

## Evaluation of the factors that contribute to patient self-medication in out-patient department (OPD) at Kabwohe Health Centre IV

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### ABSTRACT

Self-medication is a common practice in both rural and urban settings, in older people with chronic illness and young people. Self-medication leads to irrational drug use, drug resistance, and severe disease development. This study seeks to determine the factors that contribute to self-medication among patients at out-patient department at Kabwohe Health Center (HC) IV. It was a cross sectional study using quantitative method of data collection. It was conducted at Kabwohe HC IV located in Sheema District in southwestern Uganda. The study involved patients attending Outpatient Department (OPD) at Kabwohe HC IV. Simple random sampling was used to recruit patients into the study. Microsoft excel was used to analyze data and it was presented in form of frequency distribution tables, pie charts and bar graphs. The study involved 89 participants attending OPD at Kabwohe HC IV, majority of the participants (86.5%) were less than 35 years and females were slightly more than males. The reasons for self-medication include; non-availability of doctors at the health facility as the main factor (95%), knowledge of diagnosis (84%), lack of time (75%) and financial problems (74%). Self-medication remains a challenge at Kabwohe HC IV. Patients should be educated on the advantages and disadvantages of self-medication. The DHO should strengthen policy implementation on the use of drugs to reduce the burden of irrational drug use that increases the cost of purchasing the wasted drugs, and increasing drug resistance. DHO, should also conduct routine clinical audit on patient care to identify missed opportunity in care and develop action plan to address challenges in service delivery.

**Keywords:** Health Centre, Patients, Kabwohe, Outpatient Department and Self-Medication

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### INTRODUCTION

Self-medication is the use of medications without prior medical consultation regarding indication, dosage, and duration of treatment is referred to as self-medication as stated by [1]. A study in Taiwan by [2] to determine the prevalence of self-medication in the past years among the adolescents surveyed was 45.8%, and the most frequently reported drugs for self-medication included no steroidal anti-inflammatory drugs or pain relievers, cold or cough medicines, analgesics and antacids. The results showed that participants with lower medication knowledge, lower self-efficacy, lower medication literacy, and who consumed tobacco or alcohol were

more likely to engage in inappropriate self-medication. A recent study in Togo by [3] determining self-medication prior to consultation in dermatology were reported in 74.4% patients prior to admission to dermatology units. 8.9% had used medical prescription only and 91.1% had used self-medication only or associated with medical prescription. 67.7% practiced self-medication only or associated with medical prescription for their dermatologic disease before consultation in dermatology unit. In another study by [4] in southwest Nigeria, to determine self-medication with antibiotics for the treatment of menstrual symptoms showed that, 86% of

participants experienced menstrual symptoms, and 39% reported using analgesics to treat them. In a study by [5] in Uganda to determine self-medication in northern Uganda, the most frequently reported causes of self-medication were no need to visit the doctor for a minor disease, knowledge from previous experience, unavailability of health services, and source were Pharmacy clerks, neighbors and family were the most frequently reported sources for self-medication compared to friends and classroom colleagues and old prescription, their own decision represented, and the Internet constituted. According to a study by [6] in Uganda to determine the prevalence self-medication in rheumatology was at 71.92% and factors associated with self-medication where back pain for which patients in 57.6% of patients, drugs were bought from the pharmacy in 97% of cases, the main channel of self-medication was word of mouth 43.4%, the drugs used were mainly anti-inflammatory drugs that is diclofenac at 54.54% and ibuprofen at 57.57%. Ten patients were unaware of the risks of self-medication. In a study in Tanzania in Kilosa district by [7], Self-medication with anti-malarial was a common practice in rural communities, despite the reported decline of malaria, the common reported reasons for self-medication were shortages of drugs at health facilities, long waiting time at health facilities, long distance to health facilities, inability to pay for health care charges and the freedom to choose the preferred drugs.

#### **Statement of Problem**

A study by [8] to explore self-medication in developing counties including Uganda, out of the 34 published studies, only 20.6 % established determinants of antimicrobial self-medication, the majority of studies at 79.1 % reported self-medication for symptoms related to infections of; respiratory tract, gastrointestinal system, eye, ear, urinary system, skin and malaria. A study in Kampala Uganda revealed that, 75% reported to have self-medicated with antimicrobial agents. [8] Kabwohe Health

center IV is faced with a challenge of self-medication. Despite, Ministry of Health (MOH) policies recommending to treat only malaria positive confirmed by laboratory, the District Health Information System data shows that from October 2016 to September 2017, 227 patients with malaria negative results received antimalarial drugs. (Dec 2017 DHIS2 data).

#### **Aim of the study**

Factors contributing to self-medication among OPD patients at Kabwohe Health Center IV.

#### **Specific Objectives**

- To assess patients' social demographic factors contributing to self-medication among OPD patients at kabwohe health center IV.
- To determine patient related factors contributing to self-medication among OPD patients at Kabwohe Health Centre IV.
- To determine health facility challenges contributing to self-medication among OPD patients at Kabwohe Health Centre IV.

#### **Research Questions**

- What are the patient's social demographic factors contributing to self-medication among OPD patients at kabwohe health center IV?
- What are the patients related factors contributing to self-medication among OPD patients at Kabwohe Health Centre IV?
- What are the health facility challenges contributing to self-medication among OPD patients at Kabwohe Health Centre IV?

#### **Justification of the study**

According to [8] in a study done in Uganda, 81% of patients diagnosed with malaria first take antibiotics bought over counters. It is after they have failed to improve that they then seek care from qualified medical personnel. The DHIS 2 data shows that from Oct 2016 to September 2017, 227 patients with malaria negative results received antimalarial drugs. Different geographical region have different factors contributing to increase in self-medication among patients, there is no study that has been

carried out in southwestern Uganda particularly at Kabwohe Health Centre IV. Therefore, the findings are to inform in charge, DHO the factors contributing to self-medication at Kabwohe H C IV. The findings generated in the research will be used by health facility in charges, District Head Officer (DHO) to inform and reinforce the current policies on treatment of only malaria positive cases.

**Nursing practice**

The study findings will help nurses to become active advocates on effective continued practice and campaigns,

through health education about the practice of self-medication.

**Nursing education**

The study findings will inform Uganda Nurses and Midwives Examination Board (UNMEB) of the changes to be incorporated into the nursing curriculum to enhance teaching and learning of the student nurses on the practice of patients towards self-medication

**Nursing research**

The study findings will be used as reference by other researchers with the same interests in assessing the practice of self-medication among patients.

**METHODOLOGY**

**Study Design and Rationale**

A cross sectional study using quantitative methods of data collection was used to determine factors contributing to self-medication and this was opted so as to provide comprehensive information about the study.

**Area of Study**

The study was conducted at Kabwohe H C IV located in Sheema District located in southwestern Uganda, Sheema District is bordered by Buhweju District to the north, Mbarara District to the east, Ntungamo District to the south, Mitooma District to the southwest and Bushenyi District to the West. Kibingo where the district headquarters are located lies approximately 33 kilometers (21 miles), by road, west of Mbarara the largest city in Ankole sub-region. Kabwohe HC IV was chosen because it of its high number of patients attending OPD that always report a history of self-medication.

**Study Population**

The study included all patients attending OPD at Kabwohe H C IV, during the study period for the first time in the month and those re-attending in the month and those referred from other facilities.

**Sample Size Determination**

Sample size was estimated using the Kish Leslie said (1965) for cross-sectional studies.

$$n = \frac{Z^2 Pq}{d^2}$$

Where n= sample size estimate of patients for the study.

d- Represents precision of the study, a precision of 10%.

Z- Represents a standard critical value of 1.96 representing at 95% confidence.

P- Assuming the proportional of patients self-medicating =0.63.

q- Represents 1-p the proportional of patients not self-mediating= 0.37.

$$\text{Therefore; } n = \frac{1.96^2 * 0.63 * 0.37}{0.1^2} = n=89 \text{ participants}$$

**Sampling Procedure**

Simple random sampling was used to recruit participants into the study. Each sampling unit had an equal chance of being included in the sample. Sampling generally done without replacement as this approach allows for a wider coverage of sampling units, and as a result smaller standard errors, would not make sense to enroll same person twice.

**Inclusion Criteria**

The study included all patients 18 years and above attending OPD at Kabwohe Health center IV for the first time in the month with the most recent illnesses and all re attendances in the month.

**Exclusion Criteria**

The study excluded all patients below the age of 18 years, those who were not able to consent, patients with gross hearing problems and elderly because they may have had re-call bias.

**Definitions of Variables**

Variables are characteristics that take place on two or more values.

**The independent variable of the study**

Patient's self-medication and it was by asking patients at facility if they had used anything for treatment before coming to the facility.

**The dependent variables of the study**

Patients' demographic factors which included age, sex, address, level of education and occupation which contributed to self-medication.

Patients' related factors; these were the reasons given by each individual that could force him or her to practice self-medication without blaming anyone.

Health facility related factors; these were the factors created from health facilities that were reported by patients to have forced them to practice self-medication.

**Research Instruments**

The research instrument used was a structured questionnaire in English language which consisted of both closed and open-ended questions. Before collecting data, pre-testing of questionnaires was done at Bushenyi H C IV in Bushenyi district for validity and reliability.

**Data Collection Procedures**

The researcher introduced herself and explained the purpose of the procedure after which the participants signed a consent form before participating in the study indicating their willingness. The participants were asked questions from the questionnaire to collect data. All information obtained from participants was kept confidential.

**Data Management**

The Questionnaire was pretested at Bushenyi H C IV among 25 participants, it

was then double checked for missing information, and then the results were entered into Microsoft excel after which they were presented in form of frequency distribution tables, pie charts, and bar graphs. The respondents were given serial numbers not names for the purposes of maintaining confidentiality. The researcher ensured that all questions on the questionnaire are answered correctly by the respondents during the interview. The researcher ensured that the answers are accurate, filling in was uniform and completeness of the questionnaires was done by double checking for missing information, before entry into Microsoft excel.

**Data Analysis**

The raw data was entered into Microsoft excel and checked for completeness. It was then analyzed using Microsoft excel after which it was presented in form of frequency distribution tables, pie charts, and bar graphs.

**Ethical Considerations**

Permission was sought from the supervisor, she reviewed the research report and cleared it for submission and then again permission was sought from the school's research and ethics committee then, facility internal review boards (IRB) committee of Kampala International University (KIU). Permission to carry out the study was also sought from the DHO of Sheema District, and the in charge of Kabwohe H C IV, also a written consent was obtained from every patient.

## RESULTS

## Socio demographic characteristics of respondents

Table 1: Socio-demographic characteristics of the respondents

Socio-demographic characteristics		
	n	(%)
<b>Age</b>		
18- 24,	24	27
25-30	29	33
31-35	18	20
36 years and above	18	20
<b>Mean Age in years (SD)</b>	29.9(8.4)	
<b>Sex</b>		
Female	50	56
Male	49	44
<b>Tribe</b>		
Banyankole	67	75
Baganda	4	5
Bakiga	13	15
Others	3	3
<b>Marital status</b>		
Married	54	60
Single	34	38
Widow	2	2
<b>Religion</b>		
Catholic	36	41
Moslem	4	5
Protestant	42	47
Pentecost	6	7
Seventh day Adventist	1	1
<b>Occupation of respondent</b>		
Civil servant	5	6
Not employed	36	41
Self employed	16	17
Peasant	32	36
<b>Education level</b>		
Never went to school	10	11
Primary	31	35
Secondary	37	42
Tertiary	11	12

The result in table 1, above showed that majority of the participants 77(86.5%) were aged less than 35 years and female were slightly more than male 50(56%). The biggest tribe attending to Kabwohe H C IV were Banyankole 67(75%) then Bakiga 13(15%), however, the married were more than two third 54(60%) of the total

participants, with protestants as the majority 42(47%) more than the catholic 36(41%) and the unemployed, peasant were 36(41%), 32(36%) as respectively, however, slightly more than a half 48(54%) had attended secondary education.

**Patients level related factors contributing to self-medication**

**Table 2: Reasons for self-medication among participants reporting at Kabwohe H C IV**  
**The reasons for self-medication**

	n	%
<b>Financial problem</b>		
Yes	66	74
No	23	23
<b>Mild sickness or chronic illness</b>		
Yes	63	71
No	26	26
<b>Lack of time</b>		
Yes	67	75
No	22	25
<b>Knowledge of diagnosis</b>		
Yes	75	84
No	14	14
<b>Non-availability of doctor</b>		
Yes	85	95
No	4	5

The table 2, above presents the reasons for self-medication as majority of participants 85(95%) reported non availability of doctors at health facilities as the main factor for self-medication,

knowledge of diagnosis 71(84%), lack of time 67(75%), financial problem 66(74%) and mild sickness or chronic illness 63(71%).

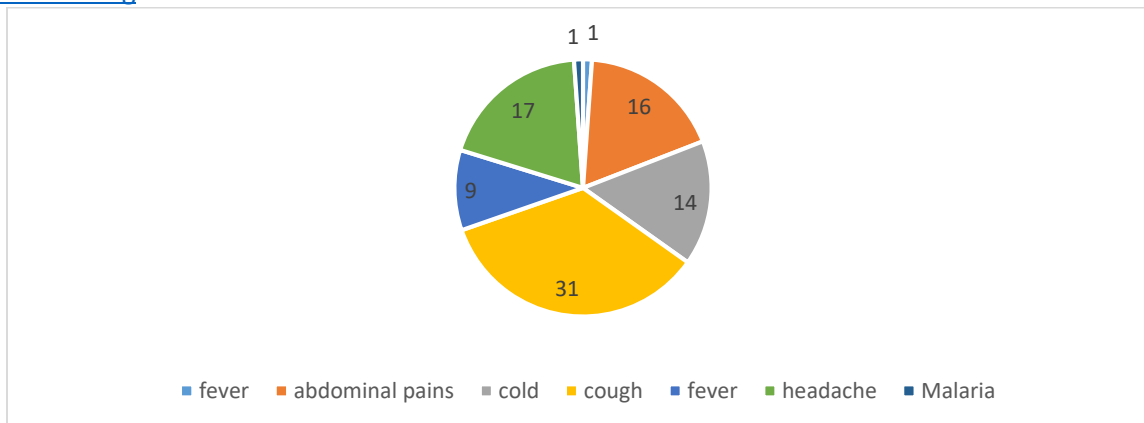
**Table 3: Patients conditions contributing to self-medication among participants reporting at Kabwohe H C IV**

**Patients Conditions for self-medication**

	n	%
<b>Cold</b>		
Yes	75	84
No	14	16
<b>Cough</b>		
Yes	58	65
No	31	35
<b>Fever</b>		
Yes	79	89
No	10	11
<b>Headache</b>		
Yes	72	81
No	17	19
<b>Abdominal pains</b>		
Yes	73	82
No	16	18
<b>Malaria</b>		
Yes	88	99
No	1	1

The table above represents patients' conditions self-medicated on where by majority of the participants 99%

malaria,89% reported fever, 84% cold, 82% abdominal pains, 81% headache and 65% reported cough.



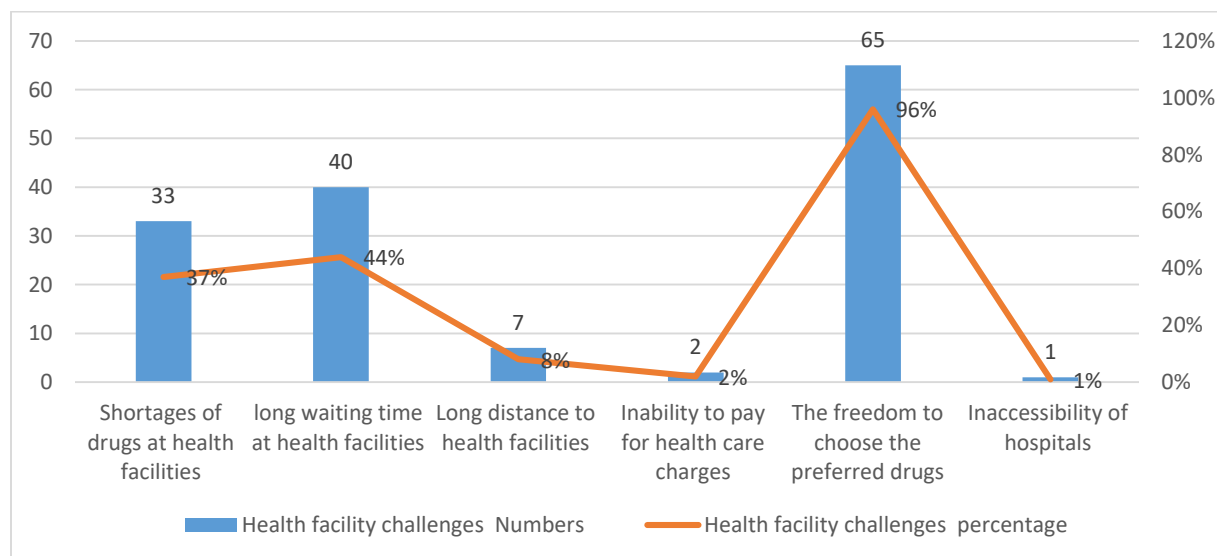
**Figure 1: Showing the medical condition contributing to self-medication as reported by participants attending at Kabwohe H C IV**

The pie chart above represents the medical conditions contributing to self-medication where by the biggest percentage of respondents reported cough 31%, headache at 17% and abdominal pains 16%.

**Health facility challenges contributing to self-medication**

The figure below presents health facility challenges contributing to self-medication as reported by participants, all participants were asked if each factor

contributed to self-medication independent of the other, the highest factor contributing to self-medication was freedom to choose the preferred drugs 86(96%), long waiting time at health facilities 40(44%), shortage of drugs at health facilities 33(37%), those that contributed little were long distance to health facilities 7(8%), in ability to pay For health care charges 2(2%), inaccessibility to hospitals 1(1%).



**Figure 2: Showing Health facility level factors in numbers and percentages contributing to self-medication among participants reporting at Kabwohe HC IV.**

## DISCUSSION

### **Socio demographic characteristics of respondents**

In this study, the results revealed that three quarters of the participants were less than 35 years, this is in agreement with a study done in Egypt among students from the city of Mansoura [5]. Our study had participants with low levels of education just like a study done in Northern Uganda by [8], and also a study done in Tanzania by [7], however not in agreement with study done in Egypt by [5], and were already married so their income was very low limiting them to seek medical consultation, they were more females than males. Females are the one that look after children, usually first buy drugs from drug shops also quick remedy and this is noted in study by [7] in rural communities of Kilosa district Tanzania, however, this is in disagreement with studies conducted in Northern Uganda by [8] where males were the majority of the participants. Three quarters of the population were Banyankole because the study was carried out in Ankole region and they are the indigenous. Self-medication was probably due to increased social responsibilities and because most of them were not employed, they lack money to attend to hospitals for consultation. Majority of the participants three quarters were Christians and these included; protestants, Catholics, Pentecostals and seventh day Adventists. Uganda is a Christian country with majority of the population being Christians. Majority of the participants almost 100% were of informal employment that is to say non employed, self-employed and peasant farmers, peasants have also been noted to be majority in a study by [7] in Kilosa Tanzania. Due to the fact that majority had no formal employment, they tend to self-medicate more because they cannot manage to pay for consultations in private hospitals. They do self-medication due to the fact that they lack knowledge on the diseases they are suffering from thinking they are minor illnesses and they also lack knowledge about the effects of drugs they take without prescription,

however, lack of knowledge on the dangers of self-medication many to be generalized as studies have documented self-medication even in health workers in south-west Nigeria by [9] and they gave a believable reason like lack of time and knowledge of diagnosis. Some patients in this study also gave similar reasons however this were not health workers.

### **Patients level related factors contributing to self-medication**

Participants reported the following as their reasons for self-medicating.

Majority of the participants about three quarters were practicing self-medication because they lack money to seek medical consultations from the hospitals as most of them were not employed. The reason for poor economic status is more of a perceived one, most facilities even Kabwohe is a government health facility where patients are not requested to pay for any service, and however, this has been documented in another studies in urban poor communities in Accra Ghana by [10], in Northern Uganda health care is also free however patients self-medicate. Mild illnesses and chronic illnesses were the most reasons for self-medication as they could see them as they don't necessitate them to visit the doctor or else because of the chronic illnesses they tend to take drugs that they have been taking for the same illness. Chronic patients of diabetic, hypertension, HIV known the drugs they are taking, sometime send their friends to get medicine from drug shops, pharmacies and this are over the counter medication as documented in studies of self-medication among people living with hypertension by [11]. Furthermore, participants reported that they lack time to go to the hospitals more especially government facilities where by when they go there they need to wait for long time because of many patients compared to the health workers working upon them hence self-medicating. Participants were also found to have knowledge about the diagnosis either from the past experience or else from the neighbors' experience hence reporting that no need to visit the



doctor for prescription. Almost 100% of the participants reported non availability of doctors at health facilities so that even if they go there, there is nothing to gain rather they will go to clinics or pharmacies and they purchase drugs of their choice. The most common illnesses reported by participants that were self-medicated on included; cough and cold, fever, headache, abdominal pains and malaria which they said they are the most common illnesses they suffer from and are minor so they reported to have knowledge about the drugs to treat those illnesses from the past experience so no need to visit the hospital for prescription by the doctor. A study by [1] to determine Self-Medication among the Elderly in Kermanshah-Iran. Global also noted the main reason for self-medication as cold, pain and in Northern Uganda the study about self-medication by [8] noted fever as the main reason for self-medication.

#### **Health facility challenges contributing to self-medication**

Health facility challenges included; shortage of drugs at the health facilities, a third of the clients mentioned it as their major reason for self-medication, these clients travel long distances to inaccessible health facilities and when they found out that facilities do not have drugs, and they resort to self-medication. Shortage of drugs in Uganda has not been particularly documented in southern Uganda however it was documented in Northern Uganda [12] as affecting the access in the war tone region, southern Uganda has been having relatively good

stocks of drugs and it is not evident that shortage of drugs has happen, however, this does not mean that it does not happen [13-15].

In this study, we also noted, long waiting time mentioned by the participants as a reason for self-medication, these clients do not have formal employment, they are young and not educated, they usually do not find reasons for why they should wait at health facilities and after experiencing frustration as a result of waiting long, they consider next time to self-medicate.

Majority of the participants reported that they practice self-medication because they have the right to choose the preferred drugs, the right to choose the preferred drugs was often taken in error, patients have to seek medical attention from a qualified health worker than health worker discusses with him the diagnosis thereafter the patients chooses the preferred medication, however most patients, perceive it as a right to walk to the drug shop or pharmacy and choose the medication you want, with no guidance of a health workers. Unable to access medication has been documented in France Guiana region among illegal gold miners by [13][6][17] in Uganda this is not such inaccessibility, patients are free to access free medication even in transit to another countries, the main obstacle would be distance, but, Kabwohe H C IV is in region where even community health workers examine and distribute free treatment to communities as studied by [14] [18-21]

#### **CONCLUSION**

- ❖ Self-medication remains a public health challenge especially at Kabwohe H C IV.
- ❖ It is mainly among the youth i.e. those below 35 years of age make up the biggest percentage.
- ❖ It noted, that, after patients self-medicate, majority visit a health unit providing an opportunity for health education on advantage and disadvantage of self-medication.

#### **Recommendations**

- ❖ The DHO Must strength policy implementation on the use of drugs to reduce the burden of irrational drug use that increase the cost of purchasing the wasted drugs, and increasing drug resistance.
- ❖ DHO, site in charges must conduct routine clinical audit on patient care to identify missed opportunity in care develop action plan to address challenges in service delivery.

### Implications to nursing practice

According to the study findings, nurses should become active advocates on

effective continued practice and campaigns, through health education about the practice of self-medication.

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