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Effectiveness of structured teaching program on prevention of coronary artery disease among hypertensive clients in selected urban community.

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ABSTRACT

Problem: Cardiovascular disease is the commonest cause of morbidity and mortality globally. Its victims are older in the developed world but younger in developing countries like India where it affects mainly the productive age group. Fortunately cardiovascular disease is preceded by certain modifiable and non-modifiable risk factors which can be identified and corrected before a full blown disease occurs. The present study is aimed to assess the effectiveness of structured teaching program on prevention of Coronary Artery Disease among hypertensive clients in selected urban community. **Experimental approach:** study involved one group pre test and post test using pre experimental design, with purposive sampling technique. The main study conducted among 50 hypertensive clients. **Major Findings:** The results shows that pre-test mean knowledge score obtained by the subjects was 16.24. Post-test mean knowledge score increased to 28.98 and found to be significant at the level of $P < 0.05$. **Conclusion:** Subjects revealed that 56% had inadequate knowledge and 44% of subjects had moderate knowledge in pre-test, the post-test 24% of subjects had moderate knowledge and 76% of subjects had adequate knowledge. Hence the above findings indicate that the structured teaching program was effective in increasing the knowledge of the subjects regarding prevention of coronary artery disease.

Keywords: Coronary Artery Disease (CAD) or Coronary Heart Disease (CHD), Hypertensive Clients, Cardiovascular Disease

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INTRODUCTION

Achieving and maintaining health is an ongoing process, shaped by both the evolution of health care knowledge and practices, as well as personal strategies and organized interventions for staying healthy. Health is maintained and improved not only through the advancement and application of health sciences, but also through the efforts and intelligent lifestyle choice of the individual and society[1]. Coronary Artery Disease (CAD) or Coronary Heart Disease (CHD) is the most common type of heart disease causing maximum number of deaths worldwide [2]. In 2010, an estimated 785,000 Americans had a new coronary attack and about 470,000 had a recurrent event. In India, an estimated 1.5 million people die of Coronary Artery Disease every year [3]. Heart disease is the third leading cause of death among women aged 25-44 years and the second leading cause of death among women aged 45-64 years. The prevalence of Coronary Artery Disease among adults was estimated at 96.7 per 1000 population in the urban and 27.1 percent in rural areas of India.

METHODOLOGY

Evaluative research approach, Research design selected was pre-experimental with one group pre-test and post-test design.

Purposive sampling technique was adopted for 50 hypertensive clients residing in selected urban community, begur, bengaluru. Hypertensive clients included for the study age between 25-60 willing to participate, who are available during the time of data collection. Structured knowledge questionnaire is used to collect the data which consist of two sections part I and part II. Part I: consists of items on demographic variable, Part II: consists of knowledge items regarding prevention of Coronary Artery Disease. For the scoring key for Part II score "1" and "0" are awarded to correct and wrong responses. Thus the maximum score in knowledge items is 40.

RESULTS

Hypothesis of the study

H_1 – there will be significant difference between the pre and post test knowledge scores on prevention of coronary artery disease among hypertensive clients.

H_2 - there will be significant association between the pre-test knowledge scores with selected demographic variables of hypertensive clients on prevention of coronary artery disease.

Table-1: Area wise mean and standard deviation for the knowledge of participants on prevention of coronary artery disease in pre-test

S.No	Area wise	No of items	Mean	Mean %	S.D
1	Structure and functions of heart	5	3.32	66.4%	0.88
2	Coronary Heart Disease	16	7.56	47.25%	3.67
3	Prevention of Coronary Heart Disease	19	5.36	28.21%	2.43
4	Overall knowledge	40	16.24	40.6%	5.9

The above table-1, explains overall mean knowledge score of hypertensive clients in the pre-test is 16.24 with standard deviation 5.9 in the pre-test. The highest mean score 3.32 is found in the area of structure and function of heart and minimum mean score 5.36 was found in the area of prevention of coronary heart disease respectively.

Table-2: Area wise mean and standard deviation for the knowledge of participants on prevention of coronary artery disease in post-test.

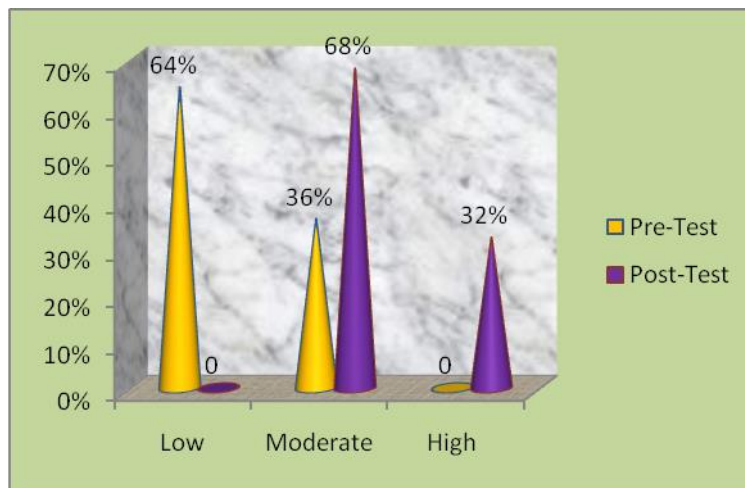
S.No	Area wise	No of items	Mean	Mean %	S.D
1	Structure and functions of heart	5	402	84%	0.69
2	Coronary Heart Disease	16	11.3	70.62%	2.29
3	Prevention of Coronary Heart Disease	19	13.48	70.94%	2.78
4	Overall knowledge	40	28.98	72.45%	3.83

The above table-2, illustrates overall mean knowledge score of hypertensive clients in the post-test is 16.24 with standard deviation 3.83. The minimum mean score 4.2 is found in the area of structure and function of heart and maximum mean score 13.48 was found in the area of prevention of coronary heart disease respectively.

TABLE 3: KNOWLEDGE ENHANCEMENT TABLE N=50

S.No	KNOWLEDGE	LOW		MODERATE		HIGH	
		Frequency	%	Frequency	%	Frequency	%
1	Pre-Test	32	64	18	36	0	0
2	Post-Test	0	0	34	68	16	32

Less than 50%-Low, 50-75%-Moderate, 75-100% -High



DISCUSSION

The improvement mean score for overall knowledge score was 12.74 with ‘t’ value of 13 and found to be significant at the level of P<0.05. Hence it is evident that the structured teaching program is effective in improving the knowledge of hypertensive clients in selected urban community, regarding prevention of coronary artery disease. it was found that there is no significant association in between the pre-test knowledge scores with selected demographic variables like age, gender, family monthly income, education, occupation, diet, personal habits, type of physical activity, duration of the physical activity, history of hypertension, family history of heart disease and sources of information on coronary artery disease at the level of P<0.05. Hence the research hypothesis, H₂ stated that there will be a significant association between the pre-test knowledge score with selected demographic variable was not accepted at the 0.05 level of significant.

CONCLUSION

The present study attempted to assess the knowledge and to evaluate the effectiveness of structured teaching program on prevention of coronary artery disease among hypertensive clients and found that most of the subjects revealed that most of the subjects revealed that most of the subjects 56% had inadequate



knowledge and 44% of subjects had moderate knowledge regarding prevention of coronary artery disease in pre-test, while in the post-test 24% of subjects had moderate knowledge and 76% of subjects had adequate knowledge. Hence the above findings indicate that the structured teaching program was effective in increasing the knowledge of the subjects regarding prevention of coronary artery disease, and it was found to be appropriate, effective and can motivate the samples to enhance their knowledge and practice that in their daily lives.

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