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UTILIZATION OF PREVENTIVE HEALTH CARE SERVICES AMONG ACADEMIC STAFF IN UNIVERSITY OF MAIDUGURI, BORNO STATE, NIGERIA

UTILIZAÇÃO DE SERVIÇOS DE SAÚDE PREVENTIVA ENTRE O PESSOAL ACADÊMICO DA UNIVERSIDADE DE MAIDUGURI, ESTADO DE BORNO, NIGÉRIA

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Abstract: This study was conducted to assess utilization of preventive healthcare services among academic staff in University of Maiduguri, Borno State, Nigeria. Two hypotheses guided the study. Descriptive survey research design was used for the study; simple random sampling technique was also used for the study. A sample of 200 academic staff was drawn from seven faculties in the university. Data were collected using self-structured questionnaire with two sections, demographic data and utilization of preventive healthcare services. Data were analyzed using descriptive statistics of frequency counts and percentage while inferential statistics of one sample t-test and independent t- test was used to test hypotheses at 0.05 significance level. The result showed among others that there is significance difference in utilization preventive healthcare services and there is significant difference in gender utilization of preventive healthcare services. It was recommended among others that periodic public campaigns should be organized by the department of Physical and Health Education on the need for preventive measures to prevent preventable diseases.

Keywords: Utilization. Preventive health care services. Academic staff.

Resumo: Este estudo foi realizado para avaliar a utilização de serviços de saúde preventiva entre o pessoal acadêmico da Universidade de Maiduguri, Estado de Borno, Nigéria. Duas hipóteses orientaram o estudo. O desenho descritivo da pesquisa foi usado para o estudo; a técnica de amostragem aleatória simples também foi usada para o estudo. Uma amostra de 200 funcionários acadêmicos foi retirada de sete faculdades da universidade. Os dados foram coletados usando um questionário auto-estruturado com duas seções, dados demográficos e utilização de serviços de saúde preventiva. Os dados foram analisados usando estatísticas descritivas de contagem de frequência e porcentagem, enquanto estatísticas inferenciais de um teste t de amostra e teste t independente foram usadas para testar hipóteses em nível de significância de 0,05. O resultado mostrou, entre outros, que há diferença significativa na utilização dos serviços de saúde preventiva e que há diferença significativa na utilização dos serviços de saúde

preventiva por gênero. Foi recomendado, entre outros, que campanhas públicas periódicas fossem organizadas pelo departamento de Educação Física e Saúde sobre a necessidade de medidas preventivas para prevenir doenças evitáveis.

Palavras-chave: Utilização. Serviços preventivos de saúde. Pessoal acadêmico.

Introduction

Preventive health care services are designed to avert or delay the onset of various health and mental health problems, or to identify these problems early in order to reduce their impact more effectively. Although preventive health care services can be medical in nature such as immunization for infectious diseases, screening for testicular cancer, many of the most important preventive services focus on behavioural and psychological issue that most affect health and well-being. Many of the most common and most serious health problems are largely preventable through screening and prophylaxis, treatment and management, and lifestyle change. (Center for Disease Control and Prevention, 2012).

The use of preventive health care services has potential benefits for both individuals and society. Prevention can help individuals avoid disease, disability and premature death, improve their health and well-being and be more productive at school and work. This translates into societal benefits including lower health care costs and a more productive workforce (CDC, 2014). Considering the health benefits and the potential risks of a range of preventive services, several groups of experts have recommended those that should be provided at different ages and frequencies and that should be among the measures of the quality of care provided. The United States Preventive Task Force (USPSTF), an important panel of experts in preventive medicine convened by the Agency for Healthcare Research and Quality (AHRQ) recommended a number of preventive healthcare services for infants, children, adolescents and adults including developmental and behavioural health screening, height and weight measurements, autism counseling sexually transmitted infections screening and the wellness visits. Many of the most common and most serious health problems are largely preventable through screening and prophylaxis, treatment and management, and lifestyle change. (Center for Disease Control and Prevention, 2012).

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Healthcare utilization is an important step to disease management, providing opportunities for prevention and treatment. Sound health is a fundamental requirement for living a productive life. Poor health inflicts great hardship including debilitation of substantial monetary expenditure, loss of labour and sometime death. Poor health status of academic staff affects their ability to work and underpins the welfare of their families. Academic performance development in all its forms is only possible when there is effective utilization of preventive healthcare services by individuals. According to National Center for Health Statistics (2000), people use health care services for many reasons; to cure illnesses and health conditions, to mend breaks and tears, to prevent or delay future health care problems, to reduce pain and increase quality of life, and sometimes merely to obtain information about their health status and prognosis. Healthcare utilization can be appropriate or inappropriate, of high or low quality, expensive or inexpensive.

Hypotheses

The following hypotheses were tested

HO_1: Academic staff of university of maiduguri will not have significant knowledge to utilize preventive healthcare services available in the university.

HO_2: There will not be a significant difference between male and female academic staff of university of on utilization of preventive healthcare service in the University.

Methodology

Methodology

The research design used for this study was descriptive survey research method. Njodi and Bwala (2010) stated that descriptive survey method is used to gather data at a particular point in time with the intention of describing the existing condition or identifying standards against

which existing conditions can be compared. Survey allows the relative incidence, distribution and interaction of sociological and psychological variables. Survey provides accuracy in that it describes what exists and the frequency with which it occurs, assigns new meaning to phenomenon and add information into categories (Burns & Grove, 2001).

Population and Sample

The population for this study comprised all the two thousand two hundred and four academic staff spread across 12 faculties and 72 departments, in the University of Maiduguri, Borno State, Nigeria (Establishment office, 2015).The breakdown indicates that faculty of education have 104 academic staff, faculty of pharmacy have 45 academic staff, faculty of engineering have 144 academic staff, faculty of social science have 119 academic staff, faculty of law have 46 academic staff, faculty of science have 160 academic staff, faculty of Arts have 186 academic staff, faculty of management science have 80 academic staff, faculty of veterinary medicine have 104 academic staff, faculty of Agriculture have 132 academic staff while college of medical sciences have 59 academic staff and faculty of dentistry have 40 academic staff. The departments for general studies have 25 academic staff respectively. Dip hand random sampling technique was used to select seven (7) faculties and three (3) departments sampled. Proportionate sampling technique was used to selected faculties and departments while accidental sampling procedure was used to select respondents. According to Nworgu (2015) accidental sampling implies choosing any member of the population that is available at the given time until the desired number is achieved. Participation here is based on availability and willingness of the respondent.

Table 1 Population and Sample for the Study

Faculty	Department	Number	Sample
Education	Continuing Education and extension services	20	10
	Education	46	24
	Physical and Health Education	26	13
Engineering	Mechanical	21	11
	Electrical and electronics	23	12
	Food Science	14	7
Pharmacy	Pharmaceutical Chemistry	8	4
	Chemistry pharmacy and pharmacy administration	11	6
	Pharmacology and toxicology	10	5
Management Science	Accounting	22	11

	Banking and Finance	22	11
	Public Administration	17	9
Law	Public law	13	7
	Private law	12	6
	Sharia law	17	9
Science	Chemistry	21	11
	Biochemistry	24	12
	Physics	13	7
Veterinary medicine	Veterinary surgery and theriogenology	15	8
	Veterinary pathology	20	10
	Veterinary anatomy	14	7
Total		389	200

The sample size for this study was determined using 10% percentage of the population. Nwana (1991) suggested that the rule of the thumb can be used to select a sample size of a population. Rule of the thumb states that, when the population of a study is few hundreds, the sample size should be 40-50percent. If they are several hundreds, 20 percent of the population should be the sample size; when a few thousands, 10% of them will do and if several thousands 2-5 percent of the population will be considered respectively. Therefore, 50 (fifty) percent of the population was taken for sample size which is 200.

In validating the research instrument, a draft copy of the questionnaire was scrutinized and reviewed by experts in the Department of Physical and Health Education. To determine the reliability of the instrument, split- half test was used to determine the reliability coefficienttest for which reliability was calculated and administered on appropriate sample, it was split into two sub-test placing all odd numbered items in one sub-test and all even numbered items in another sub-test. The scores from the two sub-tests were computed and these two sets of scores were correlated. The reliability coefficient obtained was 0.86.

The statistical techniques used to analyze the data were descriptive statistics of mean, standard deviation, frequency count and percentages were employed to organized and describe demographic information while inferential statistics of t-test was used to test hypotheses at 0.05significance level.

Result

Table 2 Demographic characteristics of respondents

Variables	Responses	Frequency	Percentage
Faculty	Education	47	23.5
	Engineering	30	15.0
	Pharmacy	15	7.5
	Management science	31	15.5
	Law	22	11.0
	Science	30	15.0
	Veterinary medicine	25	12.5
Age	25- 34	38	19.0
	35- 44	61	30.5
	45- 54	38	19.0
	55- 64	25	12.5
	65- above	38	19.0
Gender	Male	134	67.0
	Female	66	33.0
Educational Qualification	Bachelor Degree	71	35.5
	Master Degree	55	27.5
	Doctorate Degree	74	37.0

Table 2 shows the demographic data of the respondents three variables were considered; age, gender and educational qualification. From the results 61 (30.5) of the respondents are from the age group of 35- 44 years. 38 (19.0) of the respondents are from the age group of 25-34, 45-54, 65 and above respectively while 25 (12.5) are from the age group of 55- 64 years. The results showed that most of the respondents are from the age group of 34- 44 years of age.

Hypothesis 1: There is no significant difference on utilization of healthcare service among academic staff in University of Maiduguri, Borno State.

In Table 3 To test this hypothesis the one sample t-test was used to compare the mean score of the respondents on the assess utilization of academic staff on preventive healthcare services in University of Maiduguri, Borno State, Nigeria with the midpoint average (2.5) which stands for the minimum score for agreement on the four point scale used in the measurement. The summary of the one sample t-test is shown in Table 3

Table 3: One sample t-test on utilization of preventive healthcare services

Variables	N	Mean	S. D.	S. E.	t-value	df	P-value	Remarks
utilization of healthcare service	200	12.355	3.576	0.252	38.966	199	0.0001	Sig.
Test value	200	2.50						

The result in the table 3 revealed that the respondents were of the view that the utilization of academic staff on preventive healthcare services in University of Maiduguri is statistically significant. The observed mean score of 12.355 for the perceived utilization of academic staff on preventive healthcare services in University of Maiduguri is significantly higher than the midpoint average of 2.50 used in the test. This is indicated by an observed t-value of 38.966 obtained at 199 degree of freedom (df) and the observed level of significance for the test is 0.0001 ($P < 0.05$).With these observations, there is enough evidence to reject the null hypothesis. The null hypothesis there is no significant difference on utilization of healthcare service among academic staff in University of Maiduguri, Borno State is therefore rejected.

Hypothesis 2: There is no significant difference between male and female on utilization of preventive healthcare services among academic staff in University of Maiduguri, Borno State, Nigeria.

Table 4: t-test summary on utilization of preventive healthcare services among academic staff based on gender

Gender	N	Mean	S.D	S.E	df	t	Prob
Male	134	10.417	1.580	0.109	198	9.354	0.0001
Female	66	12.227	3.593	0. .442			

(t=9.354,df = 198; P= 0.0001)

Table 4 confirmed the mean of female is 12.227 which is greater than 10.417 the mean of male. The t-test is t=9.354,df = 198; P= 0.0001. Therefore the null hypothesis was rejected, meaning that there is significant difference based on gender utilization of preventive healthcare services among academic staff in University of Maiduguri, Borno State, Nigeria. Female academic staff utilized preventive healthcare services than their male counterparts. Therefore, there is significant difference between male and female on utilization of preventive healthcare services among academic staff in University of Maiduguri, Borno State, Nigeria.

Discussion

Titus, Adebisola and Adeniji (2014) conducted a study on healthcare access and utilization among rural households in Ogun State, Southeastern Nigeria. Multistage sampling technique was employed to select a sample of 200 household. The results showed that majority of the respondents 43.5% had no formal education and farming is the main occupation of the respondents. 58 % percent of the respondents have access to healthcare services while only 42.50 percent utilized these services. Most respondents 40.5% travel a distance to modern health facilities. Therefore, it was recommended that rural development policies should promote enabling environment to enhance participation and equitable accessibility in modern healthcare delivery across the rural areas in the country. Obiechina and Ekenedo (2013) conducted a study on factors affecting utilization of university health service in a tertiary institution. Using simple random sampling technique with a sample of 390 males and 150 females the results showed that high cost of drugs 72.0%, non availability 67.2%, inadequate referral services 81.7% and satisfaction with services 60.6 % were considered by respondents as factors affecting the utilization of utilization of university healthcare facility. It is recommended that to improve utilization and cost of care, government should make necessary effort to incorporate tertiary institution into National Health Insurance Scheme so that students above the age of 18 can benefit from free treatment

Benthey (2003) conducted a study in U K and reported that perceived fear of the diagnosis was thought to lead to non- utilization of preventive healthcare services. Buchwald, Beals and Manson (2000) conducted a study in the U S among 869 American Indians from both rural and urban communities in Washington State, the results of the study indicated that people who indentify with native culture were more likely to use traditional healing practice also people relatively lower belief in the healthcare system puts them at greater risk of all these negative outcome.

Bhattacharya, Gerbie and Tan (2013) conducted a study on knowledge and utilization of recommended preventive vaccines among young adults in U S Chicago using 2582 students; 53% female and 78% were 18-26 years of age, 23 of sexually active students did not use condoms. 95% reported having health insurance, but 26% of male and 12% of female rarely or never sought routine medical care. Average knowledge scores were significantly higher for HPV than pertussis and influenza. Over 80% of students would be willing to ask their physicians about

vaccines. 14 % women and 9.4% of students had been vaccinated against HPV and pertussis respectively. Primary obstacles of vaccination were perception of not being at risk for disease, vaccine costs, and lack of time. Conclusions, despite media attention about various vaccine preventable diseases, a general awareness and openness towards vaccination, and adequate access to healthcare, majority of young adults are not being offered or receiving recommeneded vaccination. Personal risk perception and cost are major obstacles. New andcreative intervention to reduce barriers to young adult vaccination is necessary.

The result of this study on hypothesis four, gender and utilization of preventive healthcare services revealed that there is significant difference in utilization of preventive healthcare services based on gender. Various types of explanation have been postulated for the women's greater need approximated by their worse state of health, worse health-related quality of life and greater degree of disability than men. The differences of social construct of disease greater utilization of healthcare services by women; among these, it should e noted that such as roles attitudes, beliefs, and behaviours of men and women when they are sick or worried about ill health which leads to different processes for seeking healthcare services and differences between women and men in the mere provision of services. The findings of this study corroborate that of Campbell and Roland (1996) who found that women are more likely to be tested and received a prescription than men. The result is also in line with the result of Korten et al, (1998) who reported that there are important gender differences in the determinants of general practitioner service use by the elderly. In relation to health service use, men are less likely to visit a general practitioner. The findings is also in line with the findings of Henning (2001) who demonstrated that men are less likely to visit a general practitioner, less likely to seek preventive assistance and more likely to consider waiting for appointments a waste of time while women are more likely to visit general practitioners for testing.

Recommendations

The following recommendations are suggested based on the outcome of this study;

1. Periodic public campaigns should be organized by the department of Physical and Health Education on the need for preventive measures to prevent preventable diseases.
2. The university authority should provide free preventive healthcare services and make compulsory periodic check-ups among staff.

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