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## Knowledge, attitude and self-reported practices regarding cardiac rehabilitation among post CABG patients

Shubham Tailor and Shubhangi Borude

#### Abstract

A survey conducted among corporate employees revealed 70 % of employees are more susceptible to cardiac disease it is estimated that the number CVD will increase from 16.7 to 23.4 million by the end of 2030. Cardiac rehabilitation is important to minimize and prevent future hospital stays and improving the psychological well-being. The study objectives were to assess the knowledge and attitude and self reported practices regarding cardiac rehabilitation among CABG patients. A non-experimental descriptive research design was adopted to carry out the study. 60 post CABG patients are selected by Non probability purposive sampling technique from various cardiac clinics Self structured tools was used for data collection. Analysis was done using frequency and percentage distribution and chi square test.

**Findings:** It was found that majority (85%) of the post CABG patients had average knowledge (Score 8-16) and majority of the post CABG patients (51.7 – 91.7%) had given the correct answers in the items related to the member of Rehabilitation, cardiac rehabilitation team, the normal blood pressure level, modifiable factor for cardiac disease, benefits of cardiac rehabilitation, Benefits of cardiac rehabilitation, key system of cardiac rehabilitation, good cholesterol, blood cholesterol reducing factor, activities included in phase 2 of cardiac rehabilitation, activities included in phase 3 of cardiac rehabilitation, phase 4 of cardiac rehabilitation, the benefit of warm-up before exercise and the most warning sign to stop exercise. It was found that majority (66.7%) of post CABG patient had positive attitude and found that (80%) of the post CABG patient had good self-reported practices.

**Conclusion:** The study found that patients are having average knowledge, positive attitude and good practices regarding cardiac rehabilitation which shows that cardiac rehabilitation is not effectively use by CABG patients. Patient should be encouraged to do exercises, to improve cardiac reserve.

**Keywords:** Knowledge, practices, cardiac rehabilitation, CABG patients

#### Introduction

Cardiac rehabilitation is a professionally structured and supervised program, which are required for patients to recover and improve cardiovascular health. These programs are implemented for the patients who have experienced heart attacks, heart failure, any form of cardiac surgery, or intervention procedures such as stenting, angioplasty and CABG [1]. Cardiac restoration program educate, counsel heart patients to develop physical strength, improve health and risk of future heart problems, including heart attack. Cardiac rehabilitation and secondary prevention programs includes advice regarding resuming daily activities. This program suggests patients by taking into account the status of patient. Advice and support is personalized and responsive to patient or caregiver needs [2].

Though angioplasty or bypass is considered as major advances in cardiology, it is more important to have knowledge regarding prevention of cardiac disease. A survey conducted among corporate employees revealed 70 % of employees are more susceptible to cardiac disease it is estimated that the number CVD will increase from 16.7 to 23.4 million by the end of 2030 [4].

Mortality and morbidity of cardio vascular disease in India is high. Cardiac rehabilitation can be preventive measure for the men to save their life and improve standard of life. Many cases recorded in which heart patients get hospitalized again due to lack of knowledge regarding cardiac rehabilitation. There is need for planned study to assess the cardiac patient's knowledge and its practice to rehabilitate them for better future. Cardiac rehabilitation is important to minimize and prevent future hospital stays and improving the psychological well-being.

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**Objectives of the Study**

1. To assess the knowledge regarding cardiac rehabilitation among cardiac patients.
2. To assess the attitude regarding cardiac rehabilitation among cardiac patients.
3. To assess the self-reported practice regarding cardiac rehabilitation among cardiac patients.
4. To associate the finding with selected demographic variables.

**Materials and Methods**

**Study Design:** Non- experimental descriptive survey research

**Study Area:** Selected cardiac clinics of Pune City

**Sample Size:** 100

**Time Frame:** 6 Months

**Selection Criteria of Sample**

**Sampling Technique:** non-probability purposive sampling technique.

**Study Population:** The population of present study comprises of CABG patients from cardiac clinics.

**Inclusion Criteria**

- Post CABG patients, phase 2.
- Patient who knows English and Marathi.

**Exclusion Criteria**

- Patients who are not willing to participate.
- Critically ill patients.

**Description of data Collection Tools**

The tool consisted of four sections:

**Section I: (Demographic data):** This tool is constructed to collect background information of the participants in the study. It consists of demographic variable such as age, gender, education, occupation, any illness, Number of days after CABG and number of blocks.

**Section II: (self-structured knowledge questionnaire):** It comprised of twenty two (22) knowledge question regarding cardiac rehabilitation.

**Section III: (Attitude scale)**

It comprised of 12 statement regarding cardiac rehabilitation.

**Section IV (self-reported practices)**

It comprised of 12 questions regarding cardiac rehabilitation.

**Method of Data collection**

- Researcher has obtained approval from appropriate review boards to conduct the study.
- A formal permission was taken from Hospital Authority to conduct Study
- Researcher dully explains the purpose of the study.
- Only the samples who had signed the consent form are included in the study.
- Confidentiality of the data is maintained strictly.

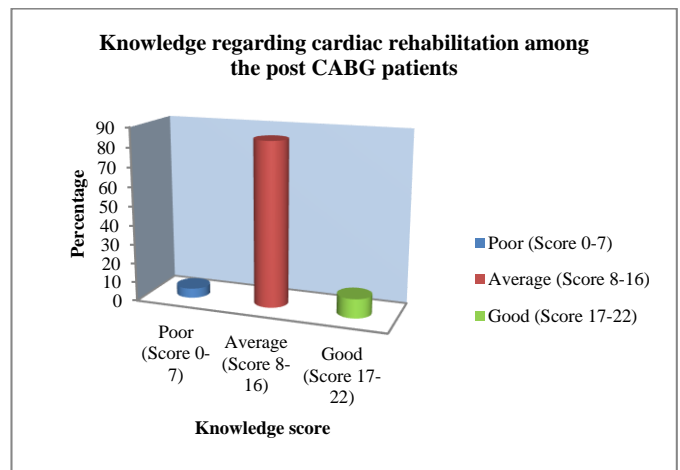
**Results, Discussion and Conclusion**

**Section I:** Description of samples (post CABG patients) based on their demographic characteristics in terms of frequency and percentages (n=60)

**Table 1:** Shows that Demographic variables Frequency (f) and Percentage (%)

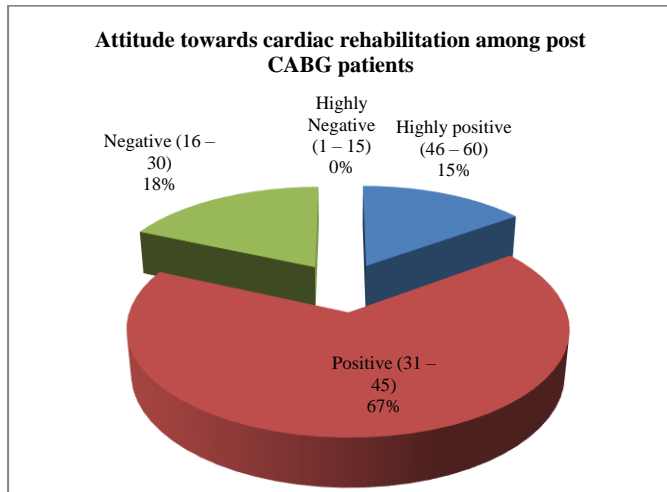
S.No	Demographic variables	Frequency (f)	Percentage (%)
1.	<b>Age (in years)</b>		
	45 – 50	19	31.67
	51 – 55	22	36.67
	56 – 60	12	20
	Above 60	7	11.66
	2. <b>Gender</b>		
	Male	36	60
	Female	24	40
3.	<b>Education</b>		
	No formal education.	7	11.67
	Primary	27	45
	Secondary	21	35
	Graduate	5	8.33
4.	<b>Occupation</b>		
	Government	10	16.67
	Private	20	33.33
	Business	24	40
	Unemployed	6	10
5.	<b>Any illness</b>		
	Yes	39	65
	No	21	35
6.	<b>No of days after CABG</b>		
	Less than 20	0	00
	20 – 30	41	68.3
	31 – 40	19	31.7
7.	<b>No of arterial blocks</b>		
	2 or less	45	75
	3 or more	15	25

**Section II:** Frequency and percentage distribution of the Knowledge Score of the post CABG patients regarding cardiac rehabilitation



**Fig 1:** Column diagram showing the percentage distribution of post CABG patients according to their knowledge regarding cardiac rehabilitation

**Section III:** Findings related to the attitude score of the post CABG patients towards cardiac rehabilitation (n=60)



**Fig 2:** Pie diagram showing the percentage distribution of post CABG patients according to their attitude towards cardiac rehabilitation

**Section IV:** Frequency and percentage distribution of the Self-Reported Practice Score of the post CABG patients regarding cardiac rehabilitation (n=60)

**Table 2:** Shows that Self-reported practice Freq (f) and Percentage (%)

Self-reported practice	Freq (f)	Percentage (%)
Good (7 – 12)	48	80
Poor (0 – 6)	12	20

The data presented in Table 2 shows that all (80%) of the post CABG patients had good self-reported practice score (Score 7 – 12) regarding cardiac rehabilitation.

**Section V:** Findings related to association of knowledge, attitude and self-reported practices with selected demographic variables. For ascertain the significance of association investigator has decided 0.05 level of significance There Were No Association Between Knowledge, Attitude And Self-Reported Practices With Demographic Variables.

**Discussion**

The findings of the study are explained as per the objectives and assumptions stated. The present study was undertaken to evaluate the Knowledge, Attitude and Self-Reported Practices related to Cardiac Rehabilitation among Post CABG Patients. A study by Senthil Kumar (2013) was carried out to evaluate Knowledge and Attitude regarding Cardiac restoration in patients with heart disease. Study assessed the knowledge and attitude towards cardiac restoration. Correlations of these variables among patients with heart disease were tested in the patients admitted with first occurrence of coronary artery. Study site was Cardiac Care Unit of Aswini clinic Ltd, Thrissur in around 60 patients. Non-probability purposive sampling technique was employed to recruit patients. 81.6% respondents were over 50 years of age, 48.30% were above 60 years of age. Out of 60 respondents, half of them had average knowledge and n=28 have poor knowledge of cardiac rehabilitation. Only two had good knowledge on rehabilitation. There is a need of the patients for want of knowledge on cardiac restoration and attitude was shown

positive and awareness of cardiac rehabilitation [10].

In this research study, from the data analysed, it is evident that the demographic variable shows that 36.67% of the subjects were between 51 – 55 years of age. Majority of the samples i.e. 60% were male. According to education 45% of the subjects had completed primary education and 40% were doing business. Maximum of the samples (65%) did not have any associated illness. More of the samples i.e. 68.3% of the subjects underwent CABG 20 – 30 days back. Maximum of the subjects (75%) had 2 or less arterial blocks. Findings related to the knowledge score of the post CABG patients regarding cardiac rehabilitation show that majority (85%) of the post CABG patients had average knowledge (Score 8-16) and 10% of them had good knowledge (score 17-22) regarding cardiac rehabilitation. Attitude score of the post CABG patients towards cardiac rehabilitation shows that majority (66.7%) of the post CABG patients had positive attitude (Score 31 – 45). The data presented in the above table also depicts that none of the post CABG patients had highly negative attitude towards cardiac rehabilitation. Self-reported practice score of the post CABG patients regarding cardiac rehabilitation shows that 80% of the post CABG patients had good self-reported practice score (Score 7 – 12) regarding cardiac rehabilitation. There were no any association among demographic and knowledge, attitude and self-reported practice.

**Recommendations**

Following recommendations were made for future study on the basis of present study result

- 1) Study may be done using a more number of samples of CABG patients.
- 2) A study can initiated regarding cardiac rehabilitation in hypertensive patients.
- 3) A study can be done to assess the practices of cardiac rehabilitation among angioplasty patients.
- 4) Conational study can be done to assess the effects of cardiac rehabilitation among angioplasty patients.

**Conclusion**

The study purpose was to assess the knowledge, attitude and Self-Reported Practices Regarding Cardiac Rehabilitation among Post CABG Patients. The descriptive analysis was done to analyze Knowledge, Attitude and Self-Reported Practices Regarding Cardiac Rehabilitation patients are having average knowledge, positive attitude and good practices regarding cardiac rehabilitation which shows that cardiac rehabilitation is not effectively use by cardiac patients.

The demographic variable and Knowledge, Attitude and Self-Reported Practices Regarding Cardiac Rehabilitation among Post CABG Patients are not significantly associated.

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