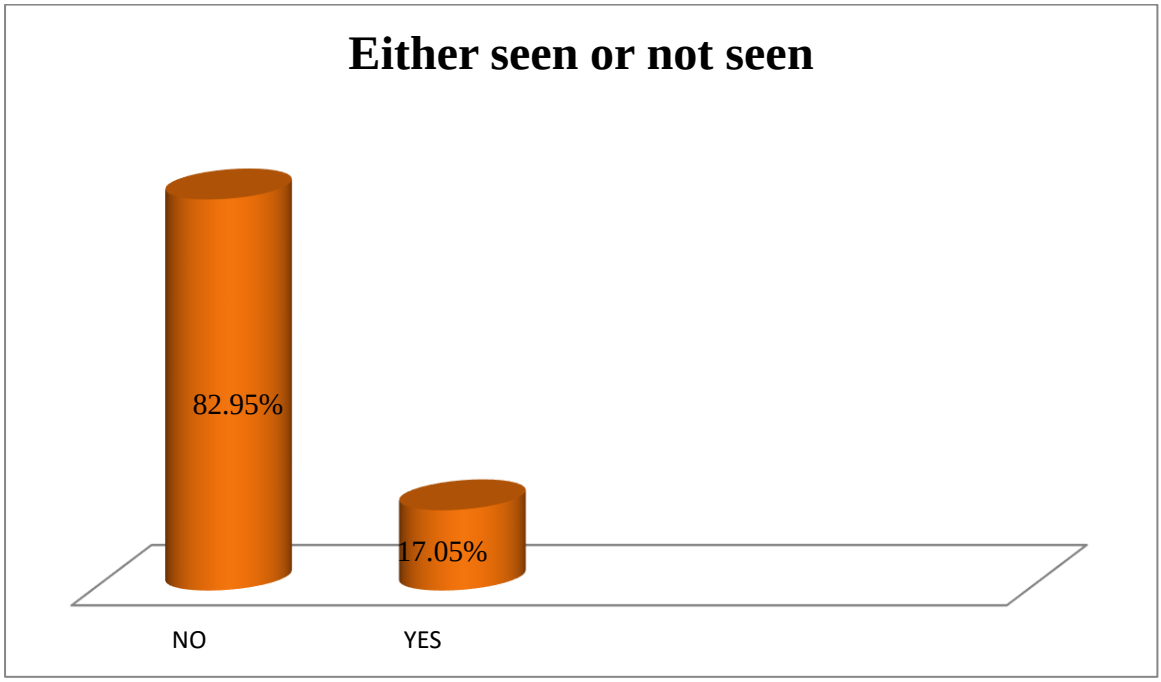
Figure 2: Number of students seen by the doctor or not



Of the 258 who suffered from an illness, 214(82.95%) were not seen by the medical doctor or physician. Only 44(17.05%) were seen by doctor.

DISCUSSION.

Prevalence of Self-Medication

214(82.95%) of those who got sick took drugs from sources other than prescribed by the doctor and hence self-medicated. This meant that majority of students had easy access to drugs without prescriptions. The high prevalence could also be attributed to the limited time students have to spend outside class to seek health care services forcing them to obtain drugs from sources other than from the health facility.

This study agreed with other studies done among undergraduate students in Nepal by Osama et al, 2018 where the prevalence was 81.8%, a study noted the prevalence to be at 84.39%. In another study by Teke, Letisia& Suh, 2017, the prevalence of self-medication was 86.50%, A study done in Egypt showed that 96% of the participants used medications without any medical prescription, (Wael, Madeha, Nadia & Rokaya, (2020)).

The study results disagreed with other studies conducted by Ademola, 2017 on 392 undergraduate students in Kampala, where the prevalence of self-medication was found to be 69.4% which was slightly lower than that of the current study, among Iran women by Mahmood et al, 2009 it was at 76%.

In this study, the commonest drugs consumed were painkillers (80.37%), followed by antibiotics (71.49%), and finally antimalarials (46.73%). The painkillers were mostly used because just like their names suggest, they relieve pain much more quickly and faster than the other drugs.

In line with the above findings, research done in Egypt noted the most frequently self-administered drugs as being analgesics (59.5%) and antibiotics (23.5%),(Wael, Madeha, Nadia &Rokaya,(2020)).

Another study finding noted analgesics (84.39%) as the most commonly used drugs, hence in line with the present study findings. However, it disagreed with the use of antimalarials (52.60%) and antibiotics (41.62%) relating to the current result, (Teke, Letisia& Suh, 2017).

The result findings noted the commonest sicknesses suffered from by the participants as; headache (29.38%), flu/cough (18.96%), fever (14.69%), skin infections (12.80%), and diarrhea (11.37%). These conditions prompted the participants to take medicines that were not prescribed. The study findings were consistent with another research conducted among university students in Rwanda (Jacques et al. 2019), where the main diseases treated were common cold/flu/cough at (47.83%), sore throat at (14.49%), diarrhea at (13.04%), skin infections at (13.04%) and eye infections at (1.45%), headache (2.90%), and wound (1.45%). This study also is in line

with another study that noted the following, headache at 65.4%, colds at 41.9%, menstrual difficulties in women at 49.3%, and cough or sore throat at 27.2 % (Ferreira KS, al, 2017)

CONCLUSION

The prevalence of self-medication among undergraduate students was found to be 82.95%.

RECOMMENDATIONS

• Because the drugs are easily accessed over the counter, national guidelines and policies on medicine access should be developed and strong and strict measures implemented to halt the selling of medications without a proper prescription.

• There is a need for other researchers to investigate more on the student-related factors to self-medication since the research is based more on the health facility factors.

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LIST OF ABBREVIATIONS

SD. standard deviation

COVID 19 Coronavirus Disease 2019.

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This study was not funded.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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