SELF-MEDICATION PRACTICES AMONG SECURITY PERSONNEL WORKING IN THE MAIN CAMPUS OF AHMADU BELLO UNIVERSITY ZARIA, NIGERIA.

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ABSTRACT

Observations have shown that self-medication practice is on the increase thus significantly negatively affecting the growth and dynamism of the health in Nigeria. The study therefore sets out to examine the practices of self-medication among security personnel in Ahmadu Bello University Zaria, Kaduna State, Nigeria. Descriptive cross-sectional research design was adopted for the study. The instrument used for data collection was a self-developed structured questionnaire with a reliability score of 0.76. Stratified random sampling technique was used to select 200 respondents. 200 questionnaires were distributed to respondents and 190 questionnaires were successfully retrieved and analyzed with SPSS version 23 and the result presented in tables, percentages and frequencies. The study reveals that majority of the respondents are practicing self-medication and the prevalence rate is high. Our findings show that the most commonly used drugs in self-medication are paracetamol, anti-malarial and flagyl (metronidazole), septrin and cough syrup. These drugs are found to significantly affect users negatively. The study therefore recommends that the university authorities should collaborate with relevant Non-Governmental organizations to conduct orientation/awareness programmes on the dangers of self-medication practices in the community.

Keywords: Prevalence: common drugs: self-medication: practice: security personnel.

INTRODUCTION

Observations have shown that self-medication has been on the rise globally (Flaiti *et. al.,* 2014). The rise is noted in both developed and developing countries but is higher in developing countries, due to wider increase of drug availability without prescription (Klemenc-ketis *et. al.* 2010). It increases the possibility of drug abuse and drug dependency and masks the signs and symptoms of underlying diseases, hence complicating problem, creating drug resistance, and delaying diagnosis (Calabresi and Cupini, 2005; McCabe et. al., 2005). In Nigeria, obtaining drugs for self-medication has always been an easy task as the drugs are sold by roadsides, on the buses, in the shops and by hawkers (Esan *et. al.,* 2018).

According to Yousef, Al-Bakri, Bustanji and Wazaify (2007), the practice of self-medication in general has been widely studied in Africa, Asia, and Europe. Studies conducted among health workers in tertiary hospitals reveal that 51.8% of the respondents are males whom practice self-medication, with more than half (52.1%) of the respondents have practiced self-medication after self-diagnosis and about one-third of them (31.8%) have practiced self-medication during three months prior to the study (Babatunde *et al.,* 2016). In North India, the practice of self-medication is reported to be 88.24% among students (Goel and Gupta 2013), while Ali (2012) found 77.6% health care professional in a private University, Malaysia, who practice self-medication. In Kenyan

hospitals, Awad, Eltaved, Matowe and Thalib (2005) show that 74% of patients have practiced self-medication. Although, Klemenc-ketis (2010) reports that 92.3% of students in a Slovenian University practice self-medication. Osemene and Lamikanra (2012) indicate that majority of the students (91.4%)) in South Western Nigeria are involved in self-medication practices whereas, the study of Emmanuel (2011) among undergraduate nursing students in University of Jos reveal that (65.71%) respondents are males and (34.29%) females with over two-third (76.9%) of the respondents' practices self-medication.

Self- medication is an important global public health problem with a reported prevalence of 0.1% in Northern and Western Europe, 21% in Eastern Europe and 27% in USA (Afridi, 2015). In developing countries reported prevalence rates are much higher, with 79% in India, 84% in Pakistan (Afridi, 2015), 78% in Saudi Arabia (Al-Rasheed, 2016). Based on population distribution, self-medication is reported across people in all walks of life. A study reports a prevalence range from 25% among Brazilian doctors to 92% in medical students of South India (Badiger, 2012). The prevalence of self-medication ranges from 11.9% to 75.7% in Africa as reported in a study conducted by Ocan *et. al.,* (2014), while another study reveals prevalence rate of 67% (Oshikoya, Senbanjo and Njokanma, 2009).

Sawalha (2007) in an attempt to assess self-medication practice among University Students in Palestine discover that, analgesics, decongestants, herbal remedies and antibiotics are the most common classes reported in self-medication, although, Awad and Eltayeb (2007) state that self-medication with antibiotics/anti- malarial among undergraduate university students in Khartoum State is high as they found that 79.5% have used antibiotic or anti-malaria drugs without prescription and self-medication. Those using anti-malarial

drugs are found to be less common among females. Another study found Paracetamol (59.05%), analgesics (39.05%), antibiotics (26.6%), antihistamines and cough suppressant as the most commonly used drugs/drug groups for self-medication (Goel & Gupta, 2013) and from a study on the practice of self-medication among nursing students in Karachi, 52.7% practice self-medication with antibiotics (Ali *et. al.,* 2016). A study on the prevalence of self-medication practice among University Students in South Western Nigeria indicate that 53.8% of the students used antibiotics while 46.3% used anti-malarial drugs for self-medication (Osemene and Lamikanra, 2012).

A cross-sectional survey of Auta, Shalkur, Omale and Abiodun (2001) in Jos reveals that the common classes of medicines used for self-medication among students are analgesics (26.0%), anti-malarial (19.8%) and vitamins/haematinics preparations (15.7%). Studies on self-medication among health workers in tertiary institutions in South-West Nigeria are carried out, drugs types normally bought and used without prescription are analgesics (38.2%), antibiotics (19.0%), anti-malarial (13.3%) and others (29.4%) (Babatunde *et. al.,* 2016). In a study done by Emmanuel (2011) to examine the prevalence of self-medication among undergraduate nursing students in University of Jos reveals that students commonly use analgesics, anti-malarial, multivitamins, antibiotics, anthelmintic and herbal remedies in self-medications. Several studies have been conducted on self-medication practices in Nigeria, however, there is paucity of studies conducted to find out the self-medication practices among university securities. This study sets out to find out the self-medication practices, prevalence and common drug used in self-medication among security personnel working in the main campus of Ahmadu Bello University Zaria.

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RESEARCH QUESTIONS

1. To what extend does security personnel working in the main campus of Ahmadu Bello University Zaria practice self-medication?

2. What is the prevalence of self-medication among security personnel working in Ahmadu Bello University Zaria?

3. What are the common drugs used for self-medication among security personnel working in Ahmadu Bello University Zaria?

METHODOLOGY

The study employed cross-sectional descriptive research design with the study population comprising all the security personnel working in the Main Campus of Ahmadu Bello University Zaria. Stratified random sampling technique was used to select 200 respondents across various ranks, shifts and work posts in the Main Campus of Ahmadu Bello University Zaria. The instrument used for data collection is a structured questionnaire. The instrument was pretested and the reliability coefficient score yielded 0.76. The questionnaire was self-administered to the respondents and 95% were successfully retrieved and analyzed. Data were entered into and analyzed using Statistical Package for Social Sciences (SPSS) version 23.

The data were summarized using frequency distribution tables and percentages. For the practice of self-medication, 2.5 were used as the reference mean for inference. Ethical clearance was obtained from the Ethical Committee of Ahmadu Bello University Zaria and approval was obtained from the office of the Chief Security Officer (CSO) of the university. Informed consent was obtained from the respondents after explaining the requirement of the study, its purpose and that their participatory is voluntary and all information given will be treated as confidential.

RESULTS

As presented in Table 1, 52.6% of the respondents are within the age range of 25-34, 26.8% are within the age of 35-44 and 20.5% are 45 and above. Also, 74.2% of the respondents are males and 24.8% are females. About 72% of the respondents are Hausas, 6.8% Igbo, 5% Yorubas and 20.5% are from other tribes. Majority (78.4%) of the respondents are Muslims while 21.6% are Christians. The result also shows that 68.4% of the respondents are married and 31.6% are single. Also, 9.5% of the respondents ranked as Principal Security Officer I (PSO II), 22.6% ranked as Principal Security Officer II (PSO II), 24.7% ranked as Assistant Patrol Supervisor (APS), 1.6% ranked Watch Man (WM), 26.3% ranked Senior Patrol Man (SPM), 6.8% ranked Senior Patrol Woman (SPW), 3.7% ranked as Security Officer (SO), 1.1% ranked as Assistant Security Officer (ASO), 2.1% ranked as Senior Security Officer (SSO) and 1.6% ranked as Patrol Supervisor (PS).

About 48.9% of the respondents have SSCE, 34.2% have diploma certificates, 12.1% have degrees and 4.7% are post graduates. The result also reveals that 49.5% of the respondents have been in service for 0-5 years, 25.3% have been in service for 6-10 years, 10.5% have been in service for 11-15 years, 4.2% have been in service for 16-20 years, 4.7% have been in service for 21-25 years, 2.6% have been in service for 26-30 years and 3.2% of the respondents have been in service for 31-35 years. 59.5% of the respondents work schedule is in the morning, 19.5% in the afternoon, 7.9% in the night and 13.2% for all shifts.

The findings from the study conclude that majority of the respondents are between the ages of 25-34 years and are males. Majority are Hausa by ethnicity and Muslims by religion. Findings further shows that majority are married and are Principle Security Officer II and Assistant Patrol Supervisor respectively by rank, majority of the respondents are secondary school leavers with between 0-5 years of experience and are on morning shifts while.

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TABLE 1
Socio-Demographic Characteristics of Respondents

Variable		N	%
Age (in years)	25-34	100	52.6
	35-44	51	26.8
	45 and above	39	20.5
	Total	190	100
Gender	Male	141	74.2
	Female	49	24.8
	Total	190	100
Tribe	Hausa	137	72.1
	Igbo	13	6.8
	Yoruba	1	5
	Others	39	20.5
	Total	190	100
Religion	Islam	149	78.4
	Christianity	41	21.6
	Total	190	100
Marital status	Married	130	68.4
	Single	60	31.6
	Total	190	100
Ranks	Principle Security Officer I	18	9.5
	Principle Security Officer 11	43	22.6
	Assistant Patrol Supervisor	47	24.7
	Watch Man	3	1.6
	Senior Patrol	50	26.3
	Woman	13	6.8
	Security Officer	7	3.7
	Assistant Security Officer	2	1.1
	Senior Security Officer	4	2.1
	Patrol Supervisor	3	1.6
	Total	190	100
Level of Education	SSCE	93	48.9
	Diploma	65	34.2
	Degree	23	12.1
	Post graduate	9	4.7
	Total	190	100
Years of service	0-5	94	49.5
	6-10	48	25.3
	11-15	20	10.5
	16-20	8	4.2
	21-25	9	4.7
	26-30	5	2.6
	31-35	6	3.2
	Total	190	100
Work schedule	Morning	113	59.5
	Afternoon	37	19.5
	Night	15	7.9
	All shift	25	13.2
	Total	190	100

RESEARCH QUESTION ONE

To what extent do security personnel working on the main campus of Ahmadu Bello University Zaria practice self-medication?

As presented in Table 2, 98 respondents strongly agree that they practice self-medication and 70 respondents agree while 14 respondents disagree and 8 strongly disagree, with a mean score of 3.4. 104 of the respondents strongly agree that they perceive the need for self-medication and 42 of them agree while 19 of the respondents disagree and 25 strongly disagree with a mean score of 3.2. Also, the result reveals that 94 of the respondents use self-medications anytime they are sick and 48 also agree while 30 of the respondents disagree and 28 strongly disagree with a mean of 3.1. 95 of the respondents strongly agree that they find it difficult to stop self-medication and 54 agree while 24 of the respondents disagree and 17 strongly disagree. This study implies that the respondents practice self-medication.

TABLE 2:
Practice of self-medication

Items	SA	A	D	SD	Mean	Remarks
I practice self-medication	98	70	14	8	3.4	Agreed
I perceive the need for self- medication	104	42	19	25	3.2	Agreed
I use self- medication any time I am sick	94	48	30	18	3.1	Agreed
I find it difficult to stop self –medication	95	54	24	17	3.2	Agreed
Aggregate Mean					3.2	Agreed

Research question two

What is the prevalence of self-medication among security personnel working in Ahmadu Bello University Zaria?

The results presented in Table 3 show that 88.4% of the respondents have used drugs/ medicine without medical/hospital prescription before, and 11.6% have never used drugs without prescription. This study observes that the prevalence of self-medication is high among respondents

TABLE 3
Prevalence of self-medication

VARIABLE	Frequency	Percentages (%)
Yes	168	88.4
No	22	11.6
Total	190	100.0

Research question three

What are the common drugs used for self-medication among security personnel working in Ahmadu Bello University Zaria?

As presented in Table 4, 84.2% of respondents use Paracetamol, 60.5% use Anti-malaria, 57.4% use Flagyl, 44.7% uses Septrin, 43.7% use Cough syrup, 41.1% use Lomotil, 35.3% use Andrews liver salt, 33.2% use Ampiclox, 30.5% use Buscopan, 28.4% use Piriton, 28.4% use Ibuprofen, 26.3% use Aspirin, 26.3% use Tetracycline, 21.6% use Diclofenac, 12.6% use Promethazine, 11.6% use Piroxicam, 8.9% use Antacids and 7.4% use Tramadol respectively in self-medication. This table reveals that the common drugs used for self-medication include Paracetamol, Anti-malarial, Flagyl, septrin and cough syrup.

TABLE 4
Common drugs used for self-medication

Variables	Frequency	Percentages (%)
Paracetamol	160	84.2*
Anti-malarial	115	60.5*
Flagyl	109	57.4*
Septrin	85	44.7*
Cough syrup	83	43.7*
Lomotil	78	41.1*
Andrews liver salt	67	35.3
Ampiclox	63	33.2
Buscopan	58	30.5
Piriton	54	28.4
Ibuprofen	54	28.4
Aspirin	50	26.3
Tetracycline	50	26.3
Diclofenac	41	21.6
Promethazine	24	12.6
Piroxicam	22	11.6
Antacids	17	8.9
Tramadol	14	7.4

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DISCUSSION

This study assesses the self-medication practices, prevalence and common drug used in self-medication among security personnel working in the main campus of Ahmadu Bello University Zaria. The demographic characteristics show that majority of respondents are between the ages of 25-34 years. This shows that respondents are in their youthful age, as such, that could give them more motivation to impress their superiors in order to be promoted. The study's findings also reveal that majority of respondents are males. A similar study by Emmanuel (2011) in Jos and Babatunde et al., (2016) in South-West Nigeria reveal majority of their respondents to be Muslims, married and Hausa ethnic groups. This is due to the fact that the study setting is located in Muslim dominated part of the Country which cultural affiliations encourage early marriage irrespective of the tribe and practice mostly by Hausa tribe. The study observes that majority of respondents' rank are Principle Security Officer II and Assistant Patrol Supervisor while majority are Secondary school leavers with between 0-5 years in service and run morning shift.

The result of this study reveals that majority of respondents practice self-medication. This study is in line with Goel and Gupta's (2013) report that majority of the nursing students (88.24%) in North India practice self-medication. Ali (2012) also observes that majority of health care professional in a private University in Malaysia (77.6%) practice self-medication. Our study also supports Awad *et al.,* (2005) who shows that majority of patients (74%), in Kenya practice self-medication. Our study further agrees with Osemene and Lamikanra (2012) who indicates that majority of Students (91.4%) in South-Western Nigeria practice self-medication while Emmanuel (2011) also reveals that majority of the students (76.9%) in Jos are involved in self-medication practices. Our study concurs with the study of Babatunde et. al., (2016) which reveals that more than half

(52.1%) of the health workers in South-West Nigeria practiced self-medication after self-diagnosis. Lastly our study is consistent with Klemenc-ketis (2010) who reported that majority of students (92.3%) in a Slovenian University practice self-medication.

This study observes that the prevalence of self-medication is high among the respondents. We observe that this may be due to the fact that obtaining drugs for self-medication has always been easy in Nigeria as drugs are sold by the roadsides, on buses and by hawkers which indicates the nation law enforcement agencies' laxity in enforcing law and order. This study supports the findings of Afridi (2015) who reports that the prevalence of self-medication in Pakistan and India is high, 84% and 79% respectively. This study is also similar to Al-Rasheed (2016) who reports that majority of their respondents (78%) in Saudi Arabia has high prevalence rate of self-medication and Badiger (2012) also observe that prevalence rate among medical students in South India is very high (92%). Klemenc-ketis et. al. (2010) posit that it is factual that developing countries have higher prevalence of self-medication due to wider increase of drug availability without prescription. This study also supports the findings of Oshikoya, Senbanjo and Njokanma (2009) that the prevalence rate of self-medication is high (67%) in Western Nigeria, but lower than that of the Northern Nigeria. We therefore suggest that it could be due to the fact that the Southern part of Nigeria has more of Western education thus increasing their knowledge more on the danger of self-medication than the Northern counterpart. Afridi (2015) also reports contrasting findings that reveal the prevalence of 0.1% in Northern and Western Europe, 21% in Eastern Europe and 27% in USA. We belief that this may be attributed to the fact that developed nations have better healthcare system that would support the citizenry to access the services in an easier methods and affordable price. Besides, they also have strict laws regarding sales and purchase of drugs.

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This result reported that Paracetamol, Anti-malarial, Flagyl Septrin, Cough syrup, and Lomotil were the most common drugs used for self-medication. This is in agreement with the submissions of Awad and Eltayeb (2007) that antibiotics and anti-malarial are the drugs commonly used for self -medication in Khartoum. Also, Sawalha (2007) discovers that, analgesics and antibiotics are drugs commonly used for self -medication in Palestine. This study is in line with Goel & Gupta's (2013) findings that paracetamol, other analgesics and antibiotics are drugs commonly used for self -medication. Also, Ali et al. (2016) reveal that antibiotics care commonly drugs used for self -medication.in Karachi. This study is consistent with Osemene and Lamikanra's (2012) identification of antibiotics and anti-malarial as commonly used self -medication drugs in Western Nigeria, while Auta (2001) reveals analgesics and anti-malarial as drugs commonly used self -medication drugs in Jos. This study is similar to Babatunde et. als' (2016) report of analgesics, antibiotics and anti-malarial as drugs commonly used for self -medication in South-West Nigeria and Emmanuel (2011) also reports that analgesics, anti-malarial and antibiotics as the most common used drugs/drug groups for self-medication in Jos.

We note that none of the studies identify Piriton, Cough syrup Lomotil, Buscopan, Antacids and Andrews liver salt as the commonly used drugs/drug groups for self-medication. The result of this study is also inconsistent with the findings of Sawalha (2007) who discovers that herbal remedies are drugs commonly used for self -medication in Palestine and Auta (2001) who reveals vitamins and hematinic preparations as drugs commonly used self -medication drugs in Jos.

CONCLUSION AND RECOMMENDATIONS

Most of the security personnel practice self-medication with the prevalence of 88.4% and most commonly used drugs/drug groups for self-medication are Paracetamol, Anti-malarial, Flagyl, Septrin, Cough syrup and Lumotil. This shows that obtaining drugs for self-medication has been simpler in the main campus of Ahmadu Bello University, Zaria as drugs are sold by the roadsides, in the shops and by hawkers without prescription, thus, giving security personnel free access to chances of drug abuse and dependency and masks the signs and symptoms of underlying diseases, hence complicating problem, creating drug resistance and delaying proper diagnosis.

Based on this findings, there is need to curtail self-medication, by the management. of the Ahmadu Bello University together with the University Security Services should institutionalize a routine orientation programme for the University Securities on the dangers and negative impact of self-medication on health and wellbeing. Additionally, the government should set policies on over-the-counter drugs purchase to minimize the levels of self-medication/prescription among securities.

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