

Awareness of cardiovascular disease among rural women of Uttarakhand

■ Janki Joshi and Nidhi Trivedi

Received: 28.05.2019; Revised: 13.10.2019; Accepted: 27.10.2019

■ **ABSTRACT :** The most common type of heart disease is called coronary artery disease. Coronary artery disease develops when the arteries narrow and become hard. The heart cannot receive all the blood it needs through the stiff narrow arteries. Symptoms include pressure and chest pain or squeezing in the chest which is also known as angina. Present study was conducted to assess the awareness of rural women regarding cardiovascular disease and to see the association between educational level of the respondents and their awareness level about cardiovascular disease. It was found that 77 per cent respondents had low level of awareness regarding cardiovascular disease followed by 15 per cent respondents had medium level of awareness, whereas only 12 per cent respondents has high level of /awareness of cardiovascular disease. To see the association between educational level of the respondents and their awareness level about cardiovascular disease Chi-square test was applied and the results were found to be significant at $p < 0.05$, indicating that educational level of respondents affect their awareness of Cardiovascular Disease.

■ **KEY WORDS:** Cardiovascular disease, Risk factor, Dietary modification, Lifestyle modification

■ **HOW TO CITE THIS PAPER :** Janki, Joshi and Trivedi, Nidhi (2019). Awareness of cardiovascular disease among rural women of Uttarakhand. *Asian J. Home Sci.*, 14 (2) : 325-328, DOI: 10.15740/HAS/AJHS/14.2/325-328. Copyright@ 2019: Hind Agri-Horticultural Society.

See end of the paper for authors' affiliations →

Janki Joshi

Department of Home Science,
Surajmal Agarwal Private Kanya
Mahavidyala, Kichha
(Uttarakhand) India
Email : janki.30121@gmail.com

The most common type of heart disease is called coronary artery disease. Coronary artery disease develops when the arteries narrow and become hard. The heart cannot receive all the blood it needs through the stiff narrow arteries. Symptoms include pressure and chest pain or squeezing in the chest which is also known as angina. The prevalence of cardiovascular disease in India has risen four-fold in the past four decades stated (Rissam *et al.*, 2010). Indians are succumbing to heart disease and stroke in the most productive age of their lives and about a decade earlier

than their western counterparts. Cardiovascular disease causes 8.5 million deaths among women annually. It is the largest and single cause of mortality among women, accounting for one-third of all deaths among women worldwide. In developing countries, half of all deaths of women over 50 are due to heart disease and stroke reports (Xavier, 2008). Generally rural women are not aware about the disease, symptoms, cause and prevention of the cardiovascular disease.

Present study was conducted to assess the awareness of rural women regarding cardiovascular

disease and to see the association between educational level of the respondents and their awareness level about cardiovascular disease and its facts.

■ RESEARCH METHODS

A bench mark survey was carried out by investigator. Multistage, purposive-cum-random sampling technique was used. For the present study, Uttarakhand state was selected purposively as the investigator belonged to it. Districts U.S. Nagar was selected purposively from the state as this was near to the place of residence of the investigator. Rudrapur block from district and Jawahar Nagar village was selected purposively. Total sample size comprised of 100 women selected randomly. Two point rating scale was developed in order to measure the awareness of the respondents regarding cardiovascular disease. Total 36 statements regarding symptoms, risk factors and way to reduce the chances of cardiovascular disease including dietary modification and lifestyle modification were used to check the awareness of the respondents. Awareness level of the respondent was measured with the help of score obtained by individual respondents. Range of score obtain by individual vary from 1-72. A three point awareness scale was developed on the basis of range of score.

The extent of awareness level was categorized as low (mean scores 1-24), medium (mean scores 25-48) and high (mean scores 49-72) on the basis of scores obtained. All the responses received on the data sheet were categorized and analysed using both descriptive and the rational statistics including frequency, percentage and Chi-square test.

■ RESEARCH FINDINGS AND DISCUSSION

Awareness among respondents regarding cardiovascular disease, its symptoms, risk factors and way to reduced chances of cardiovascular disease through lifestyle modification and dietary modification were summarized in Table 1.

Table 1 reveals that only 12 per cent respondents were aware with the fact that cardiovascular disease affect heart, in case of symptoms of cardiovascular disease 11 per cent respondents was aware with the facts that pain or discomfort is the symptom of heart disease. While 34 per cent were aware with the facts that hypertension is the risk factor of cardiovascular

disease and 31 per cent respondents were aware that obesity and age between 50-55 years are the risk factors of cardiovascular disease. Only 13 per cent respondent were aware with the fact that avoiding saturated fat reduces the chance of cardiovascular disease, whereas 14 per cent were aware that consuming skimmed milk and milk products in daily diet reduce the chance of cardiovascular disease, 16 per cent were with the fact that drinking lots of fluids and fibre rich diet reduces the chance of cardiovascular disease. It was found that 24 per cent respondents were aware with the fact that consuming plenty of fruits and juices reduce the chance of cardiovascular disease and 22 per cent were aware with the fact that avoiding sauces, snacks fried foods, *Papads*, pickels, table salt reduce the chance of cardiovascular disease. Maximum 33 per cent respondents were aware with the fact that including green leafy vegetables, radish, carrot, and onion reduces the chance of cardiovascular disease.

Only three per cent respondents were aware with the fact that maintaining normal BMI (18.9 -24.9) reduces the chance of cardiovascular disease, eight per cent were aware that meditating regularly reduce the chance of cardiovascular disease and 16 per cent were aware with the fact that doing regular aerobic, physical activity such as brisk walking for 30 minutes reduces the chance of cardiovascular disease. It was also found that maximum 43 per cent were aware with the fact that avoiding alcohol and smoking reduce the chance of cardiovascular disease.

Awareness level of respondent regarding cardiovascular disease:

Table 2 shows that maximum 77 per cent respondents had low level of awareness regarding cardiovascular disease followed by 15 per cent respondents had medium level of awareness, whereas only 12 per cent respondents has high level of awareness of cardiovascular disease.

It revealed awareness about cardiovascular disease was found more among educated respondents because most of educated women were from teaching profession.

Hypothesis testing:

Null hypothesis was formulated to see the association between educational level of the respondents and their awareness about cardiovascular disease. The

Table 1 : Awareness of the respondents regarding Cardiovascular Disease		(n=100)	
Sr. No.	Parameters	Aware	Not aware
About heart disease			
1.	Cardiovascular disease affect heart	12	88
2.	It is potent killer of human being	10	90
3.	In Cardiovascular Disease coronary arteries get narrow	11	89
4.	Heart attack is lack of blood to the heart	9	91
Symptoms of heart disease			
5.	Pain or discomfort in the jaw, neck, or back	7	93
6.	Palpitation	7	93
7.	Feeling weak, light headache or faint	8	92
8.	Chest pain or discomfort	11	97
9.	Pain or discomfort in arms or shoulders	9	91
10.	Difficulty in breathing or shortness of breath	9	91
11.	Sudden numbness or weakness of the face, arm or leg	8	92
12.	Sudden confusion or trouble speaking or understanding others	6	94
13.	Sudden trouble seeing in one or both eyes	4	96
14.	Sudden dizziness, trouble walking or loss of balance or coordination	8	92
15.	Severe headache	5	95
Risk factors of cardiovascular disease			
16.	Smoking is risk factors of Cardiovascular Disease	23	77
17.	Unhealthy diet such as diets high in saturated fats, cholesterol and salt	18	82
18.	Men are more susceptible to Cardiovascular Disease as compared to women	12	88
19.	Cardiovascular Disease occur maximum at around 50- 55 years	31	79
20.	Physical inactivity (lack of exercise)	15	85
21.	Sedentary life style	16	84
22.	Obesity	31	69
23.	Stress	16	84
24.	Positive family history of cardiovascular disease	14	86
25.	Hypertension	34	66
26.	Diabetes	32	68
Dietary modification			
27.	Avoiding saturated fat reduces the chance of Cardiovascular Disease	13	87
28.	Consuming plenty of fruits and juices reduce the chance of Cardiovascular Disease	24	76
29.	Including green leafy vegetables radish, carrot and onion reduce the chance of Cardiovascular Disease	33	67
30.	Consuming skimmed milk and milk products in daily diet reduce the chance of Cardiovascular Disease	14	86
31.	Avoiding sauces, snacks fried foods, <i>Papads</i> , pickels, table salt reduce the chance of Cardiovascular Disease	22	78
32.	Drinking lots of fluids and fiber rich diet reduces the chance of Cardiovascular Disease	16	84
Lifestyle modification			
33.	Maintaining normal BMI(18.9 -24.9) reduces the chance of Cardiovascular Disease	3	97
34.	Doing regular aerobic, physical activity such as brisk walking for 30 minutes reduces the chance of Cardiovascular Disease	16	84
35.	Avoiding alcohol and smoking reduce the chance of Cardiovascular Disease	43	57
36.	Meditating regularly reduce the chance of Cardiovascular Disease	8	92

result is presented in Table 3.

H0: There is no association between the educational level of respondents and their awareness about

cardiovascular disease.

H1: There is an association between the educational level of respondents and their awareness about

Table 2 : Awareness level of respondents regarding cardiovascular disease	
Awareness level	N=100
Low	77
Medium	15
High	12

Table 3 : Chi-square for awareness of respondents regarding cardiovascular disease and their educational level				
Educational level	Awareness level			p- value
	Low	Medium	High	
Illiterate	12	0	0	2.35527E-08
Primary	10	1	0	
High school	12	3	1	
Intermediate	38	6	2	
Above intermediate	1	5	9	

cardiovascular disease.

The result was found to be significant at $p < 0.05$, indicating that awareness about cardiovascular disease depends on the educational level of the respondents. If educational level was high among respondents, more such respondents were aware of cardiovascular disease and null hypothesis was rejected (Mobasser *et al.*, 2008).

Conclusion:

From the whole, it was concluded that only few people were about cardiovascular disease. The reason of this might be due to low level of education. One more reason of this might be lack of awareness programme in rural area especially for women.

Authors’ affiliations:

Nidhi Trivedi, Department of Home Science, Surajmal Agarwal Private Kanya Mahavidyala, Kichha (Uttarakhand) India

REFERENCES

Mobasser, S., Liebson P.R. and Klein, L.W. (2008). Cardiovascular disease in women, Awareness, Prevention and psychosocial characteristics, *Heart Drug*, **3** : 191-202.

Rissam, H.S., Kishore, S. and Trehan, N. (2010). Coronary Artery Disease in young Indians – The missing link, *J. Indian Academy Clinical Nutri.*, **83** : 1265 – 1271.

Xavier, S. (2008). India to carry majority of world’s heart disease burden by 2010. *J. American Dietetic Association*, **123** (7) : 1423-1435.

