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A STUDY TO ASSESS THE EFFECTIVENESS OF A PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING POST OPERATIVE CARE OF CARDIAC PATIENTS AMONG STAFF NURSES WORKING IN A TERTIARY CARE HOSPITAL IN SRINAGAR

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ABSTRACT

The goal of this research was to determine how well nurses at a tertiary care hospital in Karachi, Srinagar, knew and practiced post-cardiac catheterization patient care. goal-oriented research A research to evaluate the impact of a planned training programmed for staff nurses working in a tertiary care hospital in Srinagar on their understanding of post-operative care for cardiac patients. Trauma victims are still at risk for deep vein thrombosis (DVT). Only 10% of those who need DVT prophylaxis are given it, while the other 90% are denied treatment due of a lack of knowledge and awareness. Deep vein thrombosis is a life-threatening disorder that may result in death. The quality of care delivered was evaluated via the use of an observational instrument as well as a survey administered to 30 randomly selected participants. It used a pre-validated questionnaire in the survey. Between the months of September 2011 and November 2011, the team conducted their investigation. The investigation was conducted on staff nurses from the cardiology critical care unit and the cardiology medical ward. A staff nurse with more than five years of experience is more knowledgeable than a staff nurse who has less than five years of experience. A p value of 0.015 was found to be significant when these two were compared. Based on what I've seen, the level of care provided is acceptable.

Keywords: *Planned teaching programmed; Cardiac Rehabilitation – CR. Coronary Artery Bypass Graft, Planned teaching programmed, Staff nurses*

INTRODUCTION

The leading cause of mortality worldwide is cardiovascular disease (CVD). In 2015, an estimated 56.4 million people died throughout the globe. A heart attack or a stroke claimed the lives of 30 million individuals out of a total death toll of 56,4 million people. In 2013, 17.5 million Americans lost their lives to cardiovascular disease and stroke. 9.87 percent of all deaths in Srinagar may be related to cardiovascular disease as a consequence of coronary artery disease.

More than 630,000 Americans are at danger of a heart attack, and one occurs every 34 seconds. There are an estimated 385,000 new cases of coronary artery disease (CAD) in the United States per year. Fatalities from cardiovascular disease have been shown to account for more than half of all deaths worldwide. In the same manner, cardiovascular illness is on the rise in Srinagar, as do other types of cancer. As many as 200,000 lives are lost to cardiovascular disease (CVD) in Srinagar every year, according to

estimates. In Srinagar, 12 people die per hour from cardiovascular disease.

A well-thought-out educational plan Every patient in the hospital is at risk for a thromboembolic event. The silent killer is deep vein thrombosis. After ischemic heart disease and stroke, it is the third most frequent vascular illness, posing a major hazard to post-surgical recovery. Deep vein thrombosis (DVT) is a risk factor for fatal pulmonary embolism (PE). Nearly all patients with pulmonary embolism have deep vein thrombosis in their legs, which affects around 79% of those patients. In the lower leg, PVT and DVT may progress to PE, which is often missed by the patient. pulmonary embolism (PE) is one of the most catastrophic effects of a DVT, which is defined as "the presence of a blood clot in a pulmonary artery blood vessel that obstructs circulation to lung tissue." Pneumococcal symptoms include nausea, vomiting, abdominal pain, shortness of breath, chest pain, hemoptysis, and anxiety. Dialysis vein thrombosis (DVT) is the most common kind of venous thrombosis. When it comes to thrombosis in the veins, though, it may occur everywhere in the body. Emboli are caused by blood clot fragments that break off and migrate through the veins after forming in a vein. Every year, more than 50,000 Americans lose their lives to a life-

threatening condition known as pulmonary embolism (PE). Surgery patients are still at risk for pulmonary embolism and lower-limb deep vein thrombosis (DVT). According to a 2002 study by the American Public Health Association (APHA), many Americans had never heard of deep vein thrombosis (DVT). Deep vein thrombosis kills up to 200,000 individuals each year, thus this is a concerning statistic. Deep vein thrombosis is a life-threatening disorder that may result in death. DVT affects a large number of patients, both in the hospital and in the community, and nurses must be aware of the illness and how to detect it. In other words, the study's ultimate goal was to determine whether or not the staff nurses' training in deep vein thrombosis was beneficial.

REVIEW OF LITERATURE:

Dr. Warda Mohamed Henedy (2019) one of the many diagnostic and therapeutic tools accessible to cardiologists today is cardiac catheterization. Complications, both mild and more significant, may result in both morbidity and death. Cardiac catheterization teams are tasked with ensuring that patients get high-quality treatment and that they do not suffer injury as a consequence of a medical interaction. In order to ensure the safety of their

patients after cardiac catheterization, they must assess the skills and expertise of cardiac nurses. Descriptive-correlational methods were used. More experienced nurses had higher mean practice scores (31.63 3.77) than less experienced ones (23.82 2.45). The mean knowledge score for baccalaureate nurses was 6.761.98, which was higher than the knowledge score for diploma and technical institute nurses (3.173.31). Students with bachelor degrees outperformed those with associate's or certificate degrees on the average practise exam (23.91 6.00). Regression coefficients (r = 0.960, 0.936) and p-values (0.000) were found to be associated with staff nurses' practise and knowledge years of experience. With time, cardiac catheterization staff nurses get better at ensuring the safety of their patients. A uniform methodology for patient care in simulation laboratories and an assessment of the competence of newly hired nurses caring for patients following cardiac catheterization are all things that administrative and nursing leaders may do to assure high-quality nursing care.

Nimmi Louis. (2019) CBGA surgery may lessen angina and death as a result of coronary artery disease (CABG). Grafting arteries or veins from other regions of the patient's body into the coronary arteries is a possibility for people with coronary artery disease. According to a recent study, thoracic surgery is the most common cause of post-operative respiratory difficulties following CABG. Post-operative pain and diaphragmatic dysfunction lower vital capacity by 50-60%, and residual functional capacity by 30%. Surgery patients are more likely to suffer from pulmonary and cardiac problems if opioids and other anaesthetic medicines are administered to them. The National Surgical Quality Improvement Program (NSQIP) assessed the costs and length of stay for patients with a wide range of surgical complications. Only 18 of the 22 samples (45 percent) performed well enough to go to the posttest, while the other 22 samples (55 percent) were below average. Nearly three quarters (73.6%), 9 (22.5%) and 5 (5%) of the samples exhibited excellent knowledge, according to the results of the post-test. Pretest results showed that 27 (67.5%) of the sample had acceptable habits, 12 (30%) were average, and only 1 (2.5%) had excellent practises. There were 37 samples with excellent practise, followed by three samples that did well. The calculated t' values were 13.43 and 20.54 for knowledge and practise, respectively. As a result of these results, it seems that providing organised teaching to post-operative CABG nurses may improve their

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knowledge and skills in the prevention of certain cardiopulmonary issues. Staff nurses in cardiac care units lacked appropriate understanding when it comes to preventing specific cardiopulmonary problems in post-operative CABG patients. Nurses' ability to provide better care to their patients was shown to be enhanced by a structured educational programme.

Jerry Jacob (2020) cardiac arrhythmias may occur when the heart's electrical conduction or automaticity is disrupted, resulting in an abnormal heart rate or rhythm. To determine the level of knowledge that staff nurses have about cardiac arrhythmia diagnosis and management before and after a specific educational programme, to compare knowledge scores before and after the programme, and to link the knowledge score before the programme to selected demographic variables.. Pre-experimental pretest post-test design was selected as the quantitative research technique of choice for this investigation. 100 samples from selected Srinagar hospitals were taken, and the Sister Cellist Roy's adaptation model was applied. From September through October of 2017, data was acquired via the use of a self-structured questionnaire. According to the results of the study, 65 percent of women and 63 percent of

critical care unit personnel with a Revised Diploma in General Nursing and Midwifery, aged 20-25 years, had no on-the-job training in cardiac arrhythmias (77 percent).Select demographic characteristics had no effect on knowledge ratings. 64 percent of participants in this research had average knowledge of cardiac arrhythmia interpretation and therapy before to the trial. Post-test results went up as a result of a planned educational session. Eighty-eight percent of the people surveyed were confident in their ability to recognize and treat cardiac arrhythmias. The vast majority of nurses in intensive care units (ICUs) are capable of promoting health and preventing catastrophic illness. Nursing education is needed to teach nurses in the identification and diagnosis of cardiac arrhythmias, which will reduce mortality rates and improve patient care.

Jils Thottungal Suresh (2018) Infections at the surgical site may have a variety of negative consequences, such as lengthening the time a patient is in the hospital and increasing the financial and emotional strain on the patient. A quick recovery and fewer difficulties would be made possible thanks to the expertise of health care experts, notably nurses. Pre- and post-tests were conducted using a quasi-experimental methodology. A convenience sampling approach was used

to pick 40 nurses from a single hospital who matched the inclusion criteria for the research. Data were gathered via the use of a knowledge questionnaire. The information with the help of a guide and 12 specialists in Medical Surgical Nursing, the tool's validity was validated. Carl Pearson Coefficient of Correlation was used to establish the knowledge questionnaire's reliability coefficient. For the purpose of gathering data, formal consent was sought from the relevant authorities at the chosen hospital. In this research, it was shown that the majority of nurses had outstanding knowledge after the implementation of a systematic education programmed. Knowledge scores were shown to be strongly correlated with demographic data including total years of professional experience and current work years of experience. The findings of this research will assist the nurse in developing suitable educational materials to increase surgical site infection prevention knowledge.

Pankaj D. Lavhale (2019) Pathogenic bacteria are kept to a minimum during clinical operations using aseptic technique, a collection of infection prevention and control measures. (1) Determine the extent to which pre-test personnel are aware of the critical role played by aseptic methods. Pretest and posttest knowledge scores of

junior employees are compared to determine the success of an educational programmed. (3) Link demographic information like age, gender, and educational attainment to an understanding of the significance of aseptic method use. Methods: A pre-experimental one-group pre-test and post-test design was adopted in the investigation. It was decided to conduct this study at the Krishna Hospital in Kara. In order to choose 60 junior staff nurses, simple random selection was performed. The data was gathered via the use of pre-designed questionnaires. The data was examined via the use of description and inference. Pre-examination and post-examination staff nurse knowledge scores. According to the p 0.05 threshold, the mean difference in scores between the pre and post-tests was 6.117, with an estimated t value of 51.183. Researchers observed that nurses' comprehension of the importance of aseptic procedure enhanced after a well-designed teaching programme.

METHODOLOGY:

Methodology, study design, sampling strategy, tool development, pilot study data collecting, and analytic plan are all included in this chapter.

Research approach

This research employed a descriptive survey method.

Setting of the study

Study locations included the cardiac critical care units and wards of the Institute of Medical Science and Technology in Srinagar.

Study population

SCTIMST's cardiac medical ICU and cardiology ward staff nurses are the study's target populations, since they care for patients after cardiac catheterization.

"Sample and sampling technique"

For this investigation, convenient sampling is used, resulting in the collection of 30 samples. Five nurses from the hospital participated in the research as the project's first pilot subjects. Between October and November of last year, a month was allotted for the research.

Inclusion criteria

The study involves patients who have had cardiac catheterization as well as nurses who are willing to participate.

Development of the tool

Caregivers working in cardiac medical ICUs or cardiac medical units were assessed using a self-prepared structured questionnaire and observation instrument. The Trivandrum branch of SCTIMST The tool was developed with the support of many academic papers and textbooks, and specialists from SCTIMST Trivandrum have given it their blessing. The self-prepared questions include a wide range of topics related to the prevention of cardiac catheterization-related problems, such as follow-up treatment, blood tests, and physical activity. Analyzing the practice, an observing instrument was devised

Description of the tool

The following components make up the study's tool: Questionnaires begin with this information.

☐ Data pertaining to the population

☐ Concerns regarding the potential for cardiac catheterization-related problems In addition, the Observation tool has the following features:

☐ Data pertaining to the population

☐ after a cardiac catheterization, a nurse's care is needed.

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Pilot study

After receiving approval from the hospital's administration, a pilot research was carried out in October 2011. Five cardiac nurses between the ages of 26 and 55 participated in the research, which included a self-prepared questionnaire and observation instrument. During the pilot research, the questionnaire was reworked to include any required changes.

Data collection procedure

The government has given the go-ahead for the collecting of information. During the months of September and October of 2011, data was collected. SCTIMST Trivandrum's cardiac critical care units and cardiac medical wards provided the data for this study. She initially introduced herself and outlined the study's goals and objectives before receiving the cardiac nurses' approval to conduct it.

Plan of analysis

After conducting a pilot study, the researcher devised a strategy for data collection and analysis. Descriptive statistics were used to evaluate the data from the samples.

Summary

In this section, you'll find information about the methodology, settings, participants, sample, and sampling strategy, as well as the creation and description of the tool and the methods used to gather the data.

RESULT:

In order to investigate and test a research question, data must be classified, ordered, manipulated, and summarized in order to be understandable and interpretable. Putting the findings of a study into a larger perspective is what is meant by the term "interpretation."

Distribution of samples according to demographic data

Description of samples according to observation tool

Section A: Distribution of samples according to age.

Table 1.1 "A shows distribution of samples according to age"

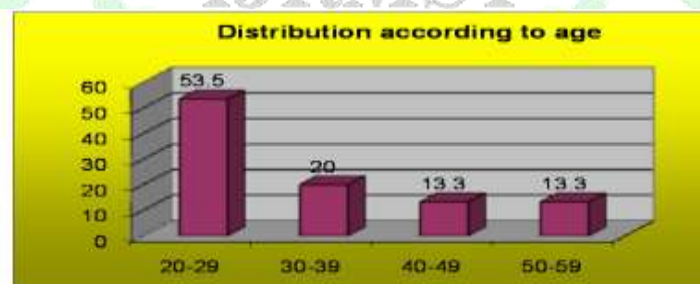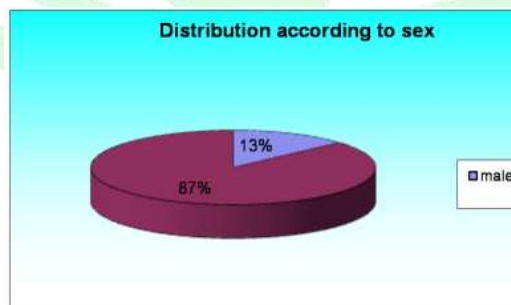| Age	Frequency	Percentage
20-29	16	53.5
30-39	6	20
40-49	4	13.3
50-59	4	13.3
Total	30	100

Figure1.1 "shows distribution of sample according to age"

Table 1.2 "shows distribution of samples according to sex"

Sex	Frequency	Percentage
Male	4	13.3
Female	26	86.6
Total	30	100

Figure 1.2 "shows distribution of sample according to sex in a pie diagram"

Females have a mean age of 7.8 years and a standard deviation of 1.47, while males have a mean age of 7.8 years and a standard deviation of 1.47. Based on the information from these two, we obtained a p value of 0.11, which does not indicate that the result was statistically significant. There does not seem to be a strong relationship between sexual orientation and academic success.

Table 1.3 " shows distribution of sample according to experience"

Years of experience	Frequency	Percentage
1-10	23	76.7
11-20	2	6.7
21-30	5	16.6
Total	30	100

There are 23 staff nurses with 1-10 years of experience, two staff nurses with 11-20 years of experience, and five staff nurses with 21-30 years of experience in the sample, according to the data in the table

Figure 1.3 "shows distribution of samples according to experience in bar diagram."

There are 1.22 standard deviations for samples with fewer than five years of experience following data analysis. More than five years old samples had an 8.8 average and 1.32 standard deviation. The p value of 0.015 obtained from analysing these two is notable. A greater level of knowledge may be assumed by those with more than five years of experience.

Experience of at least five years: There's a midpoint of 8 and a high point of 9 in the range of 5 to 10.

Inexperienced workers have knowledge levels ranging from 4 to 9, depending on how long they've been in the job.

**Section B: Description of samples according to observation tool**.

The experiment included 14 nurses and 30 patients.

Table 1.4 "shows distribution of samples according to the procedure."

Name of the procedure	Frequency	Percentage
CAG	10	33.34
PTCA	12	40
EPS+RFA	6	20
PTMC	1	3.33
PCI	1	3.33
Total	30	100

According to the table, the samples used to obtain the data included 10 patients who underwent CAG, 12 patients who had PTCA, 6 patients who underwent EPS+RFA, 1 patient who underwent PTMC, and 1 patient who underwent PCI. There were a total of 30 individuals who had had different forms of cardiac catheterization.

**Figure 1.4 shows the distribution of samples according to the procedure in a bar diagram**
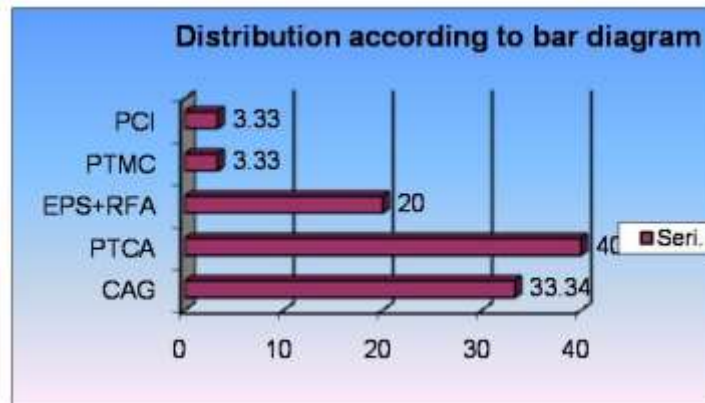
In the study, PTCA was performed on a whopping 40% of the participants. Trolleys were used to convey all patients to the ward or ICU. A radial puncture was used just once in 30 individuals, whereas the others received a femoral puncture.

Table 1.5 shows distribution of samples according to area.

Area	Frequency	Percentage
CMWRD	9	30
CMICU	21	70
Total	30	100

Patients in the cardiology medical ward and the cardiology medical intensive care unit were included in our study.

Figure 1.5 shows distribution of samples according to area.
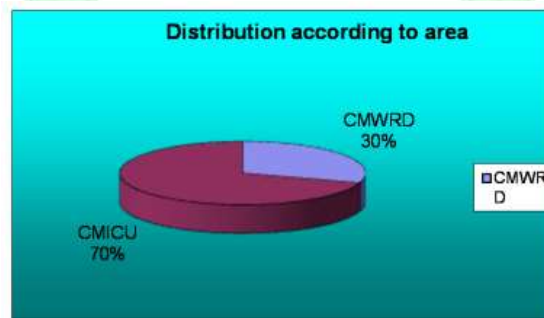
Majority of the patient were shifted to CMICU (70%) after the procedure.

All patients in the ICU and the wards have their puncture sites and distal pulses monitored following the surgery. Although puncture site assessment and distal pulse checks were performed at different intervals, the frequency varied. Because the staff-to-patient ratio is greater in an inpatient ward for patients with low risk, doctors are unable to evaluate them as often. However, no adverse effects have been observed by any of the patients. All patients in the critical care unit were subjected to cardiovascular monitoring, as was the case on the ward. The patient was properly communicated with in both the ward and the critical care unit. Fluids were delivered intravenously to patients who had had PTCA, while intravenous fluids were given to those who had not undergone PTCA until after the sheath removal was complete. No one in the study suffered from a vasovagal attack or any other unwanted side effects. Two patients were unable to urinate for more than eight hours despite having their bladders palpated and receiving treatment. After the nursing intervention, both of them had sufficient urine production. Food intake records were kept, paperwork was completed, and family members were

given a tour of the facility. PTCA patients had their sheaths removed without incident and received good compression till the bleeding ceased. Poor nursing treatment in the ward and in the intensive care unit has not resulted in any consequences, according to the observational instrument.

1.47 standard deviation in female ages and 7.8 in male ages are the standard deviation. We arrived at a p value of 0.11 using the information from these two sources, which is not statistically significant. There seems to be no correlation between gender and academic achievement.

Table 1.6 shows distribution of sample according to experience

Years of experience	Frequency	Percentage
1-10	23	76.7
11-20	2	6.7
21-30	5	16.6
Total	30	100

There are 23 staff nurses with 1-10 years of experience, two staff nurses with 11-20 years of experience, and five staff nurses with 21-30 years of experience in the sample, according to the data in the table

Figure 1.6 shows distribution of samples according to experience in bar diagram.
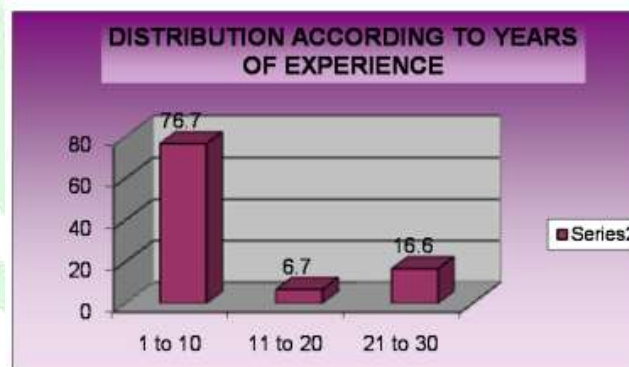
There are 1.22 standard deviations for samples with fewer than five years of experience following data analysis. For samples older than five years, a median value of 8.8 was discovered, with a standard deviation of 1.32. The p value of

0.015 obtained from analysing these two is notable. A greater level of knowledge may be assumed by those with more than five years of experience.

Experience of at least five years: There's a midpoint of 8 and a high point of 9 in the range of 5 to 10. There is a wide variety of experience levels in this group, with a median of 7 and a mean of 7. Section B

**Description of samples according to observation tool.**

The Observation study was done in 14 staff nurses and 30 patients

Table 1.7 shows distribution of samples according to the procedure.

Name of the procedure	Frequency	Percentage
CAG	10	33.34
PTCA	12	40
EPS+RFA	6	20
PTMC	1	3.33
PCI	1	3.33
Total	30	100

Ten patients received CAG; twelve patients had PTCA; six patients had EPS+RFA; one patient had PTMC; and one patient had PCI, according to the data in the table. Thirty people had had various kinds of cardiac catheterization.

Figure 1.7 "shows the distribution of samples according to the procedure in a bar diagram"
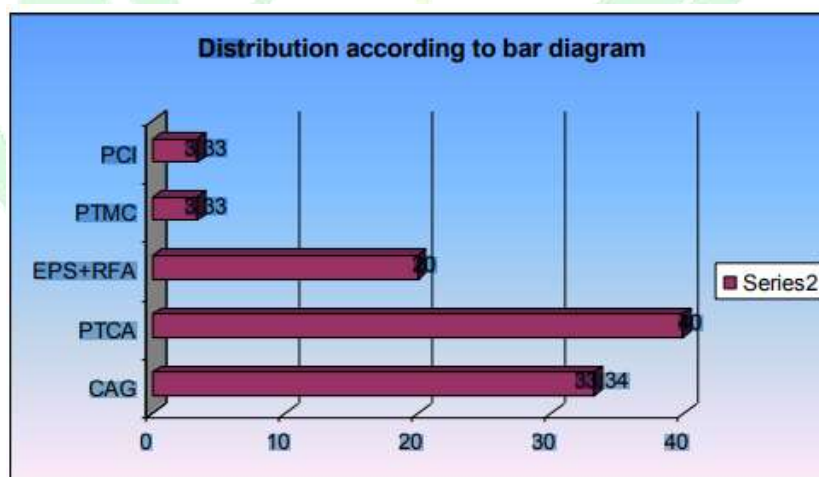

In the study, PTCA was performed on a whopping 40% of the participants. Trolleys were used to convey all patients to the ward or ICU. A radial puncture was used just once in 30 individuals, whereas the others received a femoral puncture.

Table 1.8 "shows distribution of samples according to area."

Area	Frequency	Percentage
CMWRD	9	30
CMICU	21	70
Total	30	100

Patients in the cardiology medical ward and the cardiology medical intensive care unit were included in our study.

Figure 1.8 shows distribution of samples according to area.
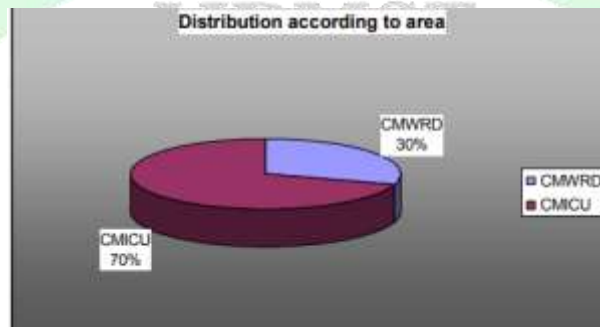
After the operation, 70% of the patients were transferred to the CMICU. All patients in the ICU and the wards have their puncture sites and distal pulses monitored following the surgery. Although puncture site assessment and distal pulse checks were performed at different intervals, the frequency varied. Because the staff-to-patient ratio is greater in an inpatient ward for patients with low risk, doctors are unable to evaluate them as often. However, no adverse effects have been observed by any of the patients. All patients in the critical care unit were subjected to cardiovascular monitoring, as was the case on the ward. The patient was properly communicated with in both the ward and the critical care unit. Fluids were delivered intravenously to patients who had had PTCA, while intravenous fluids were given to those who had not undergone PTCA until after the sheath removal was complete. No one in the study suffered from a vasovagal attack or any other unwanted side effects. Bladder palpations and treatment were administered to two individuals who had not passed pee for eight hours. After the nursing intervention, both of them had sufficient urine production. Food intake records were kept, paperwork was completed, and family members were given a tour of the facility. PTCA patients had their sheaths removed without incident

and received good compression till the bleeding ceased. On the basis of geographical location. CMWRD Thirty percent of patients were admitted to the CMICU. CMWRD is 70% of the population. CMICU 27 Poor nursing treatment in the ward and in the intensive care unit has not resulted in any consequences, according to the observational instrument.

CONCLUSIONS:

We need to do further study to see how nurses feel about their work and design an uniform post-cardiac catheterization care procedure based on the fact that different practices were found to exist in each department. The investigator compared the mean, median, and standard deviation of the pre- and post-test scores of the knowledge part of the Deep Vein Thrombosis (DVT) educational programme, and found that the scores were considerably higher. After cardiac catheterization, problems are rare, according to a research by cardiac nurses at SCTIMST. Staff nurses' expertise and thorough nursing care are to blame for this.

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