



**“A PRE-EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING MODIFIABLE RISK FACTORS AND LIFESTYLE MODIFICATION AMONG CORONARY ARTERY DISEASE PATIENTS ADMITTED IN SELECTED HOSPITAL IN DELHI/NCR”**

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**ARTICLE INFO**

**Article History:**

Received 10<sup>th</sup> December, 2019

Received in revised form 2<sup>nd</sup>

January, 2020

Accepted 26<sup>th</sup> February, 2020

Published online 28<sup>th</sup> March, 2020

**Key words:**

Coronary artery disease patient; Knowledge;  
Modifiable risk factor and life style  
modification

**ABSTRACT**

**Background:** Coronary artery disease have been leading cause of morbidity and mortality in India. Recent trends indicate that the disease has escalated to younger age groups also. Sometimes, a clot can obstruct the flow of blood to the heart muscle. Coronary artery disease commonly causes angina pectoris, shortness of breath, myocardial infarction, or heart attack. Coronary artery disease is the most common type of heart disease in the India, where it accounts for 370,000 deaths every year. **Aim:** The aim of the study was to evaluate the effectiveness of structured teaching programme in terms of knowledge regarding Modifiable Risk Factors And Lifestyle Modification Among Coronary Artery Disease Patients, **Methodology:** Pre-experimental research design was adopted and Non-probability purposive sampling technique was used to collect the sample from 30 coronary artery disease patient admitted in cardiology ward. Data obtained was analysed and interpreted in the light of the objectives using both descriptive and inferential statistics. **Results:** The findings of the study revealed that the mean post-test knowledge of the coronary artery disease patients admitted in cardiology ward was significantly higher than the mean pre- test knowledge score. **Conclusion:** Thus, the research study findings indicated that the structured teaching programme was effective in improving the knowledge of coronary artery disease patient admitted in the cardiology ward.

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**INTRODUCTION**

**Coronary artery disease (CAD)** is the leading cause of death worldwide. While the symptoms and signs of coronary artery disease are noted in the advanced stage of disease, but most of individuals with coronary artery disease show no evidence of disease but as the disease progresses before the first onset of symptoms, often a "sudden" heart attack, finally arises. Despite all-round efforts in the prevention and management of this disease, it remains a major challenge to the health managers and scientists.<sup>1</sup>

In 2015, CAD affected 110 million people and resulted in 8.9 million death<sup>2</sup> makes up 15.6% of all deaths, making it the most common cause of death globally. The risk of death from CAD for a given age decreased between 1980 and 2010, especially in developed countries.<sup>3</sup> The number of cases of CAD for a given age also decreased between 1990 and 2010.<sup>4</sup> In the United States in 2010, about 20% of those over 65 had CAD, while it was present in 7% of those 45 to 64, and

1.3% of those 18 to 45; rates were higher among men than women of a given age<sup>5</sup>. An estimated 17 million people die of coronary artery disease every year. A substantial number of these deaths can be attributed to tobacco smoking. Physical activity or exercise is a part of everyone's life. However, it is the degree of physical exertion that differs among people<sup>6</sup>. Physical inactivity and unhealthy diet are other main risk factors which increase individual risks to cardiovascular diseases. One of the strategies to respond to the challenges to population health and wellbeing due to development and implementation of appropriate policies. According to existing knowledge, Coronary artery disease epidemics are essentially preventable. Many traditional risk factors for CAD are related to lifestyle, therefore preventative treatment can be tailored to modifying specific factors.<sup>7</sup> It is very important to know these risks to reduce disability and premature deaths from CHD, cerebrovascular disease and peripheral vascular disease in people at high risk, who have not yet experienced a cardiovascular event. People with established CVD are at very high risk of recurrent events<sup>8</sup>.

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**Problem statement**

A Pre-Experimental Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Modifiable Risk Factors and Lifestyle Modification Among Coronary Artery Disease Patients Admitted in Selected Hospital in Delhi/ NCR.

**Objectives of the study**

To assess the level of knowledge regarding modifiable risk factors and lifestyle modification among coronary artery disease patients before and after administration of structured teaching programme.

To evaluate the effectiveness of structured teaching programme on knowledge regarding modifiable risk factors and life style modification among coronary artery disease patients.

To determine association between the post-test knowledge score on modifiable risk factors and life style modification among coronary artery disease patients with selected demographic variables.

**MATERIAL AND METHODS**

**Research Approach-** Quantitative research approach

**Research Design-** Pre-experimental one group pre-test and post-test research design

**Variables**

**Independent Variables:** In this study independent variable is structured teaching programmer regarding modifiable risk factors and life style modification among coronary artery disease patient.

**Dependent Variable:** In this study dependent variable refers to knowledge regarding modifiable risk factors and life style modification among coronary artery disease patient.

**Selected Demographic variable-** In my study demographic variables are Age ,Gender, Religion, Education level, ,Marital status, Occupation, History of illness ,Type of family, Family history of hypertension and diabetes mellitus, Habit of alcohol and smoking, type of diet.

**Setting-**Cardiology ward units of selected Hospital of Delhi, NCR.

**Population-**Coronary artery disease patients

**Sample-**30Coronary artery disease patients

**Sampling Technique** – Non probability purposive sampling technique

**Sample Size-**30 coronary artery disease patients.

**RESULTS**

Results collected from the study revealed that majority of coronary artery disease patientsknowledge regarding Modifiable Risk Factors and Lifestyle Modification Among Coronary Artery Disease improved after the implementation of structured teaching programme.

**DISCUSSION**

The findings of the study revealed that (1) the mean post-test knowledge and mean post-test knowledge scores of the coronary artery disease patientsadmitted in cardiology ward

was significantly higher than the mean pre-test knowledge scores.

(2)Fisher’s exact test was used to find the association between post-test knowledge score with selected demographic variables and findings showed that there was a significant association between post-test knowledge score with last recorded blood pressure and history of medical illnessat 0.05 level of significance.

**CONCLUSION**

The research study findings indicated that the structured teaching programme was effective in improving the knowledge of coronary artery disease patientsadmitted in cardiology ward.

**Table 1** Research Design

GROUP	Day 1		Day 5
	Pre-test (O1)	Intervention (X)	Post Test (O2)
30 Coronary artery disease Patients	Tool I- Demographic data Tool II- Knowledge Questionnaire.	Administration of planned teaching programme.	Tool II- Knowledge Questionnaire.

**Table 2** Mean, mean difference, median, standard deviation, t-value of knowledge score regarding modifiable risk factors and life style modificationa mong coronary arrey disease patients.

N=30

Test	Range	Mean	Mean difference	Median	Standard Deviation	t-value
PRE-TEST	4-13	7.83	15.67	9	4.22	25.04*
POST-TEST	20-27	23.5		24.7	4	

The data represented in Table 2 indicates that the mean post-test knowledge score of coronary artery disease was 23 with 4 standard deviation. The mean pre- test knowledge score was 7.83 with 4.22 standard deviation. The mean difference was found to be 15.67. The obtained mean difference was found to be statistically significant as evident from the “t” value of 25.04 which is greater than table value (2.05) for df (29) at 0.05 level of significance. Hence the null hypothesis was rejected and research hypothesis was accepted. Thus it was evident that structured teaching programme was effective in improving the knowledge of coronary artery disease patients

**Table – 3 H<sub>02</sub>**-There is no significant association between the post-test knowledge scores regarding modifiable risk factors and life style modification among coronary artery disease patients with the selected demographic variables at 0.05 level of significance.

N=30

Demographic variable	knowledge score		P value	Inference
	Below median	Above median		
<b>1.Age in years</b>				
A. Below 25 -29	0	0		
B.30-50	10	3	0.28	NS
C. Above 50	16	1		
<b>2.Gender</b>				
A. Male	21	4	0.46	NS
B. Female	5	0		

Demographic variable	Knowledge score			Inference
	Below median	Above median	P value	
<b>3. Religion</b>	23	3		NS
A. Hindu	1	0	0.37	
B. Muslim	0	1		
C. Christian	2	0		
D. Sikh	0	0		
E. Any other	0	0		
<b>4. Education level</b>	0	0		NS
A. No formal education	4	0	0.26	
B. Secondary	14	4		
C. Senior Secondary	8	0		
D. Graduate	0	0		
E. Post-graduate	0	0		
F. Any other (specify)	0	0		

Demographic variable	Knowledge score			Inference
	Below median	Above median	P value	
<b>5. Marital status</b>	21	3		NS
A. Married	0	0	0.44	
B. Unmarried	1	0		
C. Divorce	3	0		
D. Widow/widower	1	1		
E. Separated	0	0		
<b>6. Occupation</b>	0	0		NS
A. Unemployed	12	2	0.39	
B. Employed	8	2		
C. Retired	6	0		
D. Business	0	0		
<b>7. Any other history of medical illness</b>				S
A. No	0	0	0	
B. If yes	26	4		
▪ Diabetes				
▪ Hypertension				
Any other (specify)				

Demographic variable	Knowledge score			Inference
	Below median	Above median	P value	
<b>8. Type of family</b>	19	4		NS
A. Joint family	7	0	0.32	
B. Nuclear family				
<b>9. Family history of hypertension</b>	17	2		NS
A. Yes	9	2	1.20	
B. No				
<b>10. Family history of diabetes mellitus</b>	11	2		NS
A. Yes	14	3	0.26	
B. No				
<b>11. Do you have any habit of-</b>				NS
(a) Smoking			0.95	
▪ No	10	2		
▪ If yes (how many/day)	16	2		
▪ Quit (How many years)	0	0		

Demographic variable	Knowledge score			Inference
	Below median	Above median	P value	
(b) Alcohol				NS
▪ No	8	0	0.26	
▪ If yes (how often do you take alcohol/day)	13	4		
▪ Quit (How many years)	5	0		
<b>12. What is your last recorded blood pressure.</b>				
Optimal	12	3		
Pre-hypertension	8	1		
Stage-1	6	0		
Stage -11	0	0		
<b>13. Which type of diet do you take?</b>				NS
Vegetarian	10	1	0.95	
Non-vegetarian	3	11		
Vegetarian with egg	5	0		

Significant at 0.05 level of significance

Data presented in the table 3 it shows the Fisher’s Exact test value obtained to find out the association between post-test knowledge score of coronary artery disease with demographic variable. There is a significant association between the post-test knowledge score with selected demographic variable i.e last recorded blood pressure and history of medical illness at 0.05 level of significance hence the H2 is accepted for last recorded blood pressure and history of medical illness and null hypothesis rejected. Where as variables such as Age, Gender, marital status, religion, education, occupation, type of family, family history of hypertension, and diabetes mellitus. history of smoking/alcohol, type of diet indicates that the demographic variables and post-test knowledge score of coronary artery disease patients does not have significant association and were independent of each other. Thus null hypothesis was accepted and research hypothesis was rejected

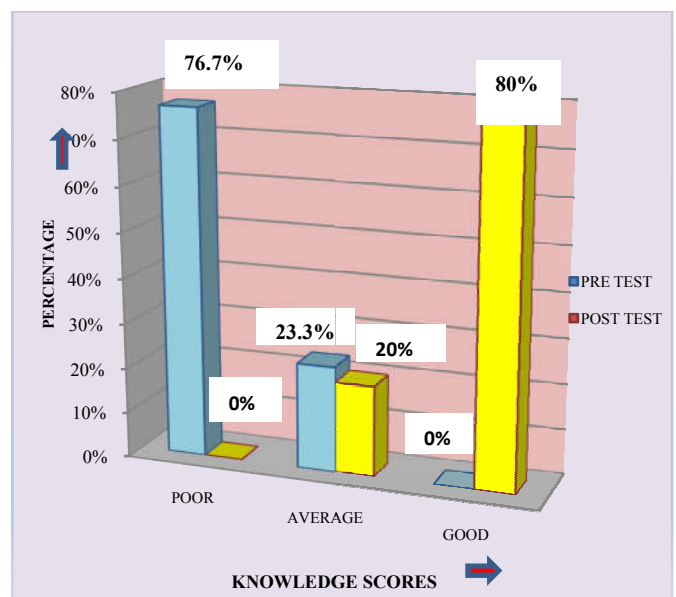


Figure 1 Findings related to assessment of knowledge regarding modifiable risk factors and life style modification among coronary artery disease patients before and after administration of structure teaching programme. N=30

Figure 1 Bar Diagram Depicting The Frequency And Percentage Distribution Of Pre-Test And Post-Test Knowledge Score Regarding Modifiable Risk Factors And Life Style Modification Among Coronary Artery Disease Patients.

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### How to cite this article:

Ms. Shalini, and Lavanya Nandan (2020) ' Study “A Pre-Experimental Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Modifiable Risk Factors and Lifestyle Modification Among Coronary Artery Disease Patients Admitted in Selected Hospital in Delhi/Ncr”', *International Journal of Current Advanced Research*, 09(03), pp. 21498-21501. DOI: <http://dx.doi.org/10.24327/ijcar.2020.21501.4227>

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