

Knowledge and Practice of Self-Medication among Undergraduate Students of Usmanu Danfodiyo University, Sokoto.

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ABSTRACT

Background: Self-medication is a common and regular practice of using medicines, common over-the-counter (OTC) drugs without any medical supervision, by the people themselves for self-treatment considering it a part of self-care in both developed and developing countries. It also encompasses utilization of surplus and left over medicine at home, seeking advices of surrounding people as friends and relatives for the medication. Prevalence rates of self-medication are reported to be higher in developing countries mostly due to fact that people generally considers it as a first aid in treating minor ailments or acute symptoms such as vomiting, headache, nausea, fever, cold etc. However, few other reasons reported in the literature that could lead to self-medication includes previous experience of treating similar diseases, knowledge of drugs and their use, incessant advertising and lack of availability of qualified health professionals. This study aimed to assess knowledge and practice of self-medication among undergraduate students in UDUS **Methods:** : A cross sectional descriptive study was conducted among 299 undergraduate students selected by multistage sampling technique. Data was collected with a set of self-administered, semi-structured questionnaire. **Results:** Majority 283 (95%) of the respondents are aware of self-medication while 16 (5%) are not aware of self-medication. A majority, 235 (78.6%) of the 299 respondents had ever engaged in the practice of self-medication. Most of the study subjects 221 (74%) had self-medicated in the last 6 months while 26.7% have not. **Conclusion:** This study demonstrated good knowledge of self-medication among undergraduate students with the majority having good knowledge of the dangers associated with self-medication as well as had ever engaged in self-medication. Organization of health weeks, school-based educational interventions and enlightenment program should be created to emphasize on the dangers of self-medication and the common side-effects of the frequently used drugs.

Keywords: Self-medication, over-the-counter, dangers, undergraduate students.

INTRODUCTION

It is common for people to feel unwell, and human beings have an inherent tendency to use herbs, potions, medications, etc. for treating themselves.^[1] Self-medication is a common and regular practice of using medicines, common over-the-counter (OTC) drugs without any medical supervision, by the people themselves for self-treatment considering it a part of self-care.^[1] Self-medication also encompasses utilization of surplus and left over medicine at home, seeking advices of surrounding people as friends and relatives for the medication.^[1] It is a common practice in both developed and developing countries and is reported to be on the rise.^[2-5]

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Prevalence rates of self-medication are reported to be higher in developing countries.^[2] The highest

prevalence rates could be due to fact that people generally consider self-medication in a first aid in treating minor ailments or acute symptoms such as vomiting, headache, nausea, fever, cold etc instead of visiting a medical practitioner probably to save their time and money. However, few other reasons reported in the literature that could lead to self-medication includes previous experience of treating similar diseases, knowledge of drugs and their use, incessant advertising and lack of availability of qualified health professionals.^[2] Self-medication has its own advantages and disadvantages.^[3-7] With a proper medical care and self-medication practices at home, number of hospital stays can be reduced especially among chronically ill adults. In addition, self-medication allows patients to be more confident and highly responsible towards their own health management. However, sometimes there are cases of uncontrolled use of over-the-counter products that lead to over dosage and interactions with other medications that used to treat other disease.^[3, 8, 9]

The numerous factors that influence the pattern of self-medication practices include the following: difficulties in accessing medical care, increasing knowledge on how to deal with medications among populations and failures of health care systems in certain populations.^[10-13] The failure of health care

systems can be further explained by its improper distribution of medications and increasing cost of medical treatment.^[3] **Problem statement:** Self-medication is a public health problem worldwide; its incidence is on the increase despite the dangers associated with the practice. This is more in developing countries where the governments are not too keen on policies relating to the problem. Self-medication is associated with a wide range of problems, which includes; substance abuse, addiction, mismanagement of health related problems, and drug-related problems (DRP). Consumers indulge in self-medication because while it helps them through their common health problems, it is time and cost saving and at times, they have few or no options. This becomes more imperative in our society with its few health care professionals to handle large number of people and high level of illiteracy with widespread availability of fake drugs. The WHO as part of its strategy to attain the Alma Ata goal of health for all, recommended “Expanded Self Medication” for developing countries. However, for this programme to be successful, it needs among others a well-informed public on how best to self-medicate and good government policy on drug regulation.^[4] In Nigeria, the establishment of the National Agency on Food and Drug Administration and Control and its arm – National Pharmacovigilance – is a breakthrough in controlling the expansion of fake drug marketing, and reporting of adverse drug reactions has minimized the potential risks of adverse drug reactions in Nigeria.^[5, 14-17]

This study aims to assess knowledge, and practice of self-medication, conditions associated with it and drugs commonly self-medicated among

undergraduate students of Usmanu Danfodiyo University, Sokoto.

MATERIALS AND METHODS

The study was carried out at Usmanu Danfodiyo University, Sokoto (UDUS) located in Sokoto, the capital of Sokoto state, in the North Western geopolitical zone of Nigeria. The study population is comprised of undergraduate students in Usmanu Danfodiyo University, Sokoto. Multistage sampling technique was used in selecting the study subjects. UDUS has four (4) hostel complexes (Permanent site, City campus, Sahara and UDUTH): Three (3) complexes were selected by balloting. In the permanent site, ten (10) blocks were randomly selected while in city campus and UDUTH all the blocks were used for administering the questionnaire. Data was collected using a set of self-administered, standardized, semi-structured questionnaire to obtain information on; socio-demographic data, knowledge, and practice of self-medication of the study subjects. Data collection and sorting was done manually. Computer data processing was done using SPSS version 20 computer statistical software package. Frequency runs were done for further editing and cleansing of e-data. Frequency distribution tables were constructed; cross tabulations were done to examine the relationship between the categorical variables. The Chi-square test was used to compare differences between proportions. All statistical analysis was set at 5% level of significance, $p \leq 0.05$ (i.e. 95% confidence level) and a total of 299 undergraduate students with correctly filled questionnaire were enrolled into the study out of the 360 instruments shared.^[8,11]

RESULTS & DISCUSSION

Table 1: Socio-demographic characteristics of respondents

Variables	Frequency (N = 299)	Percentage (%)
Age groups (in years)		
< 20	28	9.0
20-29	268	90
≥30	3	1.0
Sex		
Male	161	53.8
Female	138	46.2
Marital status		
Single	283	94.6
Married	16	5.4
Ethnicity		
Hausa	171	57.2
Yoruba	39	13
Igbo	18	6
Fulani	24	8
Others	47	15.7
Level of study		
100	31	10.4
200	95	31.8
300	54	18.1
400	70	23.4
500 and above	49	16.4

A total of 299 undergraduate students were enrolled into the study. The age of the respondents ranged from 18 to 34 years (Mean = 22.7; SD = 2.66). The largest proportion, 268 (90.0%) of the 299 respondents were in the 20-29 years age group, followed by ≤20 years age group with 28 (9%). Only 3 (1.0%) respondents aged 30 years and above.

While males account for the majority 161 (53.8) of the respondents, females account for 138 (46.2%) [Table 1]. Majority 283 (94.6%) of the respondents were single while very few 16 (5.4%) were those that are married. Hausa accounted for 171 (57.2%) of the respondents based on tribe while Yoruba, Igbo, Fulani and others account for 39 (13%), 18 (6%), 24 (8%), and 47 (15.7%) of the 299 respondents respectively. Level 200 where the majority 95 (31.8%) of the respondents based on level of study, 100L, 300L 400L and others account for 31 (10.4%), 54 (18.1%), 70 (23.4%) and 49 (16.4%) respectively [Figure 1].

Awareness of self-medication among respondents

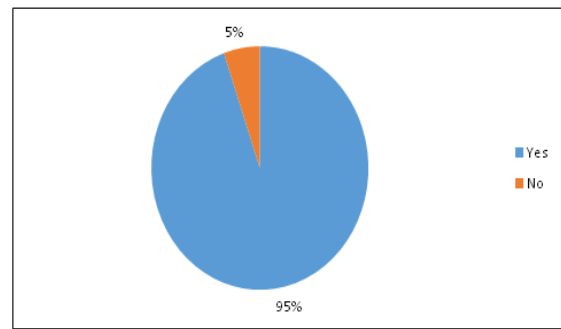


Figure 1: Awareness of self-medication among respondents

[Figure 1] shows the awareness of the respondents on self-medication. Majority 283 (95%) of the respondents are aware of self-medication while 16 (5%) are not aware of self-medication. The awareness was mostly from friends and internet media.

Table 2: Respondents' knowledge of self-medication

Knowledge of self-medication	Frequency (N=299)	Percentage (%)
Meaning of self medication		
Using drugs without doctor's prescription	153	51.2
Using drugs without consulting medical personnel	60	20.1
Others	86	28.7
Dangers associated with self medication		
Treatment failure	68	14.7
Drug abuse	108	23.4
Drug resistance	61	13.2
Drug reaction	157	34
Increase cost of treatment	23	5
Others	45	9.7

About half, 153 (51.2%) of the 299 respondents defined self-medication as using drugs without been prescribed by the doctor, 60 (20%) defined it as using drugs without consulting a medical personnel while 86 (28.7%) gave it other definitions. All 299 respondents had good knowledge of the dangers associated with self-medication and majority common among the dangers are drug reaction 157 (34.0%), drug abuse 108 (23.4%), treatment failure 68 (14.7), drug resistance 61 (13.2) increase cost of treatment 23 (5.0%) and others 45 (9.7) [Table 2].

Majority, 235 (78.6%) of the 299 respondents had ever engaged in practice of self-medication [Figure 2].

Respondent's practice of self-medication

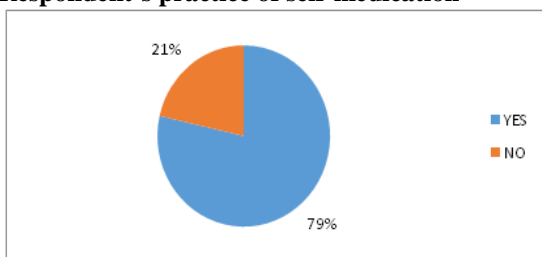


Figure 2: Ever engaged in self-medication

Practice self-medication in the past 6 months

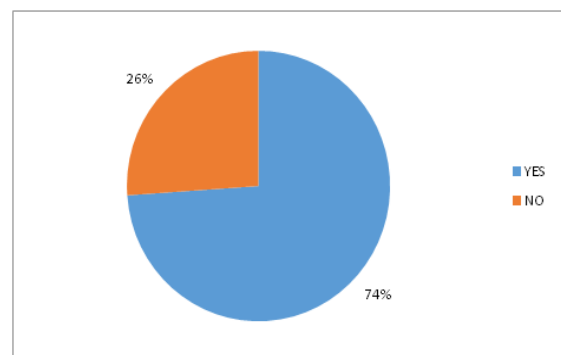


Figure 3: Distribution of the respondents that had self-medication in the past 6 months.

Most of the study subjects 221 (74%) had self-medicated in the last 6 months while 26.7% have not [Figure 3].

Frequency of self-medication

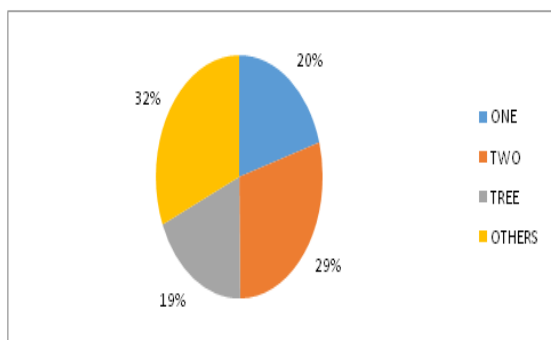


Figure 4: frequency of self-medication among respondents in the past 6 months.

94 (32%) of the respondents had practiced self-medication more than three times in the last 6 months, 88 (29%) 2 times, 61 (20%) once and 56 (19%) 3 times [Figure 4].

While less than half, 114(43.3%) of respondents treated fever, majority 130(49.3%) treated headache with self-medication. 90(34.1%) of respondents treated body pains. Other conditions treated by the respondents were cough 81(30.8%), diarrhea 68(25.8%) and others 54(20.5%).Majority 121(44.8%) of the respondents used antimalarials while 117(43.3%) used pain killers, antibiotics 86(31.9%), anti-flu 52(19.3%), antidiarrhoeal 41(15.2%) and others 32(12.3%) were other forms of drugs used by the respondents [Table 3].

Table 3: Medical condition being treated with self-medication by the respondents/most frequently used drugs

Conditions treated by themselves	Frequency (N=299)	Percentage (%)
a) Fever	114	43.3
b) Headache	130	49.2
c) Body pain	90	34.1
d) Cough/flu	81	30.8
e) Diarrhoea	68	25.8
f) Others	54	20.5
Most frequently drug used		
a) Pain killers	117	43.3
b) Antimalarials	121	44.8
c) Antibiotics	86	31.9
d) Anti-flu	52	18.3
e) Antidiarrhoeal	41	15.2
f) Others	32	12.3

(More than one option allowed)

Table 4: Sources of drugs used/reasons for self-medicated drugs

Source of drugs	Frequency (N = 299)	Percentage (%)
Relatives	24	8
Chemist/medicine store	199	66.6
Previous prescription	31	10.3
Hawkers	22	7.4
Others	23	7.7
Reasons for Self-medication		
Difficulty in accessing hospital/seeing a doctor	79	26.4
Easy Access	78	26.1
Less cost	37	12.4
Knowledge of the Drugs and their uses	50	16.7
Previous experience of treating similar illness	25	8.4
Others	30	10

The commonest (66.6%) source of drugs was a chemist / medicine store while the minority (7.4%) gets their drugs from hawkers.

Majority 79 (26.4%) of the respondents are of the opinion that their reason for self-medication was due to difficulty in accessing hospital/seeing a doctor, easy access 78(26.1%), knowledge of the drugs 50(16.7%), less cost 37(12.4%), others 30(10%) and previous experience of using similar

drugs were the other reasons given by the respondents [Table 4].

Experience of side effects

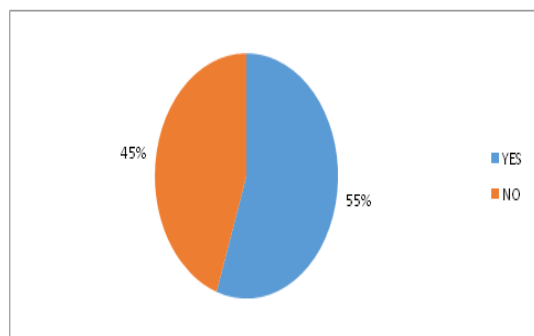


Figure 5: Respondent's experience of side effects after self-medication

More than half, 130 (55%) of the 235 respondents that had self-medication have experienced side effects following self-medication while 105(45%) said not have experience any side effect after self-medication. Among the side effects experienced were headaches/dizziness, nausea/vomiting, rashes/skin eruptions, itching and diarrhea (in order of occurrence) [Figure 5].

CONCLUSION

From the findings in this study, the following conclusions were made: Self-medication is prevalent in all age groups. It also cuts across gender, faculties, tribes and religious groups. Majorities (95%) of the respondents are aware of self-medication and friends were the major source of information about self-medication. The prevalence of self-medication is very high in our environment (74%) with the top 5 conditions treated by self-medication being headaches, fever, body pains, cough/flu and diarrhea. Antimalarials (44.8%) and pain killers (43.3%) were the drugs most commonly used by the respondents and the average number of times students self-medicated 6 months prior to the study was 1-5 times. Most students (81.2%) before self-medicating read the directives on dosage, caution and side effects before using the drugs and the most common drugs used in self-medication among students were antimalarials and painkillers. A significant proportion of students experienced side effects after self-medication in the past; with headache/dizziness and nausea/vomiting being the most frequently experienced side effects. Most students were aware of dangers associated with self-medication; drug reaction and drug abuse were the once indicated by the majority. Chemist/medicine store were the commonest sources of drugs used for self-medication. Difficulty in accessing hospital/seeing doctor and easy access were the common reasons while the respondents engaged in self-medication. Therefore, self-medication among undergraduates of Usmanu Danfodiyo University, Sokoto, has assumed a public health importance and the society will benefit from a citizenry that is better informed

about health care and thus more able to exercise self-reliance.

Recommendations:

Health Weeks which are usually organized by medical student associations should be increased from once a year to twice a year; one in each semester to, among other things, keeps emphasis on self-medication in the forefront of health awareness.

School-based educational interventions should be created involving the use of participatory teaching methods which empowers the students to voice out whatever they do not understand about this issue.

A 'Health Safety Newsletter' should be published quarterly in the university where, amongst other things, the dangers of self-medication and the common side effects of the frequently used drugs will be clearly and simply spelt out with advice on what to do in case one is affected.

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