

“A study to assess the Knowledge of Staff Nurses Regarding care of Patients Undergoing CABG Surgery in Selected Hospital at Bangalore”.

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ABSTRACT

According to world health report, circulatory diseases such as heart attacks kill more people than any other diseases, accounting for at least 15 million deaths every year. In developing countries these diseases also account for about 25% of all deaths. Coronary artery disease accounted for more than 7 million deaths worldwide and was responsible for about one –third of all deaths in industrialized countries. **Methods and Materials:** The descriptive survey design was used to assess the knowledge of staff nurses regarding care of patients undergoing CABG surgery. The study subjects were from the selected hospitals of Bangalore. The target population for the present study was staff nurses working at selected hospitals of Bangalore. Data was collected by using structured knowledge questionnaires with 30 items. Reliability of the structured knowledge questionnaire was found to be 0.965. Data was analyzed by using descriptive (mean, median, SD) and inferential statistical (chi-square test) technique. **Results:** The study finding revealed that 82% had inadequate knowledge, 18% of them had moderate knowledge and none of them were found to be with adequate knowledge. **Conclusion:** This indicates that staff nurses had better knowledge in pre operative care compared to other aspects of CABG. A study can be conducted on a larger sample in different settings. A comparative study can be conducted between degree and diploma staff nurses. An experimental study may be undertaken with a control group for effective comparison of result. A study may be carried out to evaluate the efficiency of various teaching strategies like SIM, STP, PTP, Computer assisted teaching and video assisted teaching on care of patients undergoing CABG surgery.

Key word: Knowledge, Staff nurses, care of patients undergoing CABG Surgery.

Introduction

The heart is a myogenic muscular organ found in all animals with a circulatory system (including all vertebrates), which pumps blood throughout the blood vessels by repeated, rhythmic contractions. The term cardiac (as in cardiology) means "related to the heart" and comes from the Greek word, kardia, for "heart".¹ During this century, the number of CABG surgeries done per day is increasing in a tremendous manner. According to American Heart Association statistics, in 2009, 5,48,000 bypass surgeries were done in United States. Of these 3,23,000 were men and 2,25,000 were women.⁷ Each year nearly 3,00,000 bypass surgeries are performed in US which means 61 in every 1,00,000 people have a coronary bypass operation. In Britain, only 6 in every 1,00,000 have the same operation. In Japan, 1 in 1,00,000 patients will have a coronary bypass operation.¹

Coronary artery bypass grafting is a surgical procedure performed to relieve angina and reduce the risk of death from coronary artery disease. In angina or after a heart attack (myocardial infarction) certain areas of the heart do not receive adequate blood supply and these areas are starved of oxygen and nutrients and this result in areas of the heart that are ischemic. In CABG these areas are re-perfused using 'free vein or arterial bypass' that connect the normal areas of the arteries to less perfused areas and 'bypass' the blocked arteries. The bypass sections of the arteries or veins are harvested from elsewhere from the body like the leg or the arm or from within the chest itself.²

According to the World Health Report, circulatory diseases such as heart attacks kill

more people than any other disease, accounting for at least 15 million deaths every year. In developing countries these diseases also account for about 25% of all deaths. Coronary heart disease accounted for more than 7 million deaths worldwide and was responsible for about one-third of all deaths in industrialized countries. Cardiovascular disease (CVD) was certified to be the primary cause of death in 43.33% of all deaths in Australia and 41.97% in Victoria. The majority of these deaths were from coronary heart disease (CHD). The Victorian Inpatient Minimum Database for the 12 month periods highlights the rapid increase in the number of patients admitted to hospital with CHD and a rapid increase in the number of major interventions in its treatment. The mortality attributable to CVD in India is expected to rise by 103 per cent in men and 90 per cent in women from 1985 to 2015.³

The vertebrate heart is principally composed of cardiac muscle and connective tissue. Cardiac muscle is an involuntary striated muscle tissue found only in this organ and responsible for the ability of the heart to pump blood. The average human heart, beating at 72 beats per minute, will beat approximately 2.5 billion times during an average 66 year lifespan. It weighs approximately 250 to 300 grams (9 to 11 oz) in females and 300 to 350 grams (11 to 12 oz) in males. This study was conducted with the following objectives: to assess the knowledge of staff nurses regarding care of patients undergoing CABG surgery and to find the association between the knowledge of staff nurses regarding care of patients undergoing CABG surgery and selected demographic variables.

Researcher kept both the hypotheses H_0 : There will be no significant association between knowledge and selected demographic variables and H_1 : There will be significant association between knowledge and selected demographic variables.⁴

A research study conducted was identified the incidence of anxiety and depression in patients both before and after CABG surgery. The psychological outcomes such as anxiety and depression were studied among 30 patients undergoing CABG at a service hospital. The results revealed, 13 (43.33%) of the patients had anxiety and 9(30%) had depression during preoperative period. Even after successful CABG,11 (36.67%) patients had definite anxiety and 12 (40%) had depression.⁵

A study was conducted to evaluate preoperative anxiety among patients subjected to heart surgery. Descriptive anxiety levels showed that mean score of state anxiety was 41.60 and mean score of trait anxiety was 42.14 among patients and the mean score were in moderate anxiety category. But the total mean anxiety score of state and trait anxiety was 84.00 which were in the severe category.⁶

A study was carried out to determine the quality of life one-year after the CABG surgery. The study found the mean physical and mental component summary scores to be 59.5 and 60.2 respectively. CABG has led to higher and more satisfactory outcomes for physical functioning, role physical and role emotional but lowers in other scales. It could mostly be attributed to unmodified risk factors and progression of existing co morbidities.⁷

Methodology:

Descriptive survey design was used to assess the knowledge of staff nurses regarding care of patients undergoing CABG surgery.

Research Variables: Research variable: Knowledge of Staff nurses regarding CABG.

Demographic variables: Age in years, Gender, Educational/ Professional qualification, Working area, Work experience in years, Previous Source of information.

Setting of the Study: The criteria for selection of an appropriate setting included the availability of subjects, feasibility of conducting the study, getting permission from the concerned authority etc the study was conducted on staff nurses working at selected hospitals of Bangalore. **Population:** In this study, population comprised of staff nurses working at selected hospitals of Bangalore.

Sample and Sampling Technique: Sample is the subset of a population selected to participate in the study. Sampling refers to the process of selecting a portion of population to represent the entire population. The sample for the present study comprised of 50 staff nurses working at selected hospitals of Bangalore was selected by using convenient sampling technique. **Data Collection Instruments:** A structured knowledge questionnaire was selected as a tool for the present study. **Method of Data Analysis:** Numerical data obtained from sample will be organized and analysed with the use of both descriptive and inferential statistics.

Results:

Socio demographic Variables: Age, 56% of them were 21-30 years old, 26% of them were 31-40 years old, 10% were 41-50 years old and 8% were 51-60 years old. Gender, 82% were females and the remaining 18% were males. Educational qualification, 46% of them were Diploma/GNM holders, 50% of them were BSc (N)/ PBBS (N) holders, and 5% of them had MSc (N). Working area, 52% of them were working in ICU/ITU, 30% of were working in General/Medical unit and 18% of

them were working in Surgical Unit. Years of work experience, 56% of them were had less than 1Yrs of experience, 26% of them had 1-10yrs work experience, 10% of them had 11-20 yrs work experience and 8% had 21-30 yrs work experience. Previous source of information, 18% had no specific previous source of information, 52% had in-service education, 16% had conference/workshop and 14% had other professional colleagues as previous source of information.

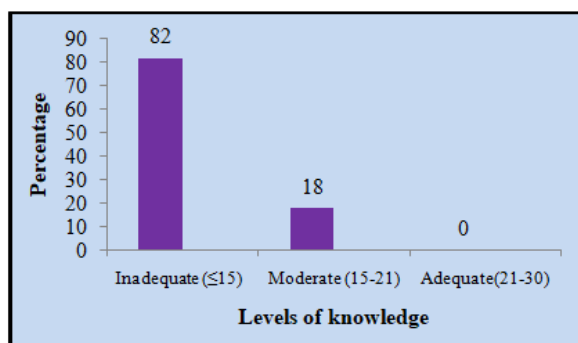


Fig No 9: Diagram showing distribution of samples based on their knowledge level

The above figure shows distribution of samples based on their levels of knowledge. In present study 82% had inadequate knowledge, 18% of them had moderate knowledge and none of them were found to be with adequate knowledge

Table no 1: Association between levels of knowledge with their selected Demographic variables N=50

Demographic variables		Median & below	Above median	Total	Chi square value	df	P value	infer
Age in years	21-30 yrs	12	16	28	2.989	3	0.393	NS
	31-40 yrs	8	5	13				
	41-50 yrs	4	1	5				
	51-60 yrs	2	2	4				
Gender	Male	5	4	9	0.056	1	0.814	S
	Female	21	20	41				
Educational/ Professional qualification	Diploma/GNM	16	9	25	2.972	2	0.226	NS
	B.Sc(N)/PBBS(N)	9	14	23				
	MSc(N)	1	1	2				

Note: s-Significant at 95% (P<0.05); NS-Not significant at 95% level (p>0.05)

Demographic variables		Median & below	Above median	Total	Chi square value	df	p value	infer
Working area	General/ Medical Unit	5	10	15	3.207	2	0.201	NS
	ICU/ITU	15	11	26				
	POST-OP Unit	6	3	9				
Work experience in years	Fresher /<1yr	12	16	28	2.989	3	0.393	NS
	1-10 yrs	8	5	13				
	11-20 Yrs	4	1	5				
	21-30 Yrs	2	2	4				
Previous Source of information	In-service education	12	14	26	2.864	3	0.413	NS
	Conference/workshop	3	5	8				
	From professional colleagues	5	2	7				
	No specific source	6	3	9				

Note: s-Significant at 95% (P<0.05); NS-Not significant at 95% level (p>0.05)

The above table shows the outcomes of association between knowledge and demographic variables. Out of demographic variables, none of the demographic variables were significantly associated with knowledge at 95% level of confidence (p>0.05) except the gender. Hence research hypothesis (H₁) is rejected and the null hypothesis (H₀) was accepted. It provides the evidence that there is no significant association between knowledge and demographic variables.

Discussion

A similar study was carried out identified the prevalence of anxiety and most common fears among the CABG surgery patients (N=277). The results showed, 19.70% of the patients had low, 69.14% of the patients had moderate and 11.15% had severe levels of anxiety. As compare to present study 82% had inadequate knowledge, 18% of them had moderate knowledge and none of them were found to be with adequate knowledge.

Conclusion: The staff nurses are actively participated in the study and study concluded that majority of samples i.e. 82% had inadequate adequate knowledge.

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