Review Article

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Current Status of Nutritional Knowledge Regarding Cardiovascular Diseases (CVD)

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ABSTRACT

Globally, CVD is the major cause of death. The present review aims to present the existing literature published related to nutritional knowledge, practices, and attitudes regarding CVD. To gain an in-depth understanding of knowledge, practices, attitudes, and behaviors related to CVD, studies such as cross sectional, correlation, case control, cohort studies and qualitative studies are included in this review. The present review included a total of 11 studies. According to numerous epidemiological studies, there are significant knowledge gaps related to modifiable risk factors among CVD participants. Numerous research has highlighted sedentary lifestyle, poor nutrition, poor knowledge and behavior regarding smoking as main causes of CVD; therefore, special attention should be directed to these areas. Cardiovascular disease-related health education and intervention programs are in high demand. There is a growing demand for cardiovascular disease-related health education and intervention programs. To lessen this enormous burden of diseases, the government, lawmakers, and communities should implement preventive steps. In order to design health programs, conduct awareness campaigns, counsel CVD patients on necessary dietary habits and physical activity for a healthy life, educate the general public on nutritional issues, and provide diet plans tailored to cost and cultural preferences, nutritionists are urgently needed in our society.

Introduction

Cardiovascular diseases (CVD) are a leading cause of death and morbidity worldwide. The World Health Organization (WHO) defines cardiovascular disease (CVD) as a group of conditions that affect the heart and blood vessels. Around 17 million people worldwide die from CVD each year. Over 200,000 deaths annually are attributable to CVD in poor nations like Pakistan. Males have a three times higher death rate from CVD as compared to females [1,2]. It is beyond dispute that nutrition has a part in both preventing and treating CVD. Numerous epidemiological studies had emphasized the importance of certain foods, nutrients, and dietary habits in preventing CVD. South Asians eating habits have changed because of the tremendous urbanization of recent years, rising processed food consumption, and altering lifestyles. The risk of developing heart disease can be decreased by half by adopting healthy behaviors, such as choosing a diet high in whole grains, fruits, vegetables, and seafood and low in trans-fat, saturated fat, refined carbs, and sugar-sweetened beverages. Physical inactivity is a significant risk factor for CVD. The prevalence of disease is also exacerbated by environmental variables such smoking, cigarette use, low socioeconomic level, and inadequate education [3,4]. Researches in South Asia has reported the existence of considerable knowledge gaps regarding the modifiable risk factors among CVD participants [5].

Methods

The search engines used to locate papers with a 2010–2023-time frame were Google and Google Scholar. Studies of all kinds, including cross-sectional, observational, case control and cohort studies, were included in the present review. Keywords including «CVD,» «risk

factors,» «knowledge,» «nutrition,» «behaviors,» «attitudes," were used to search for articles.

Results and Discussion

In a cross-sectional survey, researchers discovered a lack of understanding and the existence of misunderstandings about CVD and its risk factors, as well as lack of knowledge towards preventative measures and early diagnosis of cardiovascular diseases among the Yoruba rural Nigerian community. To assess the level of awareness, knowledge, and management of CV risk factors, 2000 participants were selected by a structured questionnaire from Nigeria. 56% of the participants were not able to identify any of the risk factors. Poor knowledge regarding CVD and risk factors was reported among participants [6]. A convenience sample of 2,200 patients from United States was selected for a cross-sectional study that sought to determine how well patients understood the health behaviors and risk factors associated with coronary heart disease. A self-report survey was used to gather information on demographics, lifestyle choices, heart disease history, and knowledge of the seven key elements of heart health recommended by the American Heart Association (not smoking, regular exercise, a balanced diet, a normal BMI, cholesterol, blood pressure, and blood glucose measurements). According to the study's findings, 37% of the patients were aware of all seven elements of heart health. The fact that so few people could correctly link physical exercise, a diet high in fruits and vegetables, and diabetes to heart disease astonished researchers.

According to statistical analysis of the data, having awareness of cardiovascular health was positively connected with having more education, having a decent socioeconomic standing, and having a white background [7]. A cross-sectional population based observational study was conducted on 11,550 subjects in America. 5383 men and 6167 women participated in household survey-based interviews to gather information on the major CVD risk factors. The patients' knowledge of cardiovascular risk factors was evaluated by asking them if they had ever disclosed their presence to a healthcare professional, and their adherence to treatment was evaluated by how well they took their medications. According to research majority of patients frequently forget to take their medications. Patients with hypercholesterolemia were shown to have very little knowledge of the condition, compared to diabetics and hypertensive. The study underlined the requirement for education regarding cardiovascular risk factors and medication compliance [8]. In Andhra Pradesh, researchers undertook a study with the main goal of examining the prevalence, screening, and understanding of heart disease risk factors among 4535 individuals from 20 villages.

Using a stratified sample technique, a roughly equal number of people were chosen from each town in each of the eight age (30-39, 40-49, 50-59, and more than 60 years) and gender groups. The participants were questioned about their income, occupation, and educational background. According to statistical analysis of the data, those with lower socioeconomic status had higher rates of tobacco and alcohol use, lower fruit intake, and overall less knowledge of CVD risk factors, whereas those with higher socioeconomic status were more likely to be overweight, lead sedentary lives, have diabetes, hypertension, and have a family history of CVD. However, it was also discovered that those with more understanding of the risk factors for heart disease were more willing to try to change their behavior and way of life, independent of their socioeconomic background [9]. Insufficient knowledge of cardiovascular disease risk factors was found among Croatian citizens in a cross-sectional study, in which 833 out of the total 4,440,000 inhabitants of the country took part. Face-to-face interviews with questions about the risk factors and biochemical values related to heart diseases were conducted by a highly trained data collector. A more advanced education status was found to be positively associated with awareness regarding target values of blood pressure and total cholesterol. Researchers were amazed to see that 49.0% of the population knew that high HDL-cholesterol has positive health effects. 43.3% and 74.4% of the population showed awareness about their total cholesterol and blood pressure levels, respectively [10].

In a study conducted in Nigeria, research's investigated regarding rural community's knowledge, attitudes, and practices related to cardiovascular disease as well as preventative behaviors adopted by them. The study comprised 37 males and 37 females between the ages of 18 and 60 who had never been diagnosed with diabetes. A questionnaire about cardiovascular knowledge, personal health beliefs, attitudes towards physical exercise, and practices regarding seeing a doctor was given to the participants. Most of the participants had never had a health checkup, did not exercise or play any sports, and 71% had never had their blood pressure or blood glucose levels examined. The study found that although most participants had some level of literacy, there was a gap in their understanding of, and attitudes towards, CVD and diabetes [11]. According to research, African Americans have greater rates of cardiovascular disease mortality than people of other racial or ethnic groups, hence preventative measures are more important in this community. In order to determine the participants' level of awareness on the risk factors for cardiovascular illnesses, cross-sectional descriptive research of 172 African American men and women, aged 18 to 26, was conducted. The study's findings showed that while many of the participants were aware of some aspects of cardiovascular diseases, the bulk of them were not familiar with some of the major risk factors and preventive behaviors. Less evident than differences owing to education level were gender disparities in cardiovascular knowledge [12].

To determine the prevalence of hypertension and obesity among students and to gauge their knowledge and attitudes regarding CVD risk factors, researchers conducted a cross-sectional survey on 610 male students in Jeddah's institutions. The students' basic personal information, including age, marital status, and physical activity levels,

was collected. To gathering data, an Arabic-language questionnaire was used. Most of the participants identified smoking, excessive fatty food consumption, obesity, elevated blood pressure, and elevated LDL-cholesterol levels as the main risk factors for heart disease. Most students were aware of the value of leading a healthy lifestyle for CVD prevention [13]. A survey of 1000 Jordanians found that they were not sufficiently informed on the risk factors for cardiovascular illnesses. Data on the participant's knowledge of CVD, their opinions of the community chemist's role in the management, treatment, and prevention of heart diseases, their health and lifestyle habits, and their general history were gathered using an interview-administered questionnaire with four sections. Open-ended questions were used to gauge knowledge of heart illnesses, which was then treated as a continuous variable for the sake of data analysis. According to the study, individuals were more likely to have a higher level of cardiovascular knowledge if they were non-smokers, concerned about their food, weighed close to their optimum body weight, belonged to a higher socioeconomic class, and had a family history of heart disease [14].

In an Italian cross-sectional investigation, 830 women over the age of 18 were chosen at random and exposed to risk factors for cardiovascular disease. All the participants were moms of kids ranging in age from three to eighteen. Data were gathered using a semi-structured self-report questionnaire that asked questions in five categories about socio demographics, health history, knowledge of risk factors for heart disease and potential preventive measures, perception of cardiovascular disease risk and the value of prevention, smoking and alcohol use, dietary intake, and sedentary lifestyle. Only 26.5% of the women, the majority of whom were married and had a higher level of education, correctly identified the primary risk factors for heart disease. 23% of the participants showed awareness of CVD prevention strategies, and most of them were unemployed, had higher levels of education, were aware of the risk factors for heart disease, and had received information about these illnesses from their doctor. Researchers noted the necessity for educational programs among women to enhance understanding and appropriate behavior about cardiovascular diseases considering the study's findings [15]. In a cross-sectional in Belgian researchers discovered a noticeable discrepancy between knowledge of the risk factors of cardiovascular disease and lifestyle habits.

Semi-quantitative food frequency questionnaires that were mailed out and had 150 components were used to gather data on food consumption and lifestyle with the main goal of linking lifestyle habits and knowledge of cardiovascular risk factors. The majority of participants cited smoking, overeating, and a sedentary lifestyle as the main risk factors for CVD, while the least number of participants cited obesity, excessive salt consumption, and a low intake of fruits and vegetables as the main risk factors for cardiovascular disease. The study's findings also showed a link between lower socioeconomic position and education levels and a lack of knowledge of CVD risk factors, particularly modifiable and established risk variables [16].

Conclusion

As sedentary lifestyle, poor nutrition, and smoking-related knowledge and behaviors are the main causes of CVD, extra attention should be paid to these areas. Given that childhood behaviors can have a long-lasting effect on an individual's future health and lifestyle, prevention efforts should concentrate primarily on children and their parents. There has already been some research done on the value of people being aware of diseases to improve interventions. Recently, cardiovascular disease is becoming overly prevalent globally, and the number of deaths from the condition has also significantly climbed. Cardiovascular illness has been particularly selected as the health problem the project will address since it is simple to avoid and delay, but only if awareness and helpful health behaviors are encouraged. This is possibly the most significant aspect of the disease. Now a day's consumption of convenience foods, refined carbs, and sugary beverages is on the rise while consumption of fruits, vegetables, and whole grains declines. Reducing these risk factors among our people is a significant problem. To lessen this enormous burden of diseases, the government, lawmakers, and communities should implement preventive steps. To design health programs, conduct awareness campaigns, counsel CVD patients on necessary dietary habits and physical activity for a healthy life, educate the general public on nutritional issues, and provide diet plans tailored to cost and cultural preferences, nutritionists are urgently needed in our society.

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