

“A study to assess the effectiveness of nursing intervention on pain among post coronary artery bypass graft patient in SMVMCH, Puducherry.

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ABSTRACT

Coronary artery bypass grafting (CABG) is a major surgical operation where Atheromatous blockages in a patient's coronary arteries are bypassed with harvested venous Or arterial conduits. The bypass restores blood flow to the ischemic myocardium which, in Turn, restores function, viability, and relieves anginal symptoms. Almost 400,000 CABG Surgeries are performed each year making it the most commonly performed major surgical Procedure, but surgical trends have decreased as the use of alternative options such as Medical treatment and percutaneous coronary intervention (PCI) have increased. This Activity illustrates the indications for coronary artery bypass and highlights the role of the Inter-professional team in the management of patients with CAD.

I. INTRODUCTION

“If you have health, you probably will be happy, and if you have health and happiness, you have all the wealth you need, even if it is not all you want”.

-Elbert Hubbard

Cardiovascular diseases (CVDs) are the leading cause of death globally. An estimated 17.9 million people died from CVDs in 2019, representing 32% of all global deaths. Of these deaths, 85% were due to heart attack and stroke. Over three quarters of CVD deaths take place in low- and middle-income countries. Out of the 17 million premature deaths (under the age of 70) due to non-communicable diseases in 2019, 38% were caused by CVDs. Most cardiovascular diseases can be prevented by addressing behavioral risk factors such as tobacco use, unhealthy diet and obesity, physical inactivity and harmful use of alcohol. It is important to detect cardiovascular disease as early as possible so that management with counselling and medicines can begin.

II. REVIEW OF LITERATUE:

Saeed Babajani et al. (2020) thestudy revealed to “determining the effect of foot reflexology on the pain of the patients under open heart surgery during chest tube removal ”Ninety samples were divided into three experimental, control and placebo-treated groups based on randomized allocation.; education status, occupation and marital status was not significant (p>0.05)..Foot reflexology massage is a useful nursing intervention in chest tube removal after open heart surgery. This intervention improves care level of the patients in the important recovery phase after open heart surgery with the least cost and without any complication

STATEMENT OF THE PROBLEM:

“A study to assess the effectiveness of nursing intervention on pain among post coronary artery bypass graft patient in SMVMCH, Puducherry.”

OBJECTIVES:

- To assess thelevel of pain among coronary artery bypass grafting patients.
- To evaluate the effectiveness of nursing intervention on pain among coronary artery bypass grafting patient.
- To associate the effectiveness of nursing intervention on pain among coronary artery bypass graft patient with their selected demographic variables.

OPERATIONAL DEFINITION:

Assess: In this study, it refers to determining the effectiveness of nursing intervention on level of pain by using Wong- baker facial pain scale reading regarding post coronary artery bypass graft patients admitted in SMVMCH.

Effectiveness: In this study, it refer to assess the effectiveness of nursing intervention such as (foot massage, deep breathing exercise, Music therapy, Use of chest binder) on pain among post coronary artery bypass grafting patient got admitted in SMVMCH.

Post Coronary Artery Bypass Graft: In this study, it refer to form it is a surgical procedure to treat coronary artery disease the build up of plaques in the arteries of the heart. It can relieve chest pain caused by coronary artery disease, slow the progression of coronary artery disease and increase the life expectancy.

HYPOTHESIS:

H₀. There is a significant relationship between the nursing interventions on reducing level of pain among post-coronary artery bypass grafting patient

H₁-There is a no significant relationship between the nursing interventions on reducing level of pain among post-coronary artery bypass grafting patient

DELIMITATIONS:

- The study is delimited for a period of 2 weeks
- The study was limited to sample size of 10 in hospital setting

LIMITATIONS:

- The patients who are underwent coronary artery bypass graft surgery.
- The patient with 3rd post-operative day.
- Patient who has pain in surgical site

III. MATERAIAL AND METHODS:

This chapter deals with methodology adapted to assess the effectiveness of nursing intervention on pain among post- coronary artery bypass graft patient in SMVMCH at Puducherry

Section A:Demographic variables consist of Age, gender,religion,educational status, occupational status , area of living, family income,marital status, type of family ,dietary pattern,bad habits.

Section B: Nursing interventions such as foot massage, music therapy, deep breathing exercise ,using chest binder for reduce the level of pain for the patient with coronary artery bypass graft surgery in SMVMCH.

SETTING OF THE STUDY:

The study was conducted in Sri ManakulaVinayagar Medical College And Hospital At Puducherry

Inclusion criteria:

- The patient who underwent post- coronary artery bypass surgery
- The patient who had pain in surgical site.
- 3rd post-operative day.
- The patient age above 18 years.

Exclusion criteria:

- The patient with myocardial Infarction less than 48 hrs.
- The patient with cardiac shock within 48h of surgery.
- The patient with cancer, unconscious, coma, neurological disorder .

IV. RESULTS:

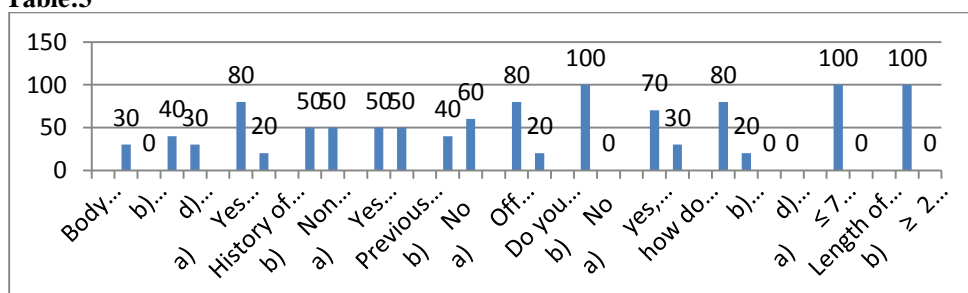
The data shows the in pre-test (10%) is having mild pain, 4 (40%) of them having moderate pain and 5 (50%) of them were having severe pain. Whereas, in post-test 06(60%) of them having mild pain and only 4(40%) of them were having moderate pain and none of them were having severe pain.

Mean and standard deviation regarding pain level among patients underwent coronary artery bypass graft. In pre- test the mean score for pain is 6.300 with the standard deviation of 1.49. whereas, in post-test the mean pain score was reduced to 3.300 with the standard deviation of 1.25. this show there is a significant reduction in the pain level after the nursing intervention and it significant reduction in the pain level after the nursing intervention and it is statistically proved with paired t test score of 20.12 which is highly significant at the level of $p < 0.0001$

Table 1: Frequency and percentage wise distribution of demographic variables among coronary Artery Bypass Graft. (N=10)

	DEMOGRAPHIC DATA	FREQUENCY	PERCENTAGE
1	Age		
	a) <40 years	0	0
	b) 40-49 years	1	10
	c) 50-59 years	4	40
	d) >60 years	5	50
2	Gender		
	a) Male	6	60
	b) Female	3	30
	c) transgender	0	00
6	Area of living		
	a) Rural area	7	70
	b) Urban area	3	30
9	Family income per month (in RS)		
	a) Less than 10,000	5	50
	b) 10,000-15,000	1	10
	c) 15,000-20,000	3	30
	d) Above 20,000	1	10
10	Dietary pattern		
	a) Vegetarian	2	20
	b) Non vegetarian	8	80
11	Bad habits		
	a) Smoking	3	30
	b) Alcoholism	3	30
	c) Tobacco chewing	0	00
	d) Teetotaler	4	40

Table:3



Frequency and percentage wise distribution level of pain among patients underwent Coronary Artery Bypass Graft.

(N=10)

Level of pain	Pre-test		Post-test	
	N	%	N	%
Mild	1	10	06	60
Moderate	4	40	04	40
Severe	5	50	00	00

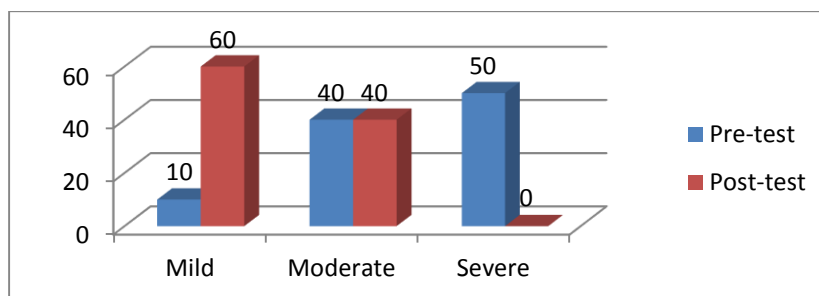


Table 5: Association with the pre-test level of pain among patients underwent Coronary Artery Bypass Graft with their selected demographic variables[N=10]

S.NO	DEMOGRAPHIC DATA	Mild		Moderate		Severe		X ²
		N	%	N	%	N	%	
1	Age							
	a) <40 years	0	0	0	0	0	0	7.025 Df=4 0.135
	b) 40-49 years	0	0	1	10	0	0	
	c) 50-59 years	0	0	3	30	1	10	
	d) >60 years	1	10	0	0	4	40	
2	Gender							
	a) Male	1	10	1	10	4	40	6.917 Df=4 0.140
	b) Female	0	0	3	30	0	0	
	c) transgender	0	0	0	0	1	10	
6	Area of living							
	a) Rural area	1	10	3	30	1	10	7.400 Df=6 0.285
	b) Urban area	0	0	1	10	4	40	
	d) Divorced	0	0	0	0	0	0	
9	Family income per month (in RS)							
	a) Less than 10,000	0	0	1	10	3	30	3.225 Df=4 0.521
	b) 10,000-15,000	1	10	2	20	2	20	
	c) 15,000-20,000	0	0	1	10	0	0	
	d) Above 20,000	0	0	0	0	0	0	
10	Dietary pattern							
	a) Vegetarian	0	0	2	20	0	0	3.750 Df=2 0.153
	b) Non vegetarian	1	10	2	20	5	50	
11	Bad habits							
	a) Smoking	0	0	1	10	2	20	2.500 Df=4 0.645
	b) Alcoholism	0	0	1	10	2	20	
	c) Tobacco chewing	0	0	0	0	0	0	
	d) Teetotaler	1	10	2	20	1	10	

*p<0.05- Significant; **p<0.001 - highly significant

Table 5 reveals that association with the pre-test level of pain among patients underwent Coronary Artery Bypass Graft with their selected demographic variables. Among all the demographic variables only religion shows significant relationship at the level of p<0.05.

V. CONCLUSION AND RECOMMENDATION:

This implies that on the content of study investigator have assessed the level of pain among patients underwent Coronary Artery Bypass Graft. It is concluded that the nursing intervention strategies towards pain reduction among patients underwent CABG is found be an effective method in reducing pain among patients who underwent Coronary Artery Bypass Graft.

NURSING IMPLICATION:

The study may help the Coronary Artery Bypass Graft patients will get a relief of pain with the help nursing intervention strategies.

NURSING PRACTICE:

- The nurse working in the hospital, clinical setting and in community should practice health education as integral part of nursing profession.
- The study can also be used by the nurse to educate and instruct about the ways to following pain reduction measures among patients underwent Coronary Artery Bypass Graft.
- This method will improve the health- seeking behaviour of staff nurses those who are working in critical care units.

NURSING EDUCATION:

- Effort should be made to improve and expand nursing curriculum to provide more content in the area of CABG care.
- Conference, Workshops and Seminars can be given for nurses and student to impact the education towards the importance of CABG care.
- Students should be provided with adequate opportunities in developing skills in handling such scenarios and how to identify their difficulties and help them to promote comfort and well-being.
- Curriculum needs to be strengthened to enable the nursing students how to handle patients underwent Coronary Artery Bypass Graft.
- Nursing educators need to strengthen the evidence-based nursing practices among the Undergraduate and Post Graduate Nursing Students.

NURSING ADMINISTRATION:

- Nursing administration can make necessary policies to implement awareness regarding ways of managing pain among Coronary Artery Bypass Graft patients.
- This study provides an opportunity for nursing administrators to conduct in-service education program to the staff nurse in hospitals regarding ways of caring patients with Coronary Artery Bypass Graft.

NURSING RESEARCH:

- A nursing researcher can provide supportive care measures which may improve the physical well being for coronary artery disease patients
- The health benefits of foot massage and music therapy can be studied in detail by various nursing researchers.
- Different studies have to be conducted further to evaluate the effectiveness of nursing intervention on pain among coronary artery bypass surgery patients.

RECOMMENDATIONS:

- Similar study can be conducted in different settings.
- The same study can be conducted with a true experimental research design.
- The same study can be replicated on a large sample.
- A similar study needs to be conducted in other private and government hospitals in order to draw a generalization.
- A Similar study can be conducted in other parts of the country

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