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“A STUDY TO ASSESS THE NUTRITIONAL KNOWLEDGE, DIETARY HABITS AND LIFESTYLE OF CARDIAC PATIENTS ADMITTED IN RAJSHREE APOLLO HOSPITAL OF INDORE CITY”

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ABSTRACT:

Cardiovascular diseases (CVDs) remain the leading global cause of mortality, with poor nutrition, sedentary lifestyles, and unhealthy habits contributing significantly to the burden. This study aimed to assess the nutritional knowledge, dietary practices, and lifestyle behaviours of cardiac patients admitted to Rajshree Apollo Hospital in Indore. A purposive sample of 50 patients aged 25–75 years participated in structured interviews conducted over three months. The findings revealed significant gaps in dietary habits, with limited daily intake of fruits, vegetables, and whole grains, and high consumption of oil, butter, and refined grains. Although awareness about the harmful effects of fried, processed, and salty foods was relatively high, behavioural adherence remained inadequate. Biochemical assessments indicated that a majority had uncontrolled levels of sodium and cholesterol, heightening cardiovascular risk. Additionally, 44% of participants reported some level of tobacco use, and 94% experienced stress at varying frequencies. The study underscores the urgent need for targeted nutritional counselling and lifestyle interventions to mitigate modifiable risk factors among cardiac patients.

INTRODUCTION

Coronary heart diseases are the leading cause of disability-adjusted life years (DALYs) worldwide. CVD mortality is rising, especially in those over 65. Each year, about 17.7 million deaths—roughly 31% of global deaths—are due to CVDs. Key risk factors include smoking, unhealthy weight loss, inactivity, and harmful alcohol use, leading to high blood pressure, high blood sugar, obesity, and weight gain (K Ramesh et al., 2021). One-third of heart attacks are linked to unhealthy diets like high-fat foods, meat, and salty snacks. Poor lifestyle choices taking stress, inactivity, smoking, and bad eating habits raise CVD risk. High LDL in youth predicts future heart disease, and smoking risk increases with daily cigarette use, according to the Framingham study (D Berman et al., 2023). Arterial hypertension, a type of cardiovascular disease, is typically marked by elevated blood pressure with unclear causes, often linked to genetic and environmental factors.

It is usually asymptomatic until complications arise. Common signs include palpitations, headaches, and fatigue, with the most notable being a severe occipital headache accompanied by an aura (K Agata et al., 2025). A lot of research shows that following the DASH diet can help improve blood pressure, body weight, blood sugar control, cholesterol levels, inflammation, blood vessel health, gut bacteria, heart disease risk, and even lower the risk of death. The DASH diet focuses on eating plenty of fruits and vegetables, beans, low-fat dairy, whole grains, nuts, fish, and chicken. It also limits foods high in saturated fat, like red and processed meats, sugary drinks, salty foods, and refined grains (C Rosa et al., 2018). This study focuses on the assessment of the nutritional knowledge, dietary habits and lifestyle of cardiac patients admitted in Rajshree Apollo hospital, Indore.

MATERIAL AND METHODOLOGY

The study was conducted in Indore city to assess the nutritional knowledge, dietary habits and lifestyle of cardiac patients admitted in Rajshree Apollo Hospital in Indore city. A total of 50 participants, aged between 25 to 75 years, were selected purposively for the study. The final section concentrated on the nutritional awareness and the real-life dietary habits of cardiac patients in hospital. Data collection was conducted over 3 months through in-person interviews with the participants in the hospital. Privacy was maintained throughout the process to encourage accurate and honest responses. After collecting data, the data was analysed by different procedure of data analysis like chi – square, frequency and percentage.

RESULT & DISCUSSION**Table 1. Percentage Distribution of Demographic profile of Participants (N=50)**

Demographic profile	Frequency	Percentage	Chi- square test
Age			
25-35	3	6	2.6
35-45	6	12	
45-65	39	78	
other	3	6	
Gender			
male	39	78	1.3
female	11	22	
Education level			
below high school	3	6	1.2
high school	7	14	
bachelor	31	62	
masters	9	18	
Occupation			
Government employee	20	40	7.3
Private employee	13	26	
Entrepreneur	4	8	
Farmer	7	14	
Home maker	6	12	
Marital status			
Married	48	96	2.6
Unmarried	2	4	
Area of living			
Rural	18	36	2.6
Urban	32	64	

Source:The data was calculated by Microsoft Excel 2019

Table.1 depicts the percentage distribution of demographic profile of participants in which age was divided into 4 subgroups (25-35 years, 35-45 years, 45-65 years and other) groups. In group 1 (25-35) there was 2(4%) participants, in group 2 (35-45) there was 6(12%) participants. In group 3(45-65) there was 39(78%) participants, In group 4(other) there was 3(6%) participants. with a chi-square value of 1.3, again indicating no significant gender disparity in the group. Gender was divided into male and female in which frequency of male was 39(78%) and the frequency of female participants was 11(22%). In this, a chi-square value of 1.3, indicating a predominance of male cardiac patients in the study. Occupation was divided into 4 subgroups (government employee, private employee, entrepreneur, farmer and homemaker) in which the frequency of government employee was 20(40%), frequency of private employee was 13(26%), frequency of entrepreneur was 4(8%), frequency of farmer participants was 7(14%) and frequency of homemaker participants was 6(12%). The chi-square value here was 7.3, indicating a statistically significant difference in occupational backgrounds among participants. Education level was divided into 4 sub-groups in which the frequency of below high school participants was 1(2%), frequency of high school participants was 9(18%), frequency of bachelor participants was 31(62%), frequency of masters participants was 9(18%). Marital status

was divided into 2 sub-groups (married, unmarried) in which frequency of married participants was 50(100%).The chi-square value for education level was 1.2, suggesting educational attainment was relatively uniform across the group.Area of living was divided into 2 sub-groups (rural, urban) in which frequency of rural participants was 18(36%) and frequency of urban participants was 32(64%).

Table 2. Mean deviation of biochemical measurements of participants (N=50)

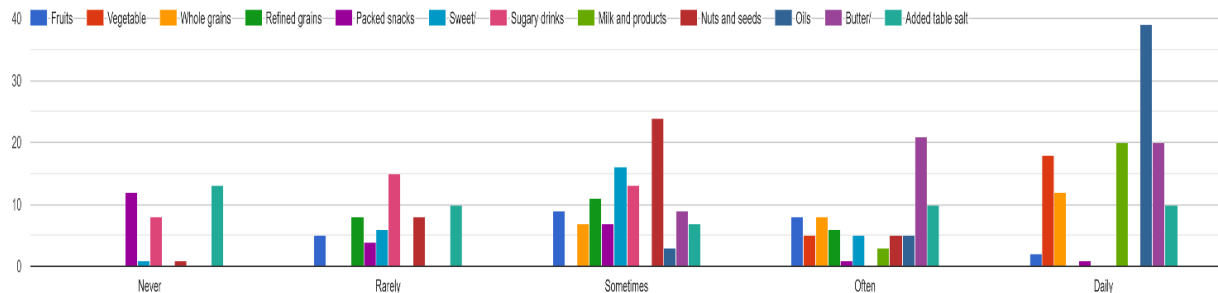
Parameters	Controlled		Uncontrolled	
	Frequency	Percentage	Frequency	Percentage
Haemoglobin	20	40	30	60
Potassium	40	80	10	20
Sodium	12	24	38	76
Creatinine	42	84	8	16
Total Cholesterol	18	36	32	64

Source:The data was calculated by Microsoft Excel 2019

Table 2 depicts that 20(40%) participants have controlled haemoglobin levels while 30(60%) participants have uncontrolled levels. 40(80%) participants have controlled potassium levels and 10(20%) participants have uncontrolled potassium levels. Coming to sodium levels, 12(24%) participants have controlled range while 38(76%) have uncontrolled sodium levels.42(84%) participants have controlled creatinine levels and 8(16%) participants have uncontrolled creatinine levels. Regarding total cholesterol, 18(36%) participants have controlled level but 32(64%) participants have uncontrolled total cholesterol levels.Maximum number of participants have uncontrolled sodium and total cholesterol levels which indicates high risk for cardiac patients.

Figure 1.1 Percentage distribution of dietary habits of participants (N=50).

How often do you consume foods



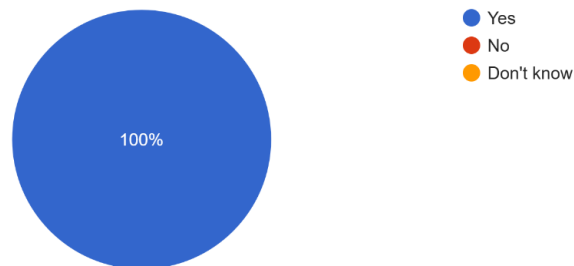
Source:The data was calculated by Microsoft Excel 2019

Figure 1 depicts that only 2 participants consume fruits on daily basis and the rest consume them rarely and sometimes. Few of the participants consume fruits often. Regarding oil consumption, 39 participants consume oil daily and 20 participants consume butter daily and 21 consume it often in their diet. 12 participants consume whole grains daily and the rest consume them sometimes and often. Refined grains are consumed often by 6 participants. 10 participants have added salt on daily basis in their diet. Coming to vegetables, only 18 participants consume vegetables daily. 12 of them never consume packed snacks from outside.

Figure 1.2 Percentage distribution of awareness among participants regarding fried food consumption(N=50).

Eating too much butter/ghee and fried foods can be bad for heart

50 responses



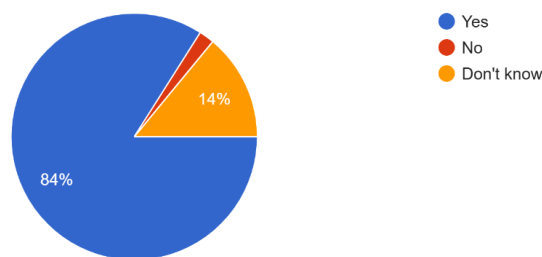
Source:The data was calculated by Microsoft Excel 2019

Figure 1.2 depicts that 100% participants agreed that eating too much butter/ghee or fried food is not good for heart.

Figure 1.3 Percentage distribution of awareness onprocessed food consumption of participants (N=50).

Processed foods are generally high in salt and unhealthy fats

50 responses



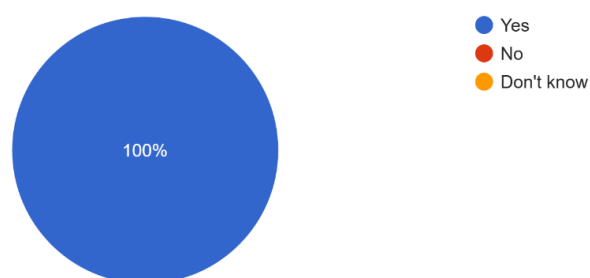
Source:The data was calculated by Microsoft Excel 2019

Figure 1.3 depicts that 84% of participants are aware of the fact that processed foods are generally high in salt and unhealthy fats. 14% of them do not know about it and 2% disagree with the statement.

Figure 1.4 Percentage distribution of awareness about the salt intake of participants (N=50).

Limiting salt intake is important for heart health ?

50 responses

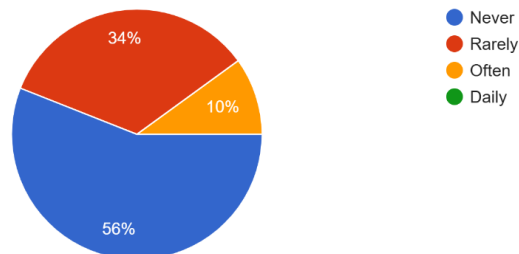


Source:The data was calculated by Microsoft Excel 2019

Figure 1.4 depicts that 100% of all the participants are aware about limiting salt intake for heart health. None of them were confused or unaware with the information.

Figure 1.5 Percentage distribution of consumption of smoke/ tobacco products of participants (N=50).

Do you currently smoke cigarettes/consume other tobacco products ?
50 responses

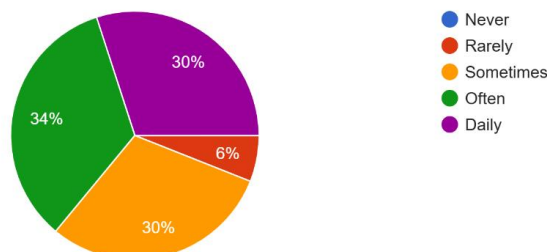


Source: The data was calculated by Microsoft Excel 2019

Figure 1.5 depicts that 56% of participants never smoke or consume other tobacco products. 34% of participants smoke rarely and 10% of them have a daily habit of smoking and having tobacco products.

Figure 1.6 Percentage distribution of participants feeling stressed (N=50).

Do you feel stressed?
50 responses



Source: The data was calculated by Microsoft Excel 2019

Figure 1.6 depicts that 30% of participants feel stressed daily. 34% of them often feel stressed. 30% of participants have a feeling of stress sometimes and 6% of participants rarely feel stressed. None of the participants feel free from stress in a day.

CONCLUSION

This study highlights the critical gaps between nutritional awareness and actual dietary and lifestyle practices among cardiac patients admitted to Rajshree Apollo Hospital in Indore. While most participants demonstrated a basic understanding of the health risks associated with high-fat, salty, and processed foods, their eating habits and lifestyle choices remained largely inconsistent with heart-healthy recommendations. The high prevalence of uncontrolled biochemical parameters such as cholesterol and sodium levels, along with significant stress levels and ongoing tobacco use among a portion of the patients, underscores the urgent need for structured nutritional counselling, psychological support, and lifestyle intervention programs. Addressing these modifiable risk factors through tailored education and consistent follow-up could significantly reduce the burden of cardiovascular disease and improve patient outcomes in both clinical and community settings.

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