

**INTERNATIONAL JOURNAL OF CURRENT RESEARCH IN  
CHEMISTRY AND PHARMACEUTICAL SCIENCES**

(p-ISSN: 2348-5213; e-ISSN: 2348-5221)

[www.ijcrpcps.com](http://www.ijcrpcps.com)

DOI: 10.22192/ijcrpcps

Coden: IJCROO(USA)

Volume 5, Issue 12 - 2018

**Research Article**



DOI: <http://dx.doi.org/10.22192/ijcrpcps.2018.05.12.004>

**Knowledge, attitude and practice of self medication  
among nursing students in Imo State University, Owerri**

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**Abstract**

Every day, we are practicing self-medication in the form of self-care of our health. This study was conducted to assess the knowledge, attitude and practice of self medication among nursing students of Imo State Owerri. The study adopted a descriptive survey design. Three research questions guided the study. The population of the study consisted of 300-500 level nursing students. A structured questionnaire was used for data collection with Pearson Product Moment Correlation reliability Coefficient of 0.93 which yielded positive correlation. Data collected was analyzed using demographic tables. The results revealed that more than half of the respondents possessed knowledge of self-medication; the respondent largely believes that self medication should not be encouraged. More than half of the respondents had sometimes practice self medication. Therefore, there is a dire need to adequately equip the populace with drug information as well as educate the public on the limit and acceptable attitudes and practices of self medication even as the health authorities and pharmaceutical companies put in place more guided safety measures. Based on the findings of the study, the following recommendations were made: there should increase awareness and education at all level regarding the importance of professional consultation before drug use. Strict policies need to be implemented by the government and other stakeholders on the adverting and selling of medications to prevent this problem from escalating.

**Keywords:** Knowledge, Attitude, Practice, Self medication ,Nursing Students, Imo State University, Owerri

**Introduction**

Every day, we are practicing self-medication in the form of self-care of our health. It is rightly said that the desire to take medicine is one of the features that distinguished man from animals. Self-medication has traditionally been defined as "taking of drugs, herbs or home remedies on one's own initiatives or on the advice of another person without consulting a doctor (Kurma and Shema, 2018). Self-medication refers to the use of drugs to treat self-diagnosed symptoms, disorders or the intermittent or continued use of non-prescribed drug for chronic or recurrent disease or symptoms (Kashirima, 2016).

Medicines for self-medication is often called "nonprescription or over the Counter (OTC) and are available without a doctor's prescription through pharmacies. The increase in the quantities and varieties of pharmaceuticals worldwide eases the

accessibility or medicine by consumers, thereby giving options for its misuse (Nithin and Surabhi, 2016).

In developed countries, drug administration must conform to medical standards but the case is different in developing countries like Nigeria, where ethical standards are most times not respected (kashimara, 2016). While in some countries, over the counter products are available in supermarkets and other outlets, in Nigeria, some of the most commonly abused drugs are cough, cold medicines, pills, gel capsules containing Dextromethapha (DXM)-particularly extra strength forms are frequently abused by young people (Kashimara, 2016). A study conducted in Nigeria has observed self-medication as a common practice among group of health workers that included dentist, practicing physicians, midwives, pharmacist and medical and nursing students (Helal

and Abou-Ewalfa, 2017). Previous studies carried out on self-medication states that it is a common practice, especially in economic deprived communities, as health care services is getting costlier, care facilities not available, hence self-medication becomes an obvious choice of health care services (Kuma and Shama, 2018). Recent studies show the growing trends of improper use of self-medication have been attributed to the wide spread availability of over the counter (OTC) drugs, urge of self-care, lack of functional health services, poverty, ignorance, extensive advertisement of drugs, high fees at health facilities, inadequate family support (Salami and Adesanwo, 2015).

Present study perceives that to prevent the growing trend of self-medication, strong policies should be applied prohibiting the supply of medicines without a valid prescription. The youths especially the females should be educated and made aware about the implications of self-medication (Kashimara, 2016).

It has been observed that self-medication practice is common among students of tertiary institutions, therefore, the study is aimed at determining the knowledge, attitude and practice of self-medication among nursing science students of Imo State University.

### Objectives of the study

The objectives of the study specifically intends to:

- Assess the knowledge of nursing students of Imo State University on self-medication.
- Assess the attitude of nursing student of Imo State University towards self-medication.
- To identify self-medication practices among nursing students of Imo State University based on their year of study.

### Materials and Methods

#### Design

The study adopted a descriptive design. The researchers adopted descriptive survey design as adequate for the study of knowledge, attitude and practice of medication among nursing students in Owerri, Imo State.

#### Area of Study

This study was carried out among students in nursing science department, Faculty of Health Sciences, Imo State University, Owerri.

### Target Population

The target population of this study includes all the students in the department from 300 level – 500 level. The total population was collected from the class representatives and confirmed by their course advisers which is 609

### Sample Size Determinations

The sample size was 241. The sample size was statistically determined using Yaro Yamane formulae which is given as:

$$N = \frac{N}{1+N(e)^2}$$

Where

- N = Target population
- n = Sample size
- l = A constant (unity)
- e = Level of significance /Limit of tolerable error (0.05).

Therefore:

Yaro Yamane Formular.

$$\begin{aligned} n &= \frac{N}{1+N(e)^2} \\ n &= \frac{609}{1+609(0.05)^2} \\ n &= \frac{609}{1+609(0.0025)^2} \\ n &= \frac{609}{1+1.5225} \\ n &= \frac{609}{2.5225} \\ n &= 241.427 \\ &= 241 \end{aligned}$$

### Sampling Techniques

The researcher used stratified sampling techniques to stratify the sample into their different levels. Then 40% of each group was used to draw out the sample size from each strata.

Population and sample distribution of sample student;

$$\frac{241}{609} \times \frac{100}{1} = 40\%$$

To find the sample of the percentage

300 level	73	$\frac{73}{1} \times \frac{40}{100} = 29.2$
400 level	97	$\frac{97}{1} \times \frac{40}{100} = 38.8$
500 level	71	$\frac{71}{1} \times \frac{40}{100} = 28.1$

### Instruments for Data Collection

The instrument for data collection is a validated self-developed questionnaire with open and close ended questions from the respondents. It is 21 item questionnaires that consist of four sections A, B, C, and D. Section A deals with the bio-data of the respondents. Section B comprises of 4 questions eliciting information on the students' knowledge on self-medication, section C comprises of 4 questions eliciting information on student's attitude towards self-medication and section D has 10 questions eliciting information on the practice of students to self-medication. It also includes Likert scale.

### Validity of Instrument

The questionnaire was developed by the researcher and was presented to the supervisor during which due modifications, suggestions and corrections were made and the validity of the questionnaire was ascertained.

### Reliability of the Instrument

The reliability of the instrument was confirmed through a pilot study using test-retest method in which 10 copies of the questionnaire were administered to 10 students of nursing science 500 level at Abia State University, Uturu. After filling the questionnaire, the researcher collected the responses. The same questionnaire but fresh copies were administered to the same group after One (1) week, results of the first (1<sup>st</sup>) and 2<sup>nd</sup> test were tallied and analyzed using Pearson product moment correlation co-efficient. It yielded a high positive correlation of 0.7, meaning the instrument is very reliable.

### Method of Data Collection

A total of 241 questionnaires were distributed for this study. 73 were collected from 300 level students, 97 from 400 level students and 71 from 500 levels. Due to time constraint, assistance (course representatives in each level) was trained to help distribute the instruments to ensure an affordable and quality data collection. The researcher and the assistants collected the instruments from the respondents and the entire 241 questionnaire distributed were retrieved making a return of 100% and this from the data for the study.

### Method of Data Analysis

Data were collected and tallied before computing. The data was analyzed using demographic tables.

### Ethical Consideration

A letter was written to the school authority for permission to carry out the research study and another letter of permission as regards to the area of study. The study was conducted after obtaining approval from the school authority and collection of letters of permission from the head of nursing science department. Confidentiality of the respondents was maintained. The questionnaire were made completely anonymous as the respondents were not required to write their names or address on them and their own personal opinions and biases were ensured not to get in the way of the respondents. The respondents were given adequate information regarding the research study and the respondents gave their consent.

## Results

**Table 1:** Percentage distribution of the socio-economic profile of respondents

Variables	Frequency	Percent (%)
Age (year)		
20-below	43	17.6
21-25	35	14.4
26-30	138	56.6
31 and above	25	11.4
Sex		
Male	94	38.5
Female	147	61.5
Year of Study		
300	71	29.1
400	104	42.6
500	66	28.3

The socio-economic profiles of respondents are shown in Table 1. More than half (56.6%) of the respondents were between the ages of 20-29 years. There were

147 female (61.5%) respondents. The respondents were largely 400 level students (42.6%).

**Table 2:** Respondents knowledge towards self-medication

S/N	Items	Freq	%
4	<b>Understanding self-medication</b>		
A	Use of drugs for treatment without prescription	230	95.4
B	Self-care treatment	224	92.9
C	A disease that affects one's body	26	10.8
5	<b>Usefulness of self-medication</b>		
A	It helps decrease time spent to see the doctor	156	64.7
B	Its reduces the load on the medical service	176	73
C	Time serving	186	77.2
D	Provide quick relief in common illness	200	83
E	Helpful to patient who is on long therapy for a diagnosed ailment	205	85.1
F	Used to relief the sudden onset of their ailment before coming to the hospital	195	80.9
G	Reduces prescription cost by physician	156	64.7
H	More economical and convenient	177	73.4
I	Reach primary goal of malaria therapy	45	18.7
6	<b>Health implication of self-implication</b>		
A	Misdiagnosis	145	60.2
B	Literal organ damage	206	85.5
C	Unknown side effect	211	87.6
D	Drug addiction	189	78.4
E	Drug tolerance/resistance	167	69.3
F	Disability	20	8.3
G	Dangerous drug interaction	150	62.2
H	Delay in health care	200	83
I	Paradoxical economical loss due to delay in diagnosis of underlying condition and appropriate treatment	210	87.1
J	Death might occur due to use of take drug	178	73.9
7	<b>Reasons for self-medication</b>		
A	Mild illness	205	85.1
B	Previous experience of treating a similar illness	198	82.2
C	Non-availability of health personnel	176	73
D	Easy availability of over the counter drugs in markets, chemist stores	159	66

E	Lack of access to health care	164	68
F	Poor drug regulatory practice	203	84.2
G	Illness being too trivial	218	90.5
H	Time saving and quick relief	184	76.3
I	Knowledge acquired from pharmacological studies	173	71.8
<b>Grand Total</b>		<b>5332</b>	
<b>Average</b>		<b>172</b>	<b>71.4</b>

Result from the data of Table 2 indicates that 95.4% of the respondents possessed knowledge on the use of drugs for treatment without prescription, self-care treatment (92.9%), disease that affects one's body (10.8%). For the usefulness of self-medication, they possessed knowledge that it helps decrease time spent to see the doctor (64.7%), its reduces the load on the medical service (73%), time serving (77.2%), provide quick relief in common illness (83%), helpful to patient who is on long therapy for a diagnosed ailment (85.1%), used to relief the sudden onset of their ailment before coming to the hospital (80.9%), reduces prescription cost by physician (64.7%), more economical and convenient (73.4%), reach primary goal of malaria therapy (18.7%). The respondents possessed knowledge on health implication of self-implication such as misdiagnosis (60.2%), literal organ damage (85.5%), unknown side effect (87.6%), drug

addiction (78.4%), drug tolerance/resistance (69.3%), disability (8.3%), dangerous drug interaction (62.2%), delay in health care (83%), paradoxical economical loss due to delay in diagnosis of underlying condition and appropriate treatment (87.1%), death might occur due to use of take drug (73.9%). The reasons for self-medication include mild illness (85.1%), previous experience of treating a similar illness (82.2%), non-availability of health personnel (73%), easy availability of over the counter drugs in markets (66%), chemist stores (68%), lack of access to health care (84.2%), poor drug regulatory practice (90.5%), illness being too trivial (90.5%), time saving and quick relief (76.3%), knowledge acquired from pharmacological studies (71.8%). Therefore, on average, 71.4% (more than half) of the respondents possessed knowledge of self-medication.

**Table 3: Mean responses on attitude of nursing student towards self-medication**

S/N	ITEMS	SA	A	D	SD	Mean	Decision
8	The practice of self-medication is prone to affect the attitude towards pharmacotherapy in prescribing drugs in future	165	40	26	10	3.49	Agreed
9	Nursing students have good ability to treat symptoms found	178	35	20	8	3.59	Agreed
10	Self-medication is acceptable for nursing students	14	26	56	145	1.62	Disagreed
11	Acquired medical knowledge has effect on prescription of drugs by the nursing students	160	52	15	14	3.49	Agreed
<b>Grand Mean</b>						<b>3.05</b>	<b>Agreed</b>

Result from the data of Table 3 show the mean responses on attitude of nursing student towards self-medication. The respondents agreed that the practice of self-medication is prone to affect the attitude towards pharmacotherapy in prescribing drugs in future (3.49), nursing students have good ability to

treat symptoms found (3.59) and acquired medical knowledge has effect on prescription of drugs by the nursing students (3.49). However, they disagreed that self-medication is acceptable for nursing students (1.62). Therefore, the respondents largely believed that self-medication should not be encouraged.

**Table 4: Practice of self-medication by nursing students**

S/N	Items	Freq	%
12	<b>Practice of self-medication if need be</b>	<b>172</b>	<b>71.4</b>
13	<b>Frequency of self-medication practice</b>		
A	Always	78	32.4
B	Sometimes	123	51
C	Rarely	40	16.6
14	<b>Reasons for refusing self-medication</b>		
A	Dangerous to health	167	69.3
B	Drug resistance	57	23.7

C	Expenses to get drugs	17	7.1
15	<b>Females practice self-medication than the males</b>	<b>120</b>	<b>49.8</b>
16	<b>Drugs commonly used for self-medication</b>		
A	Analgesic	24	10
B	Anti-pyretic	53	22
C	Antibiotic	62	25.7
D	Anti-malaria	65	27
E	Skin medication	18	7.5
F	Psycho-stimulants	4	1.7
G	Emetic	15	6.2
17	<b>Frequency of drug use</b>		
A	Always	25	10.4
B	Rarely	62	25.7
C	Occasionally	146	60.6
D	None	8	3.3
18	<b>Drugs can release one of respective illness</b>		
A	Yes	110	45.6
B	No	35	14.5
C	Not sure	96	39.8
19	<b>Side effects associated with self-prescribed drugs</b>		
A	Yes	24	10
B	No	147	61
C	Not sure	70	29
20	<b>Noticeable side effects</b>		
A	Nausea and vomiting	8	3.3
B	Blurred vision	5	2.1
C	Rash	11	4.6
D	Itching	4	1.7
E	Dizziness	15	6.2
F	Addiction/tolerance	6	2.5
G	Others	192	79.7
21	<b>Medical illness associated with the practice of self-medication</b>		
A	Malaria	33	13.7
B	Headache	40	16.6
C	Vomiting	4	1.7
D	Cough	7	2.9
E	Diarrhea	15	6.2
F	Sore throat	21	8.7
G	Ear problems	2	0.8
H	Body pain	8	3.3
I	Abdominal discomfort	14	5.8
J	Catarrh	20	8.3
K	Skin infection	24	10
L	Infection	18	7.5
M	Worm life station	27	11.2
N	Dysmenorrhea	3	1.2
O	Depression	5	2.1

The data of Table 4 show the responses on practice of self-medication by nursing students. The result revealed that a total of 172 respondents representing 71.4% of the sample population had practiced self-medication and they practice this sometimes (51%). The most common reason given by the respondents for practicing self-medication was that they are dangerous to health (69.3%), the practice was also attributed to drug resistance (23.7%) as well as expenses to get drugs(7.1%).The respondents disagreed that females practice self-medication than the males (49.8%).Conversely, most of the

respondents had taken anti-malaria(27%) which proved to be the most commonly self-medicated drug among the respondents, followed by antibiotic(25.7%) and anti-pyretic (22%). These drugs were occasionally taken (60.6%) and can release one of respective illness (45.6%). Majority (61%) of the respondents claimed that there were noticeable side effects associated with self-prescribed drugs. Also, the most medical illness associated with the practice of self-medication includes Headache (16.6%), Malaria (13.7%) and worm life station (11.2%).

## Discussion

From the result shown in Table 2, result indicates that majority of the respondents possessed knowledge on the use of drugs for treatment without prescription, self-care treatment, disease that affects one's body. For the usefulness of self-medication, they possessed knowledge that it helps decrease time spent to see the doctor, its reduces the load on the medical service, time serving, provide quick relief in common illness, helpful to patient who is on long therapy for a diagnosed ailment, used to relief the sudden onset of their ailment before coming to the hospital, reduces prescription cost by physician, more economical and convenient, reach primary goal of malaria therapy. The respondents possessed knowledge on health implication of self-implication such as misdiagnosis, literal organ damage, unknown side effect, drug addiction, drug tolerance/resistance), dangerous drug interaction, delay in health care, paradoxical economical loss due to delay in diagnosis of underlying condition and appropriate treatment, death might occur due to use of take drug. The reasons for self-medication include mild illness, previous experience of treating a similar illness, non-availability of health personnel, easy availability of over the counter drugs in markets, chemist stores, lack of access to health care, poor drug regulatory practice, illness being too trivial, time saving and quick relief, knowledge acquired from pharmacological studies.

The respondents generally had a fairly good knowledge of what is meant by self-medication. This is not surprising because self-medication involves the use of medicinal products by the consumer to treat self-recognized disorder or symptoms or the intermittent or continued use of medication prescribed by the physician for chronic and recurring disease and symptoms.

It was determined that approximately one third of them had started using antibiotics on their own and majority of them do not understand antibiotic resistances correctly, this leads to the need to organize awareness campaigns to further educate the student about self-medication. Surendan (2018) carried out a study to assess the self-medication practices and related knowledge among nursing students. Self-medication was reported among 63% of the nursing students. The respondents who used self-medication found it to be using for minor ailments. The most common ailment for which self-medication was practiced include fever, pain, antipyretics, analgesic and antacid were the most common self-medication medicines used. Achema (2014) showed that majority of the student have good knowledge about self-medication.

Result from the data of Table 3 show the mean responses on attitude of nursing student towards self-medication. The respondents agreed that the practice of self-medication is prone to affect the attitude towards pharmacotherapy in prescribing drugs in future, nursing students have good ability to treat symptoms found and acquired medical knowledge has effect on prescription of drugs by the nursing students. However, they disagreed that self-medication is acceptable for nursing students. Therefore, the respondents largely believed that self-medication should not be encouraged. In spite of this however many still engaged in self-medication, this is similar to the report of a similar study carried out in Nigerian populations. Majority of the considered self-medication largely unsafe and most likely to be associated with side effects while others thought of it has been a more affordable, readily available and time effective practice just like in similar studies in developing countries and hence practiced it frequently, in spite of the varying opinions, over 85% of respondents still confessed to have practiced self-medication in the one month, as reported in previous studies.

Barbara (2015) carried out a study on impact of medical knowledge and attitude towards sue of over the counter (OTC) drugs in medicine students as they acquire knowledge and medical experience. Analysis of students attitudes indicate that acquired medical knowledge has number of frequency using this type of treatment. About 14-23% uses the OTC drugs on a regular basis and 28% accepts prolonged used of OTC drugs. As the consequences acquisition of medical knowledge, the students are less likely to consult their self-medication attitude with doctors, families and friends; more often and accurately read the leaflets for drugs and are more reluctant to proposals for extending the assortment of available OTC.

The findings from this study highlights the prevalence of self-medication and usage of antibiotic among nursing students is high, majority of them lack some important knowledge and risks associated with them. Therefore, there should be proper education regarding to potential problems associated with self-medication.

The data of Table 4 show the responses on practice of self-medication by nursing students. The result revealed that majority of the sample population had practiced self-medication and they practice this sometimes. The most common reason given by the respondents for practicing self-medication was that they are dangerous to health; the practice was also attributed to drug resistance as well as expenses to get drugs. The respondents disagreed that females practice self-medication than the males. Conversely, most of the respondents had taken anti-malaria which proved to be the most commonly self-medicated drug

among the respondents, followed by antibiotic and anti-pyretic. These drugs were occasionally taken and can release one of respective illness. Majority of the respondents claimed that there were noticeable side effects associated with self-prescribed drugs. Also, the most medical illness associated with the practice of self-medication includes headache, malaria and worm life station.

Allison and Kimberley (2016) carried a study on self-medication practices among undergraduate nursing and midwifery students in Australia, with the objective to explore the self-medication practices of Australian nursing and midwifery students. Students reported the main reason for self-medication was to play an active role in their health. The incidence of stress was high, along with back pain and nearly half the students reported using antibiotics that were prescribed for a previous health problem. In conclusion, self-medication practices were common in this student cohort and some results give rise to concern for the general well-being of our future nursing and midwifery workforce.

## Conclusion

Based on the findings of the study, it was concluded that more than half of the respondents possessed knowledge of self-medication. The respondents largely believed that self-medication should not be encouraged. More than half of the respondents had sometimes practiced self-medication. Therefore, there is a dire need to adequately equip the populace with drug information as well as educate the public on the limits and acceptable attitudes and practices of self-

medication even as the health authorities and pharmaceutical companies put in place more guided safety measures.

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	Subject: <a href="#">Nursing Sciences</a>
Quick Response Code	
DOI: <a href="https://doi.org/10.22192/ijcrps.2018.05.12.004">10.22192/ijcrps.2018.05.12.004</a>	

### How to cite this article:

Ibebuikwe, J.E., Nwokike, G.I., Ogoke, O.J. and Nzeruo, V.O. (2018). Knowledge, attitude and practice of self medication among nursing students in Imo State University, Owerri. Int. J. Curr. Res. Chem. Pharm. Sci. 5(12): 19-26.

DOI: <http://dx.doi.org/10.22192/ijcrps.2018.05.12.004>