Self Medication among Students

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ABSTRACT: For improved health in the community required is the full involvement of individuals looking after themselves through self care .The study was carried out in September 2014 to assess knowledge, attitude and practice of self-medication among Sokoto state polytechnic students. A total of 140 students were chosen by simple random sampling method. Pre-tested self-administered questionnaires were used to collect data for the study. Data were analyzed using SPSS version 20 statistical software packages. There is a relatively poor knowledge of the meaning of self medication among student (of Sokoto State Polytechnic) and a high prevalence that cuts across ages, gender, tribes, religious groups and faculties. The top 5 conditions treated by self medication being fever, diarrhea, cough, headaches and catarrh and the common drugs self-medicated are anti malaria, analgesics and antibiotics. There should be organization of frequent enlightenment programs aimed at clarifying the various misconceptions some of the students have about self medication which should involve the participation and leadership of young people and the mass media.

Key Words: Self medication,Students, Polytechnic, Sokoto.

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INTRODUCTION

The issue of self-medication looks appropriate following, the world self-medication industry board in their 2006 declaration on self medication, stating from the WHO constitution that the health care system and health care professionals cannot bring about the state of improved health in the community alone and to achieve this requires the full involvement of individuals looking after themselves through self care [1]. They further stated that self care products are useful for individuals wishing to take preventive care and to treat a large number of ailments either under direct supervision of a health care professional or on their own [1]. Furthermore, the WHO as part of its strategies to attain the Alma Ata goal of health for all recommended "Expanded self-medication" for developing countries. However, for this programme to be successful, it needs among others a well informed public on how best to self medicate, and good government and drug regulation [2].

In the light of the above full involvement of individuals looking after themselves through self care, the issue of self medication has become a major public health problem being that, there is

laxity in the control of drug available as over the canter drugs (OTC) coupled with the availability of fake drugs in our environment. This challenge has made governments, health care professionals, and providers of self medication products to come up with a responsible frame work called responsible self medication which emphasizes the appropriate use of OTC medicines by informed patients and consumers with health care professional support where necessary.

The fears exists and is real as expressed by the Working Party for the British Society for antimicrobial chemotherapy who reported that possible adverse consequences including misdiagnosis and its ensuing problems and potential ecological harm that may lead to: Partial or complete failure to treat an infection; Failure to accurately identify the presenting differential; Exposure to the risks of antibacterials without benefit when no treatable infection is present; Failure to recognize that an infection might be a manifestation of underlying disease e.g. sepsis in diabetes mellitus; Possible increase in adverse reactions and drug interactions and Increased bacterial resistance[3].

Though the establishment of the National Agency on Food and Drug Administration and control and its National Pharmacovigilance arm is a breakthrough in controlling the expansion of fake drug marketing and reporting of adverse drug reactions, a study to understand the knowledge, attitude and practice of self medication and perception of its implication in the community is imperative in Nigeria.

MATERIALS AND METHOD

This descriptive cross-sectional study was carried out in Šokoto State polytechnic in Sokoto town, Sokotǫ State (lies to the Northwest of Nigeria with a land area of 28, 232.37sq kilometers). Sokoto is located between longitudes 11^030" to 13^050" East and latitude 4^0 to 6^0North. The study population comprises of all students in Sokoto State polytechnic, in Sokoto town. The inclusive /eligibility criterion was any student undergoing program at Sokoto state polytechnic for the 2013/2014 academic session. While the exclusive criteria were any student who do not consent to be enrolled in the study and newly admitted students for the 2014/2015 academic session. The sample size estimation was calculated using the formula; n = $\frac{Z\ pq}{d}$ [4] where n = 113. Applying the correction formula with the expectation of 85% response,

c = n/R where; n = sample size (113); R = expected response rate (85, 0.85);

c = adjusted value or correction formula = 113/0.85 = 133

Therefore n=133, approximated as 140.

Following a stratification of all the faculties in the institution, the sample size was distributed (using the proportionate sampling technique) and finally respondents were chosen through simple random sampling technique.

A structured, self-administered questionnaire was used for data collection, which consisted of basic socio-demographic characteristics and questions related to knowledge, attitude, and practice of self-medication among the students.

DATA ANALYSIS

The data collected was processed and analyzed using SPSS version 20 statistical software packages. The chi square (X^2) test was used for the determination of statistical significance in discrete bi variant relationships. The level of statistical significance was set at 0.05.

RESULTS

Sociodemographic variables

The age distributions of the respondents were 17-22years (62%) 87; 23-28years (34%)48; and 29-35years (4%)5. Of the 140 respondents 101(72%) were males and 39 (28%) were females. The majority of the respondents were Hausa/Fulani 109(79%), 12 (9%) were Yoruba's, 9 (6%) were Igbos and 10 (7%) were other tribes. Of the respondents 121(86%) were Muslims and 19(14%) were Christians. The majority of the respondents were single 118(64%), 21(15%) were married and 1 (1%) were widowed

Knowledge of Respondents on Self Medication

i. Awareness

Of the respondents 110 (78.6%) were aware of self medication, 27 (19.3%) were not aware of self medication and 3 (2.1%) did not respond to the question.

ii. Response on meaning of self medication

Those that rightly say it is "Self prescribed drugs when ill" were 52(50.5%); while 17(16.5%) believes it is "Visit a medicine store for prescription when ill" and 34(33.0%) thought it meant "Consult a qualified doctor when ill for prescription".

iii. The relationship between age, sex and religion with knowledge on self medication

The age group distribution for "Good Knowledge" that is chose the "Self-prescribed drugs when ill" 29-35 years 2(66.7%); 23-28years 15(37.5%) and 17-22 years 34(56.7%) as against those with "Poor Knowledge" (chose the options

"Consulting a qualified doctor when ill for prescription" or " Visiting a medicine store for prescription when ill") 29-35 years 1(33.3%) 23-28years 25(62.5%) and 17-22 years26 (43.3%) with test statistics being X^2=3.891; df=2 and P=0.115.

The sex distribution for "Good Knowledge" showed male 35(48.6%) and female 16(51.6%) as against those with "Poor Knowledge" male 37(52.4%) and female 15(48.4%) with test statistics being X^2=0.078; df=1 and p=0.832.

The distribution by religion showed Muslims with "Good Knowledge" being 40(45.5%) while those with "Poor Knowledge" being 48(54.5%) and for Christians "Good Knowledge" being 8(73.3%) and those with "Poor Knowledge" being 4(26.7%) with test statistics being X^2=3.985 ; df=1 and p=0.055.

iv. Respondents sources of information on what drug to self medicate when ill.

The respondents who chose Friends were 37(37.4%), Relatives 31(31.3%), Television & radio 18(18.2%) and Colleagues 13(13.1%).

Attitude and Practice of Self Medication

i. The respondents practiced of self medication

102(72.9%) of respondents had practiced self medication and 38(27.1%) respondents had not. By age group distribution, the age group 17-22 years, 60(69%) had practiced self medication while 27(31%) had not; the 23-28 years age group, 39(81.2%) practiced self medication against 9(18.8%) who had not and the 29-35 years group, 3(60.0%) had practiced self-medicated while 2(40.0%) had not self medicated. The Test statistics being X^2=2.794, df=2, and p=0.208.

Among male respondents 71(70.3%) had self-medicated against 30(29.7%) that had not. While among females respondents, 31(79.5%) had self-medicated and 8(20.5%) had not. The test statistics was X^2=1.202, df=1 and p=0.299.

Religious distribution showed that among Muslims, 85(70.2%) had self-medicated and 36(29.8%) had not. And 17(89.5%) Christians had self-medicated against 2(10.5%) had not. The test statistics being X^2=3.069, df=1 and p=0.099.

ii. Respondents reason(s) for self medication

"Inaccessibility of health professionals" was the reason given by 30(29.4%) respondents for engaging in self medication. "Cost of seeing a health professional" was given by 33(32.4%) respondents as the reason for engagement in self medication. "Stigma/shyness" was the reason given by 20(19.6%) respondents. And "Attitude of health professionals" was the reason given by 19(18.6%) respondent.

iii. Conditions the respondents had treated themselves for in the past

The commonest ailment being "fever" with 49(35%) respondents self medicating to treat the condition, followed by "Headaches and other body pains" with 30(21.4%) respondents, then "Cough/Catarrh" with 24(20%) respondents, "Diarrhoea" with 14(10%) respondents and Insomnia with only 1(0.7%) respondents.

iv. The drugs usually self medicated/ frequency in the last 3 months

Anti malarial is most frequently self-medicated with 46(32.9%) respondents. Of these respondents, 6.7% had self-medicated with anti malarial greater than four times, 17.8% up to four times, 17.8% up to three times, 28.9% twice and 28.9% once. Then Analgesics with 45(32.1%) respondents, among which 2.2% self-medicated greater than four times, 6.7% up to four times, 31.1% up to three times, 40.0% twice and 20.0% once. Antibiotics had 36(25.7%) respondents; with 13.3% haven self-medicated greater than four times, 10.0% up to four times, 26.7% thrice, 23.3% twice and 26.7% once. Anti flu with 29(20.7%) respondents, among whom 14.3% had self-medicated greater than four times, 7.1% up to four times, 10.7% up to three times, 32.1% twice and 35.7% once. And Sedatives with 3(2.1%) respondents, that admitted to have done so only once.

v. Respondents that had self medication in the last 3 months

Of the respondents, 81(59.1%) had self-medicated in the last 3 months. Among these, 4(5.1%) respondents had self-medicated greater than four times, 10(12.7%) respondents up to four times,

17(21.5%) respondents three times, 30(38.0%) respondents up to twice, and 18(22.8%) had self-medicated only once

vi. Experience of unwanted effect during or after self medication

Of the respondents 45(32.1%) experienced unwanted effects, 26(18.6%) could not tell if they had and 69(49.3%) did not experience any unwanted effect. The Side effects experienced were Rashes (5.0%), Nausea/vomiting (10%), Diarrhoea (3.6%), Itching (2.1%), Abdominal pain (4.3%), Dizziness (4.3%), Tremors (0.7%), Jaundice (0.7%), Temporary blindness (2.1%) and Headache (6.4%).

vii. The perceptions of respondents on dangers of self medication

Among the respondents, 78(56.9%) perceived there was danger with self medicating. And 39(28.5%) respondents saw no danger in self medicating while 20(14.6%) did not know if there was danger in self medicating.

viii. Respondents that read directive on the drug pack on dosages, caution and side effects before use.

105(75.5%) of respondents reads directive on the drug pack on dosages, caution and side effects before use. And 34(24.5%) respondents do not read directive on the drug pack on dosages, caution and side effects before use.

ix. Respondents awareness of possibilities of certain drugs being abused during self medication

Of the respondents, 94(67.1%) were aware of possibilities of certain drugs being abused during self medication while 46(32.9%) were not aware.

x. Respondents awareness on whether over dosage during self medication is preventable /and how over dosage during self medication could be prevented.

Among the respondents, 81(57.9%) thought over dosage during self medication could be prevented but 18(12.9%) did not, and 41(29.2%) do not know. Majority of respondents, 53(46.5%) belief "Obeying the chemist's advice on proper dosage" is the best

means to prevent over dosage; 25(21.9%) respondents belief "Obeying the dosage regimen written on the pack" is a better means and 36(31.6%) respondents do not know of any means.

xi. Use of the right drug during self medication.

Of the respondents, 81(57.9%) thought they used the right drug for their illness during self medication while 29(20.7%) thought otherwise and 30(21.4%) do not know if they used the right drug.

Xii. Respondents who would still self medicate should they suffer from illness or disease again.

Among the respondents, 64(45.7%) would still self medicate should they suffer from illness or disease again while 44(31.4%) would not, but 32(22.9%) do not know (undecided) if they would self medicate again.

Discussions

Owing to the cultural, religious and geographical location (Sokoto State) of the research population, the majority of the respondents were single (84.3%), 72.1% male (preferred sex to be educated in this region), 77.9% Hausas (original aborigines of the state) and Muslims (86.4%). The predominant (62.1%) age group 17-22 years is the expected high school age group for the institution in which the research was carried out.

Literally, looking at the result there seem to be a high level of awareness (78.6% of the respondents had heard about self-medication) but there is a relatively poor knowledge of its meaning (33.0% of respondents thought it was consulting a qualified doctor for prescription and only 50.5% of the respondents knew it was self prescription of drug when ill). This high level of awareness of self medication as recorded in this and other studies, Chambers et al, Campbell et al, and Amaoko et al[5][6][7] may be miss leading because of the misconception of the meaning of self medication.

The most common source of information for self medication in this study were friends (36.2%) followed by relatives (31.3%). This was as reported by Adenika that advice from relatives and friends

were the most common source of information for self medication [8].

The high prevalence of self medication recorded in this study (72.9%%) and in other developing countries, for example Nepal (90%)[9] may be attributed to shortages of medical personnel and health facilities; poverty and high illiteracy level among others. And WHO opinion that (as part of its strategies) to attain the goal of health for all, "Expanded self medication" is recommended for developing countries. To support these findings, the leading respondent reason(s) for engaging in self medication in this study, was cost of seeing a doctor (32.4%). This finding is related to a study done in Japan by Aoyama et al with cost being the second leading cause (13.8%)[10]. Furthermore, 45.7% of the respondents reported they would still treat themselves if they suffered from illness or disease again reflecting an overwhelming satisfaction by the respondents (in this study) from self medication as reported by worldwide review of consumers' surveys on self medications [11].

The conditions most commonly self-medicated for in this study were fevers (35.0%) and headache (21.4%) which was consistent with the drugs commonly self medicated, anti malaria (32.9%), analgesics (32.1%) and antibiotics (25.7%). This is owed to the fact that infectious diseases (e.g. malaria, respiratory tract infection, etc) still pose a great challenge in this part of the world. But, studies in developed world like one done by Kogan M.D. et al in US[12] and in Germany[13] implicated analgesics (66.7%), anti-flu (66.8%) as the most commonly used drugs for self medication.

In this study, greater than 70% of the respondents had self-medicated for two or more occasions. This is similar to a study in Nova Scotia on examining OTC medication use among adolescents which stated that 58.3% to 75.9% of adolescents reported taking an OTC medication at least twice without first checking with an adult in the previous 3 months [5].

About 32.1% of respondents experienced unwanted effect that included Rashes/skin eruption, nausea/vomiting, diarrhea, itching, abdominal pain, dizziness, tremors, jaundice temporary blindness and headache occurring in about 5.0%, 10.0%, 3.6%, 2.1%, 4.3%, 4.3%, 0.7%, 0.7%, 2.1%% and 6.4% respectively.   This high occurrence of side effect recorded in this study could be attributed to reports of lack of knowledge of the possible side effects in over 96% of the self medicators [12]; or reported, wide spread misuse of OTCs by consumers through over usage, taking several drugs concurrently and using home remedies to treat potentially serious disease[14]. But majority (75.5%) of the respondents in this study reported reading directives on the pack on dosages, cautions and sides effects before use of self medication- a common report worldwide- as high as 97% in the United Kingdom and 83% in Spain [15]. This high interest in reading drug information could be due to perceived danger with self medication, among the respondents (56.9%) as in this study and among university students of Karachi [15].

One of such danger is drug abuse, which much of the respondents (67.1%) were aware of in self medication in this study. But 57.9% of the respondents thought drug abuse and over dosage could be prevented and suggested that obeying the chemist's advice on proper dosage (46.5%) and obeying the dosage regimen written on the pack (21.9%) could help avert this danger. Another danger is the fear of addiction as some of the drug self medicated, like analgesics (include opioids) and cough syrups (codeine containing) are addictive with attendant consequences.

In conclusion, there is a relatively poor knowledge of the meaning self medication among student (of Sokoto State Polytechnic) and a high prevalence that cuts across ages, gender, tribes, religious groups and faculties. The top 5 conditions treated by self medication being fever, diarrhea, cough, headaches and catarrh and the common drugs self-medicated are anti malaria, analgesics and antibiotics. Self medication among students (of Sokoto State Polytechnic), in the bid for the goal of "health for all", has assumed a public health importance and the society will benefit from a citizenry that is better informed about health care and thus more able to exercise self reliance.

It is recommended that, there should be organization of frequent enlightenment programs aimed at clarifying the various misconceptions some

of the students have about self medication which should involve the participation and leadership of young people (since the youths are better suited to communicate with their peers) and the mass media(in form of health information).

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