Original Research Paper　　　　　　　　　　**Nursing**

EFFECTIVENESS OF NURSING CARE PROTOCOL ON KNOWLEDGE AND PRACTICE AMONG STAFF NURSES REGARDING MANAGEMENT OF PATIENTS UNDERGOING CORONARY ANGIOPLASTY

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ABSTRACT　The present study investigated the effectiveness of nursing care protocol on knowledge and practice regarding management of patients undergoing coronary angioplasty among staff nurses working at Govt. Medical College Hospital, Kottayam. A quasi experimental one group pre test post test design was used. The objective of the study was to determine the effect of nursing care protocol on knowledge and practice of staff nurses regarding the management of patients undergoing coronary angioplasty. Thirty staff nurses working in the cardiology department were selected using simple random sampling. The data collection instruments included socio personal data sheet, structured questionnaire to assess knowledge and observation checklist to assess practice. The data was analysed using descriptive and inferential statistics. The results showed that the protocol was effective in improving knowledge (p<0.001) and practice (p<0.001).

KEYWORDS : Knowledge; Skill; Coronary Angioplasty; Staff nurses and Protocol

Introduction:

India is undergoing an epidemiological transition and is on the threshold of an epidemic of cardiovascular disease. If the current trend continues by the year 2020, the burden will surpass other regions of the world. The records show that there is a significant increase in the number of patients undergoing coronary angioplasty at Govt. Medical college hospital Kottayam. There was 442 coronary angioplasty performed in 2010. It increased to 582 in 2014. In 2015 there is a considerable increase with a record of 2385 coronary angioplasties (almost four times).

Standards can simultaneously serve as a tool for controlling and management of quality of nursing care. The aim of standard nursing procedure is increasing the quality, effectiveness and safety of the nursing process by standardizing procedures and their evaluation. Nurses as patient's advocates and the primary care givers should work with standardized protocols to prevent complications, for smooth and easy recovery and to reduce the hospital stay in patients.

Methodology:

The setting of the study was the department of cardiology Govt. Medical College Hospital, Kottayam. Data for the present study were collected from thirty staff nurses working in cardiology department using simple random sampling. A quasi experimental one group pre test post test design was used. Initially a good rapport was established with participants and the purpose of the study was explained assuring them the confidentiality of their responses. After obtaining written consent from the participants they were instructed to fill the socio personal data sheet and knowledge questionnaire regarding management of patients undergoing coronary angioplasty. An observation check list on practice of care of patients undergoing coronary angioplasty was filled by the investigator herself by observing practice of each nurse. After completion of the pre test the investigator implemented the protocol through 2 hours teaching session. After eight days of implementation of the protocol post test was carried out. The nurses were instructed to fill the same knowledge questionnaire. The practice of each nurse was observed and documented using the same observation check list after eight days in the post test period. On completion of the data collection process the staff nurses were appreciated for their participation and for spending their valuable time.

The data were analyzed using descriptive and inferential statistics.

Socio personal data was analyzed using descriptive statistics such as frequency mean, percentages, and standard deviation. Inferential statistics- Paired-t test was used to assess the effect of the protocol. ANOVA and t-test were used to find out the association between the socio personal data and knowledge.

Results:

More than half (53%) of the staff nurses had average knowledge and 47% had good knowledge regarding management of patients undergoing coronary angioplasty. Majority of staff nurses, 60% had average skill and 40% had good skill in management of patients undergoing coronary angioplasty. Statistical analysis using paired t test revealed that the protocol was effective in improving knowledge (p<0.001) and practice (p<0.001) in the management of patients undergoing coronary angioplasty among staff nurses working at Govt. Medical College Hospital Kottayam. Statistical analysis using independent t test and one way ANOVA revealed that there was no significant association between knowledge and practice scores with selected variables like age, gender, professional qualification, total professional experience, experience in ICU and in-service programme regarding coronary angioplasty attended.

Table 1

Mean standard deviation and t value of pre and post test knowledge of staff nurses regarding the management of patients undergoing coronary angioplasty　　(n = 30)

Knowledge					
	Pre test		post test		t
Knowledge	Mean	SD	Mean	SD	
Total knowledge	21.50	4.49	29.00	3.51	12.96***
Domains					
Pre procedure care	7.5	1.33	9.27	1.08	5.65***
Post procedure care	4.87	1.78	7.47	1.61	8.21***
Complications	4.80	1.40	6.1	1.09	5.90***
Medications	4.27	1.44	6.10	1.00	6.37***

***significant at 0.001 level

Table 1 depicts that the obtained t value of pre test and post test total knowledge regarding the management of patients undergoing coronary angioplasty was 12.96. When considering the domains t value of pre test and post test knowledge about pre procedure care was 5.65, knowledge about post procedure care was 8.21, knowledge about complications was 5.90 and knowledge

about medications was 6.37 which were significant at 0.001 level. It was inferred that the implementation of the protocol had significant effect on knowledge score of staff nurses.

Table 2
Mean, standard deviation and t value of pre and post test practice of staff nurses regarding the management of patients undergoing coronary angioplasty. (n =30)

Practice					
	Pre test		post test		t
Practice	Mean	SD	Mean	SD	
Total Practice	34.17	2.04	45.93	1.41	31.50***
Domains					
Pre procedure care	12.07	0.91	15.30	0.75	15.20***
Post procedure care	11.40	0.67	13.93	0.25	19.00***
Prevention of complications	10.73	1.17	16.70	0.84	27.50***

***significant at 0.001 level

Table 2 depicts that the obtained t value of pre test and post test total practice regarding the management of patients undergoing coronary angioplasty was 31.50. When considering the domains t value of pre test and post test pre procedure care practice was 15.20, post procedure care practice was 19.00 and practice in prevention of complications was 20.15 which were significant at 0.001 level. It was inferred that the implementation of the protocol had significant effect on practice of staff nurses.

Discussion:
The main objective of the study was to determine the effect of nursing care protocol on knowledge among staff nurses regarding the management of patients undergoing coronary angioplasty. The obtained t value of pre test and post test total knowledge regarding the management of patients undergoing coronary angioplasty was 12.96 which was significant at 0.001 level. It was inferred that the implementation of the protocol had significant effect on knowledge of staff nurses.

The findings of the study was congruent with another pre experimental study to assess the effectiveness of protocol on knowledge among staff nurses regarding nursing management of pre, intra and post operative patients undergoing angioplasty using one group pre-test, post-test approach was conducted in Indore. Sample size was 45 staff nurses. The study concluded that there was a need to improve the level of knowledge of staff nurses and for that protocol was an effective means.

Another objective of the study was to find out the association between knowledge of staff nurses and selected socio personal variables. No association was found between knowledge among staff nurses regarding nursing management of patients undergoing coronary angioplasty and selected socio personal variables like age, gender, professional qualification, total professional experience, experience in ICU and in-service education regarding coronary angioplasty.

In contrast a study was conducted in cardiac medical intensive care units and cardiac medical wards of Sree Chitra Tirunal Institute for Medical Science and Technology, Thiruvananthapuram in November 2011 about patient safety after cardiac catheterisation concluded that the knowledge level was higher in those with experience more than 5 years. In the evaluatory approach to find the effectiveness of a Self Instructional Module on pre and post procedural nursing care on knowledge level of staff nurses in KS Hegde Charitable Hospital, Derlakkate, Mangalore. There was significant association of pre-test knowledge score with selected demographic variables such as age and gender at 0.05 level of significance.

Conclusion:
Nurses play a vital role in preventing complications and managing

the patients during and after the procedure. Quality nursing care can be achieved through standard protocols describing each critical and sequential step one has to perform in a task in order to assure its expected result. Based on the findings of the study the following conclusions are drawn. Majority of the staff nurses were having average knowledge and skill about selected aspects of care. The nursing care protocol was found to be effective in improving the knowledge and practice among staff nurses regarding the management of patients undergoing coronary angioplasty. No association was found between knowledge and practice among staff nurses regarding nursing management of patients undergoing coronary angioplasty with selected socio personal variables like age, gender, professional qualification, total professional experience, experience in ICU and in-service education regarding coronary angioplasty. Nursing care protocol helps in developing a sound knowledge and there by skills and confidence in nurses.

References
1. Cardiovascular Diseases in India. Max neeman contract research improving life, 2013.
2. Ludmila K, Katarína Z; Standardization of the Possibility of specialised Nursing Care After Cardiac Catetrization. Profese, 2014;7(1):1803.
3. Beneeta SL, Gireesh GR, Sachina BT; American International Journal of Research in Humanities, Arts and Social Sciences, 2014; 8(1): pp. 80-82.
4. Ms.Shweta P; Effectiveness of protocol on knowledge among staff nurses regarding pre, intra and post operative nursing management of patients undergoing angioplasty. Indian Journal of Nursing Studies, 2011; 3(2).
5. Arathy SR; A study to assess the knowledge and Practices among cardiac nurses about Patient safety after cardiac Catheterization. Speciality Nursing [Thesis]Trivandrum, Mahatma Gandhi University, November 2011.