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Self-Medication Practices Among Adults in Delta State, Nigeria

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ABSTRACT

Self-care, including self-medication has been a feature of healthcare. Nowadays, people are keen to accept more personal responsibility for their health status and to obtain as much sound information as possible from expert sources in order to help them make appropriate decisions in health care. We undertook this study to determine the prevalence, attitude, promoting factors and awareness of the benefits or risk of self medication amongst adults in Delta State. A cross sectional study was carried out in 14 randomly selected Local Government Areas in Delta State. A well structured, 21- item questionnaire consisting of both open ended and close ended questions covering socio-demographic characteristics and specific questions on self medication practices was used. The questionnaire were administered to adults aged 18 years and above in schools, offices and households. From a total of 5,007 adults that were surveyed, the male respondents were 2331 (46.0 %) while the female respondents were 2676 (53.4 %). The data obtained were coded and entered into Microsoft Excel 2007 and Graph Pad Instat statistical software version 3.0. Results were expressed as counts and percentages. Statistical comparison of data was done by Chi square test using Graph Pad Instat Version 3.0 and p-values less than 0.05 were considered statistically significant. The prevalence of self-medication was found to be high (89.4 %). 97.9 % reported to have used self medication two months prior to the study. patent medicine dealers were the commonest source of drug and information on medication. peer group was the most motivating factor for self medication (50.6 %). Headache was the major illness for self medication practice and the commonly used drugs were analgesics (80.5 %). There was a significant relationship between the illnesses and level of self medication ($p < 0.001$, $X^2 = 22.414$, $df = 18$) and between and gender of subjects that self medicated ($p< 0.001$, $X^2= 188.2$, $df= 4$). A large number of the respondents especially youths with formal education believed that self-medication cannot be stopped despite their awareness of its harmful effects. Commonest illnesses responsible for self medication were headache, fever, cough, and cold with analgesics and antipyretics being the most commonly used drugs.

KEY WORDS: Medication, Self medication, Self care, Curative medicine, preventive medicine

INTRODUCTION

The implication of self medication is increasingly recognised around the world despite the growing research interest in self-medication practice [1]. Little information is available about the major determinant and on the extent of self medication practice in the developing countries. Economics, social, political and cultural factors have stimulated a constant increase in self medication worldwide, turning this practice into a major health problem [2]. A comparative study on evaluation of self medication practices reported that majority of the respondents practiced self-medication [3]. Other studies on self medication practices include self medication with antibiotics and antimalarials in the commuinity of khartoum State, Sudan concluded that the prevalence of self medication with antibiotics/ antimalarial in the community in khartoum State, Sudan is alarmingly high [4]. In Nigeria, previous studies have concentrated on general self medication practices among the population [5,6]. A recent study carried out on antibiotics self medication among university undergraduates in Northern Nigeria concluded that self medication with antibiotics is common among medical undergraduates in Northern Nigeria [6].

Nowadays people are keen to accept more personal responsibility for their health status and to obtain as much sound information as possible from expert

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sources in order to help them make appropriate decisions in health care.

Self-medication has been defined by several authors. These include: self medication is the treatment of common health problems with medicine especially designed and labelled for use without medical supervision and approved as safe and effective for such use [4] Self-medication has also be defined as the use of drugs to treat self diagnosed disorder or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent disease or symptoms [7].

One of the earliest definition of self medication which have presumably influenced much latter studies is the one defined as: medicines other than those prescribed by a general practitioner or hospital, otherwise known as non prescribed or self prescribed medicines and the process of engaging in such is known as self medication or self prescribing [8].

However, different researches on self medication practices in various places have been done, but studies on self medication patterns and the prevalence of non-doctor precribing in Delta State has not been documented. Hence, this study.

The objective of the study is to determine the prevalence, attitude, promoting factors and awareness of the benefits or risk of self medication amongst adults in Delta State.

METHODS

A cross sectional study was carried out in 14 randomly selected from 25 Local Government Areas in Delta State. A well structured, pre-tested 21- item questionnaire consisting of both closed ended and open ended question covering socio-demographic characteristics and specific questions on self medication practices was used. To minimize bias, adults aged 18 years and above were chosen for this study. The self-administered questionnaires were distributed to these adults in schools, offices and households. Appropriate authorization to carry out the research was sought through permission from head of schools, offices and communities that were used. Maximum effort was made to maintain confidentiality of information by omitting names of the respondents and making sure they were aware that no information they provided could be linked to them by anybody, including the researcher.

A total sample size of 5600 was used for this study as the sample size for each Local Government Area was obtained to be 400. The sample size was calculated using the Fisher's statistical formula

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

Where n = Sample size

N = Population size

e = level of precision or margin of error (0.05)

The data obtained were coded and entered into Microsoft Excel 2007 and Graph Pad Instat statistical software version 3.0. Results were expressed as counts and percentages. Statistical comparison of data was done by Chi square test using Graph Pad Instat Version 3.0 and p-values less than 0.05 were considered statistically significant.

RESULTS

The total numbers of questionnaires distributed was 5,600 and 5007 completely filled and returned, giving a percentage respondence of 89.4 %.

The result revealed that from a total of 5007 adults that were surveyed, the male respondents were 2331 (46.6 %) while the females were 2676 (53.4 %). Majority of the respondents were adults within the ages of 23-28years (1221 (24.3 %)). 2474 (49.4 %) were married and the remaining 50 % were single, separated, divorced or widowed. Majority of the respondents 4491 (89.3 %) were literate while 516 (10.3 %) were illiterate and about 28.2 % earn monthly income of N20, 000 - N99, 999.

Table 2-5 revealed that 4945 (97.9 %) of the subject used self medication, out of which 3204 (64.0 %) reported use of only pharmaceutical products, 1105 (21.5 %) took herbal products , 561 (11.2 %) took stimulants such as kolanut and coffee for pleasure while 137 (3.15 %) of the respondents reported that they have never taken any of such product two months prior to the study. 1480 (29.6 %) and 1814 (36.2 %) reported that they used self medication because they had minor illnesses for the males and females respectively, while 315 (11.6 %) self medicated because it is less costly, whereas, 1774 (61.2 %) self medicated because they had knowledge about the drug they used for self medication. 707 (18.9 %) self medicated because of long awaiting period in the hospital, 545 (9.1 %) because of frustration and dissatisfaction with the quality of medical care received , while 38 (1.2 %) reported they used self-medication because of lack of access to doctors. 1924 (63.4 %) of the respondents visit the hospital once or twice in a year while the remaining accounted for those that visited the hospital weekly, monthly and those that never did. 614 (12.8 %) and 2323 (76.4 %) said that they obtained their medicines from hospital and community pharmacy respectively while 274 (5.5

%) and 3747 (74.8 %) obtain their drugs from private clinics and patent medicine stores (retail outlets) respectively 2477 (49.5 %) said the motivating factor for self medication was past experience while 2530 (50.6 %) accounted for peer group, curiosity and others as the motivating factor for self medication.

Majority of the respondents reported that the commonest drug for self medication was painkiller which accounted for 4013 (80.5 %) and invariably, the commonest illness for which patients took self medication was headache 5042 (100 %) and invarably, the commonest illness for which patients took self medication was headache 5042 (100 %). Majority of the respondents said they are aware of the advantages of self medication, while a few reported they do not know the advantages of self medication. (53.8 %) said there is nothing wrong with self medicaion, while (45.2 %) said self medication is wrong.

Most of the respondents (73.7 %) believed self medication cannot be stopped, while a very few of them, (26.4 %) said self-medication can be stopped.

Table 1: Socio-demographic characteristics of respondents

Socio- Demographic Characteristics	Male(%)	Female(%)	Total(%)
Age (years)			
18 – 22	248(4.9)	309 (6.2)	557(11.1)
23 – 28	554 (11.1)	667 (13.3)	1221(24.4)
29 – 33	435 (8.7)	545 (10.9)	980(19.6)
34 – 48	321 (6.4)	348 (6.1)	669(12.5)
39 – 43	239 (4.8)	273(5.5)	512(10.3)
44 – 48	239 (4.8)	194 (3.9)	433(8.7)
49 – 53	106 (2.1)	169 (3.4)	275(5.5)
54 – 58	106 (2.1)	104 (2.1)	210(4.2)
59 – 64	58 (1.2)	49 (1.0)	107(2.2)
65 and above	25 (1.0)	38(1.0)	63(2.0)
Sex	2331 (46.6)	2676(53.4)	5007(100.0)
Marital status			
Single	1191 (23.8)	1142(22.8)	2333(46.6)
Married	1057 (21.1)	1417 (28.3)	2474(49.4)
Divorced	21 (0.4)	34 (1.0)	55(1.4)
Separated	33 (0.6)	32 (0.6)	65(1.2)
Widow	29 (0.6)	51 (1.0)	80(1.6)
Level of education			
No Formal	253 (5.1)	263(5.3)	516(10.4)
education	326(6.5)	327(6.5)	653(13.0)
Primary school	525(10.5)	666(13.3)	1191(23.8)
Secondary school	1102(22.0)	1319(26.3)	2421(48.3)
Tertiary institution	125(5.3)	101(2.0)	226(7.3)
Above first degree	719(14.4)	468(9.3)	761
Average monthly	927(18.5)	734(14.7)	1453
income	336(6.7)	995(19.9)	1922(38.4)
Less than 5,000	56(1.1)	441(8.8)	777(15.5)
5,000-19,999		38(0.7)	94(1.8)
20,000-99,999			
100,000-299,999			
300,000 or above			

Table 2: Frequency distribution of respondent's response

Responses on Self-medication practice	**Male (%)**	**Female (%)**
Medicines taken without a doctor's prescription		
Yes	2301(46.0)	2644(52.8)
No	30(1.0)	32(1.0)
Medicines taken in the last two months		
Pharmaceutical product	1368**(**27.3)	
Herbal products	621(12.4)	1836(36.7)
Stimulants (kola nut, coffee)	310(6.2)	484(9.7)
None of the above		251(5.0)
	32(1.0)2.3 ± 2.5	105(2.1)
Chronic diseases in the last two months		
Diabetes	69(1.4).	27(1.0)
Hypertension	115(2.3)	50(1.0)
Asthma	39(1.0)	33(1.0)
Ulcer	82 (1.6)	75(1.5)
Others	2026(40.5)	
Reasons for taking these medicines		
Long awaiting period in the hospital Frustration and	242(4.8)	707(14.1)
dissatisfaction with the	449(9.0)	545(10.9)
quality of	1480(29.6)	1814(36.2)
medical care received	266(5.3)	315(6.3)
Minor ailment	6(0.1)	38(1.0)
To save money	1291(25.8)	1774(35.4)
Lack of access to doctors		
Knowledge about drugs		
Visit/ consultation of health professionals		
Daily	0 (0)	0(0)
Weekly	39(1.0)	21(0.4)
Monthly	742(14.8)	599(12.0)
Once or twice yearly	1254(25.0)	1924(38.4)
Never	296(5.9)	132(2.6)

TABLE 3: Responses on motivation, sources, drugs and the frequency of self medication

Responses on self-medication practices	Male (%)	Female (%)
Motivations of self medication	799(16.0)	823(16.4)
Peer groups	1167(23.3)	1310(26.2)
Past experiences	145(2.9)	283(5.7)
Curiosity	220(4.4)	260(5.2)
Others		
Sources of medicines for self medication	246(4.9)	395(7.9)
Hospital	859(17.2)	1460(29.2)
Community Pharmacy	114(2.3)	160(3.2)
Private clinic	1717(34.3)	2030(4.2)
Patent medicine stores		
Drugs for self medication	96(18.8)	1003(20.0)
Antibiotics	1262(25.2)	1604(32.0)
Anti malaria	1833(36.6)	2180(43.5)
Painkillers	439(8.8)	454(9.1)
Cough medicines	0(0)	209(4.2)
Drugs to prevent pregnancy	(726±56.2)	(1090±136.4)
	2014(40.2)	2169(43.1)
Frequency of self medication	182(3.6)	312(6.2)
Occasionally	135(2.7)	195(3.9)
Frequently		
Most of the time	310(6.2)	645(12.9)
Group of medicines taken without a doctor's prescription	2008(40.1)	2279(45.9)
Prescription drugs	293(5.9)	372(7.4)
OTCs	1427(28.5)	1719(34.3)
Generics		
Branded medicines		

TABLE 4a: Responses on illness and self medication

Male	Occasionally	Frequently	Most of the time	Never
Headache	1985(40.0)	243(4.9)	99(2.0)	15(0.3)
Malaria	1814(36.2)	188(3.8)	55(1.1)	1813.6)
Cough and cold	1587(31.7)	143(2.9)	141(2.8)	460(9.2)
Constipation	222(4.4)	86(1.7)	77 (1.5)	1995(39.8)
Diabetes	13(0.3)	0	0	2318(46.3)
Hypertension	78(1.6)	5(o.1)	0	2288(45.7)
Infection	924(18.5)	7(1.7)	96(1.9)	83(25.3)

TABLE 4b: Responses on illness and self medication

Female	Occasionally	Frequently	Most of the time	Never
Headache	2329(46.5)	252(5.0)	119(2.4)	0(0)
Malaria	2049(40.9)	230(4.6)	1011(20.2)	81(1.6)
Cough and cold	1271(25.4)	107(2.1)	116(2.3)	1220(24.4)
Constipation	127(1.8)	55(1.1)	25(0.5)	2457(49.3)
Diabetes	12(0.2)1.0	2(0 .0)	0(0)	2658(53.1)
Hypertension	24(0.5) 1.7	0(0)	0(0)	2648(52.9)
Infection	1129(22.5)	166(3.3)	266(5.3)	1114(22.2)

TABLE 5; Responses on awareness of the advantages and disadvantages of self medication

	Male (%)	Female(%)
Awareness of benefits of self medication		1259(25.1)
Time saving ,	920(18.4)	570(11.4)
Easy availability, convenience	442(8.8)	1068(21.3)
Economical	593(11.8)	912(18.2)
Useful for mild illness	1186(23.7)	59(1.2)
Feeling of self confidence	122(2.4)	211(4.2)
No advantage	62(1.2)	84(1.7)
Don't know	75(1.5)	
Awareness of the advantages of self medication		
Yes	1985(3.5)	2278(454.5)
No	346(6.9)	398(7.9)
Indicate the disadvantages you know		
Adverse drug reaction	309(6.2)	1775(15.5)
Lack of knowledge about dose, ADRs	1445(29.0)	1471(29.4)
Frequency of administration	1686(29.7)	1775(35.5)
Wrong medication	229(4.6)	226(4.5)
Disease aggravation	65(1.3)	155(3.1)
Masking of underlining disease	83(1.7)	242(4.8)
Drug interaction		
See anything wrong with self medication	1008(20.1)	1258(25.1)
Yes	1278(25.5)	1418(28.3)
No		
Believe that medicines are harmful when taken		
Without medical advice	1900(38.0)	2171(43.4)
Yes	431(8.6)	505(10.0)
No		
Do you believe self medication can be stopped		
Yes	689(13.8)	629(12.6)
No	1642(32.8)	2047(40.9)

DISCUSSION

In this study an attempt was made to assess the effect factors like age, education and marital status on the practice of self medication in Delta state The prevalence of self medication practice in Delta state was found to be very high (89.4 %). Similar findings have been reported in studies from different countries with up to 68 % prevalent rate in European countries [9], while much higher in the developing countries [10] with rates going as high as 92 % in the adolescents of Kuwait. [11] Indian has a prevalence rates of 31 % [12] and Napa a prevalence rate of 59 % [10]

Patient education, socio-economic status, gender and age appear to be the major factors associated with self medication practices. Majority of adult that self medicated claim to have knowledge about the drugs they used for self medication.

Majority of the respondents fall within 23-27years and the least fall within 56 years and above. The low prevalence among the elderly agrees with an earlier study [5] while others reported [5, 13, 14, 16] high prevalence among the younger age group. The high rate of self medication among respondents aged 23-27 years could be due to the fact that these are the active group and tend to have more complaints, The lowest rate among respondents aged 18-22 years might be attributed to their younger age; tendency to still be in school or to be learning a trade and still under the tutilage of their parents and care-givers, and low purchasing power. However, there was a significant association of respondents' tendency to self medicattion.

Female respondents were found to self-medicate more than their male counterparts because they are more predisposed to illnesses and intend to show more concern about their health status. This is in agreement with a Western report [14]. In this study, however, there was no significant relationship between gender of the respondents and self medication practices.

Majority of the respondents used pharmaceutical products, rather than stimlants and herbs for self medication, while a small number of the respondents reported to have not used medicine without consulting a physician two months prior to the study.

The fact that majority of the respondents obtained information from the patent medicine dealers was consistent with a previous study [15]. However the younger the respondents, the higher their dependence on other sources of information like mass media, adult family members, peer groups, advertisements and previous illness experiences. Possible reasons for their dependence might be because the younger age group can easily be influenced through these means. [17]

Most of the respondents obtained their medications from patent medicine stores or local hawkers rather than the hospital/pharmacy This is in agreement with other studies which reported local hawkers, [18] and general medicine dealers, and general medicine dealers. [19] as major sources of medications, rather than pharmacies. [13]

The commonest illnesses that led to self medication were headach, fever, cough and cold. Drugs most commonly used by respondents who self-medicate were analgesics and antipyretics. This has also been observed in other studies on self - medication. [3, 6. 10, 20]. A significant relationship exists between the illnesses and level of self-medication. Also, there was a significant association between the class where self medication occurred and the gender of the subjects.

Also, one of the commonest reasons for the practice of self medication was because the respondents had minor ailment and because they had knowledge about the drugs. This may be due to the fact that majority of the respondents were educated.

Some advantages of self-medication has been reported such as those reported in other studies [6, 20]. These observations are similar t those reported by the WHO that self-medication provides a cheaper and convenient alternative for treating common minor illnesses [21]. Surprisingly, a small number of the respondents opined that self medication has no advantages. On further questioning they revealed that no medicine should be taken without Doctors prescription because every medicine has some adverse effects and it is not possible to choose the correct drug for a particular illness without consulting a doctor. Such beliefs need to be discouraged as it is well known that many minor symptoms can be safely and effectively treated by self-medication and if one approaches a doctor for every minor ailment it would unnecessarily increase the workload on the already overburdened health services particularly in the government sector. Disadvantages of self-medication disclosed in this study were Adverse Drug Reaction (ADR), lack of knowledge about dose, frequency of administration, chances of using wrong medication, risk of disease aggravation, and drug interactions. Majority number of the respondents considered wrong medication as the major drawback of self-medication which is in contrast with other studies on self medication that

reported ADRs as the major drawback [6,21]. Majority of the respondents also believed that self medication cannot be stopped.

CONCLUSION

A large number of the respondents especially youths with formal education believed that self-medication cannot be stopped despite their awareness of its harmful effects. Commonest illnesses responsible for self-medication were headache, fever, cough, and cold with analgesics and antipyretics being the most commonly used drugs.

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