KNOWLEDGE OF DANGERS OF SELF-MEDICATION AMONG SECONDARY SCHOOL STUDENTS IN OBOWO LGA OF IMO STATE

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Abstract

This study examined the knowledge of dangers of self-medication among secondary school students in Obowo LGA of Imo state. Four objectives with corresponding research questions and two hypotheses guided the study. Descriptive survey research design was used for the study. The population comprised 4,542 secondary school students in Obowo L.G.A from which a sample of 400 students were drawn using a multi-stage sampling procedure. Questionnaire was the instrument for data collection. The descriptive statistics of frequencies and percentages were used to answer the research questions while chi-square X^2 tested at 0.05level of significance and at appropriate degrees of freedom was used to test the hypotheses. The findings of the study revealed that majority of the respondents had the knowledge of self-medication and dangers of self-medication. Female students had slightly higher knowledge of self-medication and dangers of self-medication. The study further revealed that there was no significant difference in the knowledge of self-medication and dangers of self-medication among student according to gender. Hence, it was recommended among others that health agencies, health educators and government should raise awareness through all electronic and print media on the dangers of self-medication.

Keywords: Self-medication; danger; students; drug and drug abuse.

Introduction

One health problem that is common among youths in developing countries is self-medication. Hence, self-medication which persists in most of our local communities may eventually culminate into drug abuse and misuse. This may also be why it was observed that self-medication could cause health problem which range from physical to psychological problems and even death. Some factors in our society could encourage self-medication. They include: the availability of non-prescription and prescriptions drugs in the open market, patent medicine stores, from drug hawkers and other illegal sources. According to Blackwell (2005) many people who are involved in self-medication tend to acquire the knowledge of the practice from relatives, neighbours, medicine dealers and sometimes the media. The situation in developing countries is frightening, where there is poor medical services and lack of professional control of pharmaceutical products. This therefore forces people to self-medicate and various forms of substances and herbs are often used for different medical complaints.

Frank (2013) is of the view that, a large number of people, when they fell sick, do not consult the physician. They either consult a chemist and obtain a medicine from his shelf, or may consult a neighbor who may be having some tablets left over from his previous illness, and can readily spares them. Sometimes you will have fever, cold, cough, constipation or indigestion, and your friends or even total strangers will volunteer advice on medicines to take like expert physicians. In short, this is what is meant to be self-medicating. The desire to take medicines, is one of the feature that distinguishes man from animals. Recent advances in drug research have provided many synthetic medicines for the treatment of diseases, leading to a drug explosion. Today, over 7000 drugs and drug combinations are available. Many of them have been released for general use, and are sold directly to the public as over the-counter (OTC) remedies. A large number of potent drugs are thus available to the individual for self-medication.

According to Ewuzie (2005), self-medication is the practice of procuring and taking drugs without doctor's prescription. These are medicines sold to the consumer without doctor's prescription at the local drug stores, such as patient medicine stores, chemists or supermarkets. A consumer could choose from a vast assortment of analgesics, cough mixtures, ointments, lotions and other drugs. The author further stated that all these drugs are useful in the right circumstances, but people could make wrong decisions in treating even a simple symptom like headache.

Marcia (2007) defined self-medication as the abuse of alcohol and other drugs in an attempt to relieve problems such as depression, anxiety, sleeplessness, emotional pain or bipolar disorder (also called manic –depression). Self-medication is a temporary fix, because it treats the symptoms of the problem, not the problem itself. When people use drugs other than those health care professionals prescribe for them, the underlying problem goes untreated and worsens. It can be said that self-medicating is short term gain but long term pain. According to Bernice (2012), self-medication involves the use of drugs without the advice of a qualified medical practitioner or doctor. It has become a norm in our society and unknown to many. It is a potentially dangerous practice to indulge in the stressful conditions under which we live.

Bernice (2012) submitted that several reasons are behind people's decisions to self-medicate. For some people, it's just a lack of time to consult a doctor and they believed that seeing a doctor often times is time consuming and another thing is that adequate health care these days is costly and thus, people will much rather opt for the less expensive over-the counter (OTC) remedies. Other times, it is the prescriptions from a previous illness people use after considering that the symptoms then, look the same now, the inherent dangers in self-medicating are numerous and can be fatal, if not now, then in the long run. Ewuzie (2005) posited that the factors that predispose one to self-medication, among others are accessibility to the drugs, poor medical and health facilities, poverty, ignorance, poor health culture, lack of hospital in the community and out of stock syndrome.

Johnson (1999) listed places where drugs are obtained to include: Pharmacies, general medicine dealers, hospital/clinics, traditional sources, private practitioners and other sources like household medicine cabinet containing previous medical prescriptions which may not have been prescribed for the same condition. According to the author, recent studies agree that the pharmacy and roadside/patent medicine stores were the commonest places where drugs were obtained for self-medication purposes. Also family medicine cabinets were sources of self-medication and the common sources of household stock are chemist, pharmacy, clinics, supermarket, friends and relatives. In developing countries common sources of anti-malarial used for self treatment are street and village shops and this could account for up to half of anti-malarial drug distribution. On the other hand, in choosing the most appropriate medicine to buy from the chemist shop, people rely on the advice of the sales clerk in the chemist shop, print media, family and friends, pharmacist, general medicine dealers, general and private medical practitioners (Afolabi, 2008). Furthermore, among the young ones, sources of drugs knowledge include family members especially the mothers (for therapeutic purposes), peer groups and illegal market (for intoxication purpose). More so, among the secondary school students the sources are in the following order: family members, previous illness experience, pharmacy shops, nurses, television or radio, newspaper or magazines, friends and teachers.

Major, Vincze and Mesko (2007) opined that many resort to the practice instead of contacting professional health care worker because of long waiting periods in hospitals, minor ailments, cost, to save money and time, lack of accessibility, shortages of doctors, or a feeling that their ailment is beyond the knowledge of western trained doctors. Individuals sometimes self-administer medications through drug identification. Trade names were common means of identification and less frequently by generic name, action color, shape and common usage names. Sources of drug information could be from the sales clerks in the chemist shops, print media, family and friends, pharmacists, general medicine dealers, general and private medical practitioners and among individuals who interact frequently with the public like hairdressers, sales people and bank officials (Harnack& Duval, 2006). Self-medication begins in early adolescence, often during the middle school years. The degree of self medication among adolescents especially girls for treatment of dysmenorrhea (menstrual pain) have gone out of hand. The research conducted by Davis (2006) shows that 93 percent of women take at least one medication for menstrual pain and this prescription of self-medication include acetaminophen and codeine, ibuprofen and hydrocodone and rofecoxib. Many people resort to self-medicating themselves for reasons unknown without knowing that it can lead to unwanted and sometimes fatal consequences.

Frank (2013) opined that availability of many irrational drug combinations in the market, which expose the individual to several drugs needlessly, each of which can cause adverse effects. Very few combinations have a legitimate place in modern medicine. Yet irrational combinations abound and are being used by some professionals.

Bernice (2012) pointed out that the main danger in self-medication is that it is either taken over dose or underdose. For example, a multivite tablet which is consider safe had been found to contain many kinds of vitamins and overdose of vitamin A which can cause fatigue, loss of hair and menstrual irregularities. The author claimed that in the cause of under-dose, it leads to the development of strain and once a person resist a drug it will become ineffective and a different drug will be introduced to care the ailment. Hence, there is need to conduct a study to determine the knowledge of dangers of self-medication among secondary school students in Obowo Local Government Area.

According to Winik (1993) about sixteen to seventeen million secondary school students depended on self-medication and out of this number, about twelve thousand are students from Imo state. This the author claimed may be as a result of ignorance. The author stated that most of the drugs used by student are dangerous and poisonous and can kill instantly. They do not know the dangers involved. Furthermore, anxiety can kill or lead to intake of drugs that can lead to death. Over-publicity in our news media, radio, television and print media has been found to be a cause of self-medication among the students. Some of the drugs are advertised in ours media as potential drugs.

Frank (2013) observed that all drugs are poisons. The availability of potent and dangerous drugs has increased considerably since the close of the 19th century. At the same time expanding availability of medical care exposes a large population of people to drugs, leading to a greater number of toxic reactions. This situation is further worsened in our country by the slack implementation of Drug Controls. Even certain prescription drugs are available to the lay person without the physician's advice. As people vary greatly in their sensitivity to drugs, so an appropriate dose for one person can be an overdose for another. Even skilled physicians sometimes fail to avoid such reactions. Thus, the lay person is ill-advised in subjecting himself to potentially dangerous self-medication. Furthermore, the proprietary drugs which are sold over-the-counter to include pain relievers, cough remedies, anti-allergic laxatives, vitamins, tonics, antacids and many others are not altogether non harmful. Even dangerous drugs like the antibiotics and the hormones can be procured, somehow or the other without a valid prescription. This is an entirely different facet of drugging. It is encouraging to note that stricter 'drug control' is being gradually clamped country-wide.

According to Harman (2000) there is false belief that the more medicine you take the quicker one gets better. He maintained that one aspect of self-medication is the untold misery and hardship it has brought to students due to over-dose. The author observed that five hundred students (youths) die every year due to the use of unprescribed left over drugs from a previous sickness under what seemed to be similar circumstance. The author concluded that students were used to taking drugs prescribed for another patient for a similar ailment (example, cough, malaria attack, headache) which is detrimental and dangerous due to circumstance.

Monteiro and Graham (2003) stated that one major consequence of self-medication that has not been properly given serious attention is substance abuse. This could be a problem especially in rural communities, where native concoctions mixed with alcohol in the form of palmwine and locally made gin are consumed on regular basis. In African countries, little is known about the potential effects of these substances on pregnancy. Their use is unrestricted even during pregnancy. There is increasing evidence that unborn babies exposed early to these substances abuse may suffer from overwhelming morbidity and mortality.

It has been observed that students who are involved in self-medication may eventually progress into drug abuse and consequently depend on such drugs. Hence secret society, violent crimes, mental and psychologically problems plaguing students in some Nigeria communities could possibly be associated with drug use or abuse. In view of the established physical and psychological problems associated with self-medication. It becomes justifiable to investigate the knowledge of self-medication among secondary school students in Obowo LGA.

The purpose of this study was to determine the knowledge of dangers of self-medication among secondary school students in Obowo L.G.A. Specifically, the objectives of the study investigated the knowledge of the:

1. meaning of self-medication among secondary school students in Obowo LGA.
2. dangers of self-medication among secondary school students in Obowo LGA.
3. concept of self-medication according to gender of students in Obowo secondary schools.
4. dangers of self-medication among secondary school students in Obowo LGA according to gender.

Based on the specific objectives, the following research questions were formulated:

1. What is the knowledge of self-medication among secondary school students in Obowo LGA?
2. What is the knowledge of dangers of self-medication among secondary school students in Obowo LGA?
3. What is the knowledge of self-medication possessed by students in Obowo secondary school according to gender?
4. What is the knowledge of dangers of self-medication among secondary school students in Obowo LGA according to gender?

Hypotheses

The study hypothesized as follows:

1. There is no significant difference in the knowledge the meaning of self- medication possessed by secondary school students of Obowo LGA according to gender
2. There is no significant difference in the knowledge of dangers of self-medication possessed by secondary school students of Obowo LGA according to gender.

Methods

Descriptive survey design was used for this study. It is deemed appropriate for the study because it produces information that is vital to the field of health education. Monteiro and Graham (2003) utilized the design to study the problem of self-medication in European. This justified the use of survey research design for this study.

The population for the study comprised four thousand five hundred and fourth two (4,542) secondary school students in Obowo Local Government Area 4,542(Ministry of Education, Imo State Secretariat, 2013). The sample size consisted of four hundred students which were drawn using multi-stage sampling procedure. Stage one involved purposive selection of four schools from the seven schools in Obowo LGA. Stage two involved the clustering of the classes into JSS and SSS classes. Stage three involved simple random selection of 100 students from each school (50 students from each cluster of JSS and SSS in each school) to arrive at 400 as the sample size. Questionnaire was the instrument for data collection. Data was analyzed using descriptive statistics of frequency tables and percentages for the research questions and chi square for the hypotheses which were tested at 0.05 level of significance.

Results

Table 1: Frequency Distribution on the Knowledge of Self-Medication.

SN	Items	True		False			
		f	%	f	%	Total	%
1.	Self-medication is treating oneself without doctor's prescription	326	81.5	74	18.5	400	100
2	Self-medication is drinking drugs prescribed by self	328	82	72	18	400	100
3	Self-medication is purchasing of drugs from medication stores without doctor's prescription	346	86.5	54	13.5	400	100
4	Self-medication is for alleviation of pain	348	87	52	13	400	100
5	Self-medication is the abuse of alcohol and other drugs in an attempt to relieve problems.	321	80.3	79	19.8	400	100

The Table 1 revealed that 326 (81.5%) of the respondents indicated that self-medication is treating oneself without doctor's prescription; 328 (82%) indicated that self-medication is drinking drugs prescribed by self and 346 (86.5%) indicated that self-medication is purchasing of drugs from medicine stores without doctor's prescription. The Table further revealed that 348 (87%) of the respondents indicated that self-medication is for alleviation of pain while 321 (80.3%) indicated that self-medication is the abuse of alcohol and other drugs in an attempt to relieve problems. This implies that majority of the students had high knowledge of the meaning of self-medication.

Table 2: Frequency Distribution Table on the Knowledge of Dangers of Self-medication.

SN	Items	True		False			
		f	%	f	%	Total	Total %
6	Self-medication can lead to death	327	81.75	73	18.25	400	100
7	Self-medication can lead to drugs abuse	331	82.75	69	17.25	400	100
8	Self-medication can complicate disease	335	83.75	65	16.25	400	100
9	Self-medication can lead to drug dependency	334	83.5	66	16.5	400	100
10	Self-medication can supress disease symptom	340	85	60	15	400	100
11	Self-medication has adverse effect on people's live.	344	86	56	14	400	100
12	Self-medication can lead to prolong ill health.	339	84.75	61	15.25	400	100
13	Self-medication can bring about increase anxiety	327	81.75	73	18.25	400	100
14	Self-medication involves wrong diagnosis	317	79.25	83	20.75	400	100
15	Self-medication is the use of non prescribe drugs	319	79.75	81	20.25	400	100

Table 2 shows responses on dangers of knowledge of self-medication among secondary school students. The Table 2 revealed that 327 (81.75%) of respondents indicated that self-medication can lead to death, 331 (82.75%) indicated that self-medication can lead to drug abuse, and 335 (83.75%) indicated that self-medication can complicate disease; 334 (83.5%) indicated that self-medication can lead to drug dependency, 340 (85%) indicated that self-medication can supress disease symptom. The table further revealed that 344 (86%) of the respondents indicated that self-medication has adverse effect on people's life, 339 (84.75%) of respondents indicated that self-medication can lead to prolonging ill health, 327 (81.75%) indicated that self-medication can bring about increased anxiety, and 317 (79.25%) of respondents indicated that self-medication involves wrong diagnosis, 319 (79.75%) of respondents indicated that self-medication is the use of non-prescription drugs. This implies that the students had high knowledge on the dangers of self-medication.

Table 3: Knowledge of the Meaning of Self-medication by Gender.

SN	Items	Male				Female					
		True		False		True		False			
		f	%	f	%	f	%	f	%	Total	%
1	Self-medication is treating oneself without doctors prescription	145	(36.25)	29	(7.25)	181	(45.25)	45	(11.25)	400	100
2	Self-medication is drinking drugs prescribed by self	121	(30.25)	28	(7)	207	(51.75)	44	(11)	400	100
3	Self-medication is purchasing of drugs from medication stores without doctor's prescription	154	(38.5)	22	(5.5)	192	(48)	32	(8)	400	100
4	Self-medication is taking unprescribed drug for alleviation of pain	160	(40)	23	(5.575)	188	(47)	29	(7.25)	400	100
5	Self-medication is the abuse of alcohol and other drugs in an attempt to relieve problems	129	(32.25)	25	(6.25)	192	(48)	54	(135)	400	100
	Total			**141.8**				**192**			

Table 3 revealed that 145 (36.25%) of males while 181 (45.25%) of females indicated that self-medication is treating oneself without doctor's prescription, 121 (30.25%) of males while 207 (51.75%) of females indicated that self-medication is drinking drugs prescribed by self and 154 (38.5%) of males while 192 (48%) of females indicated that self-medication is purchasing of drugs from medication stores without doctor's prescription.

The Table further revealed that 160 (40%) of males and 188 (47%) of females indicated that self-medication is taking unprescribed drugs for alleviation of pain and 129 (32.25%) of males while 192 (48%) of female indicated that self-medication is the abuse of alcohol and other drugs in an attempt to relieve problems. This implies that females have slightly higher knowledge of self-medication than males.

Table 4: Knowledge of Dangers of Self-medication by Gender.

SN	Items	Male				Female					
		True		False		True		False			
		f	%	f	%	f	%	f	%	Total	%
6	Self-medication can lead to death	142	(35.5)	31	(7.25)	185	(46.25)	42	(10.5)	400	100
7	Self-medication can lead to drug abuse	130	(32.5)	21	(5.25)	201	(50.25)	48	(12)	400	100
8	Self-medication can complicate disease	152	(38)	22	(5.5)	183	(45.75)	43	(10.75)	400	100
9	Self-medication can lead to drug dependency	131	(32.75)	20	(5.)	203	(50.75)	46	(11..5)	400	100
10	Self-medication can depress disease symptom	138	(34.5)	21	(5.25)	202	(50.5)	39	(9.75)	400	100
11	Self-medication has adverse effect on people'slife	157	(39.25)	24	(6)	197	(46.75)	32	(8)	400	100
12	Self-medication can lead to prolong ill health	145	(36.25)	19	(4.75)	194	(48.5)	21	(10.5)	400	100
13	Self-medication bring about increased anxiety	136	(34)	29	(7.25)	191	(47.75)	44	(11)	400	100
14	Self-medication involves wrong diagnosis	131	(32.75)	30	(7.5)	186	(46.5)	53	(13.25)	400	100
15	Self-medication is the use of non prescribed drug	137	(34.25)	39	(9.75)	182	(45.5)	42	(10.5)	400	100
	Total			**279.8**				**384.8**			

Table 4 shows responses on knowledge of dangers of self-medication according to gender. The revealed that 142 (35.5%) of males while 185 (40.255%) of females indicated that self-medication can lead to death. 130 (32.5%) of males while 201(50.25%) of females indicated that self-medication can lead to drugs abuse and 152 (38%) of males while 183 (45.75%) of female indicated that self-medication can complicate disease. Whereas 131 (32.75%) of males while 203 (50.75%) of females indicated that self-medication can lead to drugs dependency. 138 (34.5%) of males while 202 (50.5%) of female indicated that self-medication can supress disease symptom.

The Table further revealed that 157 (39.25%) of males while 197 (46.75%) of females indicated that self-medication has adverse effect on people's live and 145 (36.25%) of males while 194 (48.5%) of females indicated that self-medication can lead to prolong ill health. More so, 136 (34%) of males while 191 (47.75%) of females indicated that self-medication bring about increase anxiety and 131 (32.75%) of males while 186 (46.5%) of females indicated that self-medication is involves wrong diagnosis and 137 (34.25%) of males while 182 (45.5%) of females indicated that self-medication is the use of non-prescribed drugs. This implies that females have slightly higher knowledge of dangers of self-medication than male students.

Hypothesis 1

There is no significant difference in the level of knowledge of self-medication possessed by secondary school students of Obowo L.G.A according to gender. Data verifying this hypothesis are presented in table 5.

Table 5: Summary of Chi-square Analysis Testing Knowledge of Self-medication According to Gender.

Variable	Cal X^2	Table Value	Level of significance	df	Decision
Gender	3.671	9.488	0.05	4	Accepted

The data in table 5 show chi-square analysis verifying the responses on the knowledge of self-medication possessed by students according to gender. Since calculated X^2 of 3.671 is less than X^2 table value of 9.488 at 0.05 and level of significance and at 4 degree of freedom, the null hypothesis is retained and therefore concluded that there is no significance difference in the knowledge of self-medication possessed by the respondents according to gender.

Hypothesis 2

There is no significant difference in the knowledge of dangers of self-medication possessed by secondary school students of Obowo LGA according to gender. Data verifying this hypothesis are presented in table 6.

Table 6: Chi-square Analysis Verifying Level of Knowledge of Dangers of Self-medication According to Gender.

Variable	Calx^2	Table Value	Level of significance	df	Decision
Gender	0.3	9.488	0.05	4	Accepted

The data in table 6 show chi-square analysis verifying the responses on the knowledge of dangers of self-medication possessed by students according to gender. Since $x^2cal = 0.3$ is less than X^2 table value of 9.488 at 0.05 and degree of freedom of 4, the null hypothesis is accepted and concluded that there is no significant difference in the knowledge of dangers of self-medication according to gender of the respondents.

Discussion

Discussion of findings are presented under the following headings:

- knowledge of self-medication and;
- knowledge of dangers of self-medication.

Table 1, 3 and 5 revealed the knowledge of self-medication among secondary school students. The findings revealed that the students have knowledge of self-medication. This finding is expected and not surprising because it could be that the students are sent on errands by their parents, guardians and elder ones to buy them drugs from the patent medicine dealer. This might have exposed them to the knowledge of self-medication. The finding also corresponds with the view of Osigwe (2001) who reported that many students are involved in pills only to realize the effects at a later stage. The findings also revealed that female students have a slightly higher knowledge of self-medication than male students. The findings were expected and therefore not surprising because Osigwe (2001) also pointed out that the female students are very fond of taking anti-pregnancy pills any time they have sexual relationship with an opposite sex to make sure that pregnancy did not result. So the finding is however, not surprising and expected. The results in table 5 indicated that there was no significant difference in the knowledge of self-medication possessed among male and female students. This may be because both the female and male students experience headache and pain and may resort to taking paracetamol or other analgesics which may lead them to self-medicate in order to relieve the pain.

Table 2, 4 and 6 revealed the knowledge of dangers of self-medication among secondary school students. The findings revealed that the students have knowledge of dangers of self-

medication. This finding is not surprising because the students might have heard from mass media that self-medication could lead to many health problems damage to organs of the body or even death. The finding also revealed that the female students have a higher knowledge of dangers of self-medication than the males. This finding is expected because it is expected that majority of female students have been exposed to dangers of self-medication due to one health problem or the other especially on the treatment of dysmenorrhea (painful menstruation). This finding corroborates with that of Davis (2006) who reported that 93% of adolescent girls take at least one medication for menstrual pain, and the majority (91%) use over the counter (OTC) medications. Therefore this finding is not surprising because it is expected that female have a slightly higher knowledge of dangers of self-medication than male students due to treatment of dysmenorrhea.

Conclusions

Based on the findings, the following conclusions were drawn:

1. Majority of the respondents have the knowledge of self-medication.
2 Majority of the respondents have the knowledge of the dangers of self-medication.
3. Females have a slightly higher knowledge of self-medication than male students.
4. Females have a slightly higher knowledge of dangers of self-medication than male students.
5. There is no significant difference in the knowledge of self-medication possessed by secondary school students according to gender.
6. There is no significant difference in the knowledge of dangers of self-medication possessed by secondary school students based on gender.

Recommendations

Based on the findings and conclusion of the study, the following recommendation were made:

1. There is need for provision of free medical treatment for the students by the government in cities and rural areas to help reduce self-medication.
2. There should be establishment of equipped school clinic every school oversee the health needs of the students and staff.

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