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## ORIGINAL RESEARCH

# Knowledge, Attitude and At-Risk Behaviour for Heart Diseases among Secondary School Teachers in Ibadan Metropolis

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## Abstract

**Background:** Cardiovascular diseases remain the leading cause of death in developed countries, becoming prevalent in the developing world. Risk behaviour may result in unfavourable outcomes in cardiovascular diseases. Secondary school teachers constitute a large cohort of educated middle-level income earners who can influence young and upcoming individuals due to their profession.

**Objective:** To assess the knowledge, attitude and at-risk behaviour for heart diseases among secondary school teachers in Ibadan Metropolis.

**Methods:** A cross-sectional research design was used. Self-developed, field pre-tested questionnaire was employed to collect the relevant data from 200 randomly teachers. Cronbach alpha method was used to test the internal consistency of the test instruments and a measure of its scale in reliability.

**Results:** The study population comprised 39.0% males and 61.0% females. Most of the respondents (58.5%) were over 40 years, with an overall mean age of 40.2±3.1 years. The knowledge of secondary school teachers about heart diseases was poor (47.8%), while attitude and at-risk behaviours were unsatisfactory (weighted means 2.34 and 2.23 respectively against a criterion of 2.5).

**Conclusion:** The secondary school teachers in Ibadan Metropolis had poor knowledge of heart diseases and demonstrated poor attitude and unsatisfactory at-risk behaviour about the diseases.

**Keywords:** Alcohol intake, Cardiovascular disease, Heart diseases, Obesity, Physical exercise, Salt intake.

## Introduction

Cardiovascular disease (CVD) is defined as a class of diseases affecting the heart and blood vessels. [1] They are non-communicable diseases often referred to as chronic diseases, which progressively develop in the body over a long period. They include hypertension, stroke, coronary heart disease, myocardial infarction, peripheral vascular disease and a host of other

diseases associated with the heart. Cardiovascular disease has been documented as a public health concern in many nations of the world. [2]

The World Health Organization [3] asserted that cardiovascular diseases (CVDs) are the leading causes of death and disability among men and women, accounting for 46% of global mortality. [3] It was also reported that nearly 2,400 people die of CVD each day, translating to 1 death

every 37 seconds in 2010. [4] As vast numbers of individuals are dying worldwide from cardiovascular diseases, it is estimated that 25 million people will die from these diseases by 2025. [4] The probability of a man in sub-Saharan Africa dying due to cardiovascular diseases in 2013 at 0.110 is almost double that of North America at 0.065. [5] Additionally, the increased longevity due to enhanced social and economic conditions, which are associated with lifestyle changes in the direction of a rich diet and sedentary habits, is one of the main contributors to the incremental trend in CVD in the last century. [6] These are startling statistics. When left unattended to or untreated, CVD may take greater effort to combat, rendering victims incapacitated for life, unless significant prevention efforts can halt this trend.

The incidence of cardiovascular disease is increasing in different parts of the world. In Western Europe, the prevalence is 44%, and about 80 million people are affected in the United States, representing 12% of the population. [4] In the meta-analysis of 45 studies conducted across Cote d'Ivoire, Ghana, Liberia, Nigeria, Senegal and Togo on cardiovascular disease (hypertension), it was revealed that there is a high prevalence of hypertension (12% – 68.9%) among the West African workforce, of which a significant proportion is undiagnosed, and poorly controlled. [7] Consequently, the clustering of risk factors such as age, sex, smoking, co-morbidities such as obesity and diabetes and general low awareness warrant an integrated and multi-sectoral approach at all levels. The non-modifiable risk factors are age, sex, and family history, while some modifiable risk factors include smoking, alcohol, and obesity. The presence of cardiovascular disease in Nigeria was reported to have accounted for 12% of all deaths in 2010. [8] Further studies established that CVD cause as twice as many deaths as HIV, malaria and tuberculosis combined, and CVD has also contributed significantly to 20% of all medical admissions across Nigeria. [9]

Professionals such as schoolteachers in the middle social strata of the society may be vulnerable to non-communicable diseases. Cardiovascular risk factors were reportedly common among schoolteachers in Ogbomoso, southwest Nigeria, in addition to a low level of awareness and poor control of the risk factors. [10] CVD risk factors among secondary school teachers have been reported in Jeddah, Saudi Arabia, Iraq, Calabar, and Sokoto in Nigeria. [11-13] Studies have shown an association between teaching work and CVD development. [14] Studies have also established that, schoolteachers are more prone to heart disease due to repetitive work-related stress, in the form of intensive verbal communication during teaching and handling of students, job burn-out, multiple roles played, coupled with family responsibilities. [15,16]

Knowledge is the representation of facts and concepts organized for future use. Knowledge is information, skill and understanding acquired through experience or education. [17] Though knowledge may not necessarily translate to behavioural change, adequate knowledge of cardiovascular diseases tends to improve healthy lifestyles and correct those risky lifestyles, which may ultimately inform their health-seeking behaviours. [18] It has been shown that knowledge of cardiovascular risk factors significantly improved adherence to advice on lifestyle modifications. [19] On the other hand, attitudes are predispositions or tendencies to respond positively or negatively towards a particular idea, object, person or event in one's environment. It is also a way of thinking, looking at things, a point of view or frame of mind. [20] Attitude is learned through experience and observation, which may influence behaviour. A cardiovascular health attitude is a disposition to improve positive heart health to reduce or prevent heart diseases. The strategy for reducing heart disease requires both knowledge gaining and attitudinal change. A significant association between positive health attitudes and healthy behaviours in individuals with CVD has been

reported. [21] Risk behaviour is an action carried out by a person that may result in a terrible outcome. [22] Heart disease risk behaviours have been described as activities or lifestyle choices that can increase the risk for heart disease, such as the modifiable risk factors; these, to some degree, exert a strong influence on health. [22]

Therefore, this study assessed secondary school teachers' knowledge in Ibadan Metropolis on heart diseases, their attitude towards heart disease at-risk behaviours, and their at-risk behaviours for heart disease. The justification for this study is that whereas these research themes have been extensively investigated in other climes, similar studies are few in Nigeria.

### **Methods**

The study used a cross-sectional, descriptive design. Two hundred secondary school teachers in Ibadan Metropolis, Nigeria, were selected using multistage sampling procedure, which comprised simple random and systematic sampling techniques and voluntarism method. A simple random sampling technique of using fishbowl without replacement was used to choose two Local Governments Areas (Ibadan North and Ibadan South-West) in Ibadan Metropolis. A systematic sampling technique was used to select forty (40) schools from the selected Local Government Areas. The voluntarism method was used to choose five (5) teachers from each of the selected schools. Only five full-time teachers who gave informed consent were recruited per school. Ethical approval was obtained from the College of Medicine, University of Ibadan and Oyo State Ministry of Health.

Self-developed questionnaires, which were field pre-tested, were used as data collection instruments. The questionnaires were physically administered to the respondents between May and July 2019. The items on the questionnaire were derived from initial

exploratory discussions with educators who shared similar characteristics with the actual study population and experts in psychometrics. Sixty-one items were chosen and subjected to exploratory factor analysis. A Kaiser – Meyer – Olkin (KMO) of 0.64, 0.61 and 0.60 were obtained for the Knowledge of Heart Disease Scale (KHDS), Attitude Towards Heart Disease At-Risk Behaviour Scale (ATHDARBS) and Heart Diseases At-Risk Behaviour Scale (HDARBS), respectively. These met up with the benchmark of 0.60. This indicates that the sample size of each of the scales is adequate for the conduct of factor analysis. The test of sphericity of each of the scales was statistically significant, supporting the factorability of the correlation matrix as the *p*-value at 0.0007 and 0.0000.

#### *Knowledge of Heart Disease Scale (KHDS)*

This self-developed scale was used to elicit information from respondents on the meaning, aetiology, symptoms and signs, and risk factors of cardiovascular diseases. Twenty items that met a pre-set criterion of 0.60 were tested using this scale. Each response was scored on a “Yes or No” format; ‘Yes’ was scored 2 while ‘No’ was scored 1. The Cronbach alpha method was used to test the internal consistency of KHDS, and it yielded a reliability of 0.83. The aggregate score obtained by participants in the range 0-39 per cent was classified as very poor knowledge, 40-49 as poor knowledge, 51-69 as moderate knowledge, while 70 per cent was classified as adequate knowledge. The number of respondents with correct knowledge was calculated as a percentage of the total population.

#### *Attitude Towards Heart Disease At-Risk Behaviour Scale (ATHDARBS)*

This self-developed scale was used to obtain information from respondents on their attitude towards diet, obesity, alcohol, smoking, blood pressure, physical inactivity and stress as risk factors for heart disease. Twenty-one items were generated and reacted to by the respondents during the pre-testing of the instrument. After that, the data generated were

subjected to factor analysis, with 0.60 as the criterion for retention of items. Each response was scored on a 4-point modified Likert format of 'Strongly Agree' (SA), 'Agree' (A), 'Disagree' (D) and 'Strongly Disagree' (SD) with the allotment of points in the following order: SA = 1, A = 2, D = 3, SD = 4. A Cronbach alpha method was used to test the internal consistency of ATHDARBS, and it yielded a reliability of 0.79. A weighted mean score below 2.50 was classified as poor attitude, 2.51-2.59 as fair, while 3.00 and above was classified as good. Therefore, the mean of all the twenty-one items in this scale was summed up and divided by twenty-one (total number of items).

#### ***Heart Disease At-Risk Behaviour Scale (HDARBS)***

Heart Disease At-Risk Behaviour Scale (HDABS) is another self-developed instrument used to elicit information concerning behaviours that can predispose to heart disease. Twenty items that met a pre-set criterion of 0.60 were investigated. Each response was scored on a 4-point modified Likert format of Very High Degree (VHD), High Degree (HD), Low Degree (LD) and Very Low Degree (VLD) with the allotment of points in the following order: VHD = 1, HD = 2, LD = 3, VLD = 4. A Cronbach alpha method was used to test the internal consistency of HDARBS, and it yielded a reliability of 0.91. A weighted mean score below 2.50 was unsatisfactory behaviour, 2.51-2.59 as fair, and 3.00 as satisfactory. The mean of all the twenty items in this scale was added together and divided by twenty (total number of items).

Descriptive statistics of frequency count, percentages, mean and standard deviation were used to answer the research questions.

## **Results**

The 200 respondents comprised 122 (61.0%) females. The mean age of the respondents was 40.2±3.1years. Over three-quarters of the respondents have been teaching for 2 - 10years (Table I).

A majority agreed that CVD involved heart and blood vessels (86.5%), affects other parts of the body (53.0%), and that stroke is a CVD (57.5%). More respondents also indicated the risks for CVD to include smoking (63.5%), alcohol consumption (65%) and stress (65%). Over half of the respondents believed that diet predisposes them to CVD.

Fifty-seven per cent of the respondents indicated that chest pain is associated with CVD, while another 52.5% believed CVD is incurable. Low proportions of the respondents believed CVD occurs in adults (21%), CVD is caused by infection (37.5%), and hypertension is a CVD (22.5%). Others believed that CVD occurs more frequently among men (33.5%), in menopausal women (33.5%) and can be caused by physical inactivity (46.5%). The aggregate percentage of respondents that indicated 'Yes' to positively developed question items was 47.8%, while 52.2% indicated 'No'. Based on the initial criterion, it was concluded that the respondents' knowledge about heart disease was poor, as shown in Table II.

In Table III, a majority of the respondents were not bothered about heart disease (79%), believed smoking is justified (73.5%) and taking a few sticks is advisable under stress (64%). Close to three-quarters (71.5%) of the respondents agreed and strongly agreed that work and home schedules do not give time for exercise, while 50% said checking blood pressure demonstrated a loss of faith in God. Many respondents agreed and strongly agreed that alcohol refreshes the soul and body (38%) but will stop alcohol if it reduces heart disease (40%).

**Table I: Demographic profile of study participants**

<i>Parameter</i>		<i>Frequency</i>	<i>Percentage</i>
Sex	Male	78	39.0
	Female	122	61.0
Age Groups (Years)	20 – 29	15	7.5
	30-39	68	34.0
	>39	117	58.5
Years of Teaching	2 – 10	83	41.5
	11-20	94	47.0
	>20	23	11.5

**Table II: Assessment of knowledge of cardiovascular diseases**

<i>Statements</i>	<i>Responses</i>	
	<b>Yes</b>	<b>No</b>
Cardiovascular disease involves the heart and blood vessels	173 (86.5)	27 (13.5%)
Cardiovascular disease occurs in adults	42 (21.0)	158 (79.0%)
Cardiovascular disease is common in children	17 (8.5)	183 (91.5)
Cardiovascular disease is caused by infection	75 (37.5)	125 (62.5)
Cardiovascular disease affects other parts of the body	106 (53.0)	94 (47.0)
One of the symptoms of cardiovascular disease is a headache	106 (53.0)	94 (47.0)
Stroke is a cardiovascular disease	115 (57.5)	85 (42.5)
Hypertension is a cardiovascular disease	45 (22.5)	155 (77.5)
Risk of cardiovascular disease is higher in men than in women	67 (33.5)	133 (66.5)
Risk of cardiovascular disease is higher in menopausal women than pre-menopausal women	71 (35.5)	129 (64.5)
Smoking can cause cardiovascular disease	127 (63.5)	73 (36.5)
Alcohol consumption may lead to cardiovascular disease	130 (65.0)	70 (35.0)
Stress causes cardiovascular disease	130 (65.0)	70 (35.0)
Obesity can cause cardiovascular disease	130 (65.0)	70 (35.0)
Diet can cause cardiovascular disease	105 (52.5)	95 (47.5)
Physical inactivity may lead to cardiovascular disease	93 (46.5)	107 (53.5)
Chest pain is associated with cardiovascular disease	114 (57.0)	86 (43.0)
Pain in the legs relieved by rest is associated with cardiovascular disease	90 (45.0)	110 (55.0)
Cardiovascular disease is hereditary	70 (35.0)	130 (65.0)
Cardiovascular disease cannot be cured	105 (52.5)	95 (47.5)
<b>Total</b>	<b>1,911</b>	<b>2,089</b>
	<b>(47.8%)</b>	<b>(52.2%)</b>

Figures in parentheses are percentages of the respective total.

Some respondents believed that those who take alcohol are sociable (37.5%) and that alcohol consumption has less implication than portrayed (38.5%). About half (47%) hardly had time to rest at home, while 41.5% will engage in physical activity to reduce the risk of heart

disease. Close to a third (28%) believed that beef consumption is better than fish consumption, while 31% believed that snacks are often better than meals. The obtained weighted mean score (2.34) on the attitude scale was below the already set criterion. Therefore,

it was concluded that the respondents had a poor attitude towards heart disease.

**Table III: Assessment of attitude towards heart diseases**

Statement	Response					
	SA	A	D	SD	Mean	SD
I don't feel bothered when I hear about heart disease	51 (25.5)	107 (53.5)	30 (15.0)	12 (6.0)	3.06	.84
Those who are smoking are justified	63 (31.5)	84 (42.0)	34 (17.0)	19 (9.5)	2.98	.99
My schedules at work and home do not give time for me to exercise	67 (33.5)	76 (38.0)	33 (16.5)	24 (12.0)	2.89	1.07
Taking a few sticks of cigarette is advisable when one is under stress	57 (28.5)	71 (35.5)	43 (21.5)	29 (14.5)	2.81	1.05
Engaging in exercise is too burdensome	29 (14.5)	88 (44.0)	42 (21.0)	41 (20.5)	2.44	.99
Checking one's blood pressure demonstrate less faith in God	20 (10.0)	98 (49.0)	42 (21.0)	40 (20.0)	2.35	.92
Meals are better off with Coca-cola®, Fanta® than with water	34 (17.0)	58 (29.0)	75 (37.5)	33 (16.5)	2.31	.94
I will stop taking alcohol if it will reduce my risk of heart disease	26 (13.0)	54 (27.0)	83 (41.5)	37 (18.5)	2.26	.88
I will stop smoking if it reduces my risk of heart disease	17 (8.5)	72 (36.0)	75 (37.5)	36 (18.0)	2.26	.89
I often find it difficult to socialize due to the pressure of my work	15 (7.5)	85 (42.5)	59 (29.5)	41 (20.5)	2.25	.88
I cannot leave friends who smoke for any reason	14 (7.0)	74 (37.0)	64 (32.0)	48 (24.0)	2.23	.91
I hardly find time to rest until late in the night	13 (6.5)	81 (40.5)	64 (32.0)	42 (21.0)	2.22	.89
I don't have time to check my blood pressure	24 (12.0)	65 (32.5)	67 (33.5)	44 (22.0)	2.21	.93
I will engage in physical exercise if it will reduce my risk of heart disease	27 (13.5)	56 (28.0)	65 (32.5)	52 (26.0)	2.20	.95
Alcohol intake refreshes the soul and body	20 (10.0)	56 (28.0)	84 (42.0)	40 (20.0)	2.15	.86
Those who drink alcohol are sociable	16 (8.0)	59 (29.5)	80 (40.0)	45 (22.5)	2.15	.87
Alcohol consumption has less health implications than noise being made against it	15 (7.5)	62 (31.0)	86 (43.0)	37 (18.5)	2.14	.81
The sweetness of meat should be considered before its health consequences	22 (11.0)	62 (31.0)	76 (38.0)	40 (20.0)	2.13	.88
I hardly fall sick; hence I do not see any need to check my blood pressure	18 (9.0)	68 (34.0)	54 (27.0)	60 (30.0)	2.13	.93
Taking snacks is often better than meals	12 (6.0)	50 (25.0)	70 (35.0)	68 (34.0)	2.02	.89
I prefer to eat meat to fish	16 (8.0)	40 (20.0)	75 (37.5)	69 (34.5)	1.99	.90
Subtotal	Weighted Mean = 2.34 Criterion = 2.5					

SA - Strongly Agree; A- Agree; SD - Strongly Disagree; D - Disagree  
 Figures in parentheses are percentages of the respective total

In Table IV, the identified parameters that indicated high indices of at-risk-behaviour included the following: always working most of the time (71%), working to the point of tiredness (63%), working till headache occurs (52%) and eating meals late at night (64%). The identified lower degree at-risk behaviours included drinking alcohol at home (59.5%), taking alcohol regularly (55.5%), taking alcohol for leisure (59%) and engaging in sleepless night activities (56.5%). The obtained weighted mean score (2.23) for at-risk behaviour was below the already set criterion; hence the conclusion that the at-risk behaviour of the respondents about heart disease was unsatisfactory.

### **Discussion**

This study of secondary school teachers in an urban area of Nigeria shows generally insufficient knowledge of the investigated items on knowledge and attitude to heart diseases. This could be deduced from less than 50% in knowledge and less than 2.5 criterion for attitude and at-risk behaviour. The fact that less than a quarter identified hypertension as a CVD is unsatisfactory in an articulate group of secondary school teachers in an urban city, more so over half of them have been teaching for over ten years. It is known that hypertension is the most prevalent CVD worldwide, and its presence leads to other complications of CVD, including stroke, heart failure and renal failure. About half of the respondents in the present study believed that checking blood pressure demonstrated a lack of faith in God. This is an unacceptable level of ignorance in a cohort of educated and socially exposed professionals. This is even more important since hypertension is often asymptomatic for several years while end-organ damage goes on unabated. This is why

hypertension is called the 'silent killer', hence the need for regular blood pressure monitoring. It was also found that less than 10% were aware of CVD in children. Congenital heart diseases and infections like Rheumatic fever and Rheumatic heart disease are common CVDs in children, particularly in developing countries like Nigeria. These CVDs in childhood might progress to adulthood.

In the present study, over half of the respondents were aware of the role of obesity, diet, genetics, smoking, alcohol and physical inactivity as predisposing factors to CVD. This contrasts with only 19.5% of teachers in Ogbomoso Local Government who demonstrated a good level of knowledge of CVD and its risk factors. [10] However, it is comparable with the findings among University workers in Ogbomoso, where about 51% had fair to good knowledge of CVD. [23] Among the staff of the University of Ibadan, where there was high knowledge (90%) of complications of hypertension, the knowledge about risk factors and attitude was poor at about 35%. [24] Knowledge and attitude can be used as a springboard to modify by teaching and changing the attitude of these teachers in the prevention of CVD. However, knowledge does not automatically translate to behavioural change. [19] It has been established that the knowledge of cardiovascular risk factors significantly influences awareness of the complications of heart diseases. [25]

Similarly, poor knowledge of CVD determinants, including hypertension, has been observed among various vocations in Nigeria. [25-28] We have previously shown that secondary school teachers' knowledge in Oyo State Nigeria was inadequate concerning cardiovascular diseases and the risk factors. [28] It has also been shown that knowledge about risk factors for coronary disease is poor among teachers in Sokoto. [29]



Table IV: Assessment of At-Risk behaviours for heart diseases

Statement	VLD	LD	HD	VHD	Mean	SD
Always working most of the time	20 (10.0)	38 (19.0)	84 (42.0)	58 (29.0)	2.83	.95
Consumption of fried food	18 (9.0)	61 (30.0)	82 (41.0)	39 (19.5)	2.54	.96
Working till I feel tired	37 (18.5)	37 (18.5)	85 (42.5)	41 (20.5)	2.52	1.02
Eating meals late at night	35 (17.5)	38 (19.0)	92 (46.0)	35 (17.5)	2.51	1.01
Check blood pressure	47 (23.5)	39 (19.5)	73 (36.5)	41 (20.5)	2.47	1.00
exercising once a week	35 (17.5)	54 (27.0)	74 (37.0)	37 (18.5)	2.45	1.02
Consumption of food with salt to taste well	26 (13.0)	59 (29.5)	91 (45.5)	24 (12.0)	2.41	.92
Taking sugary drinks	49 (24.5)	46 (23.0)	63 (31.5)	42 (21.0)	2.37	1.07
Use vehicles to go a short distance	60 (30.0)	31 (15.5)	67 (33.5)	42 (21.0)	2.35	1.13
Always having deadlines to meet	44 (22.0)	44 (22.0)	86 (43.0)	26 (13.0)	2.33	.99
Having frequent headaches	68 (34.0)	35 (17.5)	63 (31.5)	34 (17.0)	2.25	1.10
Working till I have a headache	54 (27.0)	42 (21.0)	75 (37.5)	29 (14.5)	2.17	1.04
Engaging in sleepless night activities	77 (38.5)	36 (18.0)	50 (25.5)	37 (18.5)	2.11	1.13
Use drugs to stay awake at night	95 (47.5)	23 (11.5)	55 (27.5)	27 (13.5)	1.99	1.11
Taking alcohol regularly	99 (49.5)	12 (6.0)	64 (32.0)	25 (12.5)	1.97	1.12
Drinking alcohol at home	96 (48.0)	23 (11.5)	54 (27.0)	27 (13.5)	1.88	1.10
Staying near smokers	100 (50.0)	19 (9.5)	61 (30.5)	20 (10.0)	1.88	1.09
Drinking alcohol to relax	100 (50.0)	18 (9.0)	54 (27.0)	28 (14.0)	1.86	1.13
Smoking pipe	106 (53.0)	11 (5.5)	53 (26.5)	30 (15.0)	1.86	1.16
Smoking cigarette	111 (55.5)	5 (2.5)	59 (29.5)	25 (12.5)	1.85	1.16
Sub-Total	Weighted Mean = 2.23 Criterion= 2.5					

VHD - Very High Degree; HD - High Degree; VLD - Very Low Degree; LD - Low Degree  
 Figures in parentheses are percentages of the respective total

Although the respondents' knowledge in the present study was generally poor, it was encouraging in terms of the causative/risk factors for CVD. However, their attitude to these risk factors is problematic. More than a quarter of the respondents were not bothered about heart disease, believed that smoking is justified, and a substantial number would rather do their work than exercise. These are modifiable risk factors that the population has

a propensity to change. These have been shown to decrease the prevalence and consequences of CVD. [11, 19] However, it is revealing that while some of the respondents justified smoking, they generally agreed that alcohol use is not beneficial and may be harmful to cardiovascular health. The difference in this pattern of attitudes is not clear; more so, it is known that smoking is generally more damaging to cardiovascular health. Indeed, a

little alcohol is beneficial to cardiovascular health. [5]

It is also not encouraging that less than half of the respondents agreed to engage in physical activity if it will reduce the risk of heart disease. Physical exercise has been shown to reduce CVD risk by making the participants lose weight, increasing HDL, and opening anastomotic blood channels in the heart and other organs of the body. [3] Teachers' attitudes can be consciously altered by programmed health education if they are initially made aware of CVD, its consequences, and attitudinal change benefits.

The strength of this study, apart from adding to the body of knowledge in this area, is that it may provide baseline information for developing intervention programmes across organs of government and non-governmental organizations interested in cardiovascular health. This should help to reduce progression from risk factors to disease development. It should also build the capacity of the participants to become peer educators to friends, family and community members. One of the weaknesses of this study is that it did not seek to investigate the sociodemographic parameters accounting for the poor knowledge and attitude. This is a pointer for future research.

### Conclusion

This study revealed that the secondary school teachers in Ibadan Metropolis had poor knowledge of heart diseases, poor attitude, and unsatisfactory at-risk behaviour about the diseases.

**Authors' Contributions:** FIF and MOA conceived and designed the research. FIF collected the data while all the authors analysed and interpreted the data. All the authors drafted the manuscript, revised the manuscript for sound intellectual contents and approved the final version of the manuscript.

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