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Self-Medication among Patients Attending Kampala International University Teaching Hospital Out-Patient Department Ishaka-Bushenyi District, Western Uganda

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ABSTRACT

Self-medication use has led society to antibiotic resistance, a serious health problem worldwide. This study aimed to assess the prevalence, factors, common drugs used to treat the common symptoms, and sources of the drugs used in self-medication by patients attending Kampala International University Teaching Hospital in Ishaka, Bushenyi district in Western Uganda. The cross-sectional descriptive study method was employed using questionnaires distributed in different outpatient clinics at KIUTH. In total, 118 patients completed the questionnaire and were included in the study. The results revealed that more than half of the respondents, 98/118 (83.3%), had used over-the-counter drugs to treat self-diagnosed illnesses. Almost half of the respondents used antibiotics and analgesics either against viral (commonly cold) or mixed (bacterial and viral) infections. The respondents with lower educational qualifications (29.7%) and those from rural areas (32%) were significantly less involved in the self-medication practice, whereas respondents with high education (70.3%) and those from urban areas (58%) around Ishaka town were more involved with the use of over-the-counter drugs. Preferred drugs were Paracetamol (37%), followed by Amoxicillin (36%) in the penicillin class, used to treat respiratory and abdominal symptoms. Respondents carried out self-medication because they considered their symptoms minor (39%), wanted to reduce costs required to seek treatment in a hospital setting (17%), and their sources of drugs were majorly pharmacies (31.6%). The study concluded that the rate of self-medication incidence among patients in Ishaka is high and is a major public health problem, as it is associated with increased emergency antimicrobial resistance and adverse side effects. The recommendation is to increase public awareness about the dangers of self-medication through community outreaches by concerned organizations like the Uganda National Drug Authority.

Keywords: Self-medication, Antibiotics, Antimicrobial resistance, Over-the-counter drugs, Uganda

INTRODUCTION

Self-medication, the practice of using drugs to treat self-diagnosed conditions or symptoms without a prescription, has emerged as a significant global public health concern. Defined as the intermittent or continued use of a prescribed drug for chronic or recurrent conditions, or the use of medications without medical supervision [1, 2, 3], self-medication is a widespread phenomenon that transcends socioeconomic and cultural boundaries. According to the World Self-Medication Industry (WSMI), self-medication involves "the treatment of common health problems with medicines specially designed and labelled for use without medical supervision and approved as safe and effective for such use" [4]. These medicines, often referred to as "over-the-counter" (OTC) drugs, are readily available without a doctor's prescription through pharmacies, drug shops, and even street vendors. The prevalence of self-medication has been reported to be alarmingly high, particularly among younger generations and college students. Studies have shown alarming rates of self-medication, ranging from 98% in Palestine to 94% in Hong Kong, 88% in Croatia, 76% in Pakistan, 75.4% in Nigeria, and 45% in Turkey [6]. In developing countries like Uganda, where access to healthcare is often limited, self-medication is seen as a more affordable and convenient alternative to seeking professional medical care. It is estimated that a staggering 80% of health-related problems in these countries are treated through self-medication [3, 6]. While self-medication can provide a sense of empowerment and control over one's health, as well as potential cost and time savings, it is not without risks. Inappropriate use of medications, particularly antibiotics, can lead to the development of antimicrobial resistance, a major global health threat [7]. Additionally, self-medication can result in misdiagnosis, delays in appropriate treatment, drug interactions, and adverse drug reactions [8, 9]. In Africa, where malaria is endemic in many regions, the self-medication of antimalarial drugs is a significant concern. A study conducted in Northern Uganda found that 75.7% of respondents engaged in antimicrobial self-medication for symptoms such as fever, headache, lack of appetite, and body weakness [10]. The antimicrobials commonly used included coartem, amoxicillin,

metronidazole, and cotrimoxazole. The factors contributing to self-medication are multifaceted and vary across different contexts. In some cases, it may be driven by the high cost of seeking professional medical care, limited access to healthcare facilities, or a perception that the symptoms are minor and do not warrant a doctor's visit [11, 12]. In other instances, self-medication may be influenced by cultural beliefs, a lack of knowledge about the potential risks, or the easy availability of OTC and prescription drugs through unregulated channels [13]. In Uganda, self-medication is widely recognized as a significant public health issue, with studies indicating high rates of self-medication, particularly in the post-conflict regions of the country [10]. However, there is a need for more localized studies to understand the patterns, prevalence, and factors driving self-medication practices in specific communities and populations.

METHODOLOGY

Study design

The study was a cross-sectional design, enabling the researcher to thoroughly examine the patients attending the KIUTH Outpatient department using a questionnaire.

Study area

The study was conducted at the KIU-TH Outpatient Department in Bushenyi-Ishaka municipality, Bushenyi district, Uganda. This department includes specialized clinics like Pediatrics, Dental, Medical, Ophthalmology, ANC, and ENT. Bushenyi district is in the southwestern part of the Western Region of Uganda, with one county, nine sub-counties, one municipality, and three divisions. Bushenyi-Ishaka municipality is the largest town in the district, situated 75km northwest of Mbarara, the largest town in the sub-region. Bushenyi district is approximately 350 kilometers (200 miles) from Kampala, the capital city of Uganda, via the Mbarara-Kasese highway.

Study population

The study targets adults over 18 in Bushenyi district, totaling 260,000 people. Exclusions include those with disabilities hindering questionnaire comprehension. The primary tribe is Banyankole, with other groups like Bakonjo, Batooro, and Bakiga. Education levels vary, with few university or tertiary graduates. Economically, they are mostly impoverished, spending less than $1 daily. Subsistence farming, including crops like matooke, coffee, tea, bananas, millet, and maize, is their main activity. Livestock farming and commercial trade are also common.

Sample size determination

The sample size was determined usingFisher's formula [14]

$$n = \frac{z2pq}{d2}$$

When n = designed sample size.

z = Standard deviation at the desired degree of accuracy which is 95% z = 1.96.

p = proportion of target population estimated to have similar characteristics .50 %(constant) or 0.5 is to be used therefore p =0.5 because of the unknown incidence of which is being measured.

q = Standard 1.0 -p = 0.5.

d=Degree of accuracy. 8.0 % will be used.

On substituting the above formula,

$$\frac{1.962 \text{ X } 0.5 \text{ X } 0.5}{0.082}$$

n = 150

Hence, n = 150

Sample Population

The primary sample participants comprised adult women and men (above 18 years) attending Kampala International University Teaching Hospital (KIUTH) in Bushenyi district, western Uganda.

Sampling Method

A purposive sampling method was used, interviewing all consenting patients attending the outpatient department during the study.

Inclusion Criteria

Patients aged 18 years and above attending outpatient clinics, and university students covered by the KIUTH insurance scheme, seeking outpatient healthcare services, and consenting to participate.

Exclusion Criteria

Very sick patientswere excluded.

Data Collection Instrument

Structured interview questionnaires (Part A and Part B) were used, administered to all patients at KIUTH Outpatient Department in Bushenyi district, western Uganda. Trained assistants helped in filling out questionnaires due to language barriers and illiteracy.

Data Quality Control

Two research assistants were trained and sent for field testing of study tools. Four questionnaires were pre-tested under supervision to ensure adequacy in addressing study variables.

Data Collection Procedure

Data were collected using self-administered questionnaires and interview schedules, considering the study design. Three research assistants, fluent in the native language, aided in communication with patients.

Data Analysis

Data were analyzed using the Statistical Package for Social Sciences (SPSS).

Data Presentation Method

Statistical data collected were presented in tables, graphs, and charts.

Limitations of the Study

The study focused only on self-medication with antibiotics and antimalarial drugs, excluding other forms of self-medication and drug abuse. Financial constraints limited the study to KIUTH. A shorter timeframe was allocated for data collection, requiring more research assistants. The language barrier was addressed by employing assistants fluent in the native language.

Ethical Considerations

The study received ethical approval from Kampala International University's Western campus. Introductory letters were obtained from the School of Allied Health Sciences administrators and presented to KIUTH authorities. The study's purposes and objectives were clearly explained, ensuring privacy, confidentiality, and the use of codes instead of patient names for confidentiality.

RESULTS

Social demographic characteristics of study populations

Results from patients attending KIUTH during the month-long data collection period involved a sample of 150 outpatient department attendees in May 2017. Just over two-fifths (41.2%) were male, while 58.8% were female. The majority hailed from urban areas (62%) and had attained at least secondary education (70.3%).

A large majority (83.3%) admitted to self-medication at some point in their lives. Within the last 2 months, 20% reported self-medicating, with a quarter (24.9%) doing so annually. Primary sources included pharmacies (64.5%), family or friends (41.8%), and drug shops (40.5%). Participants could select multiple sources.

Table 1: Demographic characteristics of the patients attending KIUTH medical care services.

VARIABLE	FREQUENCY	PERCENTAGE (%)
1. Age		
18-29	49	41.6
30-39	32	27.6
40-49	28	24
>50	8	6.8
2. Gender		
Male	49	41.2
Female	69	58.8
3. Level of Education		
Secondary level	35	30
University level	48	40.3
Primary level	24	20.6
None	11	9.1
4. Place of Residence		
Urban	73	62
Rural	45	38
5. Socioeconomic status		
Upper	6	5.2
Middle upper	34	29.1
Middle lower	48	40.3
Lower	30	25.4
6. Parenthood		
Yes	73	61.6
No	45	38.4

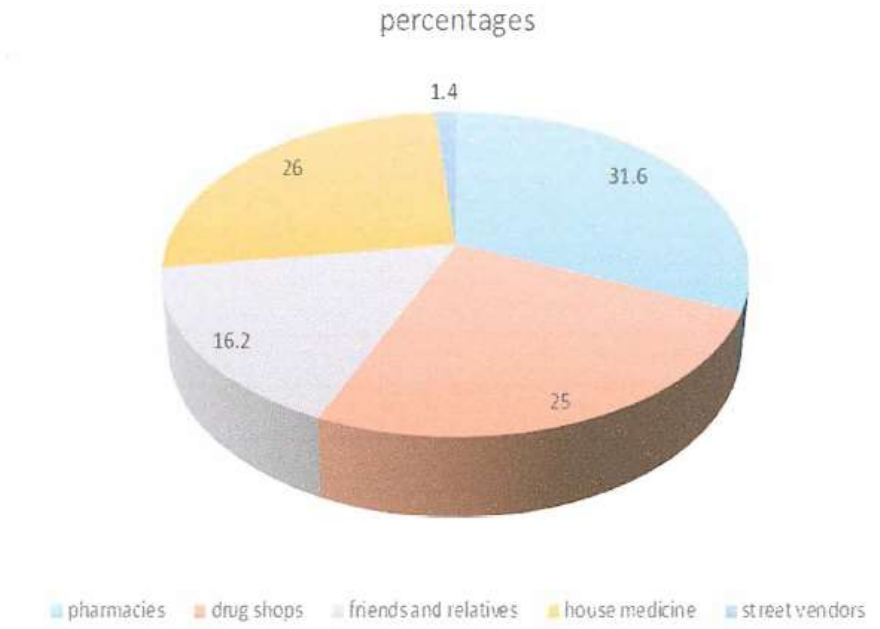
Prevalence of the self-medication practice among the patients

The majority of respondents, 98 (83.3%), engaged in self-medication practices. Among participants aged 18 to 29 years, self-medication was notably high at 41.6%. Females were more involved than males, comprising 58.8% (69 individuals), and 70.3% had attained at least a secondary education level.

Common sources of drugs used in the study

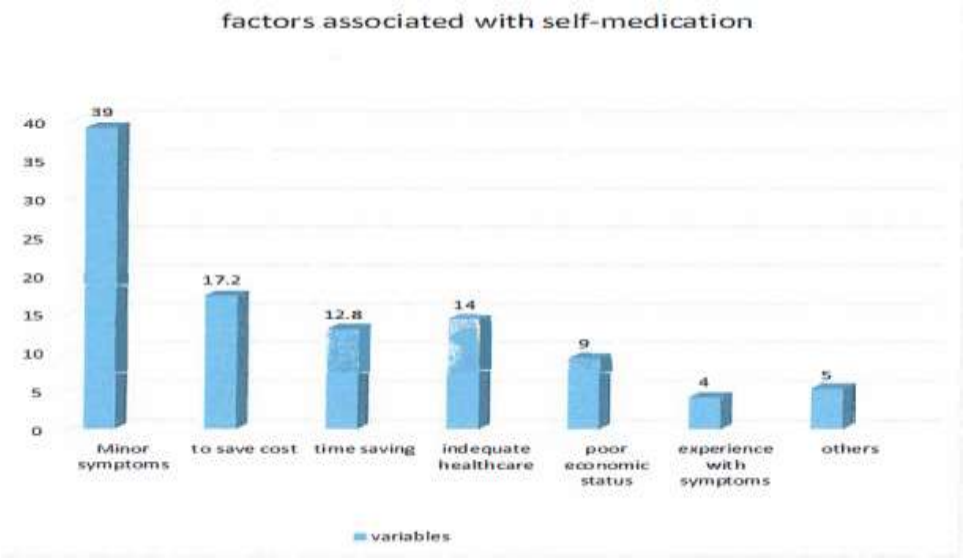
The primary source of drugs in the study area was pharmacies, accounting for 31.6%, followed by friends and relatives at 26%, drug shops at 25%, and household supplies at 16.2%, with vendors being the least at 1.4%.

Factors associated with the increased rate among the patients in the study



In the study, most respondents self-medicated because their symptoms were mild (39%), while 17.2% cited high medical costs as a reason. Inadequate healthcare was reported by 14%, and 12.8% found self-medication time-saving due to long public queues. Additionally, 9% attributed it to poor economic status, 4% claimed familiarity with symptoms treated before, and 5% mentioned other factors.

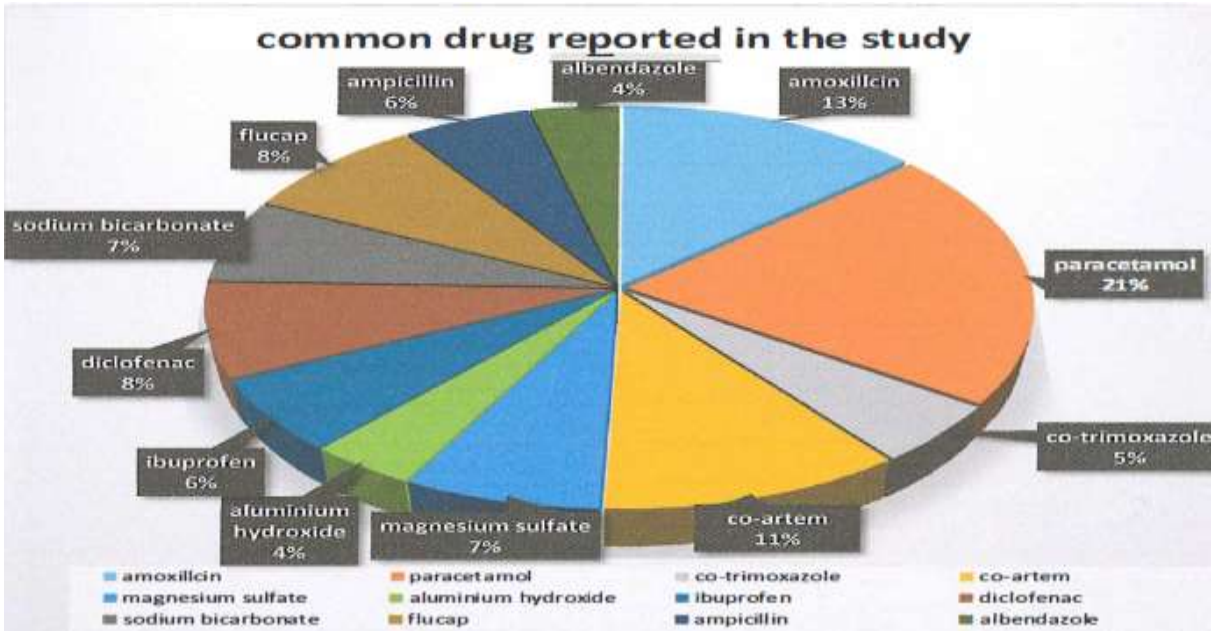
Figure 2: Factors influencing self-medication among respondent patients at KIUTH



Common drugs reported

In children with cough, treatment primarily involved analgesic/antipyretic (paracetamol) at 21%, followed by antibiotic amoxicillin at 13%. Additionally, there was a notable use of the antimalarial co-artemether in 11% of cases. Figure 3 illustrates the most commonly reported drugs among respondents.

Figure 3: Showing common drugs used in the study



DISCUSSION

This study revealed several important findings regarding the prevalence, factors, common drugs used, and sources of self-medication among patients attending Kampala International University Teaching Hospital in Ishaka, Bushenyi district.

Prevalence of self-medication among the patients.

The prevalence of self-medication was notably high at 83.3%, with 98 participants in the study. This percentage is significantly higher compared to a study conducted in the post-conflict region of Northern Uganda, where 75.7% of respondents practiced antimicrobial self-medication [10]. The variance in prevalence could stem from differences in study populations, as well as socio-economic and cultural factors between the communities. With such widespread practice, many patients are at risk of experiencing adverse drug reactions and developing resistance, posing significant concerns for emergency healthcare.

Factors associated with self-medication among the patients

The increase in self-medication can be attributed to several factors, including socioeconomic status, easy access to drugs, the ability to manage certain illnesses through self-care, and the wide availability of medicinal products. Additionally, the cost of drugs, educational level, age, and gender are significant influencers of self-medication behavior. Among the reasons reported for self-medication, a common factor is the high cost of private doctor consultations, affecting 17% (20 out of 118) of patients. Prior familiarity with medications and the perception of illness as non-serious were the top two reported factors for self-medication, as found in a study by Shaghaghi *et al.* [15]. Furthermore, patients' own assessment of their ailment as minor accounted for 39% of respondents in a similar study.

Drugs commonly used and their sources

The most commonly used drugs were analgesics such as Paracetamol, representing 21% of reported drugs, followed by penicillins like amoxicillin at 13%, and antimalarials like coartem at 11%. The choice of medication often depended on its easy accessibility, which included obtaining medicines from unregulated drug shops, previous prescriptions at home, pharmacies, and from friends and family members. Other reported drugs included antacids like magnesium sulfate, aluminium hydroxide, and sodium bicarbonate, as well as diclofenac and flucap, as illustrated in Figure 3. The majority of patients reported obtaining their drugs from pharmacies, constituting 31.6% of all drug sources.

CONCLUSION

Prevalence of self-medication among patients at KIUTH was notably high at 83.3%, primarily driven by the perception of minor illnesses (39%). Pharmacies were the main source of drugs for 31.6% of respondents. The severity of illness significantly influenced patients' decision to seek medical care versus self-medicate. The most commonly used drugs were Paracetamol (21%) and amoxicillin (13%), predominantly to treat generalized body ache/pain, the most prevalent symptom.

Recommendations

Important interventions to address self-medication practices and protect individuals from potential risks include health education campaigns, stringent regulations on drug dispensing by private pharmacies, and improving the quality and accessibility of healthcare services. Raising awareness among patients about the dangers of self-medication, as emphasized by the WHO, can promote responsible self-medication practices, particularly in economically disadvantaged countries. Furthermore, additional studies are necessary to comprehensively assess various factors and issues related to self-medication among patients. These studies can provide valuable insights for developing targeted interventions and policies aimed at mitigating the negative consequences associated with self-medication.

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