

A Study to Assess the Knowledge and Attitude Regarding CABG Clients among Nurses of Selected Hospital

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Abstract

Background: The “heart disease” is commonly termed as cardiovascular diseases which is generally referred to condition that involved narrowed or blocked blood vessels that can leads to chest pain or angina, heart attack and stroke other heart conditions such as those that affect the heart muscle, valve rhythm is also considered to be forms of heart diseases. In 2009, worldwide annually around 1,313,000 inpatient Percutaneous Coronary Interventions procedures, 448,000 inpatient bypass procedures and more than 800,000 CABG procedures were performed (AHA, 2011). An estimated 47 million Indians had coronary artery disease (CAD) in 2011. Indianpersons undergoing bypass surgeries were often young (average age of 60 yrs) and yet had high burden of modifiable CVD risk factors. The prevalence of Obesity (BMI>25) 51%; Diabetes 48%; Hypertension 71%; Smoking 41% and High LDL-C>100mg/dl 86%. Early and aggressive attention would drastically reduce the need for coronary procedures.

Method: A non-experimental descriptive research design was used to assess the knowledge and attitude regarding CABG client among nurses of selected

hospital. The data was collected from 50 nurses by using a non-probability purposive sampling technique.

Result: Assessment of level of knowledge regarding CABG client among nurses, shows that majority 28% of the nurses had average knowledge, and 78% had good knowledge. Assessment of level of attitude regarding CABG client among nurses at selected hospital show that majority 44% of the nurses had neutral attitude, and 56% of the nurses had favorable attitude.

The study findings reveal that there was a significant association of knowledge with a demographic variable like year of experience ($\chi^2 = 11.07$). There was no significant association of knowledge with a demographic variable like Age, Gender, Education, position in ward. The study findings reveal that there was a significant association of attitude with a demographic variable like education ($\chi^2 = 27.17$). There is no significant association of attitude with a demographic variable like Age, Gender, and year of experience.

Conclusion: The findings of the study shows that staff nurses had good knowledge and favorable attitude towards coronary artery bypass graft surgery (CABG) working in selected hospital.

Keywords: CABG clients, Nurses, Knowledge, Attitude, Coronary Artery Disease

Introduction

"A healthy heart is a wealth start"

Heart is an effective durable structure which Helps to lead Healthy life. The heart is the human body's hardest working organ. Throughout life it continuously pumps blood enriched with oxygen and vital nutrients through a network of arteries to all tissues of the body. To perform this task, the heart muscle itself needs a plentiful supply of oxygen-rich blood, provided through a network of coronary arteries. These arteries carry oxygen-rich blood to the heart's muscular walls. Health is Maintained and Improved not only through the advancement and application of health science. But also through the efforts and intelligent lifestyle choice of Individual & Society.¹

Every Year Half a Million people undergo CABG Procedure to relieve symptoms and prolong people their lives. Cardio Vascular Diseases (CVD) is one of the major incidence of non-communicable diseases and leading causes of deaths in India. Coronary Heart Disease (CHD) is a disease of the blood vessels supplying the heart muscle that can lead to a heart attack. A heart attack (myocardial infarction) occurs when blood flow to the heart muscle is blocked, and tissue death occurs from loss of oxygen, severely damaging a portion of the heart. However, with falling CHD mortality rates, an increasing number of people live with CHD and may need support to manage their symptoms and improve prognosis.²

Need for the Study

Lakhs of people die every year because cardiovascular diseases. And every 12 minutes one more patient is added to waiting list. The global burden of cardiovascular disease is rapidly increasing due to rise in the incidence and prevalence in the developing countries. India, a developing country is now in the middle of the

coronary artery epidemic. Recovering from cardiac bypass surgery generally takes most people anywhere from 6-8 weeks to 3 months. Before you leave hospital you will be given detailed instruction for exercise, medications, follow up appointment ongoing wound care and resuming normal activities and in all activities nurse play an important role. Knowledge and experience of nurse handling the CABG patient is affecting the recovery rate of patient. The team caring for you in hospital will usually be able to advise you about any activities you need to avoid as you recover.³

A number of factors increase the risk of developing infection to the patients. Recent data suggested that almost 10% of patients who undergoes CABG readmitted to the hospital Within 30 days of surgery. Patients who lack primary follow up have been shown to have worse long term outcomes.⁴

According to cardiac institute for health information Cardiac care quality indicators reports 9.4% of these patients are urgently readmitted to hospital within 30 days of CABG surgery. Referral its complication arises is nurses have inadequate knowledge regarding patient care⁵

Furthermore, a lack of outpatients primary care practitioner visit within 30 days after discharge was associated with fivefold increased risk of poor 1-year functional survival.² These findings highlight the importance role that nursing care play in management of patients following CABG surgery.⁶

The researcher felt that proper discharge training after CABG surgery will reduce the problem experienced by the patient and their families in reducing the readmission rate to hospital and improve the quality of life. The researcher noticed that due to lack of discharge advices, patient came for readmission with post CABG complications. By keeping this in mind the investigator

wanted to communicate the discharge protocol to the nurses and hence put up this proposal to test the effectiveness of protocol for CABG clients on knowledge and attitude among nurses. Thus the researcher was interested in selecting the topic on knowledge and attitude regarding for CABG clients.

Objectives: The purpose of the study to assess-

1. To assess the knowledge regarding CABG client among Nurses of selected Hospital.
2. To assess the attitude regarding CABG client among Nurses of Selected Hospital.
3. To find out association between knowledge and attitude score with selected demographic variable.

Methodology

Research Approach: Quantitative Research Approach was used for the present study.

Research Design: Non-experimental descriptive research design was used for the present study.

Study area: This study was conducted in the selected hospital, Ahmednagar.

Study Population: All registered nurses (Staff Nurse) who take care of CABG clients in selected hospital at Ahmednagar.

Sample size: A total number of fifty respondents were chosen for the study.

Sampling technique: In the study, a non-probability purposive sampling approach was used.

Tools Used for Data Collection: To assess the knowledge of nurses, a structured questionnaire was utilized. In order to evaluate their attitude towards CABG clients, a Likert scale was used.

Data Analysis Methods

- Descriptive statistics (frequency, percentage)
- Inferential statistics (Chi-square test) for assessing associations with demographic variables

Study Variables: The independent variables in this study were selected demographic characteristics of the respondents, which included age, gender, educational qualification, years of experience, and position in the ward.

The dependent variables were the knowledge and attitude of nurses regarding the care of CABG clients.

Data Collection Tool

The following tools were used for collecting data:

1. Structured Knowledge Questionnaire

This questionnaire consisted of multiple-choice questions focused on the care of CABG clients, covering areas such as pre-operative, intra-operative, and post-operative care. Each correct answer was given 1 mark, with a total possible score of 15. The interpretation of the scores was as follows: Poor Knowledge: 0–5, Average Knowledge: 6–10, Good Knowledge: 11–15

2. Attitude Scale (Likert-type)

A five-point Likert scale was used to assess the nurses' attitudes toward the care of CABG clients. The scale included both positive and negative statements. The total score could range from 10 to 50. Based on the scores, the attitudes were interpreted as follows: a score between 10 and 23 indicated an unfavorable attitude, a score between 24 and 36 indicated a neutral attitude, and a score between 37 and 50 indicated a favorable attitude.

Data Collection Technique

- The data collection was done through a self-administered questionnaire method.
- The researcher personally distributed the structured knowledge questionnaire and the attitude scale to the staff nurses who fulfilled the inclusion criteria.
- Prior informed consent was obtained from each participant.
- An average of 20–30 minutes was allotted for each participant to complete the questionnaire.

- Data collection was completed over a period of [4 weeks] at the selected hospital in Ahmednagar.

Inclusion & Exclusion Criteria

- Urses those who are willing to participate for study
- Those who are available at the time of data collection
- With educational qualification of Diploma nursing, B.Sc. nursing, Post. Basic. B.Sc nursing.
- Who involved in the care of CABG clients.
- Urses those who are not willing to participate in the study were excluded.

Operational Definitions

- **Assess:** the process of evaluating and analyzing various aspects of operational command decision-making, mechanical treatment modes, or workload. -Oxford dictionary.

In the study it refers to assess the knowledge and attitude regarding CABG

- **Knowledge:** The fact of knowing a thing, state, person, a state of being aware or informed, consciousness. -Oxford dictionary

In present study refers to the knowledge of understanding of all Information Regarding CABG clients

- **Attitude:** To make a judgment about the nature or quality of somebody's/ something. -Oxford dictionary

In present study it refers to assess the knowledge and attitude regarding CABG client.

- **Staff nurses:** Registered Health care personnel with an educational qualification of b.sc nursing, P.B. B.Sc. Nursing, diploma in nursing with experience of more Than 6 months in selected hospital.
- **CABG clients:** CABG clients refer to patients who have undergone Coronary Artery Bypass Graft (CABG) surgery for the treatment of coronary artery

disease and are receiving care from registered nurses in the selected hospital.

Data collection & analysis

In this study, data were entered into an Excel sheet and a master chart was prepared.

1. The obtained data were analyzed using both descriptive and inferential statistics.
2. Frequency and percentage distribution were used to compare and determine the level of knowledge and attitude of staff nurses toward CABG clients.
3. The Chi-square test was applied to find the association between knowledge and attitude of staff nurses toward CABG clients and their selected demographic variables.

The results were presented in the form of tables, graphs, charts, and figures.

Results

Organization and Presentation of Data:

The analysis of data was organized and finalized according to the plan for data analysis and presented in the form of tables and figures. The analyzed data are presented under the following sections:

Section A: Socio-demographic variable of nurses at selected hospital.

Section B: Knowledge and attitude level regarding CABG client among nurses at selected hospital.

Section C: Association between knowledge and attitude score regarding CABG client among nurses of selected hospital with their selected socio-demographic variables.

Section A: Frequency and percentage of Socio demographic variable of nurses

Table 1: Classification of Nurses by Age, Gender, Educational Qualification, Years of Experience, and Position in Ward (n=50)

Characteristics	Category	Number	Percent
Age Group (years)	20–25	20	40.0%
	25–30	23	46.0%
	30–35	7	14.0%
	>35	0	0.0%
Gender	Male	23	46.0%
	Female	27	54.0%
Educational Qualification	GNM	26	52.0%
	B.Sc Nursing	11	22.0%
	P.B.B.Sc	13	26.0%
	M.Sc	0	0.0%
Years of Experience	6 months	16	32.0%
	8 months	7	14.0%
	1 year	4	8.0%
	>1 year	23	46.0%
Position in Ward	Junior	19	38.0%
	Senior	29	58.0%
	Ward In-charge	2	4.0%
Total		50	100.0%

The majority (46%) of the nurses were in the 25–30 years age group, followed by 40% in the 20–25 years age group. A slightly higher proportion of the sample were female (54%) compared to male (46%). Most nurses (52%) held a GNM qualification, followed by P.B.B.Sc (26%) and B.Sc Nursing (22%). None held an M.Sc degree.

The highest proportion (46%) of nurses had more than 1 year of experience, while 32% had only 6 months of experience.

Most participants (58%) were senior nurses, while 38% were juniors, and only 4% were ward in-charges.

Section B: Assessment of Knowledge and Attitude Levels Regarding CABG Clients

Table 2: Knowledge Level of Nurses Regarding CABG Clients (n=50)

Sn.	Level of Knowledge	Range of Score	Frequency	Percentage
1	Poor knowledge	0-5	0	0%
2	Average Knowledge	6-10	11	22%
3	Good Knowledge	11-15	39	78%

Assessment of level of knowledge regarding CABG client among nurses, shows that majority of nurses

(78%) had good knowledge, while 22% had average knowledge. None had poor knowledge.

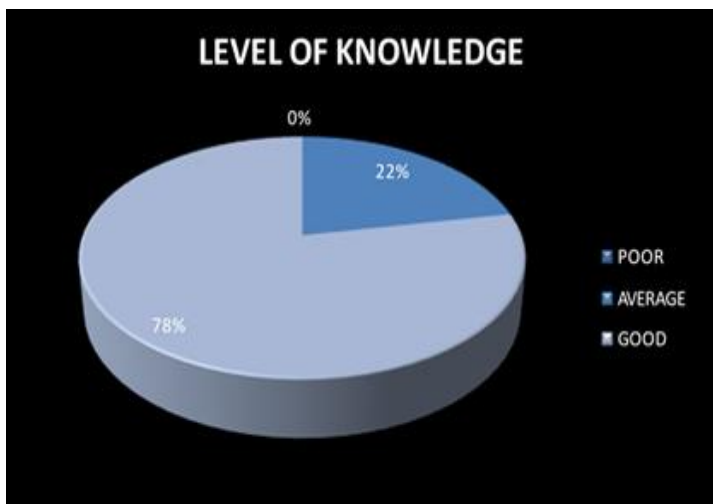


Figure 1: Pie diagram show that the knowledge regarding CABG client

Table 3: Attitude Level of Nurses Regarding CABG Clients (n=50)

Sn.	Level of attitude	Range of score	Frequency	Percentage
1	Unfavourable	10-23	0	0%
2	Neutral	24-36	22	44%
3	Favourable	37-50	28	56%

Assessment of level of attitude regarding CABG client among nurses at selected hospital shows that 56% of

nurses had a favorable attitude, while 44% were neutral. No unfavorable attitudes were reported.

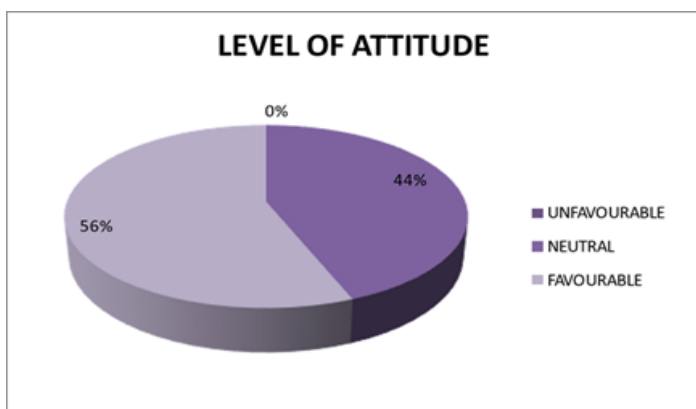


Figure 2: pie diagram shows that the attitude regarding CABG client

Section C: Analysis of data related to association of knowledge with selected demographic variables

Table 4:

Sn.	Demographic variables	Level of knowledge		Chi square value	Df	Table value	Level of significance
		Average	Good				
1.	Age						
	a) 20-25 yr	5	15	4.23	3	7.815	Not significant
	b) 25-30 yr	4	19				
	c) 30-35 yr	1	5				
	d) > 35 yr	1	0				
2.	Gender						
	a) Male	5	18	0.478	1	3.841	Not significant
	b) Female	5	22				
3.	Education						
	a) GNM	5	21	0.285	3	7.815	Not significant
	b) B. BSc	3	8				
	c) PB. BSc	3	10				
	d) MSc	0	0				
4.	Year of Experience						
	a) 6 month	4	12	11.07*	3	7.825	Significant
	b) 8 month	4	3				
	c) 1 year	2	2				
	d) <1year	1	22				
5.	Position in Ward						
	a) Junior	5	14	0.776	2	5.991	Not significant
	b) Senior.	6	23				
	c) Ward Incharge	0	2				

P < 0.05

Chi square values were calculated to find out the association of knowledge regarding CABG patient among nurses at selected hospital. The study findings reveal that there was a significant association of

knowledge with a demographic variable like year of experience ($\chi^2 = 11.07$). There was no significant association of knowledge with a demographic variable like Age, Gender, Education, Position in ward was identified.

Section D: Analysis of data related to association of attitude with selected Demographicvariables

Table 5:

Sr.no.	Demographicvariable	Level of attitude		Chi square value	Df	Tablevalue	Level of significance
		Average	Good				
1.	Age a) 20-25 yr b) 25-30 yr c) 30-35 yr d) > 35 yr	10 8 3 0	10 15 3 1	1.85	3	7.815	Not significant
2.	Gender a) Male b) Female	12 10	11 17	1.13	1	3.841	Not significant
3.	Education a) GNM b) B. BSc c) P B. BSc d) MSC	11 5 5 0	15 6 8 0	27.17*	3	7.815	Significant
4.	Year of experience a) 6 month b) 8 month c) 1 year d) <1 Year	9 4 2 7	7 3 2 16	2.86	3	7.815	Not significant
5.	Position in ward a) Junior b) Senior c) Ward in charge	9 11 1	10 18 1	3.15	2	5.991	Not significant

P < 0.05

Chi squares are calculated to find out the association of attitude regarding CABG patient among nurses at selected hospital. The study findings reveal that there was a significant association of attitude with a demographic variable like education ($\chi^2 = 27.17$). There was no significant association of attitude with a demographic variable like Age, Gender, Year of experience.

Discussion

Findings related to assess the level of knowledge regarding CABG among nurses of selected hospital

Assessment of level of knowledge regarding shows that majority 22% of the nurses had average knowledge, and 78% had good knowledge. Similar study was conducted by Mayuri Vaidya the finding shows 48% had averaged knowledge on CABG.⁷

Findings related to assess the level of attitude regarding CABG among nurses of selected hospital

Assessment of level of attitude regarding shows that majority 44% of the neutral attitude, and 56% had favorable attitude, similar study was conducted by Lilian S. Masule the findings shows 91.3% had favorable attitude ⁸

Findings related to association between levels of knowledge regarding CABG among nurses of selected hospital with demographic variables

The findings revealed that there was significant association between Knowledge score and socio demographic variables like year of experience. Hence the stated null hypothesis (HO2) was rejected as there was significant association level of knowledge regarding CABG among nurses of selected hospital with demographic variables. Similar study was conducted by Mayuri Vaidya, finding shows there was significant association with demographic variable like educational status and socio - economic status⁷

Findings related to association between levels of attitude regarding CABG among nurses of selected hospital with demographic variables

The findings revealed that there was significant association between attitude score and socio demographic variables like education. Hence the stated null hypothesis was rejected as there was significant association level of attitude regarding CABG among nurses of selected hospital with demographic variables. Similar study was conducted by a Laila Rouhi Balasi, finding shows there was no significant association with demographic variables ⁹

Conclusion

The findings of the study indicated that the staff nurses working in the selected hospital have good knowledge and favorable attitude towards patients with CABG.

Study also showed significant association of knowledge and attitude of the staff nurses with selected demographic variable.

Implications

The findings of the study can be discussed in four areas, mainly, nursing practice, nursing education and nursing research. Several implications can be drawn from the present study for nursing practice.

Nursing Education

- Nursing students should be made aware of regarding caring of patient with CABG.
- Nurse educator should educate to student nurses and other health care worker to improve the knowledge and create awareness regarding CABG.
- The findings may improve a critical analysis of nursing professional on level of knowledge regarding CABG.

Conclusion

The findings of the study show that staff nurses had good knowledge and favorable attitude towards coronary artery bypass graft surgery (CABG) working in selected hospital. The findings of the present study indicated knowledge regarding CABG among nurses of selected hospital, shows that 78% nurses had good knowledge and 56% nurses had favorable attitude with selected demographic variable.

Limitations of the Study

- The study is limited to staff nurses of selected hospitals in Ahmednagar.
- A descriptive study design was used with single setting.
- Small number of subjects limits the generalization of the study.
- The sample for the study was limited to 50

Recommendations

- Conduct similar studies on larger samples

- Implement experimental designs with multiple settings.
- Develop hospital-based discharge education protocols

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