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Physical activity a preventive and controlling measure for cardio vascular diseases

Javaid Ahmad Ganaie
B.P.Ed, M.P.Ed. M.Phil in physical education and J&K Set Barkatullah University Bhopal, Madhya Pradesh, India
Dept. Major Dhyanchand institute of physical education, State Jammu and Kashmir, India

Abstract
Cardiovascular disease (CVD) is the leading cause of death in India and its contribution to mortality is rising. According to the World Health Organization cardiovascular diseases (CVD) will account for around 30 % of deaths worldwide by 2020 with a relative increase over time due to population aging styles. Here we will examine the effect of physical activities in prevention and control of CVD suffering patients. The CVD leading risk factors such as hypertension, diabetes and obesity are very commonly found in physically in active persons and sedentary life style persons to rewiew whether the involvement in physical activities can increased risk of morbidity or worsening CVD.

Keywords: Cardio Vascular Diseases (CVD), Coronary Heart Diseases, physical activities

1. Introduction

Cardiovascular risk factors increase the risk of cardiovascular diseases (CVD). CVD is a problem in the elderly of rapidly growing importance, where its prevalence in older people is currently about three fold higher than in younger populations. Although a treatment is essential in reducing recurrences and disability, primary prevention plays the most significant role. Therefore, it is important to make efforts to prevent CVD rather than just treat CVD. The current lifestyle of populations contributes to the development of risk factors for CVD, such as hypertension, diabetes, smoking and hypercholesterolemia. Physical inactivity has become a major public health concern being the second leading single cause of death in the United States Physical inactivity is also associated with increased risk of morbidity or worsening CVD risk factors There is evidence to suggest that a person's physical condition is a good indicator of their state of health, primiraly associated with the practice of physical activities and to the type of food eaten. Primary prevention consists of interventions promoting a healthy lifestyle in the general population.

The deaths due to CVD are expected to double between 1985 2015. Regular physical activity reduces the risk of obesity, blood lipid abnormalities, hypertension, and non-insulin dependent diabetes mellitus and has been shown to reduce substantially the risk of coronary heart disease (CHD). Conversely, measures of sedentary lifestyles or physical inactivity or other bad nutritional habits. As a result of economic changes and increased mechanization, the prevalence of physical inactivity is increasing in India, particularly in urban areas, to levels comparable with the Wes. However, the association between leisure-time exercise, sedentary lifestyles, and risk of CHD has not been assessed within India. The researcher conducted a study in the outskirts of my residence where people regularly are practicing various physical activities the population practice aiming to be fit and healthy in lifestyle and others were suffering from various heart diseases. Cardiovascular diseases (CVDs) have now become the leading cause of mortality in India. A quarter of all mortality is attributable to CVD. Ischemic heart disease and stroke are the predominant causes and are responsible for >80% of CVD deaths. The Global Burden of Disease study estimate of age-standardized CVD death rate of 272 per 100000 population in India is higher than the global average of 235 per 100000 population. Some aspects of the CVD epidemic in India are particular causes of concern, including its accelerated buildup, the early age of disease onset in the population, and the high case fatality rate. The epidemiological transition from predominantly infectious disease conditions to non-communicable diseases has occurred over a rather brief period of time. Premature mortality in terms of years of life lost because of CVD in India increased by 59%, from 23.2 million (1990) to 37 million (2010). Despite wide heterogeneity in the prevalence of cardiovascular risk factors across different regions, CVD has emerged as the leading cause of death in all parts of India, including poorer states and rural areas. The progression of the epidemic is characterized by the reversal of socioeconomic gradients; tobacco use and low fruit and vegetable intake have become more prevalent among those from lower socioeconomic backgrounds. In addition, individuals from lower socioeconomic backgrounds frequently do not receive optimal therapy, leading to poorer outcomes. Countering the epidemic requires the development of strategies such as the formulation and effective implementation of evidence based policy, reinforcement of health systems, and emphasis on prevention, early detection, and treatment with the use of both conventional and innovative techniques. Several ongoing community-based studies are testing these strategies.

1.1 Data collection

The study was conducted by the valid and reliable methods. The population in this study was people of different ages and sexes who were suffering from various heart diseases. The subjects used to practice various physical activities like running, jogging, stretching etc in indoor sports stadium in my home town Anantnag. IN this purpose the only patients with CVDs were selected as subjects for research study by reliable quota sampling process the subjects were allotted a questionnaire containing questions regarding their heath

matters and problems. Also they were directly interviewed, for about 20 minutes. The verbal statements were recorded. The questions like Are you satisfied that physical activity brings improvement in your health? etc. were asked. Researcher collected data on socioeconomic status, smoking history, history of hypertension, diabetes, hypercholesterolaemia, family history of CVD (including CHD, angina, myocardial infarction, hypertension, diabetes dietary intake, types of fat or oils used in cooking, nutritional supplement use, and physical activity.

1.2 Physical activity questionnaire

Physical activity levels were assessed using a validated physical activity questionnaire specific for the population that focused on occupational and other non-leisure time activities, in addition to leisure-time exercise It was validated by comparing energy expenditure (determined by the questionnaire) with energy intake as measured by 24-hour dietary recalls. A significant positive correlation was reported ($r = 0.33$, $P = 0.02$) which was comparable with other validation studies where energy expenditure was assessed using a physical activity questionnaire. Subjects were asked to report the average time spent at work and average frequency of activities related to leisure or recreation, household chores, as well as sedentary and daily activities over the last month. The intensity or metabolic equivalents (MET) of the reported activities were obtained from the Compendium of Physical Activities. For those activities not listed in the Compendium, the MET of a similar activity was assigned. Finally the response were recorded and was taken for futher assessment of data and results.

1.3 Direct interview

The direct face to face interview was conducted and subjects were asked about almost all necessary issues which were related the study.

1.4 Statistical analysis

To assess the potential for confounding, mean values of CHD risk factors were examined across levels of leisure-time exercise (assessed in met-minutes), sedentary activity (minutes), and work-related activities (minutes) among controls. Continuous covariates were categorized to avoid assumptions of linear associations with the outcome and to minimize the effect of outlying values. Participants were grouped into quartiles (sedentary activity), or into tertiles (leisure time exercise), or two categories depending on the distribution of each variable and the number of subjects within each category. To evaluate the relation between leisure-time exercise and risk of CHD, we used conditional logistic regression, first controlling only for the matching factors (age, sex) and then, in addition, other potential risk factors. Analysis of leisure-time exercise compared risk associated with different levels of exercise to non-exercisers. Similar analyses were performed for sedentary (non-work) and work-related activities. For work-related activities, total time spent at work, and average time spent sitting, standing, walking, and in strenuous activities at work were assessed. We also examined whether the associations observed with leisure-time exercise and sedentary activity and CHD risk were modified by: age, gender, cigarette and bidi smoking, BMI, WHR, alcohol intake, education, or income. All analyses were conducted in *Statistical Analysis Software* (version 8).

2. Conclusion

In conclusion, although there is a large body of evidence clearly supporting physical activity to reduce risks of CVD, further research on older populations, particularly those older than 80 years is required for betterment and controlling CVD.

3. References

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