



## **Self-medication Practice among Secondary School Students in Ekiti State, Southwest Nigeria**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. Author AOA initiated the study, drafted the questionnaire, participated actively in the administration of the questionnaire and worked on the data analysis. Author PEK selected the respondents; pilot tested the instrument, participated in data administration and interpreted the data analysis for the study including the discussion of the study. All authors read and approved the final manuscript.*

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### **ABSTRACT**

**Aims:** The aim of this study was to investigate the practice of self-medication and the types of drugs students self-medicate as well as factors influencing practice of self-medication among secondary school students in Ekiti State, Southwest Nigeria.

**Methods:** The study employed a descriptive survey design using a combination of simple random and stratified sampling techniques to select 500 respondents to form the study group. A pre-tested structured questionnaire was used to collect information from respondents within a period of six months. SPSS 17.0 was used to analyse the data. The research questions were answered using descriptive statistics of frequency and percentages. Inferential statistics of t test and Analysis of Variance (ANOVA) were used to test the difference in the practice of self-medication between age groups and sex at 95% confidence level.

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**Results:** The study revealed that 386 (80.4%) of the respondents do engage in the practise of self-medication. Also, analgesic 186 (38.8%) was the commonest of the types of drugs used in self-medication. On the reasons adduced for self-medication, the response "I know what to do always" has the highest response of 72 (15.0%) followed by "I know what to do sometimes" of 218 (45.5%). The t calculated 0.82 was lesser than t table value 1.96 at P=0.05 which denotes that there is no significant difference between male and female in the practice of self-medication. Also, at 2; 477 degree of freedom, f calculated of 3.54 was greater than f table value of 3.01 at P=0.05 which signifies a significant difference between age groups in the practice of self-medication.

**Conclusion:** The practice of self-medication was found to be prevalent among secondary school students. Also, analgesic was the commonest of the drugs being self-medicated and significant difference exists among the age groups in the practice of self-medication. It was recommended that, health educators should organize health campaigns and sensitization program in secondary schools to enlighten students on the health implication of self-medication.

*Keywords: Self-medication; gender; age; practice; students.*

## 1. INTRODUCTION

The practice of self-medication is a global phenomenon [1] and it has become an issue under debate in health care [2]. Evidence has shown that self-medication is not restricted to a region or race since both developing and developed countries are experiencing the menace of inappropriate self-medication [3,4]. The variations in the level and patterns of self-medication among developing and developed nations may be due to the disparities in the cultural, economic, health care system and policies in each nation. Self-medication as a behaviour could be classified as responsible or non-responsible and as a result, the behaviour cannot be considered entirely harmful [5].

Responsible self-medication entails using approved and available medicine in a safe and effective way as directed though without prescription [6]. The types of drugs used are indicated for a self-recognisable condition following initial medical diagnosis, which means that users have previous knowledge of the dose, time and side effect(s) of the overdose of the drug. Responsible self-medication is possible in the developed nations because of high quality of education, accessibility to health information, safety and quality health care including government policies on health coupled with the health-seeking behaviour and sceptical expert knowledge [7].

Non-responsible self-medication is the use of drugs in the treatment of self-diagnosed ailments or symptoms of diseases without supervision or prescription by a physician [8]. It is characterised by indiscriminate use of drugs for the management of ailments many of which have resulted into intoxication [9]. Major problem of

non-responsible self-medication is the lack of clinical evaluation by a medical professional which can result into wrong diagnosis and delay in appropriate treatment [10], drug resistance, use of expired drugs, wrong doses and prolonged duration of usage [4]. The act of non-responsible self-medication seems to be prevalent in the developing countries because of the poor level of literacy, scarcity of health information and non-implementation of government policies on health issues [11].

In Nigeria, high degree of irresponsible self-medication is practised [12]. The most common drugs used without prescription include antimalarial, analgesics, antipyretics [4], antibiotics and cough syrup [13]. The sources of the drugs people use without prescription, sometimes are from pharmacy and left over drugs from previous medication [14]. Students have reasonable information about drugs through print media, pharmacy, medicine dealers, family and friends [15] or patent medicine shops [13].

The factors influencing self-medication remains issues of intense debate in academic discourse [16]. Availability of drugs in markets and poor drug regulatory practices [17] contribute to self-medication. Many Nigerians, most times, trivialize ailments such as headache, fever, cough, throat infection, common cold and stomach ache [18] while, some do perceive some ailments to be too mild to necessitate medical consultation [19]. Other factors like demographic factors have been found to influence self-medication. For instance, gender, age, sex and social role were discovered to have influence on self-medication [16]. Studies revealed higher prevalence of self-medication among males than females while some scholars

found no strong association between gender [17,18].

The fact remains that many rural communities have little or no access to modern medical care because of the uneven distribution or inadequate health facilities [20]. This may encourage the practice of self-medication.

The practice of self-medication among secondary school students seems to be on the increase. Many literatures exist on practice of self-medication among university students [1] and among workers of tertiary institutions [16] but it was observed that there is a relative dearth of literature on self-medication among secondary school students. Therefore, this study was set out to investigate the practice of self-medication among students of secondary schools, the types of drugs used and the factors influencing the practice. In addition, it would determine the differences in the practice of self-medication between gender as well as among age groups.

## **2. METHODS**

### **2.1 Study Setting**

The study was conducted among secondary school students in Ekiti State, Southwest Nigeria.

### **2.2 Study Design**

Descriptive research design of the survey type was used to conduct the study among students in rural and urban secondary schools in Ekiti State, Southwest Nigeria.

### **2.3 Sampling Techniques**

A total of 500 students were selected using simple random and stratified sampling techniques. Ekiti State was stratified into urban and rural towns, after which simple random sampling was used to select two towns from each stratum and two secondary schools from each town. The schools were stratified into junior secondary (JSS) and senior secondary schools (SSS). Due to the difference in school population, proportionate sampling was used to select respondents. Finally, 290 were selected from JSS and 210 from SSS making a total of 500 respondents.

### **2.4 Instrumentation**

A pre-tested, structured questionnaire was designed from related studies. The questionnaire was in two parts. Part A elicited information on

the demographic variables of respondents and Part B was used to collect the data on practice and the factors influencing self-medication as well as the types of drugs used in self-medication. The first two questions used in eliciting information on practice of self-medication are: 'Do you practise self-medication?' and 'What type of drug do you use without doctor's prescription?' These were followed by a set of questions to determine the reasons for the practice of self-medication. The items were measured with a three-point Likert-type scale of "Always", "Sometimes" and "Never". The content validity of the questionnaire was determined by experts in health education. Pilot testing of the instrument on 20 respondents using test re-test method of reliability gave reliability co-efficient of 0.73. The researchers obtained verbal and written consent from the school principals before administering the questionnaire. Copies of the questionnaire were administered to the respondents by the researchers with the support of trained research assistants after explaining the items in the questionnaire.

### **2.5 Statistical Analysis**

Data were analyzed using SPSS 17.0. Descriptive statistics of frequency and percentage were used to answer the research questions. Inferential statistics were used to find the differences in the practice of self-medication using t test between male and female and Analysis of Variance (ANOVA) among the age groups. The formulated hypotheses were tested at  $P= 0.05$  level of significance.

## **3. RESULTS**

The response rate for the administered questionnaire was 96% because only 480 copies of were fully completed and returned out of 500.

The demographic data of the respondents in Table 1 shows that respondents within 10-14 years of age were 280 (58.3%), 15-19 years of age were 190 (39.6%) and 20-24 years of age were 10 (2.1%). The sex of respondents reveals that males were 216 (45%) and females were 264 (55%). The location of respondents' schools reveals that those schooling in the urban areas were 242 (50.4%) and those in schools located in rural areas were 238 (49.6%). Finally, the level of education of respondents' shows that those in Junior Secondary Schools (JSS) were 274 (57.1%) and Senior Secondary Schools (SSS) were 206 (42.9%).

**Table 1. Distribution of the demographic variables of respondents**

| Variables |        | F   | %     |
|-----------|--------|-----|-------|
| Age       | 10-14  | 280 | 58.3  |
|           | 15-19  | 190 | 39.6  |
|           | 20-24  | 10  | 2.1   |
|           | Total  | 480 | 100.0 |
| Sex       | Male   | 216 | 45.0  |
|           | Female | 264 | 55.0  |
|           | Total  | 480 | 100.0 |
| Location  | Urban  | 242 | 50.4  |
|           | Rural  | 238 | 49.6  |
|           | Total  | 480 | 100.0 |
| Level     | JSS    | 274 | 57.1  |
|           | SSS    | 206 | 42.9  |
|           | Total  | 480 | 100.0 |

Table 2 reveals that respondents who indulged in the act of self-medication were 386 (80.4%) and those who did not practice self-medication were 94 (19.6%). The breakdown of self-medication practice among respondents were as follows; those within 10-14 years of age were 214 (44.6%), 15-19 years of age were 164 (34.2%) and 20-24 years of age were 8 (1.6%) which comprise of 170 (35.4%) males and 216 (45%) females.

Table 3 shows the analysis of the types of drugs the 386 respondents self-medicate. Analgesics 186 (38.8%) topped the list, followed by antibiotics 86 (17.9%) and antipyretics 68 (14.2%). Others, such as sedatives, blood supplement and appetite stimulant has 6 (1.2%) responses each.

Table 4 shows the reasons respondents engage in self-medication. Response to "I know what to do always" was 72 (15%) and sometimes 218 (45.5%). This was closely followed by "Ailment/disease is not serious to warrant going to the hospital" with response to 'always' 34 (7.1%) and 'sometimes' 246 (51.2%). Also, "using left over drugs applied on previous health problem" had 'always' 56 (11.7%) and 'sometimes' 218 (45.4%). The item with least response is "lack of money to pay the doctor's bill" with 'always' 30 (6.3%) and 'sometimes' 146 (30.4%).

Table 5 shows the t test analysis of gender and practice of self-medication. The findings shows that the calculated value (0.82) is lesser than the table value (1.96) at  $P=0.05$ . The finding signifies that there is no significant difference between male and female in the practice of self-

medication. The stated hypothesis that there is no significant difference between male and female in the practice of self-medication is thus not rejected.

Table 6 shows the Analysis of Variance (ANOVA) of age and the practice of self-medication. The degree of freedom of 2; 477, the calculated value (3.54) is greater than the table value (3.01) at  $P=0.05$ . The finding denotes that the stated hypothesis that there is no significant difference between age groups of respondents in the practice of self-medication is not accepted.

#### 4. DISCUSSION

This study discovered a high prevalence 396 (80.4%) of self-medication practice among the respondents. This finding is in line with previous similar study where a higher prevalence 97.8% was discovered among students of secondary school [21] as well as the submission that self-medication is prevalent among individuals in many developing countries of the world [11]. Nonetheless, a study on practice of self-medication revealed a lower prevalence of 11.9% [5]. The discrepancy in the prevalence could be because self-medication practice was limited to the preceding three months while this study did not limit self-medication to a particular period.

**Table 2. Frequency distribution of practice of self-medication**

| Variable |        | Yes |      | No |      |
|----------|--------|-----|------|----|------|
|          |        | F   | %    | F  | %    |
| Age      | 10-14  | 214 | 44.6 | 66 | 13.8 |
|          | 15-19  | 164 | 34.2 | 26 | 5.4  |
|          | 20-24  | 8   | 1.6  | 2  | 0.4  |
|          | Total  | 386 | 80.4 | 94 | 19.6 |
| Sex      | Male   | 170 | 35.4 | 46 | 9.6  |
|          | Female | 216 | 45   | 48 | 10   |
|          | Total  | 386 | 80.4 | 94 | 19.6 |

**Table 3. Frequency distribution of the types of drugs students self-medicate**

| Types of drugs     | F   | %    |
|--------------------|-----|------|
| Analgesics         | 186 | 38.8 |
| Antibiotics        | 86  | 17.9 |
| Antipyretics       | 68  | 14.2 |
| Sedatives          | 6   | 1.2  |
| Antimalarial       | 28  | 5.9  |
| Blood supplement   | 6   | 1.2  |
| Appetite stimulant | 6   | 1.2  |
| Total              | 386 | 80.4 |

**Table 4. Frequency distribution and percentages of the reason for practising self-medication**

| I engage in self-medication because                                | Always |      | Sometimes |      | Never |      |
|--|--------|------|-----------|------|-------|------|
|  | F      | %    | F         | %    | F     | %    |
| Ailment/disease is not serious enough to warrant going to hospital | 34     | 7.1  | 246       | 51.2 | 200   | 41.7 |
| Using left over drugs applied on previous health problem           | 56     | 11.7 | 218       | 45.4 | 206   | 42.9 |
| Lack of money to pay hospital bill                                 | 30     | 6.3  | 146       | 30.4 | 304   | 63.3 |
| Health facility too far away from my residence                     | 48     | 10.0 | 174       | 36.2 | 258   | 53.8 |
| Long duration of waiting to see doctor                             | 24     | 5.0  | 176       | 36.7 | 280   | 58.3 |
| No physician to prescribe drug for me                              | 38     | 7.9  | 166       | 34.6 | 276   | 57.5 |
| I know what to do always   | 72     | 15.0 | 218       | 45.5 | 190   | 39.5 |

**Table 5. T test analysis of gender and practice of self-medication**

| Practice |        | N   | X    | SD   | Df  | t cal | t tab | Remark |
|----------|--------|-----|------|------|-----|-------|-------|--------|
| Practice | Male   | 216 | 1.79 | .410 | 478 | 0.82  | 1.96  | NS     |
|          | Female | 264 | 1.82 | .386 |     |       |       |        |

$P=0.05$

**Table 6. Analysis of variance showing the difference between age and practice of self-medication**

| Practice      | SS     | Df  | MSS  | F cal | F tab | Sig. |
|---------------|--------|-----|------|-------|-------|------|
| Between group | 1.107  | 2   | .553 | 3.54* | 3.01  | S    |
| Within group  | 74.485 | 477 | .156 |       |       |      |
| Total         | 75.592 |     |      |       |       |      |

$P=0.05$

Finding analgesics to be the drugs most used for self-medication agreed with a study conducted in Islamabad, Pakistan where analgesics was the major class of medicine used [22]. The similarities could be linked with the method of obtaining drugs in Nigeria which is similar to what happens in Pakistan where almost every pharmacy sells drug without demanding for prescription [22]. On the contrary, a study carried out among adult population in Southwest Nigeria, discovered that antibiotics was the most common drugs used without prescription [13]. The difference could be attributed to the stage of development and exposure because the population in this study are younger generation with more female than male and with most of them just attaining the stage of puberty. Findings in another study revealed that 84% of girls used analgesics without prescription to relieve themselves of menstrual pains [23] and over 67% girls take palliative drugs medicine for their menstrual pains without prescription [24]. The need to treat dysmenorrhoea among the girls may increase the use of analgesic. The increase in the prevalence of self-medication as well as frequency of analgesics on the list of self medicated drugs may be attributed to the higher

number of females, who are just entering into puberty; used in this study. This survey showed that the most common reasons students gave for self-medicating was "I know what to do always". This was closely followed by "ailment/disease is not serious enough to warrant going to hospital" and "using left over of drugs applied on previous health problem". These findings are almost similar to the discoveries in other works that students perceive some ailments to be too minor to necessitate medical consultation [19,22] but disagreed with the study in which non-availability and non-accessibility to healthcare facilities and trained physicians were found to increase the practice of self-medication [25,26]. Since, more than 50% of the respondents did not self-medicate because of the reasons relating to lack of money to pay doctors bill, health facility too far to residence, waiting time to see doctor or no physician to prescribe drugs, shows that the act of self-medication among the students was motivated by their attitude. The perception of knowing what to do could result into misplaced confidence which can cause inappropriate self-medication that would expose the respondents to risks associated with the practice of self-medication [27].

The present study discovered that there is no significant difference between male and female students in the practice of self-medication. This finding disagreed with the significant difference that was found in some other study between male and female in the practice of self-medication [21] and no strong association between gender and the practice of self-medication [17] in similar studies. The slightly higher mean among female recorded in the study which shows that female practise self-medication more than males negates the findings that showed a higher prevalence among male than female [17,18] but agreed with similar finding with higher proportion of females (64.3%) self-medicating than males (45.7%) [28]. The reason for this finding could be linked to the fact that adolescent females may need to relieve pains while male on the other hand, has the tendency to trivialize illness or neglect mild illness.

The significant difference between age groups of respondents in the practice of self-medication disagreed with the assertions in previous studies. For instance, no significant difference was observed between different age groups and self-medication [29] and significant relationship were found to exist between age and the practice of self-medication [16,18] were experiencing major physiological, emotional and psychological changes. The fact that the practice of self medication was more prevalent among respondents of 10 to 14 years of age is instructive in that it may not be unconnected with the fact that the group are more susceptible to imitation of peer group behaviours. The pull to be self independent may be accountable for the feeling that they could solve their health problems their own way in which case they may not consider consulting medical practitioners as an option.

## 5. CONCLUSION

The practice of self-medication was found to be prevalent among secondary school students. Respondents self-medicated analgesics more than antibiotics. The major reason identified for self-medication was the perception that they know what to do always followed by the feeling that the ailment/disease was not serious enough to necessitate going to hospital. Thus, non-availability or non-accessibility to health care facilities could not be adduced to be the reason for self medication among these students. The danger in this perception is that serious ailment could be trivialised and delay in the proper

management of such ailment could be fatal. There was no significant difference between males and females in the practice of self-medication. Finally, a significant difference was found to exist between age groups in the practice of self-medication. Based on the findings, health educators should organize health campaign and sensitization programme in secondary schools to enlighten students on the negative health implications of self-medication. Also, secondary school students should be encouraged on the need to make use of health care facilities.

## 6. LIMITATIONS

Students in private secondary schools were not included in the study. Hence, generalization of this study would not be related to them.

## 7. INCLUSION AND EXCLUSION CRITERIA

Only students in the final classes in Junior and Senior public secondary schools were included because they are regarded to be able to interpret the questionnaire more than those in lower classes of each group.

## CONSENT

It is not applicable.

## ETHICAL APPROVAL

The principals of the schools included in this study gave their consent for the students in their schools to be included. While the respondents were told that the return of the completed questionnaire forms was an indication of their consent to be included in the study. Hence out of the 500 forms administered, 480 were completed and returned.

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## COMPETING INTERESTS

Authors have declared that no competing interests exist.

## REFERENCES

1. Danshana B. Self-Medication: A current challenge. *Journal of Basic Clinical Pharmacy*. 2014;5(1):19-23.
2. Almasdy DS. Self-medication practice with non-prescription medication among university students: A review of literature. *Archives of Pharmacy Practice*. 2011;2(3): 95-100.
3. Sarahrood S, Arzi A. Self-medication with antibiotics, is it a problem among Iranian college students in Tehran? *J Biological Sciences*. 2009;9:829-32.
4. Geissler PW, Nokes K, Prince RJ, Achieng OR, Aagaard-Hansen J, Ouma JH. Children and medicine: Self Treatment of Common Illness among Luo School Children in Western Kenya. *Journal of Social Science and Medicine*. 2000;50 (112):1771-1783
5. Kalaiselvi SS, Ganesh K, Archana R. Prevalence of self-medication practices and its associated factors in urban Puducherry, India. *Perspec Clin Res*. 2014;5(1):32-36
6. WHO. Essential Medicines and Health Products. Information Portal; 2014. Available:[Apps.who.int/medicinedocs/en/ci/cl4.1/clmd](http://Apps.who.int/medicinedocs/en/ci/cl4.1/clmd)
7. Talevi A. The New Patient and Responsible Self-Medication Practices: A critical review. *Current Drug Safety*. 2010; 5(4):342-53.
8. Ruiz ME. Risk of self-medication practices. *Current Drug Safety*. 2010;5(4):315-23
9. Galato D, Galafassi L, Alano GM, Trauthman SC. Responsible Self-Medication: Review of the process of Pharmaceutical Attendance. *Brazilian Journal of Pharmaceutical Sciences*. 2009; 45(4):625-633.
10. Hamej MJ, Odhacha A, Roberts JM. Malaria control in Buogoma District Kenya: A survey of home treatment of children with fever, bed net use and antenatal clinics. *Bulletin of World Health Organization*. 2001;79:1014-1023.
11. Awad AI, Eltayeb IB. Self-medication Practices with Antibiotics and antimalarial among Sudanese Undergraduate University Students. *Annals of Pharmacotherapy*. 2007;41:1249-1255
12. Olayemi OJ, Olayinka BO, Musa AJ. Evaluation of antibiotic self-medication: Pattern amongst undergraduate students of ABU (Main Campus) Zaria. *J Appl Science Res*. 2010;2(1):35-38
13. Afolabi AO. Factors influencing the pattern of self-medication in an adult Nigerian population. *Annals of African Medicine*. 2008;7(3):120-127.
14. Vanden EJ, Marcus R, Hadler JL, Imhoff B, Vugia DJ, Cieslak PR, Zell E, Deneen V, McCombs KG, Zansky SM, Hawkins MA, Besser RE. Consumers Attitude and Use of Anti-Microbial Drugs. *Emerging Infectious Diseases*. 2003;9:1128-35.
15. William IL. Self-Medication. *J National Medical Association*. 1978;70(10):731-732
16. Osemene KP, Lamikara A. A study of the prevalence of self-medication practice among University Students in Southwestern Nigeria. *Trop J Pharmaceutical Res*. 2012;11(4):683-689
17. Fadare JO, Tamuno I. Antibiotic Self-Medication among University Undergraduate in Northern Nigeria. *Journal of Public Health Epidemiology*. 2011;3(5):217-220.
18. Emmanuel A, Daniel G, Achema G, Afor B, Onyejekwe G, Gimba SM. Self-medication practice among undergraduate nursing students of University of Jos, Nigeria. *Nigerian Journal of Pharmaceutical Sciences*. 2011;10(2):22-26.
19. Omolase CO, Adeleke EO, Afolabi AT. Self-Medication amongst General Out-Patients in a Nigerian Community Hospital. *Ann Ibadan Post Graduate Medicine*. 2007;5(2):64-67
20. Arikpo G, Eja M, Enyi-Idoh K. Self-Medication in Rural Africa. *The Internet Journal of Health*. 2009;11(1). Available:<https://ispub.com/IJH/11/1/5032>
21. Al-Hussaini M, Mustafa S, Ali S. Self-medication among Undergraduate Medical Students in Kuwait with reference to the Role of the Pharmacist. *Journal of Research Pharmacy Practice*. 2014;3(1): 23-27.
22. Aqeel T, Shabbir A, Basharat H, Bukhari M, Mobin S, Shahid H, Waqar SA. Prevalence of self-medication among urban and rural population of Islamabad, Pakistan. *Trop J Pharm Res*. 2014;13(4): 627-633.
23. Sadiq MA, Salih AA. Knowledge and practice of adolescent females about menstruation in Baghdad. *Journal of General Practice*. 2013;2(1):138-142
24. Pourslami M, Osati-Ashitiani F. Assessing knowledge, attitudes and behaviour of

- adolescent girls in suburban districts of Tehran about dysmenorrhoea and menstrual hygiene. *Journal of International women's Studies*. 2002;3:51-61.
25. Kumar N, Kanchan T, Unnikrishnan B, Rekha T, Mithia P. Perceptions and practises of self-medication among medical students in Coastal South India. *PLoS ONE*. 2013;8(8):e72247. DOI:10.1371/journal.pone.0072247.
26. Bamgboye EA, Amoran OE, Yusuf OB. Self-medication practices among workers in a Tertiary Hospital in Nigeria. *African Journal of Medicine and Medical Sciences*. 2006;35(4):411-415
27. James H, Handu SS, Khalid AJ, Khaja A, Otoom S, Sequeira RP. Evaluation of the knowledge, attitude and practice of self-medication among first year medical students. *Med Princ Pract*. 2006;15:270-275.
28. DeMoraes ACF, Delaporte TRM, Molena-Fernades CA, Falcao MC. Factors associated with medicine use and selfmedication are different in adolescents. *Clinics*. 2011;66(7):1149-55.
29. Calvalho RS, Kara-Jose N, Temporini ER, Kara-Junior N, Noma-Campos R. Self-medication: initial treatment used by patients seen in an ophthalmic emergency rooms. *Clinics (Sao Paulo, Brazil)*. 2009;64(8):735-741.

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