

Nurses' Knowledge and Practice toward Post Cardiac Catheterization Patients' Safety

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ABSTRACT— To determine a nurse's knowledge of patient safety following diagnostic procedures Cardiac Catheterization at Al-SADER Teaching Hospital in Basra City. From the 5th of November, 2020, to the 25th of February, 2021, a descriptive study was carried out. The study's sample was chosen using a non-probability (purposive sampling) method. The study includes thirty (30) nurses from Al-Sader Teaching Hospital in Basra City who work in the medical ICU and cardiac medical ward. A self-structured questionnaire was used to examine the knowledge and practice of nurses working in intensive care units and cardiac medical wards. Descriptive statistics were used to analyze the data (frequencies, percentages, mean, Likert score). Out of 30 participants, 86.6 percent were females, and with age groups ranging from 20 to 29, the majority of nurses had 1-10 years of experience. The mean of total knowledge was found to be good when contrasted to the poor mean of practice. This demonstrated that nurses are well-versed in post-cardiac catheterization complications. In terms of patient safety following cardiac catheterization, there is a positive relationship between knowledge and practice. Nurses with the necessary knowledge and experience can assist inpatient rehabilitation. The study suggests that educational training programs for nurses who work in cardiac catheterization be implemented, that nursing faculty pay more attention to cardiac catheterization and patient safety following cardiac catheterization and that postgraduate studies specializing in cardiac catheterization nursing be established.

KEYWORDS: Nurses' Knowledge and Practice; Cardiac Catheterization; Patients' Safety.

1. INTRODUCTION

During hospitalization, many people suffer from avoidable injury. As a result, enhancing patient safety is a top priority for policymakers and practitioners. Furthermore, cardiac nurses must provide proper care to post-cardiac catheterization treatment patients because infectious diseases are highly contagious [1]. According to popular belief, healthcare providers and the organizational structure are responsible for the majority of the risks to patients' safety and disease. Professional elements such as health care providers' awareness and skillfulness toward patient safety have an impact on patient safety risk, particularly when health care providers lack the necessary safety knowledge and skillfulness to provide secure care to their patients. As a result, the competencies of cardiac nurses are critical; even minor errors by cardiac nurses can result in complications such as hematoma, ecchymosis, and leakage, heart perforation, and abrupt closure. As a result, nurses play a critical role in the post-cardiac catheterization care of patients [2]. Furthermore, nurses must create a consistent and safe plan of care for patients who have had a cardiac catheterization or a percutaneous coronary intervention, and these protocols must be based on research and evidence. As a result, if nursing care is provided in greater quantity or of higher quality, patient outcomes can be improved [3].

Furthermore, nurses who work in post-cardiac catheterization patient care should be well-educated and possess a broad range of knowledge and abilities to serve patients who have undergone various cardiac catheterization procedures and nursing care that is provided regularly [3].

The Cardiac Catheterization Lab's nurses are critical to providing high-quality care to patients. Evidence-based practice Knowledge is the key to becoming an effective and efficient nurse [4].

Objectives of the study:

1- Assess the knowledge of nurses about patient safety following diagnostic cardiac catheterization at Al-Sader Teaching Hospital in Basra.

2. Methodology

2.1 Design of the study

A descriptive-analytic study was conducted on assessment nurses' knowledge and practice concerns patient safety following diagnostic cardiac catheterization in Basra's Al-Sader teaching hospital.

2.2 The setting of the study

The research took place at Al-Sader teaching hospital in Basra, in the cardiac ICUs and cardiac wards.

2.3 Sample of the study

The study's sample was chosen using a non-probability (purposive sampling) method. The study involves (30) nurses from Al-SADER Teaching Hospital in Basra City who work in the medical ICU and cardiac medical ward.

Sample instrument (Questionnaire)

This study's tool consists of the following components: The first section of the questionnaire contains demographic information as well as questions concerning the occurrence of problems during cardiac catheterization. The second tool is the Observation tool, which includes demographic information and nursing care following cardiac catheterization.

Method of data collection

The data collected started from 5th November /2020 to 25th/ February /2021. The data have been collected through the use of questionnaires and mean of interview teaching and direct observation of the nurse's knowledge and practice toward cardiac catheterization in Al-Sadr teaching hospital at Basra city.

Statistical data analysis: The data were analyzed by Admitted to the Program (SPSS), version 16 for the interpretation of the results. Descriptive data analysis application Frequency and percentage, Mean & S.D and Likert scale).

3. Results

Table (1): Distribution of Study Sample According to Knowledge of Study Sample (n = 30).

No.	Knowledge question	Mean Score	Assessment
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1.	What complications may patients suffer locally following cardiac catheterization?	.98	Good
2.	How will you identify a bad pseudoaneurysm after cardiac catheterization?	.14	Poor
3.	When should you assess a patient's serum creatine level after cardiac catheterization?	.20	Poor
4.	What's the problem with waiting so long to remove the sheath?	.74	Good
5.	It is possible to develop contrast-induced nephropathy.	.16	Poor
6.	After a cardiac catheterization, who is at risk of developing renal failure?	.28	Poor
7.	What are the signs and symptoms of thrombus formation after a cardiac catheterization procedure?	.74	Good
8.	How should the affected extremity of the patient be immobilized after cardiac catheterization?	.44	Poor
9.	After cardiac catheterization, who is most likely to suffer pulmonary edema?	.90	Good
10.	How do you tell if a hematoma has formed at the puncture site during a cardiac catheterization?	.88	Good
Total		.54	Good

MS= mean of score, Ass=(0- 0.49) are poor knowledge, and (0.5-1) are good)

In Table 1, it is shown that 99 % of the staff believe that it is a local complication that occurs in patients 14% of patients believe that a cardiac catheterization can detect a pseudoaneurysm., 20 % believe that patients after cardiac catheterization are checked for a certain level of serum, and 74 % believe that delayed sheath removal is a complication, while just 16% believe that contrast-induced nephropathy develops. 28% of them were at risk of developing renal failure following cardiac catheterization, 74% of staff stated that thrombus formation was a sign of cardiac catheterization, 44% of nurses stated that the patient's affected extremity should be immobilized following cardiac catheterization, and 90% stated that they were at risk of developing pulmonary edema following cardiac catheterization.

Table (2) Distribution of Study Sample According to Practice of Study Sample (n = 30).

	Practice question	Mean Score	Assessment
1	Explain post-procedural care.	25.7%	poor
2	Take off the sheath.	(27.4%	poor
3	Examine the catheter insertion site for any signs of bleeding or hematoma.	(77.8%	Good
4	Examine the skin's color or temperature.	39.5%),	poor
5	At initially, check vital signs every (2) hour for (15-30) minutes; thereafter, less frequently.	(46.0%),	poor
6	Examine the pain for consistency.	(26.6%)	poor
7	ECG monitoring is used to keep track of the patient.	(58.9%).	Medium

8	Places the patient in the supine position on a padded table in the room.	58.4%)	Medium
9	Encourage the patient to drink more fluids.	(27.8%),	poor
10	Keep an eye out for signs of contract hypersensitivity and other warning signs.	36.0%)	poor
11	Examine the patient's output.	(66.6%)	Medium
12	For 4-6 hours after the procedure, keep an eye on the extremity where the catheter was inserted straight.	(58.9%)	Medium
13	If antecubital vessels are used, it immobilizes the arm on the arm board.	(24.2%)	poor
14	Tell the patient that he or she must cough it up. There is some pain in the chest.	(44.2%)	poor
15	When catheters are removed, apply pressure to the insertion site.	(55.7%)	Medium
16	If there is any bleeding, apply firm pressure to the area.	(25.7%)	poor
17	After the procedure has been completed for 24 hours, check the intake output.	(45.7%)	poor
18	Before discharge, teach the patient how to self-manage at home.	(35.7%)	poor
	Grand mean	46,6%	poor

The practice was poor. According to the findings of the current study, staff members have strong knowledge (54 %) but inadequate practice (46.6).

4. Discussion

The distribution of age and experience revealed that the majority of health staff were 20-29 years old (53.5 %), indicating that the majority of health staff were juniors with less than 1-10 years of experience (76.7). As indicated in the previous study, nurses at a young age have a lot of energy and hyperactivity, which is usually needed in such vital areas. According to the distribution of qualifications, the majority of the health staff (46.6 perc%ent) have a diploma. The distribution of samples by sex shows that the female gender has a higher percentage (86.6 pe%rcent).

According to the findings of the majority of nurses in the current study were over 30 years old, female, and had a nursing diploma in the highest percentage, about half of them, their experience spanned from 5 to 10 years, and the majority of them had no in-service cardiac catheterization training courses [5].

According to [6], education and training are two parts of staff development that occur after an employee has been indoctrinated, which refers to the deliberate, directed adjustment of the employee to the work environment.

The level of knowledge and capabilities of the staff have a big effect in establishing the number of people needed to achieve unit goals. The more well-trained and skilled the personnel, the fewer people are needed, saving money and enhancing the organization's reproductive capacity [6].

Knowledge The current study assessed nurses' knowledge of post-cardiac catheterization complications. The study discovered that the majority of nurses are well-versed in post-cardiac catheterization complications. In Al-Najaf City, a similar study was undertaken to assess nurses' expertise, and it was determined that nurses have a strong understanding of cardiac patient care [7].

According to [8], staff knowledge of the cardiac catheterization procedure was adequate. Research in a cardiac unit was done to examine nurses' understanding of pacemaker implantation. The purpose of the current study was to detect nurses' knowledge of intra-aortic balloon pumps in terms of patient care. This was also a cardiac procedure, and the results regarding the nurse's knowledge¹⁵ were very unsatisfactory. The nurses in the current study are well-versed in inpatient care following cardiac catheterization.

4.1 Knowledge and Practice

Assessment For this study, nurses were evaluated on their knowledge and practice of post-cardiac catheterization problems and various post-cardiac catheterization care techniques. According to the findings, there was a general disconnect between what people knew and what they did in various operations. Only a few post-procedure measures, such as discussing post-procedure care (78.4%), removing the sheath (77.8%), putting firm pressure on the catheter site (79.5%), and assessing pain stability, were better known than practice in terms of post-cardiac catheterization problems (76.0 percent), and assessing skin color or temperature (76.0%), were found to be good and close to knowledge. Nurses have strong knowledge (54 %) but poor practice, according to a recent study (46,6 %).

According to [9], 44 % of staff nurses have good knowledge, 52 % have average knowledge, and 4 percent have poor knowledge, while 80 % of staff nurses have adequate practice and 20% have inadequate practice regarding patient safety post-cardiac catheterization. Staff nurse practice was found to be associated with patient safety post-cardiac catheterization.

5. Conclusion

The purpose of the current study was to analyze staff nurses' knowledge and practice regarding patient safety after cardiac catheterization to build a pocket reference on patient safety following cardiac catheterization at Al-SADER Teaching Hospital in Basra. The study's findings demonstrated that staff nurses in cardiac intensive care units, cardiology wards, and cardiac catheterization laboratories have average to adequate awareness of patient safety following cardiac catheterization. The staff nurses' understanding of patient safety following cardiac catheterization is mediocre, and 54 percent of the staff nurses have poor practice (46,6%).

For quick access by the staff nurses, a validated pocket reference on patient safety after cardiac catheterization was produced. The researcher found that the staff nurses' knowledge was average and that they had appropriate practice for patient safety following cardiac catheterization based on the findings.

6. Recommendations

1. Educational training programs for nurses who work in cardiac catheterization must be established.
2. Establishes specialist cardiac catheterization centers.
3. Cardiac catheterization and the safety of the patient after cardiac catheterization should be given more emphasis by nursing faculty.
4. Develop cardiac catheterization nursing postgraduate studies that are focused.

Ethical Consideration

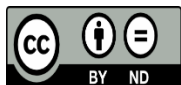
Subject consent according to the study criteria was obtained from central administration and study sample to participant in the study.

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