



## Research Article

# Perception of Nutrition and Exercise as a Tool in Controlling Cardiovascular Diseases among the Elderly in Anambra State

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## Abstract

The research investigated the perception of nutrition and exercise as a tool in controlling Cardiovascular Diseases (CVDs) among elderly civil servants in Anambra State of Nigeria. A total of 250 respondents comprising 150 elderly academic staff Nnamdi Azikiwe University Awka and 100 senior civil servants in the Anambra state civil service, who willingly, volunteered to participate in the study. Their ages ranged between 55-65 years purposively selected. The instrument for data collection was a self-structured questionnaire, with a reliability value of 0.73 using the test retest method. All data collected were subjected to descriptive statistics of frequency, percentages and chi square tested at 0.05 level of significance. Findings from the study showed that nutrition (diet) and exercise have significant effect in the prevention/control of (CVDs) among the elderly. It is therefore recommended that at the civil service secretariats, universities and other establishments/parastatals, should establish high standard eateries (restaurants) where qualified caterers, would regularly provide nutritious diet, at subsidized rate for workers in this category. In order to enable these class of workers have at least one good meal per day, in addition to a mandatory one-work-free afternoon (2.00pm-4.00pm) for routine/regular physical exercises for these class of workers.

## Introduction

Nutrition is described as the science of food (diet), the nutrients and other substances derivable thereof, their actions, interactions and balance in relation to optimal health and diseases, including the process by which the human organism ingests, digests, absorbs, transports utilizes and excrete these food substances [1].

Furthermore, Olafinhan [2], averred that nutrition is the process through which the food substances taken into the body are utilized for the repair and maintenance of the human body, provision of energy for daily physical activities and growth.

The prevalence or on-set of certain diseases is often associated with aging process, such as Cardiovascular Disease (CVD) could be either differed, controlled or even completely prevented, if individuals right from their productive stages of life are aware and perceive good nutrition and regular exercises as a good way of helping them

maintain optimal health even at old age. Exercises prescribed by exercise specialists based on qualified physicians recommendations, could go a long way in ensuring a store house of productive and viable workforce for the nation.

With the recent extension of the retirement ages of university staff, and majority of them now females, who are in addition to the tedious university academic workload, are equally confronted with other domestic and peculiar physiological challenges, hence the need for them to be aware and perceive good nutritional and exercise practices as a way to cope with the stress and tasks of their job demands, even at their old age [3,4]. The class and choice of food an individual eats are important, because they can impose definite limits on performance or productivity, hence proper perception, practice and manipulations of one's diet and exercise can improve and sustain performance.

Nutrition (Diet) and fitness could be said to be multidimensional, since different fields of human endeavors require some specific attributes of fitness, for example, there is fitness for living, fitness for holding a job and fitness for recreational hobbies. In this study the researcher intends to investigate nutrition (diet) and exercise for holding a job at fairly advanced age in life, as in the case of civil servants/university staff. These class of individuals in any society hold strategic positions that passionately affect the lives and future of numerous people, hence the need for them to remain in sound health, if they must efficiently perform their expected duties, which implies remaining productive even at the later period of their lives.

According to Antonio [5], fitness for holding a job is the general capacity to adopt and respond favourably to physical effort any class of job demands, which involves the individual life style and constitution. Life style includes choice of food and regular engagement in physical exercise to maintain the desired physical fitness needed for ones job (task) description.

It is said that there is correlation between the amount of work an individual does and the limit of ones cardiovascular system capacity, because good diet provides nutrients to the living cells of the body, and in the presence of oxygen in the blood, energy is produced for efficient work, while good exercise facilitates the evacuation of waste products from the various sites of the working muscles of the body of the individual [6]. Consequently, varied healthy diet in right proportions, rich in nutrients is fundamental for good health and efficient functioning of the heart, while disproportionate consumption of some vital classes of food could create imbalances that will eventually undermine good health and promote obesity, cardiovascular problems and reduced productivity of these workforce under study [6].

When people grow older, degenerative diseases set in, the condition even becomes worsened when they fail to get themselves involved in physical exercises and know the class of food that they could eat in order to help prevent the progression of CVDs. This research study therefore tried to ascertain perception of nutrition and exercise as a tool in controlling cardiovascular diseases among elderly civil servants in Anambra state of Nigeria.

#### **Statement of the problem**

The on-set of certain degenerative health conditions such as (CVDS) is often associated with aging process. With the recent prolongation of the retirement age of university lecturers from 60-70 years, makes it imperative of the need to ensure that this category of workforce remain and maintain optimal health, they must be substantially productive in their places of work their ages notwithstanding. Hence the need for this research study to ascertain the perception of these class of workers on nutrition and exercise as a tool in controlling (CVDS) among people of their age group, in Anambra State.



## Methods and Procedure

The purposive sampling technique was used to select the 250 elderly civil servants (men and women) (state civil servants and Nnamdi Azikiwe senior academic staff) all aged between 55-65 years who are resident in Awka metropolis, and willingly volunteered to participate in the research study. Out of the total number 150 of the respondents were senior academic staff of Nnamdi Azikiwe University, while the rest 100 were senior civil servants, of Anambra state civil service Awka. Among whom 90 of them are women and the rest 160 men.

A self-structured questionnaire with reliability test of 0.73 which was designed in line with the likert scale was used for the data collection. The questionnaire had two sections (A and B) section A elicited information on the demographic background of the respondents while the section B was on the research questions.

### Data analysis

The data collected for the study were coded and analyzed using the descriptive statistics of simple percentages as well as Chi-Square inferential statistics. Inferences were made at 0.05 level of significance.

### Discussions

The result of the study are presented in tables 1-3.

Table 1 above shows that 157(62.8%) and 23(9.2%) strongly agreed and agreed respectively, with the statement that good nutrition prevents heart diseases, on the statement that foods free of saturated fats and concentrated sugars prevent overweight which causes cardiac problems, 129(51.6%) and 73(29.2%) of the respondents strongly agreed and agreed respectively with the statement. While 112(44.8%) and 55(22.0%) of the respondents strongly agreed and agreed that balanced diet entails selecting food from grains, protein, milk and products vegetables and fruits which result to healthy body growth respectively, the rest 39(15.6%) and 44(17.0%) strongly disagreed and disagreed.

### Results

The calculated Chi square of 47.82 was greater than the table value of 12.59 at 0.05 alpha level, hence the hypothesis which states that the elderly civil servants will not significantly perceive that good choice and selection of food would help to control or prevent or defer the on-set of cardiovascular diseases was rejected. This implies that the elderly civil servants in the study area perceive that good nutrition prevents heart diseases.

**Table 1:** Analysis of responses on perception of good choice and selection of food (nutrition) would control or prevent or defer the on-set of cardiovascular diseases.

Response Items	SA	%	A	%	D	%	SD	%	DF	X <sup>2</sup> tab	X <sup>2</sup> cal	Decision
Good Nutrition prevents heart diseases	153	61.2	27	10.8	40	16.0	30	12.0				
Foods free of fats and concentrated sugar prevents over weight, that causes cardiac problem	123	49.2	79	31.6	20	8.0	28	11.2	6	12.59	44.59	S
Balanced diet comprises Grains, Protein, milk, vegetables and fruits results to healthy body and differ aging	111	44.4	57	22.8	37	15.6	18.0					



This result corroborates the findings of Igboanugo [7], who averred that careful selection from the basic food groups will keep the body’s cardiovascular system healthy, and went further to report that despite individual high level of perception of this fact yet people are not committed to practicing them, even among the educated class.

**Discussions**

Table 2 above indicate that 153(61.2%) and 27(10.8%) respondents strongly agreed and agreed respectively with the statement that prescribed/recommended and well administered exercises help prevent heart diseases. While 111(44.4%) and 57(22.8%) strongly agreed and agreed with the statement that recommended and well administered physical exercises clears the cardiovascular system of all associated disease conditions, respectively.

**Result**

This result supports the findings of Shephard [8,9], all who reported that regular prescribed and well administered aerobic exercise has been documented to have a significant positive effect on cardiopulmonary system of the aged, thus showing and even reversing the decline in efficiency of the cardiovascular system of the aging individual.

**Discussion**

Table 3 above reveals that 151(60.4%) and 29(11.6%) strongly agreed and agreed

**Table 2:** Analysis of Data on the Perception that recommended/prescribed exercises by a qualified physician and adequately administered by exercise specialist, will help in controlling cardiovascular diseases.

Response	SA	%	A	%	D	%	SD	%	DF	X <sup>2</sup> tab	X <sup>2</sup> cal	Decision
Prescribed/recommended and well administered regular physical exercises helps to prevent heart diseases	153	61.2	27	10.8	40	16.0	30	12.0				
Prescribed and regularly well administered physical exercises helps to condition the heart	123	49.2	79	31.6	20	8.0	28	11.2	6	12.59	44.39	S
Recommended and well administered physical exercises clears the cardiovascular system of all associated disease conditions	111	44.4	57	22.8	37	15.6	45	18.0				

**Table 3:** Analysis on the Impact of Regular practice of prescribed physical exercises in the prevention of diseases related to the blood vessels.

Response	SA	%	A	%	D	%	SD	%	DF	X <sup>2</sup> tab	X <sup>2</sup> cal	Decision
Prescribed exercise prevents the blockage of blood vessels which may cause stroke or cardiac arrest	151	60.4	29	11.6	39	15.6	31	12.4				
Prescribed exercise helps to remove excess fat from the blood vessels, the accumulation of which causes blockages	121	48.4	81	32.4	19	7.6	29	11.6	6	12.59	47.9	S
Recommended exercises improves the condition of the blood vessels	100	40.6	59	23.6	35	14.0	47	18.8				

with the statement, that prescribed exercises prevents the blockage of blood vessels (BV) which could cause stroke or cardiac arrest. While 121(48.4%) and 81(32.4%) strongly agreed and agreed that prescribed regular exercises removes excessive fats from the blood vessels otherwise, the continuous accumulation of which causes blockage of blood vessels. Furthermore, 100(40.0%) and 59(23.6%) strongly agreed and agreed with the statement, that recommended regular physical exercises improves the internal conditions of the body blood vessels which results to sound health and productive life of the elderly.

## Result

The calculated chi-square value of 47.9 was greater than the table value of 12.59 at 0.05 alpha level. Which therefore negates the hypothesis that stated that prescribed regular exercises will not have any impact on the improvement of the internal conditions of the body blood vessels was rejected.

The result of which supports Insel, et al. [10], Galloway, et al. [11], all who averred that exercises directly interferes with the disease process that cause coronary artery blockages, and enhances the function of the cells lining the arteries that help regulate blood flow, which invariably reduces the risk of stroke and cardiac arrest.

## Limitation of the study

The limitation of the study stemmed from the fact that the research was carried out in Anambra State alone due limited funds which narrows down the extent of generalization. Hence there is need to widen the scope of the study to cover many states in Nigeria.

## Conclusion

Based on the findings of this study, it could be concluded that the respondents perceived that good nutrition and regular practice of prescribed exercises are sure tools in controlling cardiovascular diseases among the elderly, which results to increased healthy life and higher productivity even at such later stages of life, by making them free from all forms of cardiovascular diseases.

## Recommendations

The following recommendations are hereby proffered based on the conclusion of the study:

1. Since nutrition plays significant and vital role in controlling cardiovascular diseases among the elderly, it is therefore recommended that universities, government establishments and privately owned business companies, should endeavour to provide highly subsidized eateries, restaurants or canteens, manned by qualified caterers to ensure that these elderly civil servants/lecturers could have at least one standard square meal per day.
2. Government, universities as well as privately owned business concerns should be mandated to provide recreational centres within the work places where these senior elderly civil servants could regularly exercise themselves, based on routine physicians recommendations and under the close watch and supervision of exercise administrators, who are experts in that field of study.
3. It is equally being recommended that there should be routine free medical examination of these categories of civil servants/academic staff of universities, on the basis of which the continuous prescription of exercises and variation of their menu (diet) should be based.
4. It is also being recommended that all worker in this category should mandatorily be granted at least one free work/lecture afternoon, probably from 2.00pm till close of work for the day, to enable these workers exercise themselves at least once each week.

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