

## **Study on the Dietary Pattern Associated with Coronary Artery Disease Among Women in Delhi**

**DEEPSHIKHA SHARMA<sup>1\*</sup> AND SHAGUFTA JAMAL<sup>2</sup>**

<sup>1</sup>Ph.D. Scholar and <sup>2</sup>Professor & Head

Department of Adult and Continuing Education and Extension  
Jamia Millia Islamia, New Delhi (India)

### **ABSTRACT**

World wide, cardiovascular disease claims 17.5 million lives annually. There has been a rapid increase in the prevalence of cardiovascular disease in India, in association with rapid change in diet and lifestyle. It is estimated that every 40 second someone, in the India is has a heart attack. In India, in fact women are more at risk of heart disease today than 3 years ago. In Women the most significant of these include diabetes, hypertriglyceridemia and high density lipoprotein (HDL).

**Key Words :** Dietary pattern, Coronary artery disease, Cardiovascular disease

### **INTRODUCTION**

Coronary artery diseases (CAD) has no racial or geographical boundary. It occurs in all races and in all strata of society, though variation between sexes, age and socio-economic status, dietary habit do exist. India being a developing country with limited resources cannot afford expensive medical expenditure in the treatment of CAD. On the other hand preventing of degenerative disease is cheaper and wise approach. Since the development and progression of atherosclerosis, causing CAD is a slow and gradual process beginning as early as adolescence, it is important that awareness is created in young minds. Inadequate and faulty diet coupled with sedentary lifestyle are often the cause of chronic degenerative disease.

Coronary artery disease causes impaired blood flow in the arteries that supply blood to the heart. Also called Coronary heart disease. The most common cause of CAD is vascular injury with cholesterol plaque buildup in arteries, known as atherosclerosis. Reduced blood flow occurs when one or more of these arteries becomes partially or completely blocked.

It is also the leading cause of death for both men and women in India. It is estimated that every 40 second someone, in the India is has a heart attack.

#### **Objective of the study:**

1. To study the dietary habits patterns of women reside in Delhi.
2. To identify the dietary risk factor associate with coronary artery disease.

#### **Coronary Artery Disease in women:**

In India, in fact women are more at risk of heart disease today than 3 years ago. The last two decades in India have seen a steady rise in incidence of heart disease among women. A study at the Institute of cardiovascular science and research, Bengaluru, which involved 750 patients below the age of 40 with premature coronary heart found that 16% of them were women. Further according to the study, the most worrying factor is that is affecting more women in reproductive age group now unlike in the past when women got it mostly after menopause. Since CAD is becoming an important cause of morbidity and mortality in India, emphasis must be laid

on improvement in health along with rise in life expectancy. In developing countries such as India the focus for long has been on the control of acute and chronic infection and communicable disease. Mortality data from global burden of disease studies has revealed that cardiovascular disease especially coronary heart disease are important causes of Death, worldwide, of the 17.5 million death from cardiovascular disease.

#### Review of literature:

La Rosa (1990), Stated that reduction of cardiovascular mortality in women require that physician be alert to associated risk factor. In Women the most significant of these include diabetes, hypertriglyceridemia and high density lipoprotein (HDL)

Singh (1997), mentioned that, there has been a rapid increase in the prevalence of diabetes and cardiovascular disease in India, in association with rapid change in diet and lifestyle. In adults the prevalence of diabetes, hypertension and coronary artery disease is two to threefold greater in the urban population than in rural population.

Lydia (2002), reported that on the association of fruit and vegetable intake with the risk of cardiovascular disease. The study showed an inverse association of fruit and vegetable intake with the risk of CAD and all cause mortality in the general US population

Reddy (2004), recommended that dietary intake of fats, especially the qualitative composition of fats in the diet, strongly blood, diet, nutrition & prevention of hypertension CHD. Fruits and vegetable contribute to cardiovascular health through a variety of phyto – influenced the risk of CVDs like CHD and stroke, through effects n nutrients, potassium and fiber. Restricting daily salt intake to less than 5g/d.

Gupta (2009) revealed that many of standard coronary risk factors such as smoking and tobacco use, low physical activity, high dietary fat intake, uncontrolled hypertension, diabetes are common among CAD patient in India.

## METHODOLOGY

The data was collected from 100 women respondent from delhi with the help of an interview schedule specially constructed for the purpose of this study.

The interview schedule was prepared by reviewing literature and guidance by the advisor. Necessary precaution were taken to ensure that the question in the

schedule were unambiguous, clear, complete and comprehensive. The data were collected by the researcher on the schedule through personal interview has been tabulate, analyzed using simple percentage test.

## RESULTS AND DISCUSSION

When respondent were asked if they are vegetarian or non vegetarian about 49% of the respondent found vegetarian and 51% of the respondent are non vegetarian (Table 1).

**Table 1 : Distribution of respondent according to vegetarian and non vegetarian**

Vegetarian / Non Vegetarian	Frequency	Percentage
Vegetarian	49	49%
Non vegetarian	51	51%
	100	100

Source : Author Compilation

The finding revealed that 40% of the respondent consumed 0-8.16 gm of fats through green vegetables, whereas 35% of the respondent consumed 8.16 – 16.32 gm of fats, while 25% of the respondent consumed 16.32 – 24.5 gm of fats through green vegetables on weekly basis (Table 2).

**Table 2 : Distribution of respondent according to fats (g) consumed by intake of green vegetable**

Green Veg	Frequency	Percentage
Low (0 – 8.16)	40	40%
Moderate (8.16- 16.32)	35	35%
High (16.32 – 24.5)	25	25%
	100	

Source : Author Compilation

Majority of the respondent *i.e.* 51% of the respondent consumed 1-13 fruits per week, whereas 41% of the respondent consumed 13-26 fruits on weekly basis, while 8% of respondent consumed 26-40 fruits on weekly basis (Table 3).

**Table 3 : Distribution of respondent according to their fruit consumption**

Fruit	Frequency	Per cent
Low	51	51
Moderate	41	41
High	8	8
	100	

Source : Author Compilation

Finding revealed that 48% of respondent consumed 1.3 – 3.16 g of fats through other vegetable, where as 38% of the respondent consumed 3.16-4.46 g of fats through other vegetable, while only 14% of respondent consumed 4.6-6.9 g of fats through other vegetable on weekly basis (Table 4).

Table 4 : Distribution of respondent according to fat consumed by intake of other vegetable		
Other Vegetable	Frequency	Percentage
Low ( 1.3 – 3.16)	48	48%
Moderate (3.16 – 4.46)	38	38%
High ( 4.6 – 6.9)	14	14%
	100	

Majority of respondent *i.e.* 54% of the respondent consumed 101.3 – 202.6 g of fats on weekly basis, while 35% of the respondent consumed 202.6- 381 g of fats on weekly basis, where as only 11% of the respondent consumed 77-101.3 gm of fats (Table 5).

Table 5 : Distribution of respondent according to the total fat consumption		
Total Fats	Frequency	Per cent
Low ( 77-101.3)	11	11%
Moderate (101.3 – 202.6)	54	54%
High (202.6 – 381)	35	35%
	100	

**Conclusion:**

The finding of the study revealed that majority of the respondent with Coronary artery diseases are found to be non vegetarian *i.e.* 51% where as 49% are non vegetarian. Also it is quite evident that majority of Respondent with Coronary artery diseases *i.e.* 40% had low intake of green vegetables and had low intake of

other vegetables.

About 51% of respondents with coronary artery disease found to have low intake of fruits. Majority of the respondent had moderate total fats consumption *i.e.* 54%.

No single study can resolve such a complex problem. However, if there is a co-ordination approach in studying single problem in different part of the country and then communicating the result, then it could surely help to formulate some better way on that problem in future.

There is a need to introduce and strengthen preventive strategies such as Coronary artery diseases awareness education program on large scale.

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