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# A STUDY TO ASSESS THE EFFECTIVENESS OF INSTRUCTIONAL MODULE REGARDING MODIFICATION OF CORONARY RISK FACTORS AND PREVENTION OF FURTHER HEART ATTACKS ON KNOWLEDGE AMONG CORONARY ARTERY DISEASE PATIENTS ADMITTED IN J.L.N.HOSPITAL AND RESEARCH CENTER AT BHILAI CHHATTISGARH

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***Abstract***

*Coronary heart disease has reached epidemic proportion among Indians. Coronary heart disease is the leading cause of death in India .coronary heart mortality in India 1.46 million death per 100,000 and 15,588,000 daily according to WHO in 2004. Coronary heart disease with an untreated annual mortality rate of 4% per year in patients with Chhattisgarh live in Indian by 2010. To assess the level of knowledge regarding modification of coronary risk factors and prevention of further heart attacks among coronary artery disease patients admitted in J .L.N. Hospital and Research Centre Bhilai.*

***Keywords****: Assess, Effectiveness, Modification, Knowledge, Prevention*

## INTRODUCTION:

Coronary heart disease has reached epidemic proportion among Indians. Coronary heart disease is the leading cause of death in India .coronary heart mortality in India 1.46 million death per 100,000 and 15,588,000 daily according to WHO in 2004. Coronary heart disease with an untreated annual mortality rate of 4% per year in patients with Chhattisgarh live in Indian by 2010.In Chhattisgarh health system needs providing information for increasing awareness to prevent further heart attack ,and early detection of risk factors and needs to focus healthy living habits by the coronary artery disease patients for further prevention of heart attack. The prevalence of coronary heart disease is higher in India ,Chhattisgarh because of fast life, physical inactivity, people are under stress, adopt unhealthy food pattern, and there is no excuse all these risk factors predispose to coronary heart disease.

**OPTIMISM IS A KIND OF HEART STIMULANT- THE DIGITALIS OF FAILURE**

**THE OBJECTIVES OF THE STUDY WERE**

1. To assess the level of knowledge regarding modification of coronary risk factors and prevention of further heart attacks among coronary artery disease patients admitted in J .L.N. Hospital and Research Centre Bhilai.
2. To assess the effectiveness of instructional module regarding modification of coronary risk

factors and prevention of further heart attacks.

3. To find out the association between knowledge regarding modification of coronary risk factors and prevention on further heart attacks and selected demographic variables.

**The conceptual framework was based on bertanlanffys general system model.**

## MATERIAL AND METHODS

### RESEARCH APPROACH

The research approach was evaluative in nature as the investigator seeks to determine the knowledge regarding modification of coronary risk factors and prevention of further heart attack.

### RESEARCH DESIGN

The research design is the backbone or the structure of the study. It provides a framework that supports and holds it together. **Polit and Hungler** stated that a research design incorporates the most important methodological decisions that a researcher makes in conducting a research study.

The research design for this study was one group pre-test post-test design pre experimental design. Sampling technique –simple random sampling and sample size were 60.

### SECTION -A

Description of study subject according to socio demo graphic variables. According to the socio-demographic variables the age group of the coronary artery patients assessed revealed that higher proportion of coronary artery disease patients 27 [54%] belongs to the age group of above 60years; another l7 [34%] of them belonged to the age group of 51-60 years and another 6 patients belonged to the age group of 41-50 years.

Related to gender, 30 [60%] patients were female and 20 [40%] patients were male. With regards to the educational qualification of the patients assessed majority of the patients 22 [44%] were primary educated 9[l8%] was in middle group,1l [22%] patients were in high school and 8[l6%] was graduated.

Finding regarding religion 42 [84%] patients were Hindu 3 [6%] patients were Muslim and 5 [10%] were Christian.

Related to occupation 10[20%] patients were businessman and private sector worker, 9 [18%] patients were government employee and 20[40%] patients were farmer and 11[22%] patients were in B.S.P. employee. As per weight distribution] maximum patients were 25[50%] had above 70l<g, and minimum patients had weight 40-50.kg.

Related to dietary habits indicates that 21 [42%] were vegetarian and 29[58%] patients were in

both [vegetarian and non vegetarian] table 4.8. [Figure 4.10] shows that maximum 22 [44%] were taking tobacco; 6[l2%] patients were taking alcohol 11[22%] were smokers and 1l [22%] were not addicted to any bad habits.Findings related to other related risk factors indicates that maximum 17 [34%] in diabetes group and 16 [34%] in hypertensive group and minimum in 4[8%] were in obesity group.

According duration of illness recently admitted in 14 [28%] patients and l year in 18 [36%] another 12 [24%] in duration of illness in 2year. In relation to type of family that 21 [42%] are belonging to joint family and 29 [58%] are patients belonging to nuclear family.

In relation to income as depicted in in the maximum 21 [42%] had in between income of 5001-10000\month, 20 [40%] had an income of Rs.10001-15000 per month; and 5 [10%] had an income of 10001-20000 per month and minimum income had 4 [8%] of above 20000 per month.

**SECTION -B**

I. Data analysis related to pre-test knowledge level of coronary artery disease patients regarding modification of coronary risk factors and further prevention of heart attack
II. Area wise analysis.
III. Data analysis of overall knowledge score as per criteria.

**I. Analysis of pre-test knowledge score of coronary artery disease patient.**

Analysis of pre-test knowledge score of coronary artery disease patients regarding modification of coronary risk factors and prevention of further heart attacks depicted in table 4.13 [Figure 4.l5] depicts that in the maximum 29% patients had poor knowledge and minimum 21% patients had average knowledge. None of the patients was in good criteria.

**II. Total area wise analysis of knowledge score in pretest and post test.**

The mean knowledge scores percentage in various areas before and after administration of instructional module. Maximum score increase in knowledge in the area of dietary pattern from 44.93% to 73.46% and the minimum score obtained in the of area of risk factors from 60% to 79% another areas bad habits from 52% to 75% and stress management from 44% to 66% and follow up care and medicine from 50% to 70%.

Thus the first objective is to assess the level of knowledge regarding modification of coronary risk factors and prevention of further heart attacks was achieved.

They reported that less-educated participants were more likely to be disadvantaged (e.g., past smoking, sedentary lifestyle, high fat diet, overweight, depression) than those of higher-SES participants. By 3 months, participants at all SES levels reported consuming l0% or less dietary fat, exercising 3.5 hours per week or more, and practicing stress management 5.5 hours per

week or more. These self-reports were substantiated by improvements in risk factors (e.g., 5-kg weight loss, and improved blood pressure, low-density lipoprotein cholesterol, and exercise capacity; P < .00l), and accompanied by improvements in well-being (e.g., depression, hostility, quality of life; P < .00l), Significant at <0.001.

**III. Analysis of overall knowledge score as per-criterion**

Analysis of pre-test knowledge score of coronary artery disease patients regarding modification of coronary risk factors and prevention of further heart attacks depicted in table 4.13 [figure-4.15] depicts that in the maximum 29 patients had poor knowledge and minimum 21 patients had average knowledge. None of the patients was in good criteria. In the post test 30 patients had average knowledge and 20 patients had good knowledge.

**SECTION- C**

Z test to evaluate the effectiveness of instructional module on knowledge related to modification of coronary artery disease and further prevention of heart attack.

In order to achieve the second objective to assess the effectiveness of Instructional module regarding modification of coronary artery disease and further prevention of heart attack by post-test score of experimental group by inferential statistics. Z test value of 12.92 at was highly significant at 0.05 table level. Which indicates that the post test was significantly higher and instructional module was effective in increasing the knowledge?

First hypothesis there will be significant Change in the knowledge regarding modification of coronary risk factors and prevention of further heart attacks among patients of Coronary Artery Disease after administration of instructional module was accepted.

**SECTION- D**

Comparison of knowledge scores between pretest and post test by frequency and percentage.

**Analysis of Comparison of overall knowledge scores of subjects in pretest and post test.**

Comparison of overall knowledge scores in pre test and post test in terms of total score, mean score, mean score percentage and standard deviation was depicted in table no. l6 [figure no.-18] .The total knowledge scores in pre test and post test was 725 and 1075 respectively out of 1500. The total mean and mean score % of pre test and post test was 14.4 [29%] and 21.5 [43%] respectively. The SD of pretest was 2.92 while that of the post-test was 2.46 which reveal the consistency of the scores. All the scores clearly indicates that there was a significant increase in the post test knowledge scores of patients related to the knowledge regarding modification of coronary risk factors and prevention of further heart attacks.

**SECTION- E**

Association between selected sociodemographic variable with pretest knowledge score of coronary artery disease patients was using chi-square test and frequency.

The third objective was association between selected sociodemographic variables with the knowledge modification of coronary artery disease and further prevention of heart attack.

The analysis of present study by chi-square analysis [table -4.16] revealed that there was no significant association between the pre test knowledge scores of patients with selected sociodemographic variables such as age as calculated value of 0.998 is smaller than the table value 5.99, gender of the patients 0.547 is smaller than the table value 3.84 and education of the patients 6.17 is smaller than the table value 7.14 and religion 4.25 is smaller than the table value 7.81. It indicates that there is no association of pre test knowledge score with selected sociodemographic variable.

Further the obtained chi-square of occupation of the coronary artery disease patients 6.10 is greater than the table value 5.99. lt indicates there is association between the pre test knowledge scores with occupation of the coronary artery disease patient. The second hypothesis there will be significant association between pre test knowledge score regarding instructional module on modification of coronary risk factors and prevention of` further heart attacks with selected sociodemographic variable is rejected in the area of age, gender, education, religion, weight, habits, risk factors duration of illness and income and accepted in the area of occupation of` the coronary artery disease patients.

**IMPLICATION**

The finding of the study have several implication in the following fields for nursing practice ,nursing administration ,nursing education and nursing research:-The study can be replicated on larger samples in different settings to have a wider applicability by generalization.

A similar study can be carried out with post test only control group design to find the effectiveness of instructional module of modification of coronary risk factors and further prevention of heart attack in assessing the knowledge of coronary artery disease patients.

Nurse administrators should take up leadership roles in training and providing health education programmes to nursing personnel in health care settings so that these personnel take up active role in educating the clients by making the most use media and audio visual aid.

There is a need for extensive and intensive research in this area so that strategies for educating nurses and the public on the knowledge of coronary artery disease can be developed

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