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

CONHECIMENTO DOS SERVIÇOS DE SAÚDE PREVENTIVA ENTRE O PESSOAL ACADÉMICO NA UNIVERSIDADE DE MAIDUGURI, ESTADO DE BORNO, NIGÉRIA

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Abstract: This study was conducted to assess knowledge 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 knowledge of preventive healthcare services. Data were analysed 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 no significance difference in knowledge preventive healthcare services and there is no significant difference in gender knowledge of preventive healthcare services. It was recommended among others that re-visitation of preventive health programmes which have direct impact among staff should be made periodically in other to emphasize the importance of preventive healthcare services in control preventable diseases.

Keywords: Knowledge. Preventive health care services. Academic staff in University and Maiduguri, Borno State, Nigeria.

Resumo: Este estudo foi realizado para avaliar o conhecimento dos serviços de saúde preventiva entre o pessoal académico da Universidade de Maiduguri, Estado de Borno, Nigéria. Duas hipóteses orientaram o estudo. Foi utilizado para o estudo um desenho descritivo do estudo; foi também utilizada para o estudo uma técnica simples de amostragem aleatória. Uma amostra de 200 docentes foi retirada de sete

faculdades da universidade. Os dados foram recolhidos utilizando um questionário auto estruturado com duas secções, dados demográficos e conhecimento dos serviços de saúde preventiva. Os dados foram analisados utilizando estatísticas descritivas de contagem de frequências e percentagem, enquanto as estatísticas inferenciais de um teste t de amostra e teste t independente foram utilizadas para testar hipóteses ao nível de significância de 0,05. O resultado mostrou, entre outros, que não há diferença significativa no conhecimento dos serviços de saúde preventiva e que não há diferença significativa no conhecimento dos serviços de saúde preventiva em termos de género. Foi recomendado, entre outros, que a revisitação dos programas de saúde preventiva que têm impacto direto entre o pessoal deveria ser feita periodicamente noutros para enfatizar a importância dos serviços de saúde preventiva no controlo de doenças evitáveis.

Palavras-chave: Conhecimento. Serviços de cuidados de saúde preventivos. Pessoal acadêmico na Universidade e Maiduguri, Estado de Borno, Nigéria.

Introduction

Knowledge of preventive healthcare 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 (Center for Disease Control and Prevention, 2014).

Knowledge of preventive healthcare is critical to man's quality of life because everything an individual does depend on knowledge. Each year, 65 million people die of preventable deaths worldwide World Health Organization (2013). Two thirds of this deaths are from non-communicable diseases (NCDs) such as cancer, diabetes and chronic cardiovascular as well as lung diseases. About 5 million Nigerians die of NCDs in 2015 and diabetes alone caused about 52 per cent of the mortality (Health Report Foundation of Nigeria, 2011). With the knowledge of preventive healthcare services many of most common and most serious health problems can be preventable through screening and prophylaxis, treatment and management, and lifestyle change. Yet chronic conditions such as heart diseases, cancer and diabetes account for 75 percent of healthcare sending in the United States and 7 out of every 10 deaths (Center for Disease Control and Prevention, 2012).

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into societal benefits including lower health care costs and a more productive workforce (Center for Disease Control and Prevention, 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 (STI) screening and counseling, and the wellness visits.

Hypotheses

The following hypotheses were tested

HO_1.There is no significant difference on knowledge of preventive healthcare services among academic staff in University of Maiduguri, Borno State, Nigeria.

HO_2.There is no significant difference between male and female on knowledge of preventive healthcare services among academic staff in University of Maiduguri, Borno State, Nigeria.

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 1Population 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 Chi-square and 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 I: There is no significant difference on knowledge of preventive healthcare services among academic staff in University of Maiduguri, Borno State, Nigeria.

Table 3: One sample *t*-test on knowledge of preventive healthcare services among academic staff in university of Maiduguri, Borno State

Variables	N	Mean	S. D.	S. E.	t-value	df	P-value	Remarks
knowledge of preventive healthcare services	200	12.180	4.023	0.284	34.024	199	0.0001	Sig.
Test value	200	2.50						

(t-critical = 1.96, P < 0.05)

The result on table 3 revealed that the respondents' opinion on the knowledge of academic staff on preventive healthcare services in Nigeria is significant. This is indicated in the table with an observed mean score of 12.180 which is significantly higher than the fixed mean score of 2.50 used as the test value. The observed t-value of 34.024 obtained at 494 degree of freedom (DF) is higher than the critical value of 1.96 and the observed probability level of significance for the test is 0.000 (P < 0.05). These observations provide sufficient evidence for rejecting the null hypothesis. The null hypothesis there is no significant difference on knowledge of preventive healthcare services among academic staff in University of Maiduguri, Borno State, Nigeria is therefore rejected.

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

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

section	N	Mean	S.D	S.E	Sf	Df	T	Prob	Prob
Male	134	12.283	.126	.356	098	518	0.	0.356	0
Female	66	11.969	.826	.471	0				

(t=0.518, df=198; P= 0.356)

A t-test on table 4 confirmed that there is significant difference in the mean between male and female on knowledge of preventive healthcare services (t=0.518, df=198; P= 0.356). Therefore the null hypothesis was retained, meaning thatthere is no significant difference between male and female on knowledge of preventive healthcare services among academic staff in University of Maiduguri, Borno State, Nigeria.

Discussion

In the analysis of hypothesis one the findings indicated that there was significant difference in knowledge of preventive healthcare services among respondents. This difference may be due in part to either lack of knowledge of the existences of such services or non-challenging attitude towards the services, but also due to the inconveniences of accessing the services, at various services points within the hospital (Babatunde and Ikimato, 2010). Other potential explanation may be that the higher the educational level the better the awareness or the compliance to medical advice or that the more education were well informed or had the ability to use better the available resources Lorant, Boland, Humblet and Deliege (2000). Therefore, there is an urgent need to increase the uptake of services in country, at least in response to the WHO projections (WHO, 20002). Almost all the respondents are aware of preventive healthcare services, but failed to access the services were negative attitude towards prevention. This is real concerning, as a negative attitude easily pushes one into disease state, and a life disability or morbidity, resulting in a state of grief. Effort should made at improving the uptake of the services which would help in improving behavioural change towards the uptake of these services, and offering hope and supports, by emphasizing the benefits of early diagnosis and treatment of the preventable diseases and by ensuring the linkage of the services with therapeutic services, as is currently being done with some other services (WHO, 2004). The result of this study is conflict with that of Gulitat and Tiruneh (2014) who conducted a study to assess knowledge, attitude and practice of healthcare workers on infection prevention in health institution using three and fifty four respondents. They reported that respondents have better knowledge and positive attitude, their practice of infection prevention was not optimum as per the national guide line. This is also in line with this study of Ojulong, Mitonga and Lipinge (2013) found no significant difference in knowledge and attitude of infection prevention and control among health science students. This may be due to the fact the respondents are healthcare workers and health science students respectively, and it is believed they are the ones that carry out these preventive measures.

Hypothesis two revealed no significant difference in knowledge between male and female on preventive healthcare services among respondents. The findings corroborate with that of Obiechina and Ekenedo (2013) that conducted a study on factors affecting utilization of preventive health services using 390 males and 150 females. The findings reported no significant difference in knowledge, but high cost of drugs, non-availability of services, inadequate referral services and satisfaction were considered by respondents as factors affecting utilization of services. In a related development, Pappa, Kontodimopoulos, Papadopolos, Pallikaroma,Niakas and Tounta (2009) in their study on socio-demographic, self-perceived health, and health risk factors that determine the use of cardiovascular preventive healthcare. Using data from a Greek national representative sample. The result indicated no significant difference in knowledge of preventive tests among male and female, but old age, marriage, regular family doctor and chronic diseases increased the likelihood of receiving preventive tests.

Recommendations

1.   Concerned efforts are required to add more impetus staff enlightenment on preventive healthcare services.

2.   Re-visitation of preventive health programmes which have direct impact among staff should be made periodically in other to emphasize the importance of preventive healthcare services in control preventable diseases.

3.   Training and periodic retraining of the university clinic staff, organizing workshops and seminars to update their knowledge on preventive healthcare services since, they are the people that provide preventive services.

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