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An exploratory study on risk factors of cardiovascular disease among residents of Udaipur city

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Abstract
The present study was carried out with the objective to study the risk factors of cardiovascular disease among adult males and females. The sample consisted of 120 urban adults of the age group 35 to 55 years. The questionnaire was constructed to collect information from the respondents, which was then analyzed using statistical tools such as frequency, percentage, mean, standard deviation, and t-test. All the respondents' nutritional status was assessed, including anthropometric measurements like height, weight, waist circumference, and hip circumference. A food frequency questionnaire was used for the assessment of food consumption patterns. A significant portion of the respondents (44.17%) reported sleeping 6-8 hours daily. The most common form of exercise reported was walking, with 60.00% of respondents engaging in it. There 1.67% of respondents admitted to chewing tobacco once a day. Among the non-nutritional risk factors, excessive salt intake, high consumption of sweets, cold beverages, high-fat foods, inadequate fruit, and vegetable intake, and preference for unhealthy snack foods are the potential risk factors for cardiovascular disease.

Keywords: exploratory, cardiovascular, risk factors, frequency

Introduction
Physical and mental well-being are aspects of health. This concept describes a state in which infectious and non-communicable diseases are absent, each of which is impacted by a number of distinct variables each of which is impacted by a number of distinct variables, are absent. Non-communicable diseases are conditions that can neither be transmitted from one living object or person to another. These are typically caused by unhealthy lifestyle habits or a predisposition to an illness brought on by hereditary features. In the present world, having a number of non-communicable diseases is quite harmful. Cardiovascular disease is more likely to affect both men and women beyond the ages of 35 to 40.

An "Impairment of heart function due to the adequate blood supply to the heart compared to its need, induced by obstructive alterations in coronary circulation to the heart" is what is meant by cardiovascular disease. Several health conditions, a person's lifestyle, age, and family history can all raise their chance of developing heart disease. They're known as risk factors.

In India, the mortality and burden of cardiovascular disease vary greatly by area. In addition to the well-known gender-based inequalities, mortality varies between states, urban & rural areas, and various socioeconomic classes within states. Given the prevalence of CVD and its risk factors in India, controlling the epidemic will require a sound public health strategy. To monitor, assess and direct policies and programs, efforts to implement an intervention program should be supplemented with a strong surveillance framework. The feasibility of setting up community-level surveillance for CVD risk variables has been shown in a pilot study. It is now part of the because it has been scaled up to the national level.

Heart disease is significantly increased by high blood pressure. When the blood pressure in arteries and other blood vessels is excessively high, it is a medical condition known as hypertension. If the excessive pressure is not regulated, it may have negative effects on the brain, kidneys, heart, and other vital organs. The liver produces cholesterol, which is also present in some meals. It is a waxy, fat-like molecule. Although the body produces enough cholesterol to meet its needs, we frequently consume additional amounts through our diets. Blood sugar levels rise as a result of diabetes. Adults with diabetes have a higher chance of dying from heart disease than adults without the disease. Excess body fat is obesity. Obesity raises "bad" cholesterol and triglyceride levels while lowering "good" cholesterol. Along with heart disease, obesity can cause diabetes, high blood pressure, and other conditions.

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Methodology

This is a descriptive research (cross-sectional study) study. The study was approved by Institutional Ethical Committee for Human Research of Maharana Pratap University of Agriculture and Technology (MPUAT).

Selection of Samples: The participants were taken from different four directions of Udaipur through surveys. The participants were of both genders from ages 35-55 years. Samples were selected through the voter's list, which was obtained from the Nagar Nigam office, Udaipur. From this list, a sample of 120 was selected randomly from 4 directions of Udaipur city comprising of 60 males and 60 females. A structured questionnaire was developed to assess the respondents' general background information, nutritional status, and Non-nutritional factors. It was pretested for its clarity with 10 non-sample respondents. An interview technique was employed for gathering information from the subjects.

The non-nutritional risk factors were assessed by the questionnaire. Different points are considered non-nutritional risk factors. Physical activity, exercise patterns, smoking habits, tobacco chewing, and alcohol consumption all are included in non-nutritional risk factors.

Statistical Analysis: The data was first entered into Excel. The variables were categorized and codes were assigned. Descriptive statistics were used: percentages, frequencies, and standard deviations of the assigned variables. T-test was used to compare nutrient and food intake with standard values.

Result

Demographic characteristics: The participants' socio-demographic characteristics are shown in Table 1. Out of 120 participants, 60 (50%) were males and 60 (50%) were females. Almost one-fourth of the population (36.67%) were between 50 and 55 years old. 25.83 percent of participants were of 35 - 40 years of age. 18.33% of participants were of 40 - 45 years of age. 19.17% of participants were of 45 - 50 years of age. According to the respondents, 73.33% of them reported performing exercise regularly. Out of all the

participants, only 10% reported drinking alcohol and 8.33% reported smoking cigarettes. Regarding the educational status, the data revealed that 53.33 percent of the respondents were postgraduate, 42.67 percent were graduated, 1.33 percent belonged to the senior secondary and 1.33 percent were secondary and 1.33 percent were middle educated.

Table 1: Socio-demographics of the participants (n=117)

| Variables	Percentage of participants
Gender	
Male	60
Female	60
Age	
35-40	25.83
40-45	18.33
45-50	19.17
50-55	36.67
Alcohol	
Yes	10.00
No	90.00
Smoking	
Yes	8.33
No	91.67
Education	
Illiterate	5.83
Primary	12.50
Middle	30.00
Secondary	7.50
Senior Secondary	12.50
Graduation	26.67
Post-Graduation	5.00
Occupation	
Homemaker	35.83
Daily Wadges	38.33
Employed	25.83
Unemployed	0.00
Income	
3-6 lakh	56.67
6-12 lakh	30.83
12-18 lakh	12.50
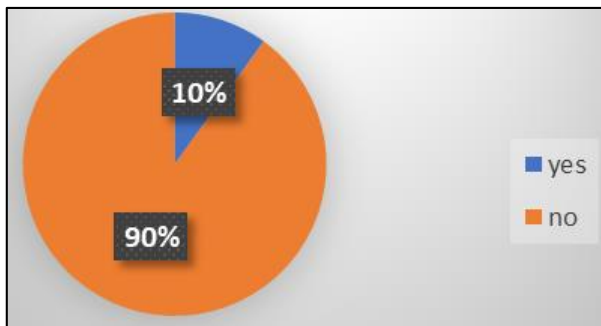
Fig 1: Alcohol Consumption
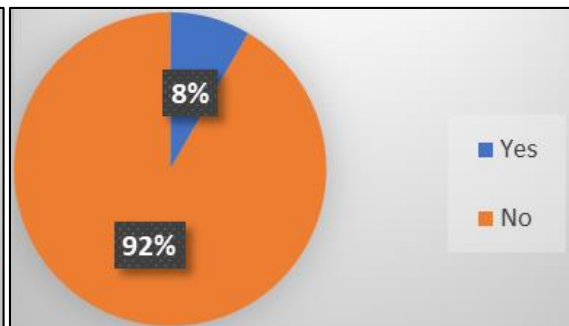
Fig 2: Cigarette smoking

Discussion

Non-communicable diseases are conditions that can neither be transmitted from one living object or person to another. The CVD epidemic in India is particularly concerning due to its rapid spread, the early age at which sickness start occurs in the population, and the high case fatality rate. In India, the epidemiological change from issues mostly brought on by infectious diseases to conditions primarily brought on by no communicable diseases occurred over a comparatively short period. Asian Indians are becoming more and more likely to have cardiovascular disease and its risk factors. Even though CVD risk factors are more prevalent in urban areas, they are

also rising alarmingly in rural areas, which poses a serious threat to the nation. Due to the fact that the majority of Indians live in rural regions, CVD may become an epidemic. Health promotion activities and a change in primary care's emphasis must improve the early detection and management of CVD. Unhealthy food, inactivity, cigarette use, and alcohol abuse are the four biggest behavioral risk factors for heart disease and stroke. Raised blood pressure, elevated blood glucose, elevated blood lipids, as well as being overweight and obese, might be symptoms of behavioral risk factors in people. In primary care settings, these "intermediate risk factors" can be assessed, showing a higher risk of

complications like heart attack, stroke, and heart failure.

Careful risk reduction can lessen the burden of cardiovascular disease, so primary prevention should be a top focus for all health policymakers. While there is broad agreement among international guidelines regarding the necessity of quitting smoking, optimizing weight, and the significance of exercise, guidelines differ somewhat in their approaches to hypertension and significantly in their approaches to the optimal lipid profile, which is still a hotly debated topic.

Conclusion

Monitoring the risk factors for CVD is important. Risk factors such as environmental factors, stress, BMI, and others are factors in the development of cardiovascular disease in adults. These factors must be easily understandable.

Acknowledgment

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