

## Awareness of Hypertension among Public Secondary School Teachers in a Local Government Area of Ekiti State, Nigeria

Ajewole ICC<sup>1</sup>, Fasoro AA<sup>1\*</sup>, Agbana RD<sup>1</sup>

<sup>1</sup>Department of Community Medicine, College of Medicine and Health Sciences, AfeBabalola University  
Ado-Ekiti, Nigeria

\*Corresponding author: [akinfasoro@abuad.edu.ng](mailto:akinfasoro@abuad.edu.ng)

**Abstract:** *Hypertension affects about one billion people and kills about nine million globally. One in every 10 Nigerian adults has high blood pressure, less than a third of those with high blood pressure are aware of the fact that they have hypertension. A descriptive cross sectional study design was employed. The target population were teachers employed in public secondary schools in a Local Government Area in Nigeria. A semi-structured questionnaire was used for data collection. Majority of the respondents were aged 40 – 49 years (49.3%), females (68.5%), Christians (86.2%), married (84.7%), Yoruba (98%) and Bachelor's degree holders (46.3%). All the respondents (100%) have heard about hypertension and majority (55.7%) got the information through health campaign. The risk factors of hypertension reported were cigarette smoking (31.5%), alcohol consumption (43.4%), salt intake (59.6%) and lack of exercise (60.6%). About 15.8% were aware they were hypertensive. Eighty three respondents (40.9%) consume alcohol. Adding extra salt to food was common among 7.9%, about one-tenth (9.4%) smoke cigarette and 27.1% have family history of hypertension. The findings of this study show that hearing about is quite different from having a knowledge of a disease condition. There is need to enlighten the population about the risk factors of hypertension.*

**Keywords:** *Awareness, Hypertension, Risk factors, Secondary school, Teachers*

### I. INTRODUCTION

Hypertension is largely regarded as a major risk factor for cardiovascular diseases (CVDs) with a growing prevalence and poor control particularly in developing countries [1]. Hypertension is the fourth contributor to premature death in developed countries and the seventh in developing countries [2]. It affects about one billion people and is responsible for about nine million deaths globally [3]. The working class is not spared of the scourge of hypertension either. Its global prevalence among adults aged 25 years and above is around 40% in 2008 [4]. Low income countries like those in Sub-Saharan Africa are experiencing unexpected rise in the incidence of hypertension [5]. The economic and social transformation taking place in developing countries, and the lifestyle changes resulted from such transformation have been implicated in the rapid rise of hypertension [6]. Prevention of hypertension is workable if its awareness and knowledge of its risk factors are increased and this could lead to prevention of its complications [7]. Its management can also lead to a reduced incidence of preventable complications such as stroke, coronary heart disease and heart failure [8]. The World Health Organisation (WHO) projects that over the next 10 years, Africa will experience the largest increase in death rates from CVDs and therefore the negative economic impact of CVDs will be more felt on the continent [9]. In developed countries, the improved control of hypertension has led to considerable reduction in overall morbidity and mortality over the last fifty years [10]. Evidence from large clinical trials has shown a 40% reduction in stroke and a reduction of at least 25% in myocardial infarction associated with treatment and control of hypertension [11].

One in every 10 Nigerian adults has high blood pressure, less than a third of those with high blood pressure are aware of the fact that they have hypertension and less than a third of those who are aware are under any form of treatment and less than a third of those under treatment are adequately controlled [12]. Many people are not aware of the importance of regular clinical check-up and not all who are aware are actually utilizing the opportunity. In most cases, affected individuals can remain undiagnosed until the damage is done. The increasing awareness of hypertension as an important cause of morbidity and mortality in Africa over the last twenty years has resulted in numerous publications documenting the burden of hypertension in Africa which now calls for systematic reviews to provide a comprehensive understanding of the situation in order to inform the design of tailored control and research efforts. Prevention, however, is difficult where there is poor awareness. This study aims at assessing the level of awareness on hypertension among secondary school teachers in Gbonyin Local Government Area (LGA) of Ekiti State, Nigeria.

## II. METHODOLOGY

Gbonyin Local Government was created on October 1, 1996 out of Ekiti East Local Government upon the creation of Ekiti State on October 1, 1996. The LGA is predominantly a homogenous society, populated by Yoruba speaking people of the Southwestern geopolitical zone of Nigeria. Christianity, Islam and traditional religions are the mostly practiced. The LGA is made up of eight major towns and several villages. There are 46 public primary schools, 18 private nursery and primary schools, 12 public secondary schools and 13 private secondary schools in the local government. A multi-stage sampling technique was used in this study. Out of the 12 public secondary schools in the local government, six schools were randomly picked by ballot to be sampled. The selection of teachers from these six schools was based on proportionate allocation.

A descriptive cross sectional study design was employed. The target population were teachers employed in public secondary schools in the LGA. The sample size was estimated using Fisher's formula [13]. Two hundred and four respondents were needed for the study. The sample size was adjusted for estimated 10% non-response to give a total of 224 participants. A semi-structured, face-validated questionnaire was used for data collection. The data collection was carried out from 16th June 2015 – 17th July 2015. The questionnaire was divided into three sections. The first section assessed the sociodemographic characteristics of the respondents. The second section assessed the level of awareness on hypertension and the third section assessed the risk factors of hypertension among the respondents. All teachers in public secondary schools in the LGA were included in the study while teachers from primary and private secondary schools were excluded. Ethical clearance was obtained from the Department of Community Health, National Open University of Nigeria, Ado-Ekiti Study Centre. Permission to carry out the survey was sought and obtained from the principals of the selected schools. The purpose of the study was explained to the respondents and verbal consent was obtained before administering the questionnaire to them. The confidentiality of their responses was guaranteed and they were duly informed that participation is voluntary. Completed questionnaires were sorted manually for completeness, entered, cleaned and analysed using IBM Statistical Package for Social Sciences (SPSS) version 20. The data were presented in frequencies and percentages in tabular form.

## III. RESULTS

A total of 224 respondents were sampled. Two hundred and three questionnaires were retrieved giving a response rate of 90.6%. Table 1 shows the sociodemographic characteristics of the respondents. Majority of the respondents were aged 40 – 49 years (49.3%), females (68.5%), Christians (86.2%), married (84.7%), Yoruba (98%) and Bachelor's degree holders (46.3%).

**Table 1: Socio-demographic Characteristics of respondents**

Characteristics	Frequency	Percentage
<b>Age (years)</b>		
20-29	31	15.3
30-39	56	27.6
40-49	100	49.3
50-59	11	5.4
60 and above	5	2.4
<b>Gender</b>		
Male	64	31.5
Female	139	68.5
<b>Religion</b>		
Islam	28	13.8
Christianity	175	86.2
<b>Marital status</b>		
Single	17	8.4
Married	172	84.7
Widowed	14	6.9
<b>Ethnicity</b>		
Yoruba	199	98.0
Others	4	2.0
<b>Educational status</b>		
NCE	86	42.4
Bachelor	94	46.3
Postgraduate	23	11.3

Table 2 shows that all the respondents (100%) had heard about hypertension and majority (55.7%) got the information through health campaign. Sleeping difficulty (47.85) was the most reported symptom of hypertension. The risk factors of hypertension reported by the respondents include: cigarette smoking (31.5%), alcohol consumption (43.4%), salt intake (59.6%) and lack of exercise (60.6%).

**Table 2: Awareness of Hypertension**

<b>Variable</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Ever heard about hypertension?</b>		
Yes	203	100
No	0	0
<b>Sources of information</b>		
Health campaign	113	55.7
Health workers	36	17.7
Media	31	15.3
Others	23	11.3
<b>Symptoms of hypertension</b>		
Nervousness/anxiety	47	23.2
Sweating	12	5.9
Sleeping difficulty	97	47.8
All of the above	21	10.3
No visible symptom	26	12.8
<b>Cigarette smoking is a risk factor of hypertension</b>		
Yes	64	31.5
No	55	27.1
Don't know	84	41.4
<b>Excessive alcohol consumption is a risk factor of hypertension</b>		
Yes	88	43.4
No	36	17.7
Don't know	79	38.9
<b>Excessive salt intake is a risk factor of hypertension</b>		
Yes	121	59.6
No	29	14.3
Don't know	53	26.1
<b>Lack of exercise is a risk factor of hypertension</b>		
Yes	123	60.6
No	57	28.1
Don't know	23	11.3

As shown in Table 3, 15.8% were aware they were hypertensive. Eighty three (40.9%) consume alcohol out of which only 3.6% of them are daily drinkers. Adding extra salt to food after being served was common among 7.9% of the respondents. About one-tenth (9.4%) smoke cigarette and 27.1% have a family history of hypertension.

**Table 3: Risk Factors of Hypertension among respondents**

<b>Variable</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Awareness of being hypertensive</b>		
Yes	32	15.8
No	171	84.2
<b>Alcohol consumption</b>		
Yes	83	40.9
No	120	59.1
<b>How often alcohol is consumed (n=83)</b>		
Daily	3	3.6
Weekly	33	39.8
Monthly	28	33.7
Occasionally	19	22.9
<b>Adding extra salt to food on the table</b>		
Yes	6	7.9
No	187	92.1
<b>Cigarette smoking</b>		
Yes	19	9.4
No	184	90.6
<b>Family history of hypertension</b>		
Yes	55	27.1
No	148	72.9

#### IV. DISCUSSION

This study had a good response rate of 90.6%. Amazingly, all the respondents (100%) have heard of hypertension. This however did not translate to knowledge of the disease condition. Health campaign (55.7%) and health workers (17.7%) were the major sources of information on hypertension. It shows that there is a possibility of an existent health campaign in these towns. Unfortunately, only 12.8% knew that hypertension could be asymptomatic. A study conducted among rural Nigerian women reported that 80.6% have heard about hypertension but only 36.1% knew that most times, hypertension presents itself asymptotically [14]. This clearly shows that more is needed to be done in educating our study population. In assessing the knowledge of the respondents on the risk factors of hypertension, only 31.5% were aware that cigarette smoking is a risk factor of hypertension and majority (41.4%) were oblivious of the fact. Abdullahi and Amzat [15] in their study also reported that only 35% of their respondents strongly agree that excess smoking is a risk factor of hypertension. Less than half (43.4%) identified excessive alcohol consumption as a risk factor of hypertension which is a bit higher than 34% University of Ibadan staff that strongly agreed to excess alcohol intake as a risk factor of hypertension [15]. Physical inactivity (60.6%) and excessive salt intake (59.6%) were also identified by the respondents as risk factors of hypertension. This shows that the respondents had a poor knowledge of the risk factors of hypertension. This is similar to the study conducted among bank workers in Owerri, Nigeria where majority (98%) had good knowledge of hypertension but 80.4% had a poor knowledge of its risk factors [16]. A similar result was reported among staff of university of Ibadan, Nigeria [15]

Among the respondents, only 15.8% were aware of being hypertensive. This could be because hypertension is asymptomatic and they may not feel like checking their blood pressure as long as they do not feel any symptoms. The prevalence reported in this study is higher compared to 3.4% reported among staff and students of a tertiary institution in Nigeria who were aware of their hypertension status [17]. Though the prevalence after blood pressure measurement shows that 15.7% were hypertensive [17]. This shows that 78.4% of those who were hypertensive were unaware of their hypertension status. The level of awareness and control of hypertension is obviously far less than results obtained in developed countries [18]. There is an urgent need for pragmatic strategies to increase the level of awareness of hypertension in this population. Alcohol consumption was common among the respondents with 40.9% of both males and females reporting to the use of alcohol. Alcohol use is a significant risk factor of hypertension. This obviously shows that the prevalence of hypertension could be high among these respondents judging by the behavioural risk the respondents engage in. However, only 3.6% claim to consume alcohol daily, 39.8% weekly, 33.7% monthly and 22.9% occasionally. Excess salt intake can also increase the likelihood of becoming hypertensive. About 8% reported that they do add salt to their food after it has been served provided they perceive the salt content of the food was not

sufficient. The prevalence of cigarette smoking was found to be 9.4%. The prevalence of hypertension (37.1%) reported in a study among workers of an agro-allied company in Nigeria shows that hypertension poses a great threat to the health of workers in the country [19].

## V. CONCLUSION

The findings of this study show that having heard of a disease condition is quite different from having a knowledge of the disease condition. All the respondents have heard but only very few respondents know the symptoms and risk factors of hypertension. There is a need for health workers to do more in enlightening the population about the risk factors of hypertension and to increase their level of knowledge through health education. These can be done through seminars and also incorporating health education on non-communicable diseases (NCDs) in the secondary school curriculum. Creation of awareness and promotion of healthy behaviours need to be widely conducted among the study population.

There were some limitations in this study. Worthy of note is that the study used a cross-sectional study design, therefore a causal association cannot be established. The data were from self-reports which could account for a recall bias. To minimize the recall bias, the questions asked were structured in a way that time factor would not affect the answers the respondents gave. The hypertension status were based on self-report and not on blood pressure measurement. We suggest that further studies be carried out on this research topic in the population sampled. Blood pressure readings and anthropometric measurement will help to determine the prevalence of hypertension in this study population. This will give a clearer picture of the burden the disease condition poses on the population.

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