

Original Article

# Self-medication's knowledge and practices among students of a selected public university in South-Western Nigeria

Victoria Oluwafiropo Fasuyi<sup>1</sup>, Iyabo Yewande Ademuyiwa<sup>2</sup>, Esther Olubukola Abiodun-Ojo<sup>3</sup>, Ayobami Olugunke Adeagbo<sup>4</sup> , Khadijah Adefunke Jimoh<sup>5</sup>

<sup>1</sup>National Agency for Food and Drugs Administration and Control, <sup>2</sup>Department of Nursing Science, Faculty of Health Professions, College of Medicine, University of Lagos, Lagos, <sup>3</sup>Faculty of Nursing Sciences, AFE Babalola University, Ado-Ekiti, <sup>4</sup>National Institute of Health Research, Global Surgery Unit, Lagos Hub, <sup>5</sup>Department of Nursing Science, Faculty of Health Professions, College of Medicine, University of Lagos, Lagos Nigeria.

## ABSTRACT

**Objectives:** Self-medication is a global public health issue. The increase in the rate of careless self-medication is high and a common practice globally. Youth in Nigeria self-medicate at an alarming rate creating a significant health care concern. Aim is to assess the knowledge, practices and factors influencing self-medication among students of a public university in South-Western, Nigeria.

**Materials and Methods:** This is a descriptive cross-sectional study carried out on 2000 respondents selected by multistage sampling technique. Data was collected using Self-administered questionnaire and analysed with descriptive statistics and chi square using SPSS version 25. Level of significance was 5% ( $P < 0.05$ ).

**Results:** Overall knowledge and utilization was low (39.4%) and high (93.8%) respectively. Advice from family and friends (75.4%), easy availability of drugs in chemist stores (73.8%), long waiting time to visit a qualified practitioner (70.8%), healthcare cost (69.2%), distance to healthcare centres (65.4%), were factors identified as influencing the practice of self-medication among the respondents. The result also showed that there was no statistically significant difference between respondents' social demographic traits (age, sex, religion, ethnicity and residence) and their knowledge of self-medication ( $P > 0.05$ ), and also respondents' knowledge and practice of self-medication ( $P > 0.05$ ). But significant difference was found between the respondents' social demographic characteristics (marital status, level of study) and their knowledge of self-medication ( $P < 0.05$ ).

**Conclusion:** There is a need for effective awareness and education on the significance of professional consultation before drug usage.

**Keywords:** Knowledge, Practices, Public university, Self-medication, Students

## INTRODUCTION

This study was conducted to examine the level of knowledge, patterns of practice, and sociodemographic factors associated with self-medication among undergraduate students in a selected public university in South-Western Nigeria.

## MATERIALS AND METHODS

This is a descriptive cross-sectional study conducted on 2000 respondents who were selected by a multistage sampling technique in the University of Ibadan, Oyo State, Nigeria. Both male and female students were purposively selected from two faculties, i.e., Arts and Social Sciences at the University of Ibadan.

There are 17 departments in the Arts and Social Science Faculties, with an estimated total population of 3300.

A multistage sampling technique was adopted in determining the sample size. The sampling process that was employed in determining the sample size for this study was as follows:

- First stage: Selection of a university; a simple random sampling technique was used to select one university (University of Ibadan) of the three government-owned universities (University of Ibadan, Ladoke Akintola University, and First Technical University).
- Second stage: Selection of faculties; the faculties of Arts and Social Sciences were purposively selected for this study. This is because respondents in these faculties might have an understanding and approach to self-medication significantly different from students in the science or medical field, hence offering a broader perspective.

\*Corresponding author: Victoria Oluwafiropo Fasuyi, National Agency for Food and Drugs Administration and Control, Lagos, Nigeria. [fasuyi\\_victoria@yahoo.com](mailto:fasuyi_victoria@yahoo.com)

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- Third stage: Selection of respondents; this involves the selection of participants from each department using a convenience sampling technique, i.e., a questionnaire was given to students of the departments. The recruitment of the respondents followed the inclusion criteria (age 16 years and above) to identify the eligible respondents by asking students to clarify before administering a questionnaire.

A standardized questionnaire was adapted for the study to acquire valuable information.<sup>[1]</sup> The questionnaire is divided into four sections to collect data in the following areas:

- Section A contains the respondent's sociodemographic information. This consists of seven questions on the participants' age, gender, religion, ethnicity, marital status, level of education, and place of residence
- Section B knowledge questions on self-medication [Table 1]. This was graded on a 12-point scale. Each correct answer received one point, while each incorrect response received one point. The greatest number of points projected was 12, and the least was 0. After assessment, high knowledge was defined as 70–100%, moderate knowledge as 50–79%, and poor knowledge as 50%.
- Section C comprises questions meant to determine self-medication habits, which included a 10-item questionnaire using a Likert scale.
- Section D consists of questions to determine the factors influencing self-medication practices, using a binary scale.

The information gathered was reviewed for completeness and accuracy. Copies of the questionnaire were cleaned, categorized, and coded using a predesigned coding guide for both closed-ended and open-ended questions. The surveys were given unique identities to facilitate identification and recall of the instrument.

Before beginning data collection, the Oyo State Ministry of Health Research Ethics Review Committee was requested and secured (AD 13/479/44546A). All relevant ethical considerations were taken, beginning with the written informed consent provided in the questionnaire. The anonymity of all respondents was protected by avoiding the inclusion of identifiers such as names, addresses, and other information that may betray study participants' identities. No responder received an incentive. The participants were not harmed as a result of participating in this study. The anonymity of all respondents was protected, and their confidentiality was assured.

### Data analysis

Data were summarized using descriptive statistics, including percentages and mean values with standard deviations. Of

**Table 1:** Respondents' knowledge of self-medication (*n*=2000).

Knowledge	Frequency	Percentage
Self-medication is defined as the self-consumption of medication without getting advice from a physician		
Yes	1220	61.0
No	780	39.0
Self-medication is safe		
Yes	1360	68.0
No	640	32.0
All medications (prescription, over-the-counter, and herbal) have adverse effects		
Yes	600	30.0
No	1400	70.0
Increasing or decreasing the medication dose without a doctor's consultation can be dangerous		
Yes	840	42.0
No	1160	58.0
In case of adverse effects, physician help must be sought		
Yes	620	31.0
No	1380	69.0
Using medications with unknown substances in patients with liver and kidney disease is dangerous		
Yes	760	38.0
No	1240	62.0
Self-medication can mask the signs and symptoms of some diseases		
Yes	800	40.0
No	1200	60.0
Self-medication can be taken at any time of the day (morning/afternoon/night irrespective of food)		
Yes	1480	74.0
No	520	26.0
Drugs taken as self-medication can be stored at any temperature		
Yes	1100	55.0
No	900	45.0
Drugs that are preferred for self-medication do not cause any harm even in higher doses		
Yes	880	44.0
No	1120	56.0
The use of self-medication can lead to addiction, drug resistance, and damage to the body organs		
Yes	920	46.0
No	1080	54.0
It is not advisable to use previously prescribed drugs to treat the recurrent attacks of chronic illnesses such as allergy or rheumatoid arthritis		
Yes	520	26.0
No	1480	74.0

the 2,076 students approached, 2,000 valid questionnaires were analyzed (response rate: 96.3%), while 76 (3.7%) were excluded due to incomplete responses.

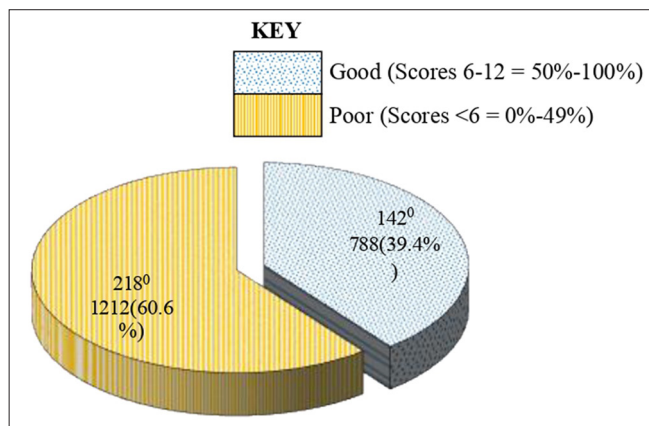
**RESULTS**

A total of 2,000 valid questionnaires were analyzed, with respondents largely aged 16–25, predominantly male, unmarried, and of Yoruba ethnicity, and most residing on campus. The overall level of knowledge regarding self-medication was low [Figure 1], with fewer than half of the students demonstrating adequate knowledge. While a majority correctly understood self-medication as the use of drugs without professional consultation, substantial misconceptions were evident, including the belief that self-medication is inherently safe and limited awareness of the potential adverse effects, risks of inappropriate dosing, masking of disease symptoms, and the development of drug resistance or organ damage. In contrast, the practice of self-medication was highly prevalent [Figure 2], with nearly all respondents reporting the use of medications without a doctor's advice in the month preceding the study. Key factors influencing this practice included advice from family and friends, easy access to medicines in chemist stores, prolonged waiting times to consult qualified health-care providers,

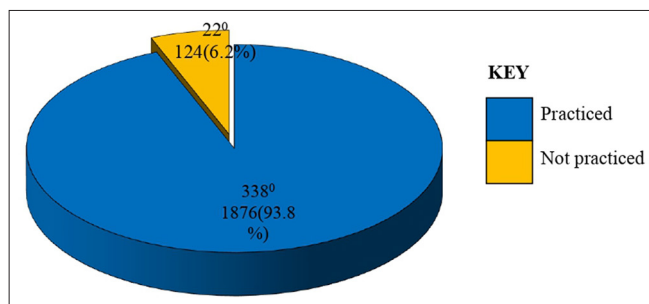
high health-care costs, distance to health-care facilities, and perceived sufficiency of personal drug knowledge. Further analysis showed no significant associations [Table 2] between knowledge of self-medication and age, sex, religion, ethnicity, or place of residence, nor between knowledge and the practice of self-medication; however, marital status and level of study were significantly associated with students' knowledge of self-medication.

**DISCUSSION**

The findings of the study showed that the overall knowledge of self-medication among the respondents was poor (60.6%). This means that respondents had inadequate knowledge



**Figure 1:** Overall knowledge of respondents (n = 2000).



**Figure 2:** Respondents' overall practice of self-medication (n = 2000).

**Table 2:** Relationship between respondents' sociodemographic characteristics and knowledge of self-medication (n=2000).

Variable	Overall knowledge of self-medication		Degree of freedom	χ <sup>2</sup> (P-value)
	Poor (%)	Good (%)		
<b>Age (years)</b>				
18–27	612 (61.2)	388 (38.8)		
28–37	420 (65.6)	220 (34.4)		
38 and above	230 (63.8)	130 (36.2)	2	8.71 (0.689)
<b>Sex</b>				
Male	418 (37.7)	690 (62.3)		
Female	370 (41.5)	541 (58.5)	1	3.06 (0.095)
<b>Religion</b>				
Christian	300 (44.4)	376 (55.6)		
Muslim	450 (40.6)	658 (59.4)	2	50.7 (0.124)
Others	38 (17.6)	178 (82.4)		
<b>Ethnicity</b>				
Hausa	263 (38.0)	429 (62.0)		
Igbo	131 (42.5)	177 (57.5)	2	2.38 (0.312)
Yoruba	404 (40.4)	596 (59.6)		
<b>Marital Status</b>				
Unmarried	760 (39.5)	1162 (60.5)		
Married	22 (28.2)	56 (71.8)	1	4.35 (0.030)
<b>Level of study</b>				
Year 1	220 (40.7)	320 (59.3)		
Year 2	270 (38.6)	430 (61.4)		
Year 3	185 (44.0)	235 (56.0)	4	104.6 (0.013)
Year 4	200 (67.0)	100 (37.0)		
Post Graduate	50 (50.0)	50 (50.0)		
<b>Residence</b>				
On campus	496 (38.8)	782 (61.2)		
Off campus	292 (40.4)	430 (59.6)	1	0.58 (0.824)

**Table 3:** Response on the factors that enhance the practice of self-medication.

Factors (n=2000)	Agree (%)	Disagree (%)
Having a minor illness	1354 (67.7)	646 (32.3)
Health-care cost	1384 (69.2)	616 (30.8)
Lack of adequate time to visit a physician	1170 (58.5)	830 (41.5)
Adequate knowledge of the drug	1230 (61.5)	770 (38.5)
Long waiting time to visit a qualified practitioner	1416 (70.8)	584 (29.2)
Drugs are easily available in chemist stores	1476 (73.8)	44 (26.2)
Distance to health-care centers	1308 (65.4)	692 (34.6)
Influence of peers and advertisements in the media	924 (46.2)	1076 (53.8)
Advice from family members and friends	1508 (75.4)	492 (24.6)

about self-medication. It was found that no significant difference existed between social demographic characteristics of age, sex, religion, ethnicity, and residence and their knowledge of self-medication, but a significant difference was found between respondents' social demographic characteristics of marital status and level of study and their level of self-medication. In a study conducted in Ido-Ekiti, Nigeria, it was reported that the majority of respondents were aware of self-medication, but only a few had good knowledge of it.<sup>[2]</sup> A study conducted in Lagos, Nigeria, contradicted the findings of the present study, as it reported that as high as 93.5% of respondents exhibited good knowledge about self-medication.<sup>[3]</sup>

This study also revealed that the overall level of practice of self-medication was high (93.8%). It was also found that no significant difference existed between respondents' knowledge and practice of self-medication. Their formal education level did not influence university students' practice of self-medication, as almost all respondents had taken medications without doctors' advice in the past month, with the majority (84%) indulging in analgesics. In addition, 86.9% and 81.5% used herbal drugs and antipyretics for fever, respectively, while 78.5% and 72.3% used cough suppressants and multivitamins. Similar patterns have been reported in other Nigerian studies, showing that analgesics are the most commonly self-administered drugs, often for headaches, fever, and body pains.<sup>[3-5]</sup>

Findings from this present study [Table 3] also showed that strong factors influencing the practice of self-medication include advice from family members and friends and the easy availability of drugs in chemist stores. Other factors enhancing self-medication practice include health-care costs, distance to health-care centers, adequate knowledge of the

drug, and lack of adequate time to visit a physician. Nearly half of the study population claimed that peer influence and media advertisements enhanced their practice of self-medication. These findings are consistent with other studies in Nigeria and Ethiopia, which reported that long waiting times to visit a qualified practitioner, health-care costs, prior experience, minor illness, lack of time, and peer or parental influence are important determinants of self-medication.<sup>[6,2,3]</sup>

### Recommendation

- Governmental and non-governmental organizations should sponsor campus-based, media (social media/mass media) awareness and education on the significance of professional consultation before drug usage, the consequences of irresponsible self-medication, and the role of responsible self-medication.
- The federal and state governments should subsidize health-care costs and put mechanisms in place to provide efficient treatment services, so that getting health-care becomes easier and less time-demanding for students in tertiary schools.

### CONCLUSION

This study has shown that overall knowledge level among the respondents is below average, and the practice is high; there is a need for effective awareness and education on the significance of professional consultation before drug usage.

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**Ethical approval:** The research/study was approved by the Institutional Review Board at Oyo State Research Ethics Review Committee, number AD 13/479/44546A, dated August 15, 2022.

**Declaration of patient consent:** The authors certify that they have obtained all appropriate participants consent forms. In the form, the participants have given their consent for their clinical information to be reported in the journal. The participants understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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