KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS HYPERTENSION SCREENING AND NON DRUG CONTROL MEASURES AMONG ADMINISTRATIVE STAFF OF UNIVERSITY OF JOS

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ABSRTACT

Background/Objective: The prevalence of hypertension is on the rise globally leading to high morbidity and mortality. This descriptive study assessed knowledge, attitude and practice of high blood pressure, non drug and drug control measures among administrative staff of university of Jos.

Method: A total of 133 respondent whose age were 20years and older participated in the study. Validated questionnaire was used for data collection.

Result: The study revealed that majority (84.9%) of the respondents said that hypertension is a disease, and 76.7%) of the respondent had positive attitude towards screening their blood pressure, while 86% said it is important to take vegetables and fruits to help control hypertension. More than half (57.9%) of the respondents said that they use western drugs or pharmaceutical drugs to control hypertension while 63.6% said they often check their blood pressure. The null hypothesis was accepted, that is, no significant difference between level of education and practice of high blood pressure control.

Recommendation: It was recommended that seminar and workshop should be organized for administrative staff by the university management to enlighten them on the control of high blood pressure.

KEY WORDS: Knowledge, Practice, Non drug, Control, Hypertension, University staff

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INTRODUCTION

Hypertension is a cardiovascular disorder, a non- communicable disease and medical condition or disease that is chronic, generally progresses slowly, non-infectious, non-transmissible and are the leading causes of death globally, killing more people than all other causes of death. According to Center for Disease Control and revention[1] , it is a wide spread health problem and is called a silent killer because it often has no warning signs nor symptoms, and many people do not realize they have it. Examples of non -communicable diseases are hypertension, cardiovascular diseases, diabetes etc. projection on global mortality and burden of diseases estimated that by 2030, mortality due to cardiovascular diseases in the adult population will reach 23 million with about 85% of such deaths occurring in low and middle-income countries 2.

Worldwide, hypertension is the third leading risk factor contributing to death, surpassed only by malnutrition and smoking[3]. As a worldwide significant public health challenge, researchers' estimates that complications associated with hypertension currently kill 9 million people every year [4]and a 60% increase, predicted from 972 million in 2000 to 1.56 billion in 2025. It affects approximately 75 million adults in the United States [5]. Fifty four percent of strokes and 475 cardiac deaths are attributed to suboptimal blood pressure control. Although in the past hypertension was associated with affluence, this has changed since the last two decades with its incidence now higher in Africa than in Europe and USA, and has become the number one cause of death in Africa increasing in the next decade as a result of growing urbanization and related lifestyle changes[1]

Blood pressure is the force that blood exerts on the vessel wall which varies continuously in arteries due to the intermittent nature of the pump heart and elastic recoil of the arterial wall [6]. There are two main types of hypertension, primary hypertension also known as essential or idiopathic hypertension and secondary hypertension with the upper number being the highest arterial pressure when the heart beats and fills the arteries (systolic) and the lower being the lowest arterial pressure in the arteries when the heart relaxes (diastolic). Hypertension when left uncontrolled often takes a toll on vital organs throughout the body leading to heart attacks or strokes[7].

Hypertension can be treated with drugs (pharmacologically) such as diuretics, vasodilators, calcium channel, angiotensin II, blockers, beta blockers, Alpha agonist etc or without drugs (non-pharmacologically) e.g. life style modification, breathing exercise, regular aerobic exercise and blood pressure check, reduction in salt intake etc but lifestyle modification is more common in Ghana, while the salt strictly requires healthy life styles[8]. Often efforts to treat or reduce hypertension have been based mainly on pharmacological approaches with very little on the non-pharmacological approaches. [9] stresses the need for combination of two or more life style modifications such as exercising, consumption of low sodium, high potassium foods and maintaining healthy weights to reduce blood pressure among people living with hypertension. These modifications could help reduce the need for drug treatment of hypertension or complement the effect of antihypertensive drugs. Dietary Approaches to Stop Hypertension (DASH) diet which consists of increased consumption of fruits, vegetables and low-fat dairy products, decreased dietary sodium, saturated fat and total fat, and moderation of alcohol consumption as a better lifestyle modification for people living with hypertension [10]. Hypertension leads to various complications as increased risk of stroke but good control of blood pressure will result in prolonged survival rate of 5-6% knowledge of disease about causes, signs and symptoms, prevention, treatment options and complications are important if meaningful progress to arrest the diseases is to be achieved. Attitude of people in the face of danger is important since it will determine the actions to be initiated. With good knowledge and attitude and commensurate action positive outcome will be achieved. The prevalence of hypertension is on the rise globally among adults aged 25 and above, it was around 40% in 2008 which amounting to 1 billion people an estimate of 7.5 million deaths was recorded. Overall estimate for Nigeria was 42.8%. Raised blood pressure is major risk factors to coronary heart disease, hemorrhagic stroke, visual impairment etc. One in three people world suffers from high blood pressure.11 The burden of this disease is rising disproportionately among lower income and middle income countries with about 48%of deaths occurring before the age of 70 in these countries[12]. The prevalence of hypertension remains high in Nigeria The devastating effect of hypertension is much, and being a silent killer, there is need to assess the knowledge, attitude and practice of prevention and control of this hypertension through lifestyle, and non-drug among administrative staff of the university. Findings could assist in evidenced-based interventions that might increase the knowledge, attitude, practice of prevention and control. It is against this background that this research was undertaken to ascertain the level

of knowledge, attitude and practice and regular blood pressure checks, drugs and non-drug control measures among staff of administrative block of University of Jos. The specific objectives are to;

1. identify the knowledge about high blood pressure [hypertension] and its causes among administrative staff of university of Jos..
2. identify the utilization of high blood pressure screening among administrative staff of university of Jos.
3. determine the knowledge of non-drug control measures of high blood pressure among administrative staff of university of Jos.
4. determine the attitude towards the use of non-drug control measures of high blood pressure among administrative staff of university of Jos.
5. determine the practice of on-drug control measures of high blood pressure among administrative staff of university of Jos..

HYPOTESIS Null hypothesis; There is no significant difference in educational level and practice of high blood pressure control among administrative staff of university of Jos.

METHOD

The research was a descriptive design The target population was 200 staff in administrative block 0f the University of Jos from vice and deputy vice chancellor office, bursary, legal unit, information unit, registry units. Structured self-administered questionnaire consisted of section A, B, C and D was used for data the collection. The section A consists of personal data, socio-demographic data of the respondents, section B consist of the knowledge of staff about regular blood pressure checks, section C consist of the attitude of staff towards regular blood pressure screening, and non-drug control measures and section D consist of the practice of staff towards non-drug control measures . The instrument used for data collection was pilot tested among administrative staffs of the university of Jos who are on out- side posting from the administrative block Those who consented to participate in the research were administered the questionnaire in their various offices after signing the consent form that was attached. Some filled questionnaire were collected immediately and some the following day Data was analyzed using frequencies, percentages, mean, and chi square was use to test the stated hypothesis att 0.05 level of significance, all were presented in Tables.

RESULTS A total of 200 questionnaires was administered and 150 was retrieved giving response rate of 75 %, however, only 107 were good for data analysis.

Table 1. Level of education and Working experience

Level of education	Frequency	Percent (%)
Secondary school	10	9.3
Diploma	15	14.0
HND	26	24.3
Bachelor's degree	34	31.8
Masters	7	6.5
No response	15	14.0
Total	**107**	**100**
Work station/Unit	**Frequency**	**Percent (%)**
Bursary	38	35.5
Registry	21	19.6
Under VC	11	10.3
Security	20	18.7
Other sections	3	2.8
No response	14	13.1
Total	**107**	**100**
Years of working experience	**Frequency**	**Percent (%)**
1-10 years	42	39.3
11-20 years	28	26.2
21-30 years	16	15.0
31-40 years	10	9.3
No response	11	10.3
Total (Mean working duration = 14.9years)	**107**	**100**

Table 2 shows that 14% of the respondents had diploma, 24.3% had Higher National Diploma, while 31.8% of the respondents had Bachelor's degree. A few 6.5% had Masters. 35.5% of the respondents were working in Bursary.

Table 2: Respondents' Knowledge about High blood pressure (Hypertension) and its causes

Item	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Mean	Remark
	F	%	F	%	F	%	F	%	F	%		
Hypertension is a disease	51	47.7	40	37.4	6	5.6	7	6.5	3	2.8	1.79	A
High blood pressure is a silent killer	64	59.8	34	31.8	6	5.6	1	0.9	2	1.9	1.53	A
High blood pressure causes cardiovascular disease	46	43.0	37	34.6	20	18.7	2	1.9	2	1.9	1.85	A
High blood pressure can lead to sudden death of a person	60	56.1	37	34.6	7	6.5	0	0.0	3	2.8	1.59	A
Hypertension causes stroke	53	49.5	32	29.9	16	15.0	2	1.9	4	3.7	1.8	A
Native doctor, witchcraft, charm or evil spirits can cause	16	15.0	10	9.3	20	18.7	29	27.1	32	29.9	3.48	D
Being over-weight predisposes to high blood pressure	37	34.6	43	40.2	20	18.7	6	5.6	1	0.9	1.98	A
Diet rich in salt causes high blood pressure	26	24.3	48	44.9	25	23.4	5	4.7	3	2.8	2.17	A
Smoking cigarettes causes high blood pressure	36	33.6	28	26.2	30	28.0	11	10.3	2	1.9	2.21	A

Key: Mean scores of 1.0-2.6 Agreed (A); 2.61-3.4 Neutral (N); 3.41-5.0 Disagreed (D)

Table 2, reveals that majority (85.1%) of the respondents strongly agreed that hypertension is a disease, having a mean score of 1.79. Majority (91.6%) of the respondents strongly agreed that high blood pressure is a silent killer, with a mean score of 1.53. .

Table 3 knowledge about high blood pressure detection, prevention and control

Item	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Mean	Remark
	F	%	F	%	F	%	F	%	F	%		
High blood pressure can only be detected by checking of blood pressure	45	42.1	37	34.6	17	15.9	6	5.6	2	1.9	1.91	A
High blood pressure has no signs	15	14.0	12	11.2	20	18.7	46	43.0	14	13.1	3.3	D
You can recognize someone with high blood pressure by physical appearance	8	7.5	8	7.5	13	12.1	43	40.2	35	32.7	3.83	D
Charm can be used to control high blood pressure	4	3.7	6	5.6	11	10.3	43	40.2	43	40.2	4.07	D
Physical exercise prevents high blood pressure	23	21.5	47	43.9	20	18.7	8	7.5	9	8.4	2.37	A
Herbs can be used to control high blood pressure	16	15.0	32	29.9	28	26.2	15	14.0	16	15.0	2.84	N
Prayers can be used to control hypertension	28	26.2	24	22.4	28	26.2	15	14.0	12	11.2	2.62	N
Once you are diagnosed hypertensive, you ought to take drugs throughout life	21	19.6	25	23.4	30	28.0	20	18.7	11	10.3	2.77	N
Examples of anti-hypertensive include Nifedipine, amlodipine,	32	29.9	26	24.3	38	35.5	5	4.7	6	5.6	2.32	A
Persons with high blood pressure should often take tablets for many years	22	20.6	33	30.8	30	28.0	15	14.0	7	6.5	2.56	A

Key Mean scores of1.0-2.6Agreed (A) 2.61-3.4 Neutral (N); 3.41-5.0 Disagreed (D)

Table 3 shows that majority (76.7%) of the respondents strongly agreed and agreed that high blood pressure can only be detected by checking of blood pressure with a mean score of 1.91. More than half of the respondents (56.1%) disagreed and strongly disagreed that high blood pressure has no signs with a mean score of 3.3.

Table 4: Respondents' Attitude towards High blood pressure

Item	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Mean	Remark
	F	%	F	%	F	%	F	%	F	%		
It is important to take vegetables and fruits	64	59.8	28	26.2	9	8.4	5	4.7	1	0.9	1.61	A
It is important to reduce stress	60	56.1	38	35.5	6	5.6	1	0.9	2	1.9	1.57	A
It is important to quit smoking	60	56.1	28	26.2	14	13.1	4	3.7	1	0.9	1.67	A
It is important to lower your body	47	43.9	42	39.3	15	14.0	1	0.9	2	1.9	1.78	A
It is important to do regular exercise	54	50.5	37	34.6	13	12.1	2	1.9	1	0.9	1.68	A
I am willing to check my blood pressure	30	28.0	48	44.9	25	23.4	3	2.8	1	0.9	2.04	A
It is necessary to take anti-hypertensive	32	29.9	35	32.7	24	22.4	11	10.3	5	4.7	2.27	A
I stopped taking anti-hypertensive	8	7.5	15	14.0	46	43.0	24	22.4	14	13.1	3.2	D

Key: Mean scores of .0-2.6Agreed(A); 2.61-3.4Neutral (N); 3.41-5.0Disagreed (D)

Table 4. shows that majority (86%) of the respondents strongly agreed and agreed that it is important to take vegetables and fruits,. Majority (91.6%) of the respondents strongly agreed and agreed that it is important to reduce stress.

Table 5: Practice of Non Drug Control/Preventive measures of High Blood pressure

Practice of Drug control measures	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Mean	Remark
	F	%	F	%	F	%	F	%	F	%		
I often check my blood pressure	25	23.4	43	40.2	24	22.4	12	11.2	3	2.8	2.3	A
I visit prayer houses to control my Blood	11	10.3	11	10.3	32	29.9	28	26.2	25	23.4	3.42	D
I control my body weight	27	25.2	45	42.1	23	21.5	7	6.5	5	4.7	2.23	A
I avoid being stressed	26	24.3	50	46.7	21	19.6	10	9.3	0	0.0	2.14	A
Sleep does not allow me to carry out	21	19.6	22	20.6	33	30.8	22	20.6	9	8.4	2.78	N
I eat fish	38	35.5	37	34.6	27	25.2	5	4.7	0	0.0	1.99	A
I eat fruits, vegetables and foods	48	44.9	36	33.6	20	18.7	1	0.9	2	1.9	1.81	A
I avoid taking alcohol	43	40.2	35	32.7	17	15.9	10	9.3	2	1.9	2.00	A
I avoid eating red meat	21	19.6	37	34.6	33	30.8	9	8.4	7	6.5	2.48	A
I avoid smoking cigarette	47	43.9	32	29.9	17	15.9	9	8.4	2	1.9	1.94	A
I avoid salt intake	34	31.8	31	29.0	23	21.5	14	13.1	5	4.7	2.3	A
I carry out exercise weekly	32	29.9	36	33.6	26	24.3	10	9.3	3	2.8	2.22	A

Key: Mean scores of 1.0-2.6 Agreed (A); 2.61-3.4 Neutral (N); 3.41-5.0 Disagreed (D)

Table 5 shows that good number, (63.6%) of the respondents agreed and strongly agreed that they often check their blood pressure, with a mean score of 2.3, while 49.6% of the respondents disagreed and strongly disagreed that they visit prayer houses to control their blood pressures, with a mean score of 3.42.

HYPOTHESIS

Table 6: Cross-tabulation of Educational level and practice of high blood pressure control

		I often check my blood pressure					Total
		Strongly	Agree	Neutral	Disagree	Strongly	
Level of	Secondar	2(2.2%)	3(3.3%)	3(3.3%)	1(1.1%)	1(1.1%)	10(10.9%)
	Diploma	5(5.4%)	7(7.6%)	1(1.1%)	2(2.2%)	0(0.0%)	15(16.3%1
	HND	7(7.6%)	9(9.8%)	6(6.5%)	3(3.3%)	1(1.1%)	26(28.3%)
	Bachelor'	2(2.2%)	18(19.6%)	10(10.9%)	4(4.3%)	0(0.0%)	34(37.0%)
	Masters	4(4.3%)	1(1.1%)	1(1.1%)	1(1.1%)	0(0.0%)	7(7.6%)
Total		20(21.7%)	38(41.3)	21(22.8%)	11(12.0%)	2(2.2%)	92(100.0%)

Df = 16, Chi-square (X^2) =19.552, Significance level= 0.05, Critical value = 26.296, P value= 0.241

The calculated chi-square (X^2) value is less than the critical value, and the P value is greater than 0.05 at a degree of freedom (df) = 16. Therefore the null hypothesis which states that there is no significant difference in educational level and perceptions of high blood pressure control is accepted. Therefore, differences in educational levels did not significantly influence their perceptions of high blood pressure .

DISCUSSION

The study revealed that most of the respondent were male, majority falls within the age of 31 to 40 years, most were married, large number of the respondent were from the plateau ethnic group, majority of them were BSc holders with an average of 1-10years of working experience. Majority(76.7%) of the respondent had knowledge on high blood pressure screening and control and this have reflected in their practices of non- drug control measures of hypertension, this is in line with[13], who reported in his findings that most of his respondent had knowledge on hypertension check and control however this is not in cognizance with the findings of[14], who reported there was a low level of knowledge of hypertension control. Similarly[15] also revealed in their study that knowledge about the risk factors of hypertension was still low.

This research also found out that the respondent have a positive attitude towards high blood pressure control, this may be attributed to their high educational status as most of them had BSc certificate and therefore would presumably be well informed, this is in cognizance with[16] who reported that respondent had relatively high attitude towards blood pressure control. However[15], reported in their findings that the attitude towards hypertension control is low Similarly[17], revealed in their study that the attitude towards control of hypertension was negative.

More than half (57%) of the respondents uses pharmacological drugs to control their blood pressure which is not in consonant with the work of [17] who reported that their attitude towards treatment of hypertension with medication was low. A reason for this could be that most of the respondent is educated and aware of the practices such as regular physical exercise, reducing salt intake as well as sedentary life style modification, reducing the intake of alcohol and activities that could control their blood pressure. The findings also revealed that most (63.6%) of the respondents often carry out physical exercise as a method of non-pharmacological measure of blood pressure control. However [18] stated that the practice of blood pressure control by the use of exercise was poor among his respondent in his study.

CONCLUSION

The researcher observed that there is no significant difference between the educational level of respondent and practice of high blood pressure control among administrative staff of university of Jos. Majority of the respondents agreed that hypertension is a disease, though the prevalence of hypertension still remains high in Nigeria.

RECOMMENDATION

Based on the findings made the researcher has the following recommendation /suggestion to make

1. School management should make regular blood pressure screening part of the health activities of administrative staff as well as other staff of university of Jos

2. Government and non-governmental organization (NGOs) should organize public lectures in order to create awareness of hypertension and its consequences among staff in University of Jos.

3. Administrative staff of university of Jos should combine non- drug and drug control measures together for more effectiveness.

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