

## Self-Medication: A Response to Illness among Undergraduate Students of Federal University of Lafia, Nasarawa State, Nigeria



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**ABSTRACT:** This study examined self-medication as a response to illness situations and its implications for healthy living among undergraduate students of the Federal University of Lafia (FULafia), Nasarawa State, Nigeria. The study adopted the Theory of Reasoned Action. A cross sectional research design was used in the study and was carried out at the Federal University of Lafia among undergraduate students of the University. A purposive sampling technique was implemented for the selection of respondents. A sample size of 400 was obtained using Rao (1985) determination formula. Data was collected through questionnaires and in-depth interviews. The analysis was accomplished using descriptive and inferential statistics. The findings of the study indicated a high rate of self-medication among undergraduates of the Federal University of Lafia. Both traditional and orthodox medicines were self-medicated among the undergraduates of FULafia. Self-medication was influenced by availability, accessibility, and affordability of drugs by the undergraduates. It was concluded that, self-medication helps as a response to illness, but it has both negative and positive implications on the healthy living of the students of the Federal University of Lafia, therefore, the school management should situate health facilities on the campus so as to enhance students' free and easy access to healthcare whenever the need arises.

**KEYWORDS:** Self-Medication; Illness; Healthy Living; Undergraduate Students; Federal University of Lafia

### INTRODUCTION

Self-medication is the use of drugs to treat self-diagnosed disorders, malfunctions or symptoms. It is the continual use of prescribed drugs for chronic or recurrent diseases or symptoms (Esan, Fasoro, Odesanya, Esan, Ojo & Faeji, 2018). The medication could either be modern and/or traditional for self-treatment without consulting a physician either for diagnosis, prescription, or surveillance of treatment (Hughes, McElnay & Fleming, 2001). Self-medication has been in human practice for long, with the use of herbs, roots, tree barks, alcohol, even food, and other forms of behaviour to alleviate and treat symptoms of illness at those times (Iyeke & Daf, 2016). In recent times, self-medication has become an integral part of living, hence World Self-Medication Industry (WSMI 2015) defined self-medication as the treatment of common health problems with medicines especially designed and labelled for use without medical supervision and approved as safe and effective for such use.

The commonest orthodox drugs often self-medicated by many are Over The Counter (OTC) drugs. This is so because such medicines are easily accessible at pharmacies without a doctor's prescription. The common examples of the OTC include pain relievers (acetaminophen), cough and cold medicines. However, due to regulation challenges, self-medication may be practiced, mainly in developing countries, using Prescription-Only Medications (POMs) (Ehigiator, Azodo, Ehizele, Ezeja, Ehigiator & Madukwe, 2013; Bennadi, 2014).

Notwithstanding, self-medication is a worldwide health concern with serious public health implications such as public health risks that include drug resistance and organ damage. Around the early 2000s, it contributed 2.9% to 3.7% of the deaths in the world at that time mainly due to drug-drug interactions (Chang & Trivedi, 2003). The unregulated access to both POMs and OTC drugs is likely to increase the prevalence of self-medication and its associated complications. Drugs are expected to be taken under the supervision of a qualified health practitioner in order to minimize the risks of inaccurate self-diagnosis, incorrect choice of therapy, inadequate or excessive dosage, food and drug interaction (Osemene, & Lamikanra, 2012; WHO, 2020).

Several studies have assessed the problem of self-medication globally and found that the prevalence is high in many regions (Ayalew, 2017; Gogazeh, 2020). The Covid-19 pandemic has also amplified this problem with several studies showing that many people self-medicate (Sadio, Gbeasor-Komlanvi, Konu, Bakoubayi, Tchankoni, Bitty-Anderson, Gomez, Denadou, Anani, Kouanfack, Kpeto, Salou & Ekouevi, 2021). Several studies have also found that antibiotics and over-the-counter (OTC) medicines such as pain killers are the most used for self-medication and easily accessed (Pirzadeh & Mostafavi, 2014). Antibiotic use is

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particularly important because it is one of the drivers of the development of antimicrobial resistance (AMR) and it was estimated that AMR complications will lead to about 10 million deaths by 2050 (World Health Organization, 2015).

The low-income and middle-income countries (LMICs) are more affected by AMR mainly due to insufficient infection prevention control measures and the increased burden of infectious diseases (Mueller & Östergren, 2016). The practice of self-medication has been studied among students in several countries. In Ethiopia, Hashemzaei, Koohkan, Bazi, Rezaee & Tabrizian (2021) found that the rate of self-medication was about 50% among university students. Fever and headache were the most reported common complaint related to self-medication. Factors such as availability of drugs, the level of education, family, and the exposure to advertisements are other predictors of self-medication.

Self-medication could offer several advantages to patients including quick access to treatment, self-independence in alleviating symptoms, reduction in the cost of accessing healthcare and frequency of visits to health centres, saves time of waiting to see doctors; and also, to the community, its advantages include saving medical resources, decreasing absence from work, declining pressure on medical services and providing more time for critical conditions (Akande-Sholabi, Ajamu & Adisa, 2021). Self-medication could as well result to possible risks at the individual level such as incorrect diagnosis, delay use of appropriate services, serious adverse effects, increased antimicrobial resistance, dangerous food and drug interactions, as well as drug misuse and abuse and untimely death. Also, at the community level, unguided self-medication may lead to increased drug induced disease and public expenses. The negative consequences of self-medication can be largely felt in many developing countries with limited resources, low literacy level and healthcare amenities, as well as the huge populace who neither have access to information nor satisfactory knowledge regarding therapy, dosage and duration of use or side effect (Bown, Kisuule, Ogasawara, Siregar & Williams, 2000; Bennadi, 2014; Chouhan & Prasad, 2016).

In Nigeria for instance, the sales of both over the-counter (OTC) and prescription-only medicine by roadside hawkers, and various unregistered and registered proprietary and patent medicine vendors is common, largely because of weak enforcement of drug regulations. The unregulated sales of these products may incessantly trigger self-medication practice among the general populace. However, a responsible/guided self-medication may still be envisaged, whereby the patient treats his/her illness or symptoms with medicine which are approved and available without prescription, but which are safe and effective when used as directed (Uzochukwu, Onwujekwe, Okwuosa & Ibe, 2014; Erhun & Babalola, 2013).

Previous studies that evaluated the prevalence of self-medication practices in Nigeria were either institutional, specified localized areas or regions of the country. These studies however have not captured self-medication among undergraduate students of Federal University of Lafia thereby making trends analysis of self-medication and its implication on healthy living among undergraduates of FULafia an imperative research area. This study aims to evaluate self-medication as an attractive response to illness and its implications for healthy living among undergraduate students of Federal University of Lafia, Nasarawa State, Nigeria.

### OBJECTIVES OF THE STUDY

The general aim of this study is to evaluate self-medication as a viable response to illness and evaluate its implications for healthy living among undergraduate students of Federal University of Lafia, Nasarawa State, Nigeria.

The specific objectives of the study are to:

1. Assess the nature and pattern of self-medication among undergraduate students of Federal University of Lafia, Nasarawa State, Nigeria
2. Examine the determinants of self-medication among undergraduate students of Federal University of Lafia, Nasarawa State, Nigeria
3. Evaluate the implications of self-medication for healthy living among undergraduate students of Federal University of Lafia, Nasarawa State, Nigeria

### Research Hypotheses

H01. There is no relationship between level of education and self-medication among undergraduate students of Federal University of Lafia, Nasarawa State, Nigeria.

H02. There is no relationship between level of income and self-medication among undergraduate students of Federal University of Lafia, Nasarawa State, Nigeria.

H03. There is no relationship between self-medication and healthy living among undergraduate students of Federal University of Lafia, Nasarawa State, Nigeria.

### THEORETICAL FRAMEWORK

#### Theory of Reasoned Action

The *Theory of Reasoned Action* developed by Ajzen and Fishbein (1980) suggests that, if one intends to do something, he/she will eventually perform the behaviour. It also suggests that the following factors influence one's intentions to perform a given behaviour:

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- Behavioural beliefs: one's attitude about the behaviour;
- Normative beliefs: Peer pressure and the influence of people in one's social circle, such as family and friends, on the behaviour;
- Control beliefs: Your perceived ability to physically perform a behaviour. These beliefs can bolster or undermine an individual's desires.

In other words, even though one wants to change a certain behaviour, behavioural, normative, and control beliefs can determine how successful, or not, one's efforts will be. The theory further assumes that attitude towards an action and the perception of how others feel about the behaviour will predict whether or not an individual will follow the behaviour. The theory adds the notion that perception of control over performing action not only predicts behavioural intention but will also predict whether or not they actually perform the behaviour. This relates to self-efficacy. The difficulties cited in applying this theory to medical or health seeking behaviour relate to its inability to explain and account for changes in behaviour over time and the possible divergence between intentions and actual behaviour.

This theory is important to this work because, students who have indulged in self-medication have reasons behind their actions. Self-medication by students may be caused by peer pressure, economic and socio-cultural factors. Similarly, those students can as well chose to deter themselves from self-medication since they have the control beliefs to either stop or continue their behaviour. Students who lack economic backing and feel that self-medication helps them in response to ill-health are likely not to seek care from health experts notwithstanding the adverse effects it may have on their health. While those who have the economic wherewithal to consult medical experts regarding their health issues are likely to do so even in terms of acute illnesses.

### METHODOLOGY

This study has adopted the cross sectional research design. The study was carried out at the Federal University of Lafia. The population of the study was undergraduate students of Federal University of Lafia. A purposive sampling technique was adopted to select respondents. A sample size of 400 was obtained using Rao (1985) determination formulae.

Rao states as follows;  $n = 4pq/L^2$

Where:

$n$  = required sample size,

$p$  = proportion of the population having the characteristics

$q = 1-p$

$L$  = permissible error

$4$  = constant

The proportion of the population ( $p$ ) may be known from prior research or other sources; if it is unknown, use  $p = 0.5$  which assumes maximum heterogeneity (i.e. a 50/50 split). The degree of precision ( $L$ ) is the margin of error that is acceptable. To determine the minimum sample size with 95% confidence level and  $\pm 5\%$  accepted margin of error.

Hence,

$$n = \frac{4pq}{L^2}$$

$$n = \frac{4 \times 0.5 \times 0.5}{0.05^2}$$

$$n = \frac{1}{0.0025}$$

$$n = 400$$

This study therefore, drew a total number of 400 undergraduate students. Structured questionnaire and key in-depth interview were used to collect data for this study. The data collected through structured questionnaires was analysed using simple tables, percentages and frequencies mean and standard deviation while data from in-depth informant interview was triangulated; in other words, both data were analysed to supplement each other. Hypotheses of the study were tested using ANOVA.

### Data Presentation and Analysis

A total number of 400 copies of the questionnaire were distributed to generate data for this study; however, only 389 copies of the questionnaires were completed and retrieved by the researchers. Eventually, the quantitative analysis is based on 389 (97%) while 15 in-depth interviews were conducted and their responses are captured and presented qualitatively.

Data on table 1 indicated that a majority of the respondents were male students; this could be as result of the fact that, there are more male undergraduates in Federal University of Lafia. The data of age distribution of respondents showed that majority of the respondents were within the ages of 21–25; this showed that a majority of the undergraduates in Lafia were in their youthful age. This implies that majority of the students were in their youth age, which is a time of exuberance, where they are likely to engage in harmful practices. It was also found that majority of the respondents were in 400 level. It was also revealed that a majority of the

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respondents were not married. Religious compositions of respondents revealed that, a majority of the respondents were Christians. The findings were summarized in the table below:

**Table 1: Distribution of Respondents by their Socio-Demographic Variables**

	Variable	Frequency (N=389)	Percentage (100%)
<b>Sex</b>	Male	216	55.5
	Female	173	44.5
<b>Age</b>	18 – 20	95	24.5
	21 – 25	150	44.8
	26 – 30	70	18.0
	31 – 35	32	8.2
	36 – 40	42	10.8
	<b>Level of Study</b>	100 level	77
	200 level	65	16.7
	300 level	84	21.6
	400 level	163	41.9
<b>Marital Status</b>	Married	158	40.6
	single	231	59.4
<b>Religious Affiliations</b>	Christians	202	51.9
	Muslims	155	39.8
	Traditional	32	8.2

Source: Field Survey, 2022

### The Nature and Pattern of Self-Medication Among Undergraduates of Federal University of Lafia

In this section of the study, the nature and pattern of self-medication among undergraduates of FULafia is discussed. The cut-off mean score was 2.50, that is, < 2.50 indicated rejection while > indicated acceptance. Findings showed that, some of the respondents felt ill within the past two months and so, they took drugs when they were ill, they did not go to the hospital for test before taking the drug, the drug used was not prescribed by any medical professional, it was also found that, a majority of the students have been taking drug without prescription before, both the traditional and orthodox medicine was used, the drugs were gotten from the chemists, but they rather go to the hospital when the symptoms becomes severe. All these statements had the mean score of >2.50 while the statement which enquired to ascertain if the respondents did not go to the hospital at all had the mean of <2.50 and was rejected. This implies that the undergraduate students of Federal University of Lafia were deeply involved in self-medication as a response to illness. The proportion of the respondents who had practiced self-medication among undergraduates of FULafia was very high. This is indeed alarming in view of the possible hazards associated with such practice. It also showed that, both the traditional and modern medicines were self-medicated among undergraduates of FULafia. The findings are summarized and presented in table 2 below.

**Table 2: The Nature and pattern of self-medication among undergraduates FULafia**

S/N	Variable	Strongly Agreed	Agreed	Undecided	Disagreed	Strongly Disagreed	X	STD
1	I felt ill within the past two months	105(27.0)	249(64.0)	20 (5.1)	15(3.9)	=	4.14	.676
2	I took drugs when I felt ill	100(25.7)	243(62.5)	16 (14.1)	10(2.6)	20(5.1)	4.1	.931
3	I did not go to the hospital for test before taking the drug	105(27.0)	249(64.0)	20 (5.1)	15(3.9)	=	4.14	.676
4	The drug was not prescribed by any medical professional	105 (27.0)	249(64.0)	20 (5.1)	15(3.9)	=	4.14	.676
5	I have been taking drug without prescription before	105(27.0)	249(64.0)	20 (5.1)	15(3.9)	=	4.14	.676
6	Sometimes I used traditional medicine myself	150 (38.6)	199(51.2)	10 (2.6)	20(5.1)	10 (2.6)	4.18	.904
7	I do buy drug from the chemists	150 (38.6)	199(51.2)	10 (2.6)	20(5.1)	10(2.6)	4.18	.904

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8	I take drug once I notice that I am ill	150 (38.6)	199(51.2)	10 (2.6)	20(5.1)	10(2.6)	4.18	.904
9	I only go to hospital when the symptoms are severe	150 (38.6)	199(51.2)	10 (2.6)	20(5.1)	10(2.6)	4.18	.904
10	I do not go to hospital no matter the severity of the illness	=	46 (12.6)	114(29.3)	139(35.7)	87(22.4)	2.32	.959

Source: Filed Survey, 2022

In an in-depth interview, a female 200 level student of the Department of English and Literary Studies, aged 21 years reported that, she has been into self-medication for a long time. According to her

*Once I notice that I have a small headache, fever, malaria or cough, I easily go to any nearby medicine store, get drugs, come home and begin to take until the situation subsides. As a matter of fact, I have gained knowledge of some drugs now, once the symptoms appear, I buy drug and take according to the instruction of the chemist (IDI/FULafia, 2022).*

From the expression above, it showed how self-medication is practiced among the undergraduate students. Also, another interviewee had a similar finding; on his part, a 400 Level male respondent of department of political science aged 26 years old had this to say:

*I don't see anything bad or wrong with that, the same PCM that one can buy when s/he has headache is the one that will be given if one goes to the hospital. It's a common practice. Moreover, by consistent going to the hospital, I have acquainted myself with some drug, which I don't bother going to the hospital, but the nearby medicine store, I purchase, take and get relieved, no more, no less (IDI/FULAFIA, 2022).*

Nowadays, with healthcare facilities not within reachable distances and healthcare services overly expensive, self-medication becomes an obvious alternative for many students. Corroborating this a male respondent who was a 200 Level student of sociology department, aged 31 years reported that:

*God gave our forefathers the insight about the use of roots, herbs, leaves, and other materials for the treatment of different kinds of ailments. They in turn handed down these to us. Like my humble self, once I notice anything wrong, I simply go to my backyard, cut some herbs, and prepare concoction, I do treat High Blood Pressure myself with moringa leaves "zogele", and it helps a lot. In fact, everything about that tree is medicinal and can be used for curing of different illnesses. Sometimes I mix the concoction in a pot and heat it for a period of time and pour little in a calabash for the drink and thereafter the disease is completely cured –except patients who do not adhere to instructions (IDI/FULAFIA, 2022).*

The types of drugs used varied depending on the respondents' perception of efficacy of a drug for their medical condition. It is understandable that a significant proportion of the respondents used analgesics either alone or in combination with other drugs without prescription as common analgesics can be bought without prescription in the community.

### The Determinants of Self-Medication Among Undergraduates of FULafia

Elsewhere, the causes of self-medication were ascertained. However, among the undergraduates of Federal University of Lafia, it was found that, the determinants of self-medication were availability of drugs for sale outside the school campus but within the university vicinity. By implication, when drugs are available, affordable and in close physical proximity, it calls for accessibility by the students, this is because, the students did not have to wait for long before getting the drugs, thereby making it possible for people to self-medicate. Also, it was found that peer influence was one of the determinants of self-medication among the undergraduates. In true sense, both the traditional and orthodox are readily available for users especially for those who want to practice self-medication. So, students easily access drugs for their consumption. It was also found that students knew the symptoms of their health problems; while others have minor illnesses; to some, there is an urge for self-care, financial constraints, the roles of significant others and time saving were the reasons for self-medication time. All the above statements had the value of mean scores that was >2.50 while ignorance had a mean score of <2.50 and was rejected as determinant of self-medication among undergraduates of Federal University of Lafia, Nasarawa State. The findings are presented in table 3 below:

Table 3: Determinants of Self-Medication Among Undergraduates of FULafia

S/N	Variable	Strongly Agreed	Agreed	Undecided	Disagree	SD	X	S.DV
1	Availability of drugs	100(25.7)	213 (54.8)	=	51(131)	25(6.4)	3.99	.084
2	Affordability of drug	90 (23.1)	120 (30.8)	139 (35.7)	30(7.7)	10(2.6)	3.64	.715



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3	Peer influence	100(25.7)	243 (62.5)	16 (14.1)	10 (2.6)	20(5.1)	4.1	.931
4	Accessibility of drug	150 (38.6)	199 (51.2)	10 (2.6)	20 (5.1)	10(2.6)	4.18	.904
5	I know what to do	45 (11.6)	208(53.5)	71 (18.3)	45 (11.5)	20 (5.1)	3.55	1.01
6	I have minor illness	130(33.4)	229(58.9)	10 (2.6)	15(3.9)	5 (1.3)	4.19	1.16
7	Urge of self-care	60 (15.4)	238(61.2)	70 (18.0)	5 (1.3)	16(4.1)	3.83	1.16
8	financial constraint	45(11.6)	208 (53.5)	71(18.3)	45(11.5)	20(5.1)	3.55	1.01
9	Ignorance	=	46 (12.6)	114 (29.3)	139(35.7)	87(22.4)	2.32	.959
10	Significant others	105 (27.0)	249 (64.0)	20 (5.1)	15 (3.9)	=	4.14	.676
11	Saves time	=	46 (12.6)	114 (29.3)	139(35.)	87(22.)	2.32	.959

Source: Field Survey, (2022)

### The Implications of Self-Medication for Healthy Living Among Undergraduate Students of Federal University of Lafia, Nasarawa State, Nigeria

Self-medication has both positive and negative implications on the individual's healthy living as well as for the community. Self-reliance in preventing or relieving minor symptoms or conditions; Education opportunities on specific health issues (i.e. stop smoking aids and products to treat heartburn); Convenience; Economy, particularly since medical consultations will be reduced or avoided; Saving scarce medical resources from being wasted on minor conditions; Reduce the pressure on medical services where healthcare personnel are insufficient; Increase the availability of healthcare to populations living in rural or remote areas.

On the negative impacts it results to incorrect self-diagnosis; Failure to seek appropriate medical advice promptly; incorrect choice of therapy; failure to recognize special pharmacological risks; rare but severe adverse effects; inadequate or excessive dosage; excessively prolonged use; risk of dependence and abuse. The findings are presented in the table 4 below:

**Table 4: The Implications of Self-medication for Healthy Living Among Undergraduate Students Of Federal University of Lafia, Nasarawa State, Nigeria**

S/N	Variable	Strongly Agreed	Agreed	Undecided	Disagreed	SD	X	STD
1	An active role in his or her own health care	90(23.1)	120(30.8)	118(30.3)	1(8.0)	30(7.7)	3.54	1.156
2	Self-reliance in preventing or relieving minor symptoms or conditions	130(33.4)	229(58.9)	10 (2.6)	5(3.9)	5 (1.3)	4.19	1.16
3	Education opportunities on specific health issues	60 (15.4)	238(61.2)	70 (18.0)	(1.3)	16(4.1)	3.83	1.16
4	Convenience	=	46 (12.6)	114(29.3)	39(35.7)	87(22.4)	2.32	.959
5	Economy, particularly since medical consultations will be reduced or avoided	90(23.1)	120(30.8)	118(30.3)	1(8.0)	30(7.7)	3.54	1.156
6	Saving scarce medical resources from being wasted on minor conditions	90 (23.1)	120(30.8)	139(35.7)	0(7.7)	10 (2.6)	3.64	.715
7	Reduce the pressure on medical services where health care personnel are insufficient	100(25.7)	243(62.5)	16(14.1)	0 (2.6)	20 (5.1)	4.1	.931
8	Incorrect self-diagnosis	150 (38.6)	199 (51.2)	10(2.6)	0 (5.1)	10(2.6)	4.18	.904
9	Risk of dependence and abuse	150 (38.6)	199 (51.2)	10 (2.6)	0 (5.1)	10(2.6)	4.18	.904
10	Inadequate or excessive dosage	150 (38.6)	199 (51.2)	10(2.6)	0 (5.1)	10(2.6)	4.18	.904

Source: Field Survey, 2022

In an in-depth interview, a 400 Level female student of the Department of Chemistry, aged 28 years reported that:

*Self-medication could offer several advantages to patients including quick access to treatment, self-independence in alleviating symptoms, reduction in the cost of accessing healthcare and frequency of visits to health centers; and also, to the community, its advantages include saving medical resources, decreasing absence from work, declining pressure on medical services and providing more time for critical conditions instructions (IDI/FULafia, 2022).*

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Despite the above, a 200 Level female interviewee aged 23 years from the Department of Sociology revealed that self-medication could be dangerous as indicated below:

*Notwithstanding its various advantages, self-medication, especially if unguided could results into possible risks the individual level such as incorrect diagnosis, serious adverse effects, increased antimicrobial resistance, dangerous food and drug interactions, as well as drug misuse and abuse. Also, at the community level, unguided self-medication may lead to increased drug induced disease and public expenses instructions (IDI/FULafia, 2022).*

Pointing out more negative implications of SM on the healthy living of the student, a 200 level male student of the Department of Sociology insisted that:

*The negative consequences of SM can be largely among students with limited resources, who managed to cope with the academic/educational financial demands, so, when I fell sick, they are likely to self-medicate To some extent, it may help and as well cause some complications to their health (IDI/FULAFIA, 2022)*

### Test of Hypotheses

**H01.** There is no relationship between level of education and self-medication among undergraduate students of Federal University of Lafia, Nasarawa State, Nigeria

**Table 5. There is no Relationship Between Level of Education and Self-medication Among Undergraduate Students of Federal University of Lafia, Nasarawa State, Nigeria**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig.
1	.756 <sup>a</sup>	.571	.961	.198	.000 <sup>b</sup>

Source: Field Survey, 2022

Table 5 above indicates that the level of education and self-medication among undergraduate students of Federal University of Lafia, Nasarawa State, Nigeria were statistically related. The value of R was 0.981 thus indicating a strong positive relationship. Moreover,  $R=0.981$ ;  $P\text{-Value}=0.000$ , this means that  $R=0.891 > P=0.000$

**H02:** There is no relationship between level of education and self-medication among undergraduate students of Federal University Of Lafia, Nasarawa State, Nigeria

**Table 6: H02. There is no Relationship Between Level of Income and Self-medication Among Undergraduate Students of Federal University of Lafia, Nasarawa State, Nigeria**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig.
1	.958 <sup>a</sup>	.912	.916	.26141	.000 <sup>b</sup>

Source: Field Survey, 2022

The above table 6 indicates that there is a relationship between level of income and self-medication among undergraduate students of Federal University of Lafia, Nasarawa State, Nigeria. The value of R is 0.958 indicating a strong positive relationship. The value of R was 0.958 indicating a strong positive relationship. Moreover,  $R=0.958$ ;  $P\text{-Value}=0.000$ , this means that  $R=0.958 > P=0.000$

**H03:** There is no relationship between self-medication and healthy living among undergraduate students of Federal University of Lafia, Nasarawa State, Nigeria

**Table 7: There is no Relationship Between Self-medication and Healthy Living Among Undergraduate Students of Federal University of Lafia, Nasarawa State, Nigeria**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig.
1	.956 <sup>a</sup>	.914	.914	.29152	.000 <sup>b</sup>

Table 7 above indicates that there is a relationship between self-medication and healthy living among undergraduate students of Federal University of Lafia, Nasarawa State, Nigeria. The value of R was 0.956; indicating a strong positive relationship.

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## DISCUSSION OF FINDINGS

In assessing the nature and pattern of self-medication among undergraduate students of Federal University of Lafia, Nasarawa State, Nigeria, the findings indicated that a majority of the undergraduates took drugs when they were ill without going to the hospital for tests. This means self-medication is high among undergraduates of FULafia. This finding is similar with that of Akande-Sholabi, Ajamu and Adisa (2021) who found that the prevalence of self-medication among the studied healthcare students was moderately high. In a study by Omolase, Ophth, Adeleke, Afolabi and Afolabi (2007), it was found that the proportion of the respondents who had practiced self-medication was very high. This is indeed alarming in view of the possible hazards associated with such practice. The findings of the present study are also in concordance with the findings of two studies in Sudan, in which 81.8% and 73.9% of the respondents had practiced self-medication.

It was also found that drugs were available and affordable making it easily accessible by undergraduates. Interestingly too, peer influence, knowledge of symptoms, urge for self-care, financial constraints, the roles of significant others and the need to save time amongst others were seen as determinants of self-medication among undergraduates in FULafia. The findings of the present study were in line with those of Niwandinda *et al* (2020) who found that the reasons for self-medication were mainly due to long queues at the hospitals (75.1%) and lack of time to visit the hospital (65.3%). This is probably due to the fact that students require a lot of time to attend lectures and study, and so, they prefer healthcare services that will not consume their time. Similarly, Banda *et al* (2021) found that the major reasons for self-medication as; minor illnesses and saving time, consistent with previous studies, posing a great health risk to those that self-medicate in cases of misdiagnosis and/or wrong treatment. These minor illnesses could also develop into further health complications.

On the implications of self-medication for healthy living among undergraduate students of Federal University of Lafia, Nasarawa State, Nigeria, it was found that self-medication has both positive and negative implication on the individual's healthy living as well as on the community. The potential benefits of self-medications is seen in the active role the students take in their own healthcare; self-reliance in preventing or relieving minor symptoms or conditions; education opportunities on specific health issues (i.e. stop smoking aids and products to treat heartburn); convenience; economy, particularly since medical consultations will be reduced or avoided; saving scarce resources from being wasted on minor conditions; reduce the pressure on medical services where healthcare personnel are insufficient; increase the availability of healthcare to populations living in rural or remote areas.

On the negative impacts: it results to incorrect self-diagnosis; failure to seek appropriate medical advice promptly; incorrect choice of therapy; failure to recognize special pharmacological risks; rare but severe adverse effects; inadequate or excessive dosage; excessively prolonged use; risk of dependence and abuse. Regardless of the unquestionable benefits obtained from self-medication, there are undesired outcomes that occur, due to improper usage. These have been indicated in studies where self-medication may have increased risks of mis-diagnosis, overdose of drugs, incorrect duration of use, and adverse drug reactions related to the improper use of OTC drugs.

## CONCLUSION/RECOMMENDATIONS

Healthy living is a top priority for every undergraduate in Federal University of Lafia; this is because it helps their maximal functioning as humans first and as students. However, self-medication may not be the ultimate option for students considering the myriad implications of engaging in the use of drugs without prescription, over the counter drugs and all that self-medication entails. Understanding this and putting it into perspective will mean that students will work towards responding to their illness situations by exploring and going through more acceptable channels in order to access healthcare services.

Based on the findings above, this study suggests that;

- i. Since self-medication is high among undergraduates of FULafia, it is wise to create awareness among students to avoid self-medication and thus reduce its negative effects on them.
- ii. The school management should situate healthcare facilities on both campuses of the university and especially at the student hotel area; this will ease access to qualified healthcare personnel and services and perhaps reduce the uptake of self-medication.
- iii. The University management in conjunction with the primary health board and student union government should once in a session organize sensitization programmes to enlighten the students about the ills of self-medication. This will help the students take informed decisions as it pertains to their health needs.

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