

Original Research Article

**Prevalence of Self-Medication Practice among Secondary School Students in
Ekiti-State, Southwest Nigeria**

Abstract

This study was carried out to investigate the prevalence and factors influencing non-responsible self-medication among secondary school students in Ekiti State, Nigeria. The study employed a descriptive survey design using a pre tested structured questionnaire to collect information from respondents. A combination of simple random and stratified sampling techniques was used to select 500 respondents to form the study group. Related literatures were reviewed and the primary data used for the analysis of data comprised of inputs from respondents. The research questions were answered descriptively while the formulated hypotheses were tested using t test and ANOVA at 95% confidence level. It was discovered that there was a high prevalence of self-medication among the students and this is associated with students believing that the causal ailment/disease was not serious enough to warrant going to the hospital. Pharmacy was the major source of getting the drugs while pain reliever was the major drugs student self-medicate. There was no significant difference between male and female in the practice of self-medication but there was a significant relationship between age and practice of self-medication. It was recommended that, laws relating to drug sale by pharmacy should be enforced by relevant agencies and that health educators should organize health campaigns and sensitization programme in secondary schools to enlighten students on the implication of self-medication.

Keywords: self-medication, prevalence, practice and students.

Introduction

Self-care behaviour in form of self-medication has become an issue under debate in health care (Almasdy, 2011) and a global phenomenon (Danshana, 2014). Self-medication is not restricted to a region or race. Evidence has shown that both developing and developed countries are experiencing the menace of inappropriate use of medication in their health care facilities (Sarahrood & Arzi, 2009). Though, self-medication varies among developing and developed nations due to the disparities in the cultural, economic, health care system and policies.

Self-medication could be classified as responsible or non-responsible. Non-

responsible self-medication is the use of medicinal substances in the treatment of self-diagnosed ailments or symptoms of diseases without supervision or prescription by a physician (Ruiz, 2010). Non-responsible self-medication is characterised by indiscriminate use of medicine for the management of ailment many of which have resulted into intoxication (Galato et al., 2008). Major problem of non-responsible self-medication is the lack of clinical evaluation by medical professional which can result into missed diagnosis and delay in appropriate treatment (Hamej, Odhacha & Roberts, 2001), drug resistance, use of expired drugs, wrong doses and prolonged duration of usage (Geissler et al, 2007). 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.

Responsible self-medication on the other hand, entails using approved and available medicine in a safe and effective way as directed though, without prescription (WHO, 2014). 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 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 (Talevi, 2010).

In developing countries, most illnesses are treated by self-medication (Geissler et al, 2000). Self-medication is prevalent among individuals in many developing countries of the world (Awad & Eltayeb, 2007). In Nigeria, high degree of irresponsible self-medication is practised (Olayemi, Olayinka & Musa, 2010). The most common drugs used without prescription include antimalarial, analgesics, antipyretics (Geissler et al, 2000), antibiotics and cough syrup (Afolabi, 2008). The sources of the drugs people use without prescription, sometimes are pharmacy and

left over drugs from previous medication (Vanden et al, 2003). Students have reasonable information about drugs through print media, pharmacy shops, medicine dealers, family and friends (William, 1978) or patent medicine shops (Afolabi, 2008)

The factors influencing self-medication remains issues of intense debate in academic discourse (Osemene & Lamikanra, 2012). Availability of drugs in open market and poor drug regulatory practices (Fadare & Tamuno, 2011) contribute to self-medication. Many Nigerians, most times, trivialised ailments such as headache, fever, cough, throat infection, common cold and stomach ache (Emmanuel et al, 2011) while some do perceive some ailments to be too minor to necessitate medical consultation (Omolase, 2007) thus, using self-medication to manage such. Other factors such as demographic factors have been found to influence self-medication. For instance, Osemene & Lamikanra, (2012) discovered that gender, age, sex, social role have influence on self-medication. Prevalence of self-medication was more among males than female (Emmanuel et al, 2011) though, Fadare & Tamuno (2011) found no strong association between gender.

Easy availability and accessibility to healthcare facilities remain a cornerstone for reducing the practice of self-medication (Kumar, 2013). Bamgboye, Amoran & Yusuf (2006) associated poor accessibility to medical services with the practice of self-medication. Also, lack of access to trained physicians may encourage self-medication. The fact that most rural communities have little or no access to modern medical care because of the uneven distribution or inadequate health facilities (Arikpo, Eja & Enyi-Idoh, 2013) may encourage the self-use of drugs.

The practice of non-responsible self-medication among secondary school students seems to be on the increase. Many literatures exist on prevalence of self-medication among university students (Almasdy, 2011 and Osemene & Lamikanra, 2012) and among workers of tertiary institutions but a relative dearth of literature on non-responsible self-medication was observed among secondary students.

Purpose

The study aimed at determining whether secondary school students engage in self-medication. It also identified the factors influencing self-medication as well as the sources through which they obtain the drugs. Lastly, it investigated the influence of gender and religion on practice of self-medication

Research Questions

1. Do secondary school students engage in self-medication?
2. Why do secondary school students engage in self-medication?
3. What are the sources of drugs that secondary school students use without prescription?
4. What types of drugs do secondary students use without prescription?

Research Hypotheses

1. There is no significant difference between male and female on the practice of self-medication
2. There is no significant relationship between age and self-medication

Research Methods

The study was conducted among secondary school students in Ekiti State using a descriptive research design of the survey type. A total of 500 respondents form the sample size for the study. The sample was selected through simple random sampling technique. A closed ended pretested questionnaire was used to collect informant from the respondents. The copies of questionnaire were administered by the researcher and trained research assistants after consent have been taken from the school authority. The research questions were answered descriptively using frequency count and chi square. The formulated hypotheses were tested using t test and ANOVA at 0.05 level of significance. A total of 480 responses was analysed giving a response rate of 96%.

120 **Results**

121 **Question 1:** Do secondary school students engage in self-medication?

122 **Table 1: Distribution and Chi Square of respondents by demographic variables and**
123 **practice of self-medication**

124

		Practice					
Variable		Yes		No		Total	
		F	%	F	%	F	%
Age	10-14	214	44.6	66	13.8	280	58.3
	15-19	164	34.2	26	5.4	190	39.6
	20-24	8	1.6	2	0.4	10	2.1
	Total	386	80.4	94	19.6	480	100.0
Sex	Male	170	35.4	46	9.6	216	45.0
	Female	216	45	48	10	264	55.0
	Total	386	80.4	94	19.6	480	100.0
Location	Urban	198	41.3	44	9.2	242	50.4
	Rural	188	39.2	50	10.4	238	49.6
	Total	386	80.4	94	19.6	480	100.0
Level	JSS	214	44.6	60	12.5	274	57.1
	SSS	172	35.8	34	7.1	206	42.9
	Total	386	80.4	94	19.6	480	100.0
Distance to health Facility	Less than 1 km	136	28.3	40	8.3	176	36.7
	1-5 km	180	37.5	42	8.8	222	46.3
	Above 5km	70	14.6	12	2.5	82	17.0
	Total	386	80.4	94	19.6	480	100.0

125 Table 1 shows the demographic characteristics of the respondents and the practice
126 of self-medication. A total of 386(80.4%) indulged in the act of self-medication while
127 94 (19.6%) of the respondents did not practice self-medication.

128

129 **Question 2:** Why do secondary school students engage in self-medication?

130 **Table 2:** Frequency Distribution and Percentages of responses on the reason for
131 practicing self-medication

132

		Frequently		Occasionally		Never	
I engage in Self-Medication because:		F	%	F	%	F	%
Ailment/disease is not serious to warrant		34	7.1	246	51.2	200	41.7

going to hospital						
Using left over of drugs applied on previous	56	11.7	218	45.4	206	42.9
previous health problem						
Lack of money to pay for doctor’s bill	30	6.3	146	30.4	304	63.3
Health facility too far away to 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

In Table 2, many of the respondents frequently engaged in self-medication because they always know what to do 72 (15%) followed by using left over drugs applied on previous ailment 56 (11.7%) and health facility too far away from my residence 48 (10%). The least response on frequency of the practice of self-medication was long duration of waiting to see doctor 24(5.0%)

Question 3: What are the sources of drugs that secondary school students use without prescription?

Table 3: Frequency and Percentage of Sources through which male and female students get drugs

Source	Male		Female		Total	
	F	%	F	%	F	%
Patent Medicine seller	40	8.3	46	9.6	86	17.9
Friends	22	4.6	10	2.1	32	6.7
Drug Hawker	12	2.5	10	2.1	22	4.6
Pharmacy	82	17.1	120	25.0	202	42.1
Left over drugs	14	2.9	14	2.9	28	5.8
None	40	8.3	54	11.2	94	19.5
Parents	6	1.3	10	2.1	16	3.4
Total	216	45.0	264	55.0	480	100.0

Table 3 shows that majority of the respondents buy the drug they self-medicate from pharmacy 202 (42.1%). Respondents patronized patent medicine 86 (17.9%) and friends 32 (6.7%).

Question 4: What are the types of drugs secondary school students use without prescription?

Table 4: Frequency and Percentage of the types of drugs students self-medicate

Types of Drugs	F	%
Analgesic (pain reliever)	186	38.8
Antibiotics	86	17.9
Antipyretics (to suppress temperature	68	14.2

Sedatives (to induce sleep)	6	1.2
Antimalarial	28	5.9
Blood Supplement	6	1.2
Appetite stimulant	6	1.2
None	94	19.6
Total	480	100.0

151 Table 4 shows that analgesic (pain reliever) 186 (38.8%) topped the list of types of
 152 drugs respondents self-medicate, followed by antibiotics 86 (17.9%) and antipyretics
 153 (14.2%)

154 **Hypothesis 1:** There is no significant difference between male and female on the
 155 practice of self-medication

156 **Table 5:** t test analysis of Gender and practice of Self-Medication
 157

		N	$\bar{X}$	SD	Df	t cal	Sig.	Remark
Practice	Male	216	1.79	.410	478	2.9	0.89	NS
	Female	264	1.82	.386				

158 In table 5, (t 2.9; p 0.89), the findings revealed that $p > 0.05$. This denotes that the
 159 hypothesis is not significant. Thus, the hypothesis is not rejected meaning that there
 160 is no significant relationship between male and female students on the practice of
 161 self-medication.

162 **Hypothesis 2:** There is no significant relationship between age and self-medication

163 **Table 6:** Analysis of Variance showing the relationship between age and practice of
 164 Self-Medication

Practice	SS	Df	MSS	F	Sig.
Between Group	1.107	2	.553	3.544*	0.03
Within Group	74.485	477	.156		
Total	75.592				

165 *P<0.05

166 Table 6 (F 3.544; p 0.03) shows that $p < 0.05$ which means that there is a significant
 167 relationship between age of respondents and the practice of self-medication
 168

169 Discussion

170 It was discovered that 80.4% of the respondents do practice self-medication. This
 171 showed a high prevalence of self-medication among students of secondary school
 172 though a bit lower than 97.8% prevalence discovered by Al-Hussaini et al (2014) in a

similar study. These findings agreed with Awad & Eltayeb (2007) submission that self-medication is prevalent among individuals in many developing countries of the world. The distribution showed that the prevalence was higher among students between ages 15-19. It was also higher among female (81.8%) than male (78.7%) which was contrary to Emmanuel et al (2011) and Tamuno (2011) where prevalence was higher among male than female.

That analgesic (pain reliever) followed by antibiotics were the most common drugs used by students almost agreed with Afolabi (2008)'s findings where antibiotics was the major drugs students self-medicate. The submission of Fadare & Tamuno (2011) that the availability of drugs in open market and poor drug regulatory practices contribute to the practice of self-medication is in variance with this study because the major source of drugs which students used was from the pharmacy.

Ailment/disease is not serious to warrant going to hospital which topped the reason for self-medication corroborate Omolase (2007) who discovered that students perceive some ailments to be too minor to necessitate medical consultation but disagreed with Kumar (2013) that non-availability and accessibility to healthcare facilities increased the practice of self-medication. 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 in the practice of self-medication between male and female students. The finding was almost in agreement with Fadare & Tamuno (2011) where no strong association was found between gender and practice of self-medication but negates Al-Hussaini et al (2014) who found a significant difference between male and female. The significant relationship between age of respondents and the practice of self-medication agreed with the findings of Osemene & Lamikanra (2012) where age was found to have influence on self-medication.

Conclusion

The practice of self-medication was found to be prevalent among secondary school students. The commonest drugs they self-medicate was analgesic (pain reliever) followed by antibiotics. Pharmacy was the major source of drugs that students self-medicate. Though there was no significant difference between male and female in the practice but a significant relationship was found to exist between age and the practice of self-medication. Studies have revealed that many pain relievers fall under the stimulant class of psychoactive substance. One may deduce that students engage in the use of psychoactive substance under the disguise of using pain reliever and this could unconsciously lead them to getting addicted to these substances.

Recommendations

214 Based on the findings, it is recommended that laws relating to drug sale by
 215 pharmacy should be enforced by relevant agencies and most analgesics should be
 216 sold on prescription. In addition, health educators should organize health campaign
 217 and sensitization programme in primary and secondary schools to enlighten pupil
 218 and students on the negative health implication of self-medication.
 219

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