

Risk Profile and Risk Perception of Cardiovascular Diseases of Adults in Calabar South Local Government Area

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Abstract- This study was on risk profile and risk perception for cardiovascular disease among adults in Calabar South Local Government Area of Cross River State, Nigeria. A cross-sectional descriptive survey design involving 440 adults residing in Calabar South LGA was used to obtain data on adults' risk profile for cardiovascular diseases and perception about risk factors of cardiovascular diseases. The instruments for data collection was a 5-sectioned self-structured questionnaire adapted from Crouch (2008), & Siaki (2009). Frequency distribution and percentages were used to analyze the data collected. Results revealed that that high risk profile was 4.83 ± 2.02 . Based on Q Risk Ranking of no, low and high risk, 2(0.5%) had no risk profile. 55(2.5%) had low risk profile while 383 (87.0%) had high risk profile. Comparing them, a Chi-Square Multinomial test revealed a significant difference $P < .001$. Perception of risk factor was high 38.61 ± 6.67 and a $P < .001$ using one sample Wilcoxon Signed Ranked test. Perception for health screening was equally high. The implication of the result is that adults in Calabar South showed high perception for risk factors and health screening, high risk profile. Following this findings, it is recommended that health education be strengthened to create more awareness on cardiovascular risk factors.

KEYWORDS: Adult, Cardiovascular diseases, Perception, Risk, Risk factor, Risk profile, Q-Risk Ranking.

INTRODUCTION

Cardiovascular Disease (CVD) is a major cause of disability, and premature death throughout the world claiming about 17.3 million lives each year (Obinna, 2012). Cardiovascular Disease is categorized a non-communicable disease (NCD) and responsible for 60% of all deaths worldwide and is projected that by 2020 this figure will rise to 73% (Amira, Sokunbi, & Sokunbi 2013). Cardiovascular disease is an abnormal functioning of the heart or blood vessels. It can cause an increase in risk for heart attack, heart failure, stroke and sudden death, thus resulting in decreased quality of life and decreased life expectancy (Cardiovascular Disease Foundation (CDF), 2011). Most cardiovascular diseases result from damage to the body from lifestyle factors and progress to the development of high risk diseases such as high blood pressure, raised plasma glucose (diabetes) and high blood lipids. These diseases if left unchecked, progress to vascular disease resulting in damage to and failure of various organs such as the heart, kidneys and eventually death (Egbulem, 2010). The underlying pathology in most of these diseases develops gradually over many years and is usually advanced by the time symptoms occur and often very fatal before medical care can be sought (WHO, 2007).

The prevalence of cardiovascular diseases increases with age and varies within racial and ethnic backgrounds (Roger, 2011). In the United States, approximately 82 million American adults have one or more types of cardiovascular disease, among these 82 million adults with CVD, the most prevalent conditions are high blood pressure (76 million), coronary heart disease (16 Million) stroke (7 million) heart failure (5.7 million) (Roger, 2011). Heart disease is the leading single cause of death in Australia with over 23,600 lives lost to the disease (Better Health Channel, 2008).

World Health Organization (2011) further confirms that people die more from cardiovascular disease than any

other disease globally. About 17.3 million people died from CVD in 2008 in the United States which represented 30% of all global death and projected that by 2010, 23.6 million people will die annually from CVD. Despite extensive progress in the modern medicine, CVD continues to pose threats to the health of all Americans, regardless of age, gender and socio-economic status (Gautam, 2012). Incidence of cardiovascular disease is higher among African Americans while comparing to Caucasians and it is also high among Mexican Americans, American Indians and Asian Americans (American Heart Association, (AHA) 2011). The percentage of premature deaths from CVD range from four percent in high income countries to 42 percent in low income countries (Mendis, Puska, Norring, 2011). WHO (2008) regional report showed that cardiovascular disease account for most deaths in the world despite the fact that data from most countries are not available. In Africa, the report also revealed that, most countries have not conducted many surveys on cardiovascular diseases to establish the national baseline prevalence rates and accurately quantify the magnitude of the problem.

In Nigeria, findings show that the impact of Non-Communicable Diseases (NCD) such as cardiovascular diseases is enormous and is estimated that about 5 million Nigerian may die of these in the nearest future (Ekpenyong, 2012). Nigeria's former Health Minister, Professor Onyebuchi Chukwu observed at the 2009 World Heart Day that out of the one-third of global deaths due to CVDs over 80 percent of them occur in low and middle income countries. Nigeria inclusive. Similarly, it was reported in the Nation Newspaper of October 10, 2013 that Nigeria's former President, His Excellency President Goodluck Jonathan inaugurated the national stroke prevention programme as part of his determination to reduce sudden deaths from strokes and heart attacks.

The prevalence of cardiovascular disease is associated with various risk factors which are multiple and interrelated

conditions. When these conditions co-exist they increase the probability of the development of heart diseases. Most of these risk factors are related to lifestyle behaviours and can be prevented (Crouch, 2008). The risk factors include high blood pressure, high cholesterol, high plasma glucose, overweight, tobacco use, diet and lack of physical activity, others include increasing age, stress and heredity. In Nigeria, hypertension is the most important modifiable risk factor for cardiovascular events such as stroke, it is present in almost 80% of cases, and unfortunately most victims are unaware of their blood pressure status prior to the event (Wahab, 2008).

Epidemiological review by WHO (2009) has recorded a steady rise in the incidence and pattern of cardiovascular disease worldwide and this is attributed to changing risk profile, rural-urban migration, acculturation, modernization trends and lifestyle changes as well as psychological stress (Sani, Wahab, Yusuf, Gbadamosi & Johnson, 2006). Ansa (2009) attributed the increase in CVD burden in Nigeria and other developing countries to prevalence of risk factors and lack of access and awareness of preventive measures, Perception of risk by the people, and health personnel is important as this is one of the factors that determine related health behaviour and possibly reduction in prevalence (Webster & Heeley, 2010).

It is observed that many people live with certain disorders without showing any symptom especially at its early stages; health screening therefore identifies those at risk of future cardiovascular events. It also identifies those with modifiable risk factors which are reversible and help reduce one's risk of developing cardiovascular disease through treatment and counseling against undesirable lifestyle (Egbulem, 2010). In order to reduce the rising incidence, prevalence and mortality due to CVDs, the public must be enlightened on the risk factors and the need for regular health screening, otherwise the health of Nigerians will improve nor their level of development, considering the fact that the most vulnerable age groups are adults in their productive years, (Herfon, 2011). This research will provide the evidence upon which an appropriate health education package can be developed to address the needs of Nigerians regarding CVD.

Statement of Problem

Cardiovascular disease (CVD) is the leading cause of death in adults globally (WHO, 2009). It is a growing threat to health in Africa, accounting for 9.2% of deaths in 2001 (Livesay, 2007). In developing countries, the proportion of deaths associated with CVD is projected to rise from 28.9% in 1990 to 36.3% by the year 2020 (WHO, 2009).

Mukadas and Misbau (2009) reported a steady rise in incidence of CVD in Nigeria which is largely driven by modifiable risk factors, such as high blood pressure, high plasma glucose, high plasma lipids, physical inactivity, smoking, alcoholism, unhealthy diets and overweight. Report from a study by Ukachukwu, Ikechukwu, Ifesinachi and Emeka (2009) shows that CVDs contribute significantly to medical admissions in Nigeria.

Also, electronic media and newspaper reports of sudden deaths in Nigeria is becoming so rampant, such as death while asleep, slumped in the office, at home, in the church or while undertaking a journey. The emerging rise in prevalence

of cardiovascular diseases in Nigeria have brought about increase in health care expenditure per capita to (4.6%) of total Gross Domestic Product (GDP). equally most deaths occurring due to CVD affects citizens between the productive ages of 40 and above(WHO, 2008). These deaths could have been averted if appropriate lifestyle have been adopted; and early detection and prompt treatment were ensured. Hence the need to investigate the cardiovascular disease risk profile, risk perception and health screening practices of adults in Calabar South Local Government of Cross River State, with the aim of creating awareness and improving practice.

Purpose of the Study

The purpose of the study is to investigate respondents' risk profile, risk perception and health screening practices for cardiovascular disease (CVD) among adults in Calabar South Local Government Area of Cross River State.

Specific Objectives

The specific objectives of the study are to:

1. identify respondent's risk profile for cardiovascular diseases.
2. assess adults risk perception for cardiovascular diseases.
3. assess the adults screening practice.
4. determine the relationship between risk profile and health screening practices.
5. determine the relationship between risk perception and health screening practice.
6. ascertain the influence of educational qualification on health screening practices.
7. determine the influence of gender on Health screening practice.

Significance of the Study

The study will first of all present findings and answers to research objectives and hypotheses. This will be followed by publication, to help health practitioners plan education programmes to create awareness and prompt management of cardiovascular events, to reduce the incidence of complications and higher mortality associated with CVDs, thus enhancing improved quality of life of the citizens, boost production and economy of the country. The study is equally significant in academic environment by providing a reference source for students and other researchers who may wish to conduct further studies on the area.

Scope of the Study

The study population will be delimited to only adults of both sexes within the age range of 20 - 70 years. The study will examine respondent's perception of risk factors, risk profile and screening practices for cardiovascular diseases. Respondents will be limited to adults from randomly selected clans in Calabar South Local Government Area of Cross River State.

RESEARCH METHODS

Research design

The research design is a descriptive cross sectional survey aimed at collection and analysis of responses of adults living in Calabar South Local government on their opinion about cardiovascular disease risk profile and risk perception.

Area of Study

The research design is a descriptive cross sectional survey aimed at collection and analysis of responses of adults living in Calabar South Local government on their opinion about cardiovascular disease risk profile and risk perception.

Target population

The population of the study consists of all the nurses and physicians working at the Intensive Care Unit (ICU) and Recovery Room of UCTH, Calabar. University of Calabar Teaching Hospital.

Sample and Sampling Technique

The study sample size was estimated using Taro Yamane (1967) sample size estimation formula for finite population. The estimated sample size of 399 was derived and the researcher allowed 10% attrition giving a minimum total sample size of 440 adults, both males and females within the age range of 20 -70 years, with or without any cardiovascular disease risks, who show willingness to participate, physically present and mentally stable at time of data collection. Stratified random sampling technique was used to select sample units for the study. The sample was taken from the 11 clans randomly selected out of the 22 clans that constitute the study area. Equal number from the total sample size of 440 was purposively allocated to each of the 11 clans to ensure equal representation.

Instrument for Data Collection

Stratified random sampling technique was used to select sample units for the study. The sample was taken from the 11 clans randomly selected out of the 22 clans that constitute the study area. Equal number from the total sample size of 440 was purposively allocated to each of the 11 clans to ensure equal representation.

Validity of the Instrument

The questionnaire was examined by clinical experts in cardiology department of University of Calabar Teaching Hospital Calabar (Consultant Cardiologist) and also an academic nurse who specializes in medical surgical nursing in the department of Nursing Science University of Calabar who rated the items along several dimensions such as clarity of wording, relevance of the items to the underlying construct and appropriateness of items for the target population.

Reliability of the Instrument

Test retest reliability was carried out on 40(10%) subjects who were not part of the main study. The data from the first questionnaire administration was correlated with the data from the second administration using Pearson's product

Moment. Correlation Statistical technique and the reliability coefficient was 0.70. This indicated that the instrument is reliable and appropriate for the study.

Ethical Consideration

Ethical clearance/Administration permit was obtained from the Research/Ethics Committee of the Ministry of Health, Calabar, Cross River State and this was presented to the paramount Ruler of Calabar south Local Government Area of Cross River State before getting to the field for data collection.

Procedure for Data Collection

With the letter of introduction from the Department of Nursing Sciences, University of Nigeria, Enugu Campus and ethical clearance/administrative permit from the Ethical Unit of the Ministry of Health, Cross River State, presented to the paramount ruler of Calabar South, through his permission the questionnaires were administered to subjects who met the inclusion criteria, this was done with the aid of the research assistants who were duly informed on the purpose of the study and trained on selection of the respondents. In addition to the interview on the questionnaire a non-invasive test such as blood pressure check, weight and height were obtained as part of the instrument to assess the respondents' current risk profile. The administration followed the pattern described in sampling procedure of going from house to house on the selected streets. The retrieval of the questionnaire was on the spot and the procedure lasted for 3 months.

Method of Data Analysis

Data generated for the study were analyzed using IBM statistical package for social Science (SPSS) version 21. In descriptive statistics percentages, frequencies, means, standard deviation were used. In inferential statistics One Sample Wilcoxon Signed Rank Test, Kruskal Wallis H-Test, Mann-Whitney U-Test and chi-square. Hypotheses 1, 2, and 5 were analyzed using chi-square, hypothesis 3 Kruskal and chi-square were used, hypothesis 4 Mann-Whitney U-test.

The scaled questions were rated accordingly for easy analysis, as follows:

Strongly Agree (SA)	4
Agree (A)	3
Disagree	2
Strongly Disagree	1

These were analyzed by summing up the total scores for the rating which is (10) all over the total categories (4) to derive 2.5. This means that a score of >2.5 shows that the respondent agreed with the statement or has a good perception, adversely a score of <2.5 shows that respondent disagreed and this indicates poor perception. In section assessing the risk profile, the researcher adapted the QRisk score of Yes and No and purposively allotted (1) for "Yes" and (0) for "No" and "Does not know" respectively to indicate the presence of or absence of risk factor. Participant's total risk profile (risk profile score) was determined by summing up the items that made up the risk profile scale. The risk profile scores were

analyzed using a decision mean of 6, which is the average score that can be obtained. The presence of 1-2 risk factor(s) indicate low risk profile, while presence of 3 or more risk factors indicate high risk profile an evidence of developing CVD in the nearest future. The checklist confirms evidence of screening practice.

RESULTS

Four hundred and forty (440) copies of the questionnaire were administered and all were correctly filled and retrieved giving a return rate of 100%.

Socio-Demographic Data of Participants

Table 1 shows that out of 440 respondents', 200 respondents representing 45.5% were aged between 20 - 30 years, 100 respondents representing 22.7% were aged between 31-40 years, 57 respondents representing 13% were aged between 41 - 50 years, 30 respondents ^representing 6.8% were aged between 51 - 60, 40 respondents representing 9.1% were aged between 61-70 years, while 13 respondents representing 3% were aged 70 years and above. The table also showed that out of 440 respondents' 202 respondents representing 45.9% were males while 238 respondents' representing 54.1% were females. It also carried the fact that out of 440 respondents', 197 respondents representing 44.8% were single. 163 respondents representing 37.1% were married. 14 respondents representing 3.2% were widowed, and 12 respondents representing 2.7% were divorced, while 54 respondents representing 12.2% were single parents.

The table also displayed that out of 440 respondents', 57 respondents representing 12.9% had no formal education, 32 respondents representing 7.3% had primary education, and 125 respondents' representing 28.4% had secondary education while 226 respondents representing 51.4% respondents had tertiary education. The table also indicated that out of 440 respondents', 75 respondents representing 17.0% were civil servants, 33 respondents representing 7.5% were public servants. 62 respondents representing 14.1% were business people, and 270 respondents representing 61.4% were applicants. Participants who were associated with family history of hypertension, diabetes, stroke or obesity, drinking alcohol, adding salt to food at table, not eating fruits daily, enjoying oily foods and high BMI were more than those who were not Conversely, participants who were associated with high blood glucose, high blood cholesterol, not eating vegetables, not exercising at least 30mins most days of the week and high blood pressure were less than those who were not Generally, the participant's risk profile was 4.83±2.02.

Table 1
Showing Socio-Demographic Data of Respondents (n = 440)

Variables	Category	Freq.	Percentage (%)
Age	20 -30	200	45.5
	31 -40	100	22.7
	41 -50	57	13.0
	51 -60	30	6.8
	61 -70	40	9.0
	71 – above	13	3.0
Sex	Male	202	45.9
	Female	238	54.1
Marital Status	Single	197	44.8
	Married	163	37.1
	Widowed	14	3.2
	Divorced	12	2.7
	Single Parent	54	12.2
Educational Level	No Formal Educa-tion	57	12.9
	Primary	32	7.3
	Secondary	125	28.4
	Tertiary	226	51.4
Occupation	Civil servant	75	17.0
	Public servant	33	7.5
	Business	62	14.1
	Applicant	270	61.4

Respondent's Risk Profile Demographic Characteristics

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Table 2
Respondent's Risk Profile

Variables	Yes(1)	No(0)	Don't know
Have you been told that you have high blood pressure?	160	280	0
Have you been told you have high blood glucose?	80	260	0
Have you been told you have high blood cholesterol?	20	420	0
Family history of hypertension, diabetes, stroke or obesity	350	70	20
Drinks alcohol	271	169	0
Adds salt to food at table	375	65	0
Do not eat fruits daily	270	170	0
Do not eats vegetables daily	170	270	0
Enjoys oily foods	350	90	0
Do not exercise at least 30mins most days of the week	64	376	0
High BMI (Measured)	264	176	0
High Blood Pressure (Measured)	73	367	0

Table 3
Respondents Risk Profile Based on QRisk Guide (n=440)

	No	%	df	Chi-Square	p-value	
Risk Profile	No risk profile	2	0.5	2	580.805	<.001
	Low risk profile	55	12.5			
Level	High risk profile	383	87.0			
	Total	440	100.0			

Table 4

Perception about Risk Factors for Cardiovascular Disease

(n = 440)

Variables	SA	A	D	SD	M±SD
View risk factors as life-style factors that can damage the body.	232	188	15	5	3.47±0.62
CVD is the most common cause of adult death in Nigeria.	98	226	93	23	2.91±0.80
CVD develops gradually and can go undetected.	96	231	90	23	2.91±0.79
Family history of heart disease is a risk factor.	141	205	70	24	3.05±0.83
The older a person, the greater the risk of having heart disease.	112	238	64	26	2.99±0.80
Smoking is a risk factor and if stopped can lower the risk.	190	205	40	5	3.32±0.68
Raised blood pressure is a risk factor and keeping it in check can reduce the chance of CVD.	110	236	76	18	3.00±0.77
High cholesterol (Okpong) in the blood is a risk factor.	108	122	11	100	2.54±1.09
Being overweight is viewed a risk factor.	150	218	51	21	3.13±0.80
Raised blood pressure is viewed as a risk factor.	216	124	75	25	3.21±0.92
Physical exercise can prevent heart disease.	96	240	59	45	2.88±0.87
Alcohol consumption is harmful to the heart.	124	168	10	48	2.84±0.96
Good health is determined by God.	160	280	0	0	3.36±0.48
Heart disease is caused by witches and wizard.	92	100	98	150	2.30±1.15
Overall risk perception					38.61±6.67

M>2.5 implies respondents agree with the statement

Table 3 above shows that 2 (0.5%) had no risk profile, 55 (12.5%) had low risk profile while 383 (87.0%) had high risk profile. Comparing them, a Chi-Square Multinomial Test revealed a significant difference, $p < .001$; with those who had high risk profile being more than others.

The participants have the following perception as the risk factors of cardio-vascular disease: family history of heart disease, old age, smoking, raised blood pressure, high cholesterol, overweight, raised blood glucose and alcohol consumption. They also had these perceptions about CVD; view risk factors as lifestyle factors that can damage the body, CVD is the most common cause of Adult death in Nigeria, CVD develops gradually and can go undetected, physical exercise can prevent heart disease and that good health is determined by God. Generally, the perception level of the participants toward the

risk factors was 38.61 ± 6.67 . One Sample Wilcoxon Signed Rank Test revealed that the perception level was significantly high, $p < .001$. Out of 440 participants, 205(46.6%) had low perception while 235(53.4%), had high perception about risk factors.

Discussion

Respondents' characteristics

The study showed that 68.2% participants were within the age range of 20 - 40. These are the productive years for the family, community and the nation as a whole which confirms the report by WHO, 2011, which estimated that out of the expected number of people that will be affected by the epidemic of cardiovascular disease in the year 2020, about 9.30 million will be between 30-69 years. Also observed from the findings was that women outnumbered men by (7%). Majority of respondents had tertiary education 226 (51.4%) but this higher level of education did not influence their risk perception. This is because health awareness is not limited to a particular group but all irrespective of level of education. Most of the respondents 270 (61.4%) were applicants, this could influence their choice of food and well-being and expose them to negative feedbacks with some negative consequences such as raised B/P.

Perception about risk factors

Participants showed good awareness about major modifiable risk factors such as smoking, raised blood pressure and glucose, being overweight, physical inactivity exercise, alcohol consumption and showed poor perception about blood lipid (cholesterol). Some claimed they have never heard anything like blood lipid (cholesterol). Those who showed awareness were the educated ones (tertiary levels) such as teachers, nurses, doctors, lawyers etc. It was observed that smokers were so scanty (10.3%), an indication of awareness of dangers of cigarette smoking to the heart. Many participants still drink alcohol irrespective of their awareness of danger 148 (33.6%) and were of the opinion that alcohol is good for the heart. Good awareness was shown about physical activity but most respondents (85%) did not engage on an intentional exercises, some claimed to walk long distances to work, market or farm without knowing the implications, this is done sometimes because they do not have transport fare. 50% of respondents are still having the misconceptions that cardiovascular disease is caused by witches and wizards. The 73(14.4%) of respondents who had raised blood pressure greater than 130/90 were within the age range of 60-70 years and were mainly males, this could be because man carry the family burden as bread winners (stress). This is confirmed by an assertion Suhreke et al that individual perception are something influenced by social, psychological or emotional factors. The risk of having cardiovascular disease increases with age (WHO, 2011).

Respondents Risk Profile

The result of findings showed high risk profile of respondents 160 (36.3%) respondents who said they were told to have raised blood pressure, when measured were discovered to have normal, this may have been put under check after discovery, or corrected itself when , particular psychological or economic problem improved. Out of the total respondents 2(0.5%) showed absence of risk factors, 55(12.5%) of the total

number showed presence of 1 to 2 risk factors and were classified low risk, while 383(81.0%) showed the presence of 3 and more risks factors and were classified high risk. Siaki (2009) is of the opinion that a clustering of 3 or more of the major risk factors is universally recognized as having underlying factor for cardiovascular disease. It was discovered that 350 (79.5%) respondents said they enjoy oily foods, this is in line with the Culture of Cross Riverine who loves to eat greasy soups with a lot of palm oil (Afang and Edikang Ikong), without really knowing the implication of accumulation of fats in tissues (obesity) and blood vessels. Majority of respondents admitted eating fruits and vegetables but not daily, they only eat when they see it or remember without considering any nutritional benefits. 350 respondents are aware that family, history of hypertension, diabetes, stroke and obesity as a risk factor, and some traced to their parents, grandparents, uncles and aunties but were not really attaching importance to it, since most believed that health is determined by God.

Identify respondents' risk profile for Cardiovascular Disease

Findings indicated that adults risk profile is significantly high. Among the items tested under risk profile were blood pressure, major modifiable risk factor, Body Mass Index (BMI) derived from the measurement of height and weight. Others were dietary habit, physical exercises, blood glucose, cholesterol, alcohol consumption and family history of cardiovascular diseases. Out of 440 respondents who participated in the study, 323 representing (73.4%) had normal blood pressure, this findings disagree with previous study in Nigeria by Sani *et al.* (2006) to determine modifiable cardiovascular risk factors among apparently healthy adults which revealed high prevalence of raised blood pressure. The researcher attributed the issue of normal blood pressure to their positive response to the physical exercises such as walking long distances most days of the week and absence of smoking. It was discovered that 267 representing (60%) adults were overweight (BMI 25 - 29.9) and obese (BMI ≥ 30) this may not be unconnected to dietary habits such as oily foods which so many agreed they love and showed gross lack of awareness about cholesterol. More so, Efik culture is still indulging in some unhealthy practices such as putting women in fattening room, following a circumcision ritual and child birth. They also view steady weight increase a sign of good health. 90% of overweight and obesity was observed among women. Other parameters were insignificant. There is need for proper health information on weight reduction and regular cholesterol estimation to prevent negative health outcome. Generally, the high risk profile could be traced to low level of awareness.

Assess Adults Risk Perception for Cardiovascular Disease

The result from the analysis showed that adult risk perception is significantly higher, rejecting the null hypothesis. Out of 440 respondents 399 (91%) had high perception about risk factors as a cause of heart disease. This finding is not in conformity with a previous conducted by Buchler *et al.* (2012) to determine the knowledge, perception of and attitude towards cardiovascular disease risk among multi ethnic urban Malaysia

which reveals inadequate knowledge and poor perception of risk factors. A similar study by Crouch (2008) on awareness and perception of risk factors of coronary disease among rural women in Australia equally revealed lack of awareness of risk factors as the cause of heart disease.

The high perception of risk factors could be attributed to educational advancement, creation of awareness to de-sensitize the misconceptions. However, 271 representing 61.59% respondents perceived alcohol consumption as being good for the heart, while others claimed steady weight increase is a sign of good health and rather blamed heart disease on super natural powers such as witches and wizards, others further believed that good health is determined by God and refused to attribute it to risk factors. 30% of respondents were ignorant of information on cholesterol, this disagrees with a study conducted by Goldman (2006) to determine perception of cholesterol and cardiovascular disease among adults in America which revealed high level of awareness about cholesterol. Nurses and health practitioners should continue to strengthen the awareness on intensive health information on cholesterol as a risk factor especially in our rural communities.

Implication of the findings

The result of the study carried out on cardiovascular disease risk profile, risk perception and health screening practice of adults in Calabar South Local Government Area revealed that adults in Calabar south have high perception of risk factors, high perception of health screening practice; they actually showed higher risk profile, some respondents showed abnormal weight (overweight) poor knowledge of cholesterol which could be associated with inadequate level of awareness, thus increasing their risk of developing cardiovascular diseases. However, the result implies that the chance of developing cardiovascular disease by adults in Calabar South is alarming. It is therefore pertinent that nurses should strengthen and repackage the content of health education to create more awareness on the cardiovascular risk factors and regular health screening and direct it more towards correcting wrong practices and misconceptions, stress the need for healthy food choices physical exercises to enhance weight reduction, close monitoring of those with elevated blood pressure and life style modifications such as reducing the intake of alcohol, this health education should have a wider coverage not only limited to clinics and hospitals by so doing people will be properly informed and their health status will improve, the hospitals will be depopulated with cases of cardiovascular diseases, and this will reduce workload on nurses and promote longevity.

Conclusion

Based on the findings of this study, the following conclusions were made. Perception about risk factor was high. Perception of health screening was high. Participant's risk profile was high. No significant difference between participant's risk profile and perception of health screening practice. Risk perception influenced their perception of health screening.

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