



Nursing

A STUDY TO ASSESS THE KNOWLEDGE AND PRACTICE AMONG STAFF NURSES REGARDING PATIENT SAFETY AFTER CARDIAC CATHETERIZATION WITH A VIEW TO DEVELOP A POCKET REFERENCE ON PATIENT SAFETY, AFTER CARDIAC CATHETERIZATION AT SELECTED HOSPITALS GUWAHATI, ASSAM.

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ABSTRACT Cardiac catheterization is an invasive diagnostic procedure in which radiopaque arterial and venous catheters are introduced into selected blood vessels of the right and left sides of the heart in the ante cubital artery or vein or femoral artery or vein with x-ray guidance. In India of the 30 million heart patients, 14 million reside in urban areas and 16 million in rural areas. Cardiac hospitals in overall India perform over 2,00,000 open heart surgeries per year, one of the highest worldwide.

Materials and methods: - Non-experimental survey research design study was undertaken among staff nurses working in cardiac catheterization unit, cardiology ward and cardiac intensive care unit of Gauhati Medical College Hospital, Apollo Hospital and Hayat Hospital, Guwahati, Assam, India. The knowledge of Fifty staff nurses were assessed using structured knowledge questionnaire on patient safety after cardiac catheterization and practice were also assessed using observational checklist regarding patient safety after cardiac catheterization.

Result:- The findings of the study revealed that majority of the staff nurses had average knowledge level (i.e 52%), and there is adequate practice level (i.e 72%) of the staff nurses regarding patient safety after cardiac catheterization, and also there is a significant association between knowledge and area of posting and also there is a significant association between practice of staff nurses with educational qualification, area of posting, exposure to in-service education program and years of experience in cardiac unit equipped with cardiac catheterization and there is moderate negative correlation found between knowledge and practice of staff nurses regarding patient safety after cardiac catheterization.

Conclusion:- Cardiac catheterization is used for diagnosis and treatment of several cardiac diseases like Coronary Artery Disease. So having good knowledge and adequate practice regarding patient safety after cardiac catheterization is essential for staff nurses working in cardiac units in order to provide maximum quality care to the patient.

KEYWORDS : Staff nurse, Cardiac catheterization, patient safety, knowledge, practice, Cardiac catheterization laboratory, cardiology ward, cardiac intensive care unit, pocket reference.

INTRODUCTION Cardiac catheterization is an invasive diagnostic procedure in which radiopaque arterial and venous catheters are introduced into selected blood vessels of the right and left sides of the heart in the ante cubital artery or vein or femoral artery or vein with x-ray guidance. It is used in the diagnosis and treatment of several cardiac diseases like Coronary Artery Disease, assess coronary artery patency, and determine the extent of atherosclerosis based on the percentage of coronary artery obstruction. American Heart Association's 2017 Statistics, about 2,200 Americans dying of cardiovascular disease. There

are 2.7 million catheterization done in the US each year, 32.2% of those are out-patient diagnostic catheterization, 34.67% of those are in-patient out-patient interventional catheterization, 17.17% of those are in-patient interventional catheterization. Cardiac hospitals in overall India perform over 2,00,000 open heart surgeries per year, one of the highest, worldwide. There has been a steady annual rise to the tune of 25-30 per cent per year in the number of coronary interventions over the past several years. Apparently, demographic projections suggest a major increase in cardiovascular.

MATERIALS AND METHODS

In this study non-experimental survey research design study was adopted. This study was conducted in Gauhati Medical College Hospital, Apollo Hospital and Hayat Hospital of Guwahati, Assam, India. The structured knowledge questionnaire to assess the nurses knowledge and observational checklist as developed to assess the practice of the staff nurses regarding patient safety after cardiac catheterization. The sample was selected using convenient sampling technique. On the first day questionnaires were distributed and practice was observed.

Reliability of the tool on knowledge questionnaire was calculated by split half method followed by Spearman Brown Prophecy Formula and was found to be 0.98. Reliability of the tool on observational tool was calculated by Inter Rater reliability followed by Karl Pearson's co-

relation coefficient formula and was found to be 0.97.

RESULT

Demographic variables of staff nurses

With regard to the age, majority (64%) of the staff nurses were in the age group of 21-30 years, With regard to the gender majority (94%) were females. With regards to the marital status, majority 66% were married, With regards to the educational qualification majority (88%) were from GNM background, With regards to area of posting majority 50% of the staff nurses were from cardiology ward, With regards to the exposure to any in service educational programme majority 56% of the staff nurses were exposed to in service educational program related to cardiac catheterization, With regards to the years of experience in cardiac unit equipped with cardiac catheterization laboratory majority 48% had 1-5 years of experience. With regards with the total years of experience as staff nurse in hospital settings majority 70% of the staff nurses had 1-5 years of experience.

The knowledge score was 44% have the good knowledge, 52% have the average score and 4% have the poor score and the practice score was 80% of the staff nurses have adequate and 20% have the inadequate practice regarding patient safety after cardiac catheterization and the practice of the staff nurses was found to be associated with educational qualification, area of posting, exposure to in service education program and years of experience in cardiac unit equipped with cardiac catheterization.

Table 1: Association of knowledge of staff nurses regarding patient safety after cardiac catheterization with selected variables of staff nurses.

Demographic Inference Variables	Knowledge score			Chi square(X ²)	df	p-value
	Good	Average	Poor			
1.Age in years						
31-40	12	19	2			

n=50

31-40	9	4	-	8.75	4	9.49
NS						
41-45	2	-	-			
>45	-	2	2			
2. Gender						
Male	3	-	-			
Female	20	25	2	3.75	2	5.99
NS						
3. Marital status						
Married	6	10	-			
Unmarried	17	15	2	2.06	2	5.99
NS						
4. Educational Qualification						
Y GNM	20	20	2			
Y BSc (N)	1	3	-			
Y PBBSc (N)	1	3	-	1.08	6	12.59
NS						
Y MSc(N)	-	-	-			
5. Area of posting						
Y Cardiac ICU	3	7	2			
Y Cardiology Ward	9	16	-	13.72	2	5.99
S						
Y Cardiac catheterization Laboratory	-	10	3			
6. Exposure to any in service program related to cardiac catheterization						
Y Yes	13	14	-			
Y No	9	12	2	2.52	2	5.99
NS						
7) Years of experience in cardiac unit equipped with cardiac catheterization laboratory.						
Y <1year	5	10	2			
Y 1-5 Year	12	10	-			
Y 6-10Year	5	2	-	8.77	6	12.59
NS						
Y >10Years	-	2	2			
8) Total years of experience as staff nurse in hospital settings.						
Y 1-5 Years	14	18	2			
Y 6-10Years	5	1	-			
Y 11-15 Years	-	3	-	5.03	6	12.59
NS						
Y >15 Years	3	2	2			

Table 2: Association of practice of staff nurses regarding patient safety after cardiac catheterization with selected variables.

Demographic variable	Practice		chi square	df	p-value	Inference
	Adequate	Inadequate				
1. Age in years						
• 21-30	25	6				
• 31-40	13	2	2.015	3	7.82	NS
• 41-45	2	-				
• >45	2	-				
2. Gender						
• Male	3	-	1.007	1	3.84	NS
• Female	38	9				
3. Marital status						
• Married	11	4	0.68	1	3.84	NS
• Unmarried	32	3				
4. Educational qualification						
• GNM	32	13	28.015	3	7.82	S
• BSC(N)	3	-				
• PPBSC(N)	1	1				
5. Area of posting						
• Cardiac ICU	9	1	8.375	2	5.99	S
• Cardiology ward	16	9				
• Cath lab	15	-				

6. Exposure to any in-service education Program.							
• Yes	22	6	4.46	1	3.84	S	
• No	16	6					
7. Years of experience in cardiac unit equipped with cardiac catheterization							
• <1 year	12	5					
• 1-5 year	21	1	9.136	3	7.82	S	
• 6-10 year	7	2					
• Above 10 years	2	-					
8. Total years of experience as staff nurse in hospital setting							
• 1-5 year	24	7					
• 6-10 year	8	2	3.37	3	7.82	NS	
• 11-15 year	3	-					
• 15 year	6	-					

S= Significant, NS= Not significant, p<0.05

Table 3: Correlation between knowledge and practice of staff nurses regarding patient safety after cardiac catheterization.

	Value	p-value
Correlation	-0.36	0.005

CONCLUSION

The present study was conducted to assess the knowledge and practice among staff nurses regarding patient safety after cardiac catheterization with a view to develop a pocket reference on patient safety after cardiac catheterization at selected hospitals, Guwahati, Assam. The findings of the study revealed that the staff nurses in cardiac intensive cardiac unit cardiology ward and cardiac catheterization laboratory have average knowledge and adequate practice regarding patient safety after cardiac catheterization. In knowledge 52% of the staff nurses have average knowledge and 80% of the staff nurses have adequate practice on patient safety after cardiac catheterization.

A validated pocket reference on patient safety after cardiac catheterization was developed to for easy reference by the staff nurses. On the basis of the findings the researcher concluded that the knowledge of the staff nurses was average and the staff nurses have adequate practice regarding patient safety after cardiac catheterization.

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