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**Manisha Gholap**  
Krishna Institute of Nursing  
Sciences, Karad Krishna  
Institute of Medical Sciences  
Deemed To Be University,  
Karad, Maharashtra, India

**Mahesh Chendake**  
Krishna Institute of Nursing  
Sciences, Karad Krishna  
Institute of Medical Sciences  
Deemed To Be University,  
Karad, Maharashtra, India

**Corresponding Author:**  
**Manisha Gholap**  
Krishna Institute of Nursing  
Sciences, Karad Krishna  
Institute of Medical Sciences  
Deemed To Be University,  
Karad, Maharashtra, India

## Effectiveness of an information booklet on knowledge regarding cardiac rehabilitation among clients

**Manisha Gholap and Mahesh Chendake**

### Abstract

India is experiencing a rapid health transition, with large and rising burdens of chronic diseases, which are estimated to account for 53% of all deaths & 44% of disability adjusted life-years lost in 2005. Compared to all other countries, India suffers the highest loss in potentially productive years of life, due to death from CVD in people aged 35-45 years. According to WHO data, 16.7 million people die each year owing to heart attacks.

### Objectives:

1. To assess the existing knowledge among clients with coronary artery disease.
2. To find the association between knowledge and selected demographic variables.

**Material & Methods:** The research approach adopted for this study is an evaluative approach. The research design selected for this present study was experimental 1 group pre-test. The study was conducted at Krishna Hospital Karad. The sample size consists of 62 coronary artery disease patient, non-probability purposive sampling technique was used to select the respondents. A structured knowledge questionnaire was administered to assess knowledge of coronary artery disease patient regarding cardiac rehabilitation on the first day; Then information booklet was administered on the same day of pre-test to participants.

**Results:** The major findings of the study were: the data on sample characteristics revealed that, majority of the 40.3% clients with coronary artery disease patients belong to age group of 51-62 years. Majority of the respondents 66% were male and 93.5% were married. Maximum number of respondents 98.4% were Hindu by religion. Most of the respondents 61.3% had taken primary education and 48.4% were self-employed. Majority of the respondents 45.16% had their family monthly income 5001-10,000. Regarding dietary pattern maximum number of the respondents 95% consume mixed diet and 93.5% of respondents were taking non vegetarian food 1-2 times in a week. Regarding duration of illness, maximum of number of respondents 27.4% had coronary artery disease since 2-5 years and 85% respondent were not having information regarding cardiac rehabilitation. Maximum number of the respondents 25.8% received information about cardiac rehabilitation from television.

**Conclusion:** The study conclude that the information booklet on cardiac rehabilitation was an effective method for providing adequate knowledge and help the coronary artery disease patient to enhance their knowledge on cardiac rehabilitation.

**Keywords:** Coronary artery, Cardiac rehabilitation.

### Introduction

It has been believed that public awareness programme & community education is the best instrument to create the knowledge and in the prevention of occurrence of CAD by helping people to take care of their own health<sup>[1]</sup>.

Coronary artery disease (CAD) continues to be a major health problem all over the world. It became a major health concern in the United States from early 1920's, in the United Kingdom from 1930's and in other parts of the Europe from 1940's. This modern epidemic of coronary artery disease as described by the WHO has not spared the developing nations like India as well. In the recent literature we can find that disease of heart is a number one killer in the United States and other parts of the world. In 2006, the office of National statistics in the United Kingdom stated that heart disease was the leading cause of death for both sexes in the United Kingdom in 2005<sup>[2]</sup>.

Over the past 25 years there has been a reduction of 50-60 per cent in the mortality rate caused due to CAD in the Western world, 25 per cent of these were obtained through primary prevention and secondary Prevention. Many CAD clients leave the hospital unaware that they have had a major health problem and they do not know that, this disease can recur. Thus, they continue their previous habits leading to a re-event [3].

The secondary prevention includes comprehensive cardiac rehabilitation program which is the enhancement and maintenance of cardiovascular health through individualized programs to organize physical, psychological, social, vocational and emotional status of the client. Therefore, teaching about rehabilitation is the only effective intervention to get the clients back to their normal lives<sup>4</sup> Indians have the highest rates of CAD all over the world. It is 2 to 4 time higher at all ages and 5 to 10 time higher in those below 40 years of age. The excess burden of CAD in Indians is due to combination of nature (Genetic predisposition) and decreased physical activity and increased consumption of calories and metabolic abnormalities appears to have a synergistic effect on the development of CAD in genetically predisposed individuals [4].

CAD epidemics are essentially preventable according to existing knowledge. In the majority of developed countries CAD mortality has fallen by a third or half in the last two decades. In USA the SMR (Standard mortality rate) of CAD is decline by 54%. The rate of decline in CAD was substantially greater among educated. This is a clear proof that the ravages of CAD can be reduced mainly by modifying the lifestyle [5].

Several studies have found that the knowledge about the risk factors of CHD of the population under study was inadequate. Further the clinical experience of the researcher also shows that in general, people have the lack knowledge about the risk factors of CAD. It is the adult group, which suffers more from CHD, just because of their unhealthy life styles. Knowledge, awareness of risk status, scenario of disease and planned teaching programme about the risk factors of CAD can motivate people to take preventive measures. It is obvious that the need for community awareness is very high and no longer can be delayed [8].

**Material and Method**

Research Approach: Evaluative approach  
 Research design: Quasi experimental (one group pre & post test design).  
 Setting of the study: Krishna hospital karad  
 Study subjects: 62 Coronary artery disease patients Krishna hospital karad.  
 Sample Size: 62 Coronary artery disease patients  
 Sampling Technique: Purposive sampling technique  
 Data collection tool: Structured questionnaire was prepared and used for data collection.

**Section I:** Deals with demographic data of the sample

**Section II:** Has includes questionnaire on knowledge Coronary artery disease patients

**Method of data collection**

The steps used in data collection were as mentioned below the investigator introduced him/her and explained the purpose of the study to the hospital authority and formal permission was taken for the main study. Written informed consent was obtained from each subject after explaining the purpose of the study. A planned questionnaire was administered to assess the demographic data and pre-test

knowledge related to cardiac rehabilitation of coronary artery disease to study subject. Information booklet was given to subjects on the same day. Post-test was conducted after 7 days of giving the information booklet. Duration of data collection was 30 days.

**Results**

**Table 1:** Depicts that majority of 25(40.3%) the coronary artery disease patients belong to age group of 51-62 years and minimum 9 (14.5%) were <= 40 years of age respectively. majority of the respondents 41(66%) were males and the minimum 21 (34%) respondents were females

Sr. No.	Socio Demographic Variables	Category	Respondent	
			Frequency (N) N=62	Percentage (%)
1	Age	<=40	9	14.5
		41-50	11	17.7
		51-60	25	40.3
		61-70	17	27.4
2	Sex	Male	41	66.10
		Female	21	33.90
3	Marital status	Married	58	93.5
		Unmarried	2	3.2
		Diverse	0	0
		Widow	2	3.2
4	Religion	Hindu	61	98.4
		Muslim	1	1.6
		Christian	0	0
		Other	0	0
5	Educational Status	Primary	38	61.3
		Secondary	21	33.9
		Higher Secondary	3	4.8
		Graduate	0	0
		Post graduate	0	0
6	Occupation	Employed	11	17.7
		Self employed	30	48.4
		Housewife	21	33.9
		Unemployed	0	0
7	Monthly Income of Family	<Rs. 5000	11	17.7
		Rs.5001- Rs.10,000	28	45.16
		Rs.10,001- Rs.15,000	18	29.03
		Rs.15,001 & Above	5	8.6
8	Dietary Pattern	Vegetarian	3	4.8
		Non-vegetarian	0	0
		Mixed diet	59	95.2
9	No. of times Non-veg food taken in week	1-2 times	58	93.5
		3-4 times	3	4.8
		More than 5 times	1	1.6
10	Hypertension since	< 6 months	16	25.80
		<1 year	11	17.74
		<1.5 year	5	8.06
		<2 years	13	20.96
11	Information about Cardiac Rehabilitation	2-4 years	17	27.41
		Yes	9	14.50
12	Source of Information	No	53	85.50
		Television	16	25.80
		Radio	9	14.50
		Internet	1	1.6
		Books	10	16.12
		Magazines	1	1.6
		Newspapers	15	24.19
		Health Professional	2	3.22
		Relative	5	8.06
		Friends	3	4.8

That majority of the respondents 58 (93.5%) were married, out of whom 2 (3.2%) was widow and minimum only 2 (3.2%) respondent was unmarried. majority of the respondents 61 (98.4%) were Hindus, and only 1 (1.6%) were Muslims by religion. maximum number of respondents 38 (61.3%) had completed primary education and minimum 3 (4.8%) respondents had completed their higher secondary education. majority of respondents 30 (48.4%) were self-employed, 21 (33.9 %) were housewives and 11 (17.7%) respondents was employed. majority of respondents 28 (45.16%) had their monthly family income 5001 to 10,000 and 5 (8.6%) respondents was having monthly family income rupees 15,001 & above respectively. majority 59 (95 %) respondents consume mixed diet while 3 (5%) respondents were vegetarians respectively, majority 58(93.5%) respondent taking non vegetarian food 1-2 times in a week and minimum 1 (1.6%) respondent was taking more than five times non vegetarian food in a week respectively shows that majority 17 (27.4%) respondent had hypertension since 2-5 years and minimum 5 (8.6%) respondent had hypertension since < 1.5 years respectively.

**Table 2:** Distribution of frequency and percentage distribution of pre-test knowledge score of subjects regarding cardiac rehabilitation.

N=62

Knowledge score	Score	Level of responds	
		Frequency (f)	Percentage (%)
Poor	0-10	4	6.45
Good	11-20	58	93.55
Excellent	21-30	0	0.00
Total		62	100

The above table-2, reveals that in Pre-test majority 58(93.55%) patient had good knowledge, 4(6.45%) had poor knowledge and no one had excellent knowledge regarding cardiac rehabilitation before administration of information booklet.

**Table 3:** Distribution of frequency and percentage distribution of post-test knowledge score of subjects regarding cardiac rehabilitation

Knowledge score	Score	Level of responds	
		Frequency (f)	Percentage (%)
Poor	0-10	0	0.00
Good	11-20	15	24.19
Excellent	21-30	47	75.81
Total		62	100

The above table-3, reveals that in Post-test majority 47 (75.81%) had excellent knowledge, 15(24.19%) had good knowledge and no one had poor knowledge regarding cardiac rehabilitation after administration of information booklet.

**Discussion**

In this study total sample size was 62 Coronary artery disease patients. This study was conducted in Krishna hospital karad in the similar study. A quantitative study was conducted in Canada to assess referral and adherence predictors among 16,804 patients, 5882 of whom were female. It was found that the patients were more likely to participate in rehabilitation programs when they were actively referred, and educated. The study concluded that many of the observed obstacles to the cardiac rehabilitation

programs are potentially modifiable with the help of health care professionals [6].

In this study Pre-test majority 58(93.55%) patient had good knowledge, 4(6.45%) had poor knowledge and no one had excellent knowledge regarding cardiac rehabilitation before administration of information booklet. In similar study A descriptive exploratory study to assess knowledge regarding risk factors of coronary artery disease (CAD) among teachers in selected school of Jammu, J&K by Jyoti Kapoor The frequency and percentage distribution of knowledge among teachers showed the majority of teachers 66(66%) were having poor knowledge followed by 32(32%) were having average knowledge and only 2(2%) were having good knowledge. Hence, it was concluded that maximum teachers were having poor knowledge regarding risks of coronary artery disease [7].

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