

Medical Occupational Health Services Needs of Women Academics in Benue State: Implications for Health Promotion

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Abstract

The study investigated the medical occupational health services needs (MOHSNs) of university women academics in Benue State with the view to proffer suggestions on the provision of basic medical occupational health services needs for health promotion and effective job performance. The study utilized the cross-sectional research design. The population of the study consisted of all university women academics, and two key officers involved in the provision of MOHS in the state and federal government owned universities in Benue state. A sample size of two hundred and ninety-eight (298) participants comprising 296 university women academics and two key officers participated in the study. Three instruments were used for data collection. These were an 11-item adapted and modified community needs assessment questionnaire by Aparna, Mindy and Yolanda (2000), otherwise called Medical Occupational Health Services Needs Assessment Questionnaire (MOHSNAQ). A Focus Group Discussion (FGD) guide, and Key Information Interview (KII) guide structured by the researchers were validated and utilized for data collection. The reliability co-efficient index of OHSNAQ was determined through split half method which yield reliability co-efficient index of .90 for section A, and .84 for section B as determined through Cronbach Alpha statistic. Data collected were analysed using mean, percentages, chi-Square statistics. The findings indicated that MOHSNs of women academics were: follow-up medical care services 69.30%, rehabilitation services 68.10%, eye care services 63.50%, gynaecological health care services 58%, and health counseling services 54.50%. Results further showed that there were no significant differences in the MOHSNs of the women academics based on Age (χ^2 value = 1.813, $P = .430 > 0.05$). The study concludes that women academics have medical services needs. It is recommended that, the universities should design strategies for the provision of the needed MOHS.

Key words: Medical, Occupational Health, Services, Women Academics

Introduction

There is a need to provide medical occupational health services to workers in order to promote their health. The medical occupational services monitor the health status of workers starting from pre-employment stage and continue throughout the service period. Isah, Asuzu and Okojie (1996) submitted that medical services consist of series of health check-ups and comprehensive health care services. Serial health check-ups otherwise called health assessment (HA), according to O'Donnel (2004) and health appraisal (Samuel & Nwimo, 2012) are the major occupational Health Services (OHS) which ensure that workers are employed for jobs that suit their capabilities, and that proposed jobs will not be harmful to them. Serial health check-ups are achieved through four types of medical examinations, namely: pre-employment, pre-placement, periodic and requested medical examinations (Dhaar & Robbani, 2008).

Pre-employment medical examination is to be carried out on all prospective employees. This is to form a baseline on which future examinations can be compared with. Dhaar and Robbani (2008) affirmed that physical examination and other investigations are done and properly documented to provide a bench-mark or base-line data for future comparison. Pre-placement (pre-assignment) medical examination is mostly done when an employee is changing from one job unit to another within the same organization, and on workers returning from sick-leave. However, periodic medical examination is necessary for all employees after the initial pre-employment examination to identify and diagnose early certain occupational and non-occupational diseases, while requested medical examination (post-sickness absence examination) is usually a request from management of an organization for the occupational doctor to carry out a medical examination on the worker to recommend the best job the worker can do following an illness or injury. It is important to note that serial health check-ups allow the occupational health team to identify those who require comprehensive or continuing health care services.

Comprehensive health care concerns the and public health service. According to Dhaar and Robbani (2008), the medical care service is responsible for first aid and treatment, health supervision, and rehabilitation services. Public health services involve immunization, health and safety education, development of records and health counseling. Others are maternal and child health services (MCH). These services according to the authors

control and prevent occupational health problems and those of community origin. Asogwa (2007) explained that the medical facility performs the primary health care role for workers in tertiary institutions such as the university women academics in Benue State. Samuel and Nwimo (2012) recommended that medical services for schools should include health appraisal, health counseling, health supervision and prevention of communicable diseases. Others include health promotion, water, sanitation and maintenance of health records. The reproductive system of women is capable of conception and reproduction of offspring, and can be easily interfered with by the effect of work processes; exposing both the mother and child to occupational health problems. For example, in research laboratories pregnant women who work with solvents have been confirmed to have pre-term babies while those who are exposed to microbes such as bacteria in workplace had post term births; others are cancers associated with reproductive system. University women academics are also faced with stress from the heavy workload of academic research, teaching and publish or perish syndrome which jeopardizes health. Because of the high socio-economic status and office work stress with limited time for leisure, sports and recreation, women academics appears to consume a lot of processed foods, high fatty diets, energy drinks and snacks and many other uncultured foods, and are at risk of metabolic disorders, heart diseases, obesity, diabetes mellitus, arthritis, osteoporosis, and pains in the back, neck, legs and shoulders. The women may also suffer stress and stress related health problems. Zadeh and Fakhri (2011) found that there was need for adequate medical services for women in all establishments for health promotion.

However, providing OHS according to the needs of workers (women inclusive) is problematic especially in the developing nations. This may be as a result of improper planning on the part of administrators who do not carry out needs assessment to identify the exact service needs of women workers. Women academics of higher institutions especially, women in Benue State appear not to be provided with basic medical occupational health service needs for effective job performance such as health and safety services, follow-up medical examination, and rehabilitation services among others. The provision of these services is very important to the university workers including women academics. Unfortunately, it appears that due to scarce resources, or lack of commitment, or ignorance, all these services may not be provided in workplaces. In order to use limited resources and provide the necessary services for workers, it is imperative to identify the Medical Occupational Health Service Needs (MOHSNs) of women academics in universities in Benue State.

A Need is a discrepancy or gap between a present state (what is) and a desired state (what should be) (Witkin & Altschuld, 1995). Green (1999) defined a need as lacking of something that is important. In the context of this study, need refers to that important favourable occupational condition that is lacking in the universities in Benue State to protect, promote and maintain holistic health for effective and maximum performance of women academics. This was accomplished through the process of needs assessment (NA).

Needs Assessment is a process for determining and addressing gaps between current and desired conditions. It is carried out to minimize wasting lean resources, so that most important needs can be achieved. Medical Occupational Health Service Need Assessment (MOHSNA) therefore, refers to a process of identifying gaps between the important and the provided MOHS of university women academics in Benue State, Nigeria. This was accomplished through identification of the MOHS that are important to the women academics and matching it against the services that are provided. The gaps in provision otherwise MOHS not provided were therefore referred to as the identified MOHS needs of the University women academics.

University women academics refer to females holding various academic positions in the university. In Benue State, such women are found in the Federal University of Agriculture, Makurdi and Benue State University Makurdi. The demographic variable of the study is age. At different age brackets, women experience various health problems which may need different MOHS. According to Kaiser Family Foundation (2004), women aged 20-40 years is a region with high fertility rate especially in the sub-Saharan Africa and need Maternal and Child Health (MCH), Family Planning (FP), and sexual health services. Those in the menopausal age mostly require curative, follow up and rehabilitative health and medical services. These services are highly recommended for university women academics in Benue State.

In Nigeria, and Benue State in particular, it appears that medical OHS of women are provided based on the discretion of the providers and not on the demands of the users; as such, not all needed services are provided. This study is novel in Benue State. While reviewing related literature, the researchers did not come across any study on MOHSNs of university women academics in general and Benue State in particular. The researchers were worried over the state of MOHSNs of women academics in universities in Benue State.

The study identified the medical occupational health services needs of women academics in Benue State, Nigeria. Specifically, the study identified the:

1. Medical occupational health services needs of university women academics;
2. Medical occupational health services needs of university women academics according to age.
3. The null hypothesis of no significant difference in the MOHSNs of Women Academics based on Age was tested.

Methods

The present study adopted a cross – sectional research design. The population for the study consisted of all the University women academics in Benue State with a total of 296 respondents. There was no sampling based on the assertion by Anaekwe and Unigwe (2007). The same women academics constituted the FGD groups. Two key officers were purposively sampled (Medical Directors) one from each of the universities for KII.

Instruments for Data Collection

Three instruments were utilized for data collection. An adapted and modified community needs assessment questionnaire designed by Aparna, Mindy, and Yolanda (2000). The modified questionnaire otherwise called Medical Occupational Health Services Needs Assessment Questionnaire (MOHSNAQ). A structured Focus Group Discussion (FGD) Guide, and Key Informant Interview (KII) Guide structured by the researchers based on the specific objectives of the study were used.

The MOHSNAQ centered on 11 items classified into two sections (A & B). Section A contained one item demanding the bio data of the respondents. Section B contained eleven items on MOHSNs of university women academics. All the items on sections B were divided into two columns A and B. The items on column A focused on the types of MOHS that were important to the university women academics and were assigned response options which range from Very Important need, Important Need, Unimportant Need, and Completely Unimportant need. These were rated 4, 3, 2, and 1 respectively. The items in column B focused on the provision of the MOHS to the university women academics and were assigned two response options of Provided (P) and Not Provided (NP) and were rated 2 and 1 respectively. The respondents were requested to tick (√) against the option that was applicable to the university situation. The items in the questionnaire were organized to reflect the specific purposes of the study and the null hypothesis. The reliability co-efficient index of MOHSNAQ was as follows: Column A 0.90, Column B 0.84.

The FGD guide and the KII contained two questions each prepared in line with the research objectives to elicit in-depth information on MOHSNs of women academics. The instruments were validated by three experts in the Department of Human Kinetics and Health Education, University of Nigeria Nsukka.

Method of Data Collection

The MOHSNAQ was administered to all the women academics in their respective universities. The FGD and KII were conducted and the proceedings of the discussion and interview were documented. The results were used in the discussion.

Method of Data Analysis

The data were analysed on item by item basis. The response options in column A were assigned four point scale ranging from Very Important (VI), Important (IM), Unimportant (UI) and Completely Unimportant (CU) with corresponding scores of 4,3,2, and 1 respectively. Limits of numbers were used to interpret the results as follows: 3.5 to 4 signifies very important service, 2.5 to 3.49 important service, 1.5 to 2.49 signifies unimportant service, and 1.0 to 1.49 implies completely unimportant service. The response options in column B were assigned two options of provided and not provided and were rated as 2 and 1 respectively. Any response options that was very important, important and was not provided was regarded as a need. The qualitative data (FGD & KII) were organized in themes based on the research questions and were used to substantiate the quantitative data. The null hypothesis was tested at .05 level of significance using Chi- Square statistic.

Results

Table 1

Mean Responses of Medical OHS of Women Academics (n = 288)

S/N	Medical OHS		SD	Decision
1.	Pre-employment medical examination services	3.45	.620	Important
2.	Periodic medical examination/referral services	3.65	.530	Very important
3.	Follow up medical services	3.52	.560	Very important
4.	Curative services	3.56	.570	Very important
5.	First aid and emergency services	3.66	.530	Very important
6.	Rehabilitation	3.57	.570	Very important
7.	Eye care services	3.63	.490	Very important
8.	Maternal and child health care services	3.59	.500	Very important
9.	Gynaecological health care services	3.62	.540	Very important
10.	Preventive health services	3.62	.530	Very important
11.	Health counseling services	3.65	.520	Very important
	Grand mean	3.59	.540	Very important

Table 1 show a grand mean responses of 3.59 which falls between 3.50 and 4.00, indicating that MOHS were very important for universities women academics. The standard deviations range from .490 and .620 which shows that their responses were similar. The Table further shows that mean responses for pre-employment medical examination services (= 3.45) falls between 2.50 and 3.49, indicating that it was an important service. The Table also shows the mean responses of the following items: periodic medical examination/referral services (= 3.65); follow up medical services (= 3.52); curative services (= 3.56); first aid and emergency services (= 3.66); rehabilitation services (= 3.57); eye care services (= 3.63); maternal and child health care services (= 3.59), gynecological health care services (= 3.62); preventive health services (= 3.62), and health counseling services (= 3.65) which falls between 3.50 and 4.00 indicating that these MOHS were very important to university women academics.

Table 2

Proportion of University Women Academics Provided With MOHS (N= 288)

S/N	Medical OHS item Provision	Provided		Not provided	
		f	%	f	%
1.	Pre-employment medical examination services	168	58.30	120	41.70
2.	Periodic medical examination/referral services	144	50.00	144	50.00
3.	Follow up medical services	87	30.20	201	69.80
4.	Curative services	185	64.20	103	35.80
5.	First aid and emergency services	232	80.60	56	19.40
6.	Rehabilitation	92	31.90	196	68.10
7.	Eye care services	105	36.50	183	63.50
8.	Maternal and child health care services	189	65.60	99	34.40
9.	Gynaecological health care services	121	42.00	167	58.00
10.	Preventive health services	168	58.50	120	41.70
11.	Health counseling services	131	45.50	157	54.50
	Overall percentage		51.20		48.80

Table 2 shows that majority of university women academics indicated they were provided with first aid and emergency services (80.60%); maternal and child healthcare services (65.60%); and curative services (64.20%). The Table further reveals that 58.50 per cent of the women academics indicated that preventive health services; pre-employment medical examination services (58.30%); and periodic medical examination and referral services (50%) were provided. However, follow up medical care services (69.80%), rehabilitation services (68.10%), eye care services (63.50%), gynaecological health care services (58%), and health counseling services (54.50%) were indicated as not being provided.

Table3

Mean Responses of MOHS of University Women Academics According to Age (n = 288)

S/N	Medical OHS	Age			
		20-45 years (n= 179)		Above 45 years (n= 109)	
		Mean	Decision	Mean	Decision
1.	Pre-employment medical examination services	3.44	Important	3.48	Important
2.	Periodic medical examination/referral services	3.66	Very important	3.62	Very important
3.	Follow up medical services	3.53	Very important	3.52	Very important
4.	Curative services	3.54	Very important	3.61	Very important
5.	First aid and emergency services	3.63	Very important	3.70	Very important
6.	Rehabilitation services	3.56	Very important	3.60	Very important
7.	Eye care services	3.64	Very important	3.61	Very important
8.	Maternal and child health care services	3.59	Very important	3.58	Very important
9.	Gynaecological health care services	3.64	Very important	3.61	Very important
10.	Preventive health services	3.63	Very important	3.61	Very important
11.	Health counseling services	3.69	Very important	3.59	Very important
	Cluster mean	3.60	Very important	3.59	Very important

Table 3 indicates that the mean responses of university women academics aged 20 – 45 years were slightly higher than those of women academics above 45 years for the MOHS (20-45years = 3.60 > above 45years= 3.59) These mean responses fall between 3.50 and 4.00, indicating these services were very important.

Table 4
Proportion of Women Academics Provided With MOHS According to Age (N = 288)

Medical OHS items provision	Age							
	20-45 years(n=179)				Above 45 years (n=109)			
	Provided		Not provided		Provided		Not provided	
	f	%	f	%	f	%	f	%
1. Pre-employment medical examination services	108	60.34	71	39.66	60	55.05	49	44.95
2. Periodic medical examination/referral services	91	50.84	88	49.16	53	48.62	56	51.38
3. Follow up medical services	48	26.82	131	73.18	39	35.78	70	64.22
4. Curative services	119	66.48	60	33.52	66	60.55	43	39.45
5. First aid and emergency services	143	79.89	36	20.11	89	81.65	20	18.35
6. Rehabilitation	58	32.40	121	67.60	34	31.19	75	68.81
7. Eye care services	63	35.20	116	64.80	42	38.53	67	61.47
8. Maternal and child health care services	127	70.95	52	29.05	62	56.88	47	43.12
9. Gynecological health care services	86	48.04	93	51.96	35	32.11	74	67.89
10. Preventive health services	110	61.45	69	38.58	58	53.11	51	46.79
11. Health counseling services	81	45.25	98	54.75	50	45.87	59	54.13
Overall Percentage		52.55		47.45		49.03		50.97

Data in Table 4 revealed that majority of university women academics aged 20-45 years and above 45 years indicated that they were provided with first aid and emergency services (above 45 years = 81.65% > 20 - 45 years = 79.89%), curative services (20-45 years = 66.48% > above 45 years = 60.55%), while majority of university women academics 20-45 years and more than half of those above 45 years indicated that they were provided with maternal and child health care services (20 - 45 years = 70.95% > above 45 years =56.88%), preventive health services (20-45 years =61.45% > above 45 years = 53.11%), pre-employment medical examination services (20-45 years = 60.34% > above 45 years = 55.05%). The Table also revealed that more than half of university women academics 20 - 45 years and less than half of those above 45 years indicated that they were provided with periodic medical examination/referral services (20-45 years = 50.84%). However, follow-up medical services (20-45 years = 73.18% > above 45 years = 64.22%), rehabilitation services (above 45 years =68.81% > 20-45 years = 67.60%), eye care services (20-45 years = 64.80% > above 45 years = 61.47%), gynecological health care services (above 45 years =67.89% > 20-45 years = 51.96%), and health counseling services (20-45 years = 54.75% > above 45 years = 54.13%) were indicated as not being provided.

Table 5
Result of Chi-square Analysis Testing the Null Hypothesis of No Significant Difference in the MOHSNs of Women Academics Based on Age

S/N Medical OHSNs	Age				Cal χ^2 Value	df	P-value	Decision
	20-45 years		Above 45 years					
	Provided	Not provided	Provided	Not provided				
1. Pre-employment medical examination services	108 (104.40)	71 (74.60)	60 (63.60)	49 (45.40)	.780	1	.377	Accept
2. Periodic medical examination/referral services	91 (89.50)	88 (89.50)	53 (54.50)	56 (54.50)	.133	1	.715	Accept
3. Follow up medical services	48 (54.10)	131 (124.90)	39 (32.90)	70 (76.10)	2.582	1	.108	Accept
4. Curative services	119 (115.00)	60 (64.00)	66 (70.00)	43 (39.00)	1.037	1	.309	Accept
5. First aid and emergency services	143 (144.20)	36 (34.80)	89 (87.80)	20 (21.20)	.134	1	.714	Accept
6. Rehabilitation	58 (57.20)	121 (121.80)	34 (34.80)	75 (74.20)	.046	1	.831	Accept

7. Eye care services	63 (65.30)	116 (113.70)	42 (39.70)	67 (69.30)	.326	1	.568	Accept
8. Maternal and child health care services	127 (117.50)	52 (61.50)	62 (71.50)	47 (37.50)	5.944	1	.015	Reject
9. Gynaecological health care services	86 (75.20)	93 (103.83)	35 (45.80)	74 (63.20)	7.061	1	.008	Reject
10. Preventive health services	110 (104.40)	69 (74.60)	58 (63.60)	51 (45.40)	1.893	1	.169	Accept
11. Health counseling services	81 (81.40)	98 (97.60)	50 (49.60)	59 (59.40)	.011	1	.918	Accept
Cluster χ^2					1.813	1	1.430	Accept

Data in Table 5 showed the cluster calculated χ^2 value with its corresponding P-value at 1 degree of freedom for MOHSNs ($\chi^2=1.813$, $P= 1.430 > 0.05$) which are more than .05 level of significance at 1 degree of freedom. The null hypothesis of no significant difference was therefore accepted. This implies that the MOHSNs did not differ according to age. Table 5 further shows the calculated χ^2 values with their corresponding P-values at 1 degree of freedom for pre-employment medical services ($\chi^2= .780$, $P=.377 > 0.05 > 0.05$); periodic medical examination/referral services ($\chi^2= .133$, $P=.715 > 0.05 > 0.05$); follow up medical services ($\chi^2= 2.582$, $P=.108 > 0.05$); curative services ($\chi^2= 1.037$, $P=.309 > 0.05$); first aid and emergency services ($\chi^2= .134$, $P=.714 > 0.05$); rehabilitation services ($\chi^2= .046$, $P=.831 > 0.05$); eye care services ($\chi^2= .326$, $P=.568 > 0.05$); preventive health services ($\chi^2= 1.893$, $P=.169 > 0.05$) and health counseling services ($\chi^2= .011$, $P=.918 > 0.05$) which were greater than 0.05 level of significance at 1 degree of freedom. The null hypothesis of no significance difference was accepted. This implies that the need for these MOHSNs did not differ by age.

The Table further shows the calculated χ^2 values with their corresponding P-values at 1 degree of freedom for maternal and child health care services ($\chi^2= 5.944$, $P=.015 < 0.05$) and gynaecological health care services ($\chi^2= 7.061$, $P=.008 < 0.05$) which were less than 0.05 level of significance at 1 degree of freedom. The null hypothesis of no significant difference was rejected. This implies that these MOHSNs differ by age.

Discussion

Results in Tables 1 and 2 revealed that medical OHSNs of women academics were: follow up medical services, rehabilitation services, eye care services, gynaecological health care services, and health counselling services. Literature sources revealed that women related health problems can easily be identified, prevented and treated or managed by qualified medical personnel through these services. This finding is in contrast to the Kaiser family Foundation (2004) assertion which emphasized the importance of follow-up, gynaecological and health counselling services to reduce the burden of diseases and conditions such as obesity, cancers of the reproductive system, hypertension and diabetes which may appear later in life when no early detection and treatment is given.

FGD transcriptions revealed that the universities have clinics that offer skeletal services by general practitioners, no consultants or specialists, services are likened to first aid services. The clinic lacked important services such as gynaecological care, follow up, eye care, and delivery services. The discussants were dissatisfied with, medical services provided.

The key informants revealed that the universities had policies to treat all workers and their families. However, what is available now is emergency care, curative services that are offered. Specialist services such as gynaecological services, maternal and child health services, and eye care services are not available.

The finding lends support to that of Isah, Asuzu and Okojie (1996) where in most of the industries studied, staff were provided medical services by the public health services owned by the state government and not the health facility in the work place. The implication of this finding is that follow up medical care services rehabilitation services, eye care, gynaecological health care and health counselling services are OHSNs of women academics.

Data in Tables 3 and 4 showed that the OHSNs of women academics above 45 years were medical services. This was expected and therefore not surprising because of various reasons, experience has shown that women above 45years have started experiencing degenerative diseases, as such need medical services more than in the younger age. These results lend support to the finding of Ekenedo (2007) in which respondents' 20-54years expressed need for blood pressure measurement in the workplace. The KII and FGD conducted confirmed that medical OHS were the needs of university women academics. Table 5 revealed that there was no significant difference ($\chi^2_{cal} = 1.813$, $P = 1.430 > .05$) in the medical OHSNs of the women academics based on age. This result negates the findings of Zadeh and Fakhri (2011) which reported that there was a significant difference in blood pressure and self- reports of physical symptoms and job related physical symptoms based on age.

Implications of the Study to Health Promotion

Based on the findings of the study, women academics have Medical OHSNs of Follow up medical services, rehabilitation, eye care, gynecological and health counseling services. These services are very important for promoting the health of women academics now and later in life. Lack of follow up medical services has serious implications on the health of women academics, especially those diagnosed with health conditions that need regular checkups. According to Dhaar and Robbani (2008), follow up medical services promotes health of workers. Rehabilitation help to restore health thus promoting the holistic health of workers however, where it is not provided, there is serious health implications on the worker and family as job may be lost. The sense of sight is very important in reading printed materials for teaching and learning. Where services for maintenance of sight are not provided, the implication may be complete or partial lost of sight and possibly ineffective performance of jobs. Lack of gynaecological and health counselling services has serious implications on women academics in all age grades because cases may not be identified and information on prevention and control may not be obtained. The importance of these services may not be known by both the employers and the employees; as such, health education on health promotive services provision should be mounted to stem the menace of lack of medical occupational services.

Conclusions and Recommendations

Based on the findings and discussion of the study, the following conclusions were made;

1. Follow up medical services, rehabilitation, eye care, gynecological health, and counseling were medical OHSNs of women academics. This is contained in Tables 1, 2 and answers RQ 1.
2. MOHSNs of women academics aged 20 - 45years and those above 45years were identified. This is contained in Tables 3, 4 and answers RQ 2.
3. There was no significant difference in the mean responses of women academics with regards to medical OHSNs according to age. This is contained in Table 5 and tests the null hypothesis.

Recommendations

On the basis of findings of this study, the discussions and conclusions, the following recommendations were made:

1. The universities should design strategies for the provision of the needed service;
2. Formulate, enforce and support policies that will encourage the provision of the MOHSNs identified;
3. The universities should put in place a machinery to monitor and evaluate the extent of provision of MOHSNs of women academics in the universities.
4. Women academics should use the result to take medical services seriously by making use of the available services judiciously.
5. In planning for Medical occupational health services in the universities, the demographic variable of age should be considered.

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