

## **Factors Contributing to Irrational Drug Use among Patients Attending Hoima Regional Referral Hospital Hoima City, Hoima District, Bunyoro Region, Uganda**

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### **ABSTRACT**

According to World Health Organization estimates, more than half of all medicines are prescribed, dispensed or sold inappropriately, and half of all patients fail to take medicines prescribed to them correctly. In relation to this, of the world's seven billion people, 75% of whom live in developing countries, 25-50% have little or no access to basic pharmaceutical drug availability, (WHO, 2015) This study determined factors contributing to irrational drug use among patients attending Hoima Regional Referral Hospital. This was a descriptive cross-sectional study. Questionnaires were marked with codes to help not to repeat the same questioners when doing data analysis. It was then analyzed using Statistical Package for Social Sciences (SPSS) program. Frequency tables were used to present the findings. The prevalence of irrational drug use among the 113 study participants was 64.6 % (73). The present study found that the prevalence of irrational drug use was highest among those who attained post-primary education (76.12%), not married (80.00%), peasants (84.31%) and males (75.00%) The prevalence of irrational drug use is high. It is more prevalent among those who attained post-primary education, unmarried, peasants and males.

**Keywords:** Medicine, Pharmaceutical drug availability, Patients, Irrational drug, Peasants and males.

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### **INTRODUCTION**

Defining Rational Use of drugs. The terms "appropriate" and "rational" use of drugs will be used interchangeably throughout the session, [1]. According to World Health Organization (WHO) estimates, more than half of all medicines are prescribed, dispensed or sold inappropriately, and half of all patients fail to take medicines prescribed to them correctly. In relation to this, of the world's seven billion people, 75% of whom live in developing countries, 25-50% have little or no access to basic pharmaceutical drug availability, [2]. In sub-Saharan Africa, a study [3] indicated that about 11% of prescription drugs are being sold in the markets and open areas by unqualified people. They reported that the misuse of medicines continues to be widespread and this has serious health and economic implications, especially in resource-poor settings. A study by Susana B *et al* 2018 in Cameroon showed that irrational drug use was a result of

multiple factors including, high price of the drugs at 52%, Cultural preferences at 33%, as well as Structural factors such as the health system, prescriber and dispenser at 25%. According to Uganda Ministry of Health report (2015), Uganda National Drug Authority, the national drug regulatory agency didn't have enough qualified personnel to supervise drug outlets and this contributed to over 75% irrational drug usage in different rural set ups, financial resources and equipment to regulate medicines. Akobi and Colleagues in 2017 reported that 40% of patients didn't receive medicines appropriate to their clinical needs in Eastern Uganda, 27% of patients received doses that could not meet their own individual requirements, 15% received drugs covering inadequate period of time, while at least 11% could not manage the cost, this was a total of 465 out of 500 patients under study in various health facilities. A study by [4] in Kiruhura

district in western Uganda, revealed that some of the public health and economic consequences of irrational use of drugs include adverse and possibly lethal effects, limited efficacy, and antibiotic resistance due to widespread overuse of antibiotics. Although the Uganda Ministry of Health has put up various measures to reduce irrational drug use like frequent crack down on unqualified drug vendors and increased sensitization among the population, there is still continued irrational drug use in hospitals, this study will therefore bring out the factors associated with this unhealthy drug misuse so that an over lasting solution can be obtained.

World Health Organization estimates that in less developed countries only 50% of primary care patients in the public sector and 30% in the private sector are treated according to clinical guidelines [1].

## METHODOLOGY

### Study design

The study was a descriptive cross-sectional and used qualitative methods of data collection in which factors associated with irrational drug use were collected [7].

### Area of the study

The study was carried out at Hoima Regional Referral Hospital in Hoima district western region, Uganda. The coordinates of Hoima City are: 1° 25' 38.478"N, 31° 20' 54.4"E (Latitude:1.427355; Longitude: 31.348445). Hoima Regional Referral Hospital is a major hospital in Hoima district and has catchment area of greater Bunyoro region and surrounding districts. Most of the people are peasant farmers practicing substance farming while others do small scale business in Hoima city and neighboring towns.

### Study population

The patients attending the outpatient department at HRRH were considered for the study.

### Inclusion criteria

The study population considered all adult patients who consented to take a role in the study. Both men and women were considered at HRRH.

Overuse of antibiotics contributes to antimicrobial resistance, high healthcare costs, and poor patient confidence in healthcare quality, [5]. According to a Lot Quality Assurance survey (LQAS by USAID in 2019 southwestern districts in Uganda, the findings showed that, more than 40% of the medicines are taken irrationally, in most cases they are not well prescribed and they pose danger to the recipients. A related report by [6] showed that about 8 % of community members admitted to Fort portal regional referral hospital have problems with irrational use leading to drug toxicities and resistance. No published study has measured factors associated with irrational drug use in Hoima Regional Referral Hospital, therefore this study will determine factors associated with irrational drug use in HRRH.

### Exclusion criteria

Those in need of urgent medical treatment and Children were left out because they weren't able to give detailed information about drug use behaviors.

### Sampling methods Sample Size

A total of 113 was considered for the study to give a representation of the population.

### Sample Size Determination

The sample size was determined using Fishers *et al.*, 2011 formula.

$$n = \frac{z^2 pq}{d^2}$$

Where;

n= minimum sample size d = margin of error.

Z = standard normal deviation corresponding to 1.96

p = prevalence 8, %, [6].

q = 1-p

Therefore,

taking p = 8/100 = 0.08

z = 1.96

q = 1 - 0.08 = 0.92

d = 5% or 0.05

$$n = \frac{1.96^2 \times 0.08 \times 0.92}{0.05^2}$$

113 respondents will be considered for the study.

### Data collection

The method used both open and close

ended semi-structured questionnaires to get responses from patients who consented to take part in the study. Reliability and validity of instruments.

The study instruments were pre-tested at HRRH, a day before the actual field work; to establish their validity and reliability.

#### **Data processing and analysis**

Questionnaires were marked with codes to help not to repeat same questioners when doing data analysis. It was then analyzed using Statistical Package for Social Sciences (SPSS) program.

Frequency tables were used to present the findings.

#### **Ethical consideration**

The researcher got permission from the university authority; obtained a letter of introduction to the respondents'. The

#### **Prevalence of Irrational Drug Use**

The prevalence of irrational drug use

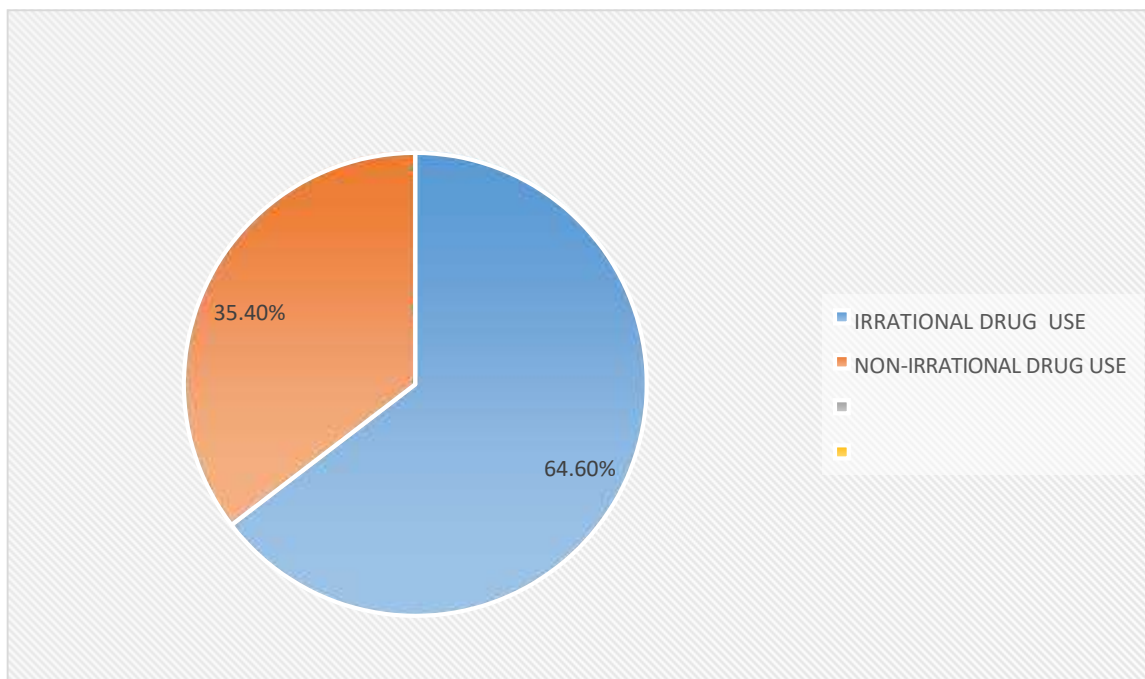
purpose, rights and benefits of the study were explained to the participants by the investigator or the research assistants. The researcher sought the respondents' consent before interviewing them, made appointments with respondents where necessary and assured respondents of the confidentiality of their response. All necessary procedures were followed.

#### **Anticipated challenges of the study**

The researchers being students faced financial challenges. There were no sponsors for this study. However, we utilized all the resources available effectively, in order not to minimize the sample, and a good report representing the true study and according to the study objectives were written and presented.

### **RESULTS**

among the 113 study participants was 64.6% (73) as shown in the figure 1 below.



**Figure 1 prevalence of irrational drug use**

#### **Social Economic Factors of the Study Participants**

According to the study, majority of the participants attained post-primary education (59.29%), married (73.45%),

peasants (45.13%) and female (57.52%) as shown in the table 1 below.

**Table 1 Socio-economic factors**

Variables	Category	Frequency	Percentage (%)
<b>Education</b>	No formal education	18	15.93
	Primary education	28	24.78
	Post primary education	67	59.29
<b>Marital status</b>	Married	83	73.45
	Not married	30	26.55
<b>Occupation</b>	Peasant	51	45.13
	Business	35	30.97
	Formerly employed	27	23.89
<b>Gender</b>	Male	48	42.48
	Female	65	57.52

**Relationship between Socioeconomic Factors and Irrational Drug Use**  
In the present study, the prevalence of irrational drug use was highest among

those who attained post-primary education (76.12%), not married (80.00%), peasants (84.31%) and males (75.00%) as shown in table 2 below.

**Table 2 Relationship between socio-economic factors and irrational drug use**

Variables	Category	Frequency	Frequency	Percentage
<b>Education</b>	No formal education	18	8	44.44
	Primary education	28	14	50.00
	Post primary education	67	51	76.12
<b>Marital status</b>	Married	83	49	59.04
	Not married	30	24	80.00
<b>Occupation</b>	Peasant	51	43	84.31
	Business	35	18	51.43
	Formerly employed	27	12	44.44
<b>Gender</b>	Male	48	36	75.00
	Female	65	37	56.92

## DISCUSSION

**Prevalence of Irrational Drug Use**  
In the present study, 74(64.6%) of the research participants had done self-medication. This was inconsistent with the

findings of a study by [8]-[12] in a Lusaka hospital which had showed a lower value of 22% among patients at the hospital during a follow-up study. This could be

because the people think they have encountered some of these drugs numerous times and therefore can take them using their previous experiences.

### **Social Economic Factors Associated with Irrational Drug Use**

According to the study, irrational drug use was highest among those who attained post-primary education (76.12%) The Social-Economic with findings of the study by Nachanda and colleagues in 2018 revealed that irrational drug use was high among those who attained higher education compared to those who ended in lower levels. However, it's controversial to the finding of a study [6] which reported the prevalence of irrational drug use to be higher among those who attained lower education. Higher education exposes people to a multitude of information including health-related information. This makes the educated assume that they know therefore leading to irrational drug use. In the current study, the prevalence of irrational drug use was more among the unmarried (80.00%). This is congruent with the finding of a study by [4] which revealed

The prevalence of irrational drug use is high. It is more prevalent among those who attained post-primary education, unmarried, peasants and males.

### **Recommendation**

The government should do mass

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that many caretakers who are in most cases unmarried mothers irrationally used medicine [13-18]. This is because most unmarried have low income and therefore resort to self-medication to minimize costs because they have less help or no financial support. My study showed that irrational drug use was more prevalent among peasants (84.31%) in relation to other occupations. Ahmed and colleagues in 2018 reported that those with good income-generating activities used drugs rationally. This is because individuals with good income-generating activities can afford health care anytime they want it. The study also revealed that more males (75.00%) used drugs irrationally compared to females [13-18]. This is congruent with the findings of a study [4] which revealed that males practised irrational drug use more than females. This is because males have poor health-seeking behaviour coupled with the cultural belief that males are strong and can endure for long given any circumstances [15].

### **CONCLUSION**

sensitization to the public to create awareness against irrational drug use. Health workers should always health educate the patients on proper use of drugs.

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