JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

"A STUDY TO EVALUATE THE EFFECT OF NURSE LED INTERVENTIONS ON PAIN, ANXIETY, ANDHEALTH RELATED QUALITY OF LIFE AMONG PATIENTS UNDER GOING CORONARY ARTERY BYPASS GRAFT SURGERY AT SELECTED HOSPITALS OF AHMEDABAD CITY."

1. Mrs. . Rathwa Pragna Raghubhai (Author)
Master of science (nursing) in medical surgical nursing -(cardio-vascular and thoracic nursing) J.G College of nursing, Ahmedabad, Gujarat ,India

2. Mrs. Chandrika Dharajiya (Co- Author)
Associate Professor, Medical Surgical Nursing, JG College of Nursing, Ahmedabad, Gujarat, India

3. Mrs. Swapna Suhas Kadukkat (Co- Author)
Associate Professor, Medical Surgical Nursing, JG College of Nursing, Ahmedabad, Gujarat, India

ABSTRACT
Background

World Health Organization (WHO) reported that cardiovascular diseases (CVD) are one of the most important reasons for death worldwide . cardiovascular diseases are the leading cause of death globally, In 2019 17.9 million people died from CVDs, comprising 32% of global mortality. (World Health Organization, 2021) More than 75% of CVD related deaths occur in low- and middle-income countries. The Global Burden of Disease Study and the **WHO** reported that Coronary Heart Disease (CHD) has become one of the important causes of disability adjusted life and growing trends in ages of life lost in India.

The annual number of deaths from CVD India is projected to rise **from 2.26 million (1990) to 4.77 million (2020)** .Coronary heart disease prevalence rates in India have been estimated over the past several decades and ranged from 1.6% to 7.4% in rural population and from 1% to 13.2% in urban population. Out of the 17 million premature deaths (under the age of 70) due to no communicable diseases in 2019, 38% were caused by CVDs. Approximately **20.1 million U.S. adults** have coronary artery disease, and 805,000 Americans have a heart attack each year. **(Centers for Disease Control and Prevention, 2022.)**. The prevalence Rate of CAD in Indians living in India is **21.4% .**

Aims

This study aims to "A study to evaluate the Effect of Nurse led Interventions on pain, anxiety and Health related quality of life Among patients under going Coronary artery bypass Graft surgery at Selected hospitals Of Ahmedabad City"

Objectives of the studies were

1. To Assess the pre-test level of Pain , Anxiety, and Health Related Quality of life Among Patients Undergoing Coronary Artery Bypass Graft Surgery At Selected Hospitals Of Ahmedabad City.

2. To Assess the Post- test level of Pain , Anxiety, and Health Related Quality of life Among Patients Undergoing Coronary Artery Bypass Graft Surgery At Selected Hospitals Of Ahmedabad City.

3. To evaluate the effect of Nurse led interventions on pain , Anxiety, and Health Related Quality of life Among Patients Undergoing Coronary Artery Bypass Graft Surgery At Selected Hospitals Of Ahmedabad City.
4. To find out association between pre- test Level of Pain , Anxiety and Health Related Quality of life with selected demographic variable Among Patients Undergoing Coronary Artery Bypass Graft Surgery At Selected Hospitals Of Ahmedabad City.

Methods

Quantitative research approach was used with pre experimental (one group pre-test post-test) research design . the investigator used Non-Probability- Purposive sampling technique will be used in this study. for 30 patients who are Undergoing Coronary Artery Bypass Graft Surgery . Tool is divided into three section tool of Numeric pain rating scale , tool of state -trait anxiety inventory scale, and quality of life index survey form 36 . getting permission from the author, the investigator used the tool for the study purpose. Tools were developed under expert guidance to make the clarity of each item. The content validity of the tool was obtained from several experts in the fields of M.Sc. Reliable instrument obtains consistent results when reused. Test having a high coefficient of reliability, The reliability of tool was using test-retest method (Karl Pearson formula).

Result

Present study identified that, the before the nurse led intervention of Foot reflexology , 19(63.33%) samples had
severe pain and 11(36.66%) had worst pain . According to Pre -test of state -trait an **A**fter given nurse led intervention of 21(70%) had moderate pain 7(23.33%) had Mild pain and 2(6.66%) had severe pain . post-test level of state anxiety 19(63%) had Moderate anxiety 9(30%) had Mild anxiety and 1(3.33%) had severe anxiety .anxiety 25(83.33%) had severe anxiety 5(16.6%) had Moderate anxiety. Level of pain among patients undergoing coronary artery bypass graft surgery. The mean pre- test score was 9.03 and the mean post-test score was 4.50 with the mean difference of 4.53 . The table also represents that the standard deviation of pre-test score was 0.88 and standard deviation of post-test score was 1.19 . The calculated 't' was 22.45 and the tabulated 't' was 2.05 at 0.05 level of significant. State -Trait anxiety score the mean Pre -test score was 57.36 and the post-test score was 38.93 with the mean difference of 18.43 . The table also represents that the standard deviation of pre-test score was 8.97 and standard deviation of post-test score was 3.68 . The calculated 't' was 15.21 and the tabulated 't' was 2.05 at 0.05 level of significant. Pre-test and Post-test score of samples obtained by Quality of life index survey form 36 on level of health related quality of life Mean , mean percentages gain and mean differences and "t" test of pre test and post test score of sample on quality of life index survey form 3**6.** According to Physical Health score The calculated 't' was 23.57 and the tabulated 't' was 2.05 at 0.05 level of significant. According to Role limitation due to physical health. The calculated 't' was 12.10 and the tabulated 't' was 2.05 at 0.05 level of significant According Role limitation due to emotional health. calculated 't' was 8.06 and the tabulated 't' was 2.05 at 0.05 level of significant. According to above table the energy /fatigue. The calculated 't' was 19.74 and the tabulated 't' was 2.05 at 0.05 level of significant. According to emotional wellbeing . The calculated 't' was 28.34 and the tabulated 't' was 2.05 at 0.05 level of significant. Social function. The calculated 't' was 18.85 and the tabulated 't' was 2.05 at 0.05 level of significant. According to pain The calculated 't' was 17.40 and the tabulated 't' was 2.05 at 0.05 level of significant. According to General health The calculated 't' was 31.96 and the tabulated 't' was 2.05 at 0.05 level of significant. According to health changes The calculated 't' was 15.70 and the tabulated 't' was 2.05 at 0.05 level of significant . The association of the socio- demographic and numeric pain rating scale, state –trait anxiety scale , quality of life index survey form 36. was tested using the chi square test . Thus, it can be inferred that Physical activity and Habit had significant with Numeric pain rating scale . Religion had significant with state -trait anxiety inventory and Education qualification and Habit significant with physical function domains , Occupation and family income had significant with role limitation due to physical health domains , religion significant with energy /fatigue domains ,Physical activity had significant with emotional wellbeing domains , Gender and physical activity significant associate with health changes.

Conclusion

Descriptive and inferential statistics methods were used to analyse the data. The calculated T value is more than table value so that means the null hypothesis is rejected and My Research Hypothesis is accepted . Hence it was proved that the Nurse led Interventions on pain, anxiety and Health related quality of life Among patients under going Coronary artery bypass Graft surgery at Selected hospitals Of Ahmedabad City.".

Key Words

- Effect ,nurse led interventions ,pre- operative education, foot reflexology, self-care booklet (scb), pain ,anxiety ,health related quality of life, patient with CABG, selected hospitals

INTRODUCTION

World Health Organization (WHO) reported that cardiovascular diseases (CVD) are one of the most important reasons for death worldwide . cardiovascular diseases are the leading cause of death globally, In 2019 17.9 million people died from CVDs, comprising 32% of global mortality. **(World Health Organization, 2021)** More than 75% of CVD related deaths occur in low- and middle-income countries. **(World Health Organization, 2021)** 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. Heart disease is the leading cause of death in the U.S. as well, causing approximately 697,000 deaths per year. (**Centers for Disease Control and Prevention, 2022).**

The Global Burden of Disease Study and the **WHO** reported that Coronary Heart Disease (CHD) has become one of the important causes of disability adjusted life and growing trends in ages of life lost in India. The annual number of deaths from CVD India is projected to rise **from 2.26 million (1990) to 4.77 million (2020)** .Coronary heart disease prevalence rates in India have been estimated over the past several decades and ranged from 1.6% to 7.4% in rural population and from 1% to 13.2% in urban population. Out of the 17 million premature deaths (under the age of 70) due to no communicable diseases in 2019, 38% were caused by CVDs. Approximately **20.1 million U.S. adults** have coronary artery disease, and 805,000 Americans have a heart attack each year. **(Centers for Disease Control and Prevention, 2022.)**. The prevalence Rate of CAD in Indians living in India is **21.4% .** It is important to detect cardiovascular disease as early as possible so Coronary Artery Bypass Graft (CABG) surgery is the most common type of cardiac surgery and an effective and established standard intervention to combat the consequences of CAD. Nearly **500,000** CABG procedures are performed each year in **U.S.** About **60,000** coronary artery bypass graft surgeries are done annually in **India.** CABG surgical procedure is performed to increase quality of life and reduce cardiac related mortality among the patients with CAD. today accounts for **more than 60%** and every year **25000** coronary bypass operations are being carried out in India. There are a number of long-term postoperative complications after coronary artery bypass graft (CABG) surgery. 30%–50% of the patients have chronic thoracic pain. The prevalence of chronic postoperative pain **after cardiac surgery has been reported from 17% to 56%.** Most of the patients 118 (84%) had preoperative anxiety before coronary artery bypass graft surgery. **Previous studies have reported the prevalence of anxiety has been reported in 20-30% of patients following an acute coronary syndrome.** CABG surgery is an important treatment option for the patients with CAD, bearing in mind that the technique reduces angina and enhances the quality of life of the patients. However, the patients experience distress, a sense of insecurity and disturbed quality of life. Even though CABG is a quite common surgery, it is considered to be a highly stressful experience for patients. Many patients are highly anxious about surgery despite the well documented lower death rates of bypass surgery and its confirmed relief of signs and symptoms of CAD. The presence of excessive anxiety throughout the treatment period is more often observed among women than men. Patients experience severe pain, lower relief of symptoms after surgery, disturbed recovery and more readmissions if they were more anxious before CABG surgery (**Gallagher & McKinley, 2007)**

Objectives of the studies were

1. To Assess the pre-test level of Pain , Anxiety, and Health Related Quality of life Among Patients Undergoing Coronary Artery Bypass Graft Surgery At Selected Hospitals Of Ahmedabad City.
2. To Assess the Post- test level of Pain , Anxiety, and Health Related Quality of life Among Patients Undergoing Coronary Artery Bypass Graft Surgery At Selected Hospitals Of Ahmedabad City.
3. To evaluate the effect of Nurse led interventions on pain , Anxiety, and Health Related Quality of life Among Patients Undergoing Coronary Artery Bypass Graft Surgery At Selected Hospitals Of Ahmedabad City.
4. To find out association between pre- test Level of Pain , Anxiety and Health Related Quality of life with selected demographic variable Among Patients Undergoing Coronary Artery Bypass Graft Surgery At Selected Hospitals Of Ahmedabad City.

Methodology for research

Quantitative research approach was used with pre experimental (one group pre-test post-test) research design . the investigator used Non-Probability- Purposive sampling technique will be used in this study. for 30 patients who are Undergoing Coronary Artery Bypass Graft Surgery . Tool is divided into three section tool of Numeric pain rating scale , tool of state -trait anxiety inventory scale, and quality of life index survey form 36 . getting permission from the author, the investigator used the tool for the study purpose. Tools were developed under expert guidance to make the clarity of each item. The content validity of the tool was obtained from several experts in the fields of M.Sc. Reliable instrument obtains consistent results when reused. Test having a high coefficient of reliability, The reliability of tool was using test-retest method (Karl Pearson formula).

RESULT

The main purpose of this chapter is to organize and summarize the data for easy interpretation. This chapter deals with analysis and interpretation of the data collected during the study from **30 samples**. For collecting the data the Investigator has used Numeric pain rating scale , State-Trait anxiety scale quality of life index survey form 36 among undergoing coronary artery bypass surgery . Descriptive and inferential statistics were used for analysis. The data collected was analyzed on the basis of objectives and hypothesis of the study. This is a Pre- Experimental study and it follows hypothesis. Hence, it is essential to test Null Hypothesis, for testing the null hypothesis 't' value was calculated at 0.05 level of significance. If the calculated 't' value is

greater than the table 't' value then the null hypothesis is rejected and the research hypothesis is accepted. Paired 't' test is applied for paired data of the variables for finding the significance between pre-test and post-test score of Numeric pain Rating scale , State -Trait anxiety inventory and Quality of life survey form 36 . In paired 't' test degree of freedom is number of observations minus one (n-1). In this study, total samples are 30, so degree of freedom (df) was (30-1=29).

ANALYSIS AND INTERPRETATION OF THE DEMOGRAPHIC VARIABLES OF THE SAMPLE

Table 4.1 Frequency and percentage wise distribution of samples based on demographic data

SR NO	Demographic variables	Frequency	Percentage %
1 Age	A. 31-40	3	10
	B. 41-50	7	23.3
	C. 51-60	9	30.3
	D. 61- Above	11	36.7
2. Gender	A. Male	20	33.3
	B. Female	10	66.7
3. Religion	A. Hindu	19	63.3
	B. Muslim	5	16.7
	C. Christian	3	10.0
	D. Sikh	2	2
	E. Other	1	1
4. Education Qualification	A. Illiterate	2	
	B. Primary	7	23.3
	C. secondary	11	36.7
	D. higher secondary	5	5
	E. graduate	7	23.3
	F. post graduate & Above	0	0
5. Occupation	A. Private job	2	6.7
	B. Gov job	2	6.7
	C. Self employed	7	23.3
	D. Labour	10	33.3
	E. House maker	9	30.0
6. Marital status	A. Married	28	93.3
	B. Divorced	01	3.3
	C. Widow	01	3.3
7.Familyincome	A. Rs.10000-20,000	13	43.3
	B. Rs 21000- 30000	13	43.3
	C. Rs 30000-40000	2	6.7
	D. Rs above 40000	2	6.7
8. physical Activity	A. sedentary	18	60.0
	B. Moderately active	12	40.0
9. Diet	A. Vegetarian	19	63.3
	B. Non vegetarian	3	10.0
	C. Mixed	8	26.7
10 . Habit	A. smoking	2	50.0
	B. alcohol	2	50.0
11. Family history of cardiac disease	A. Yes	1	3.3
	B. No	29	96.7

Table 4.1 Shows that the distribution of samples by age , majority of the samples 11(36.7%) belong to the age group of 61& above years , 9 (30.0%) samples belongs to age group 51-60 year, 7(23.3%) samples belongs to age group age group 41-50

years,39(10%) samples belongs to age group 31- 40 years . As regards to Gender 20(66.7%) of the samples were male and 10(33.3%) of samples were female. Distribution of the samples according to religion 19(63.3%) of samples is Hindu , (16.7%) of the samples were Muslim , 3(10.0%) of the samples were Christian, 2(6.7%) of the samples belongs to Sikh religion , and 1(3.3%) of samples belongs to other religion. Distribution of the samples According to education qualification 11(36.7%) of the samples were secondary education, 7(23.3%) of samples were primary education, 7(23.3%) were graduate ,5(16.7%) were primary education. Distribution of the samples according occupations as regard majority of the samples 10(33.3%) of the samples is labor, 9(30.0%) of the samples is home maker,7(23.3%) of samples is self employed , 2(6.7%) were private job, and 2(6.7) were government job. The data describe about majority of the samples 28(93.3%) were married, 1(3.3%) were divorced and also 1(3.3%) is widow. According to family income samples is 13(43.3%) of the samples were rs. 10000-20000 income per monthly,13(43.3%) were rs. 21000-30000 income 2(6.7%) were 31000-40000 rs income and 2(6.7%) were above 40000 rs income. the data presented according to physical activity 18(60.0%) of samples were sedentary activity and 12(40.%) were moderately active. according to diet most of the 19(63.3%) of the samples is vegetarian 8(26.6%) samples refer mixed diet and 3(10.0%) were non vegetarian .as above habit 2(50.0%) is smoking 2(50.0%) alcoholic . about family history of the cardiac disease 1(3.3) having cardiac disease in family and 29(96.7%) of samples were no any family history of the cardiac disease.

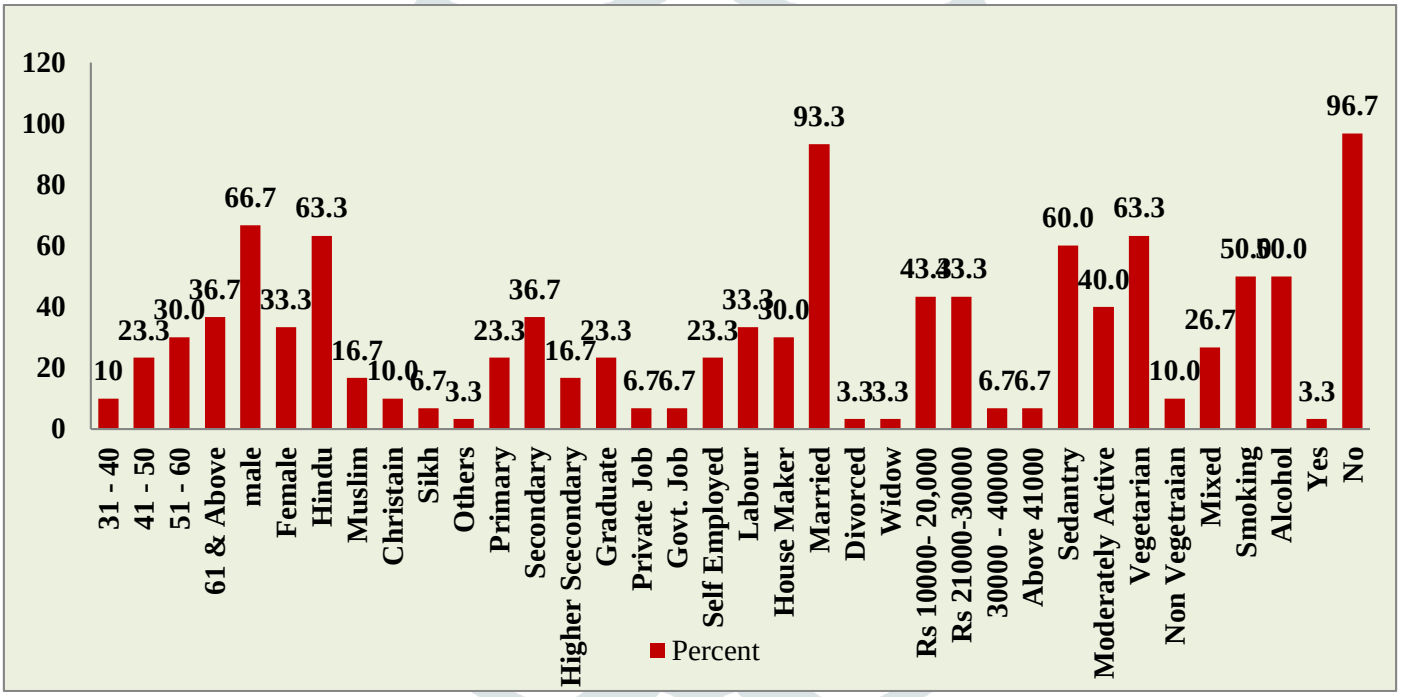

Figure : 1 :Bar graph showing percentage wise distribution of demographic variables of samples

Table 2 Frequency & percentage distribution of pre test and post test level of pain among patients undergoing coronary artery bypass surgery measured by Numeric pain rating scale.

pain Level	Pre test		Post test	
	Frequency	Percentage	Frequency	percentage
0 - No pain	0	0	0	0
1- 3 :- Mild pain	0	0	7	23.33%
4- 6 :- Moderate pain	0	0	21	70
7- 9 : - Severe pain	19	63.33%	2	6.66%
10 :- Worst pain	11	36.66%	0	0
Total	30	100	30	100

Shows that the before the nurse led intervention of Foot reflexology , 19(63.33%) samples had severe pain and 11(36.66%) had worst pain .after given nurse led intervention of Foot reflexology 21(70%) had moderate pain 7(23.33%) had Mild pain and 2(6.66%) had severe pain .

Mean , mean percentages gain and mean differences and "t" test of pre test and post test score of sample on numeric pain rating scale.

shows the comparison between pre- test and post -test score of samples obtained by Numeric pain rating scale on level of pain among patients undergoing coronary artery bypass graft surgery. The mean pre- test score was 9.03 and the mean post-test score was 4.50 with the mean difference of 4.53 . The table also represents that the standard deviation of pre-test score was 0.88 and standard deviation of posttest score was 1.19 . The calculated 't' was 22.45 and the tabulated 't' was 2.05 at 0.05 level of significant. It reveals that mean post-test of Numeric pain rating scale score was significantly lower than mean pre-test of Numeric pain rating scale score. This indicates that difference obtained in the mean pre -test of Numeric pain rating scale score and mean post-test score of Numeric pain rating scale score was a real difference and not by chance. Therefore, the null hypothesis Ho was rejected and research Hypothesis H_1 was accepted . It reveals that Nurse led intervention (Foot reflexology) was effective in lower the level of pain among the samples . Investigator concluded that there was significant decrease in the mean post-test of Numeric pain rating scale score as compared to the mean pre-test of Numeric pain Rating scale score after administration of Foot reflexology therapy.

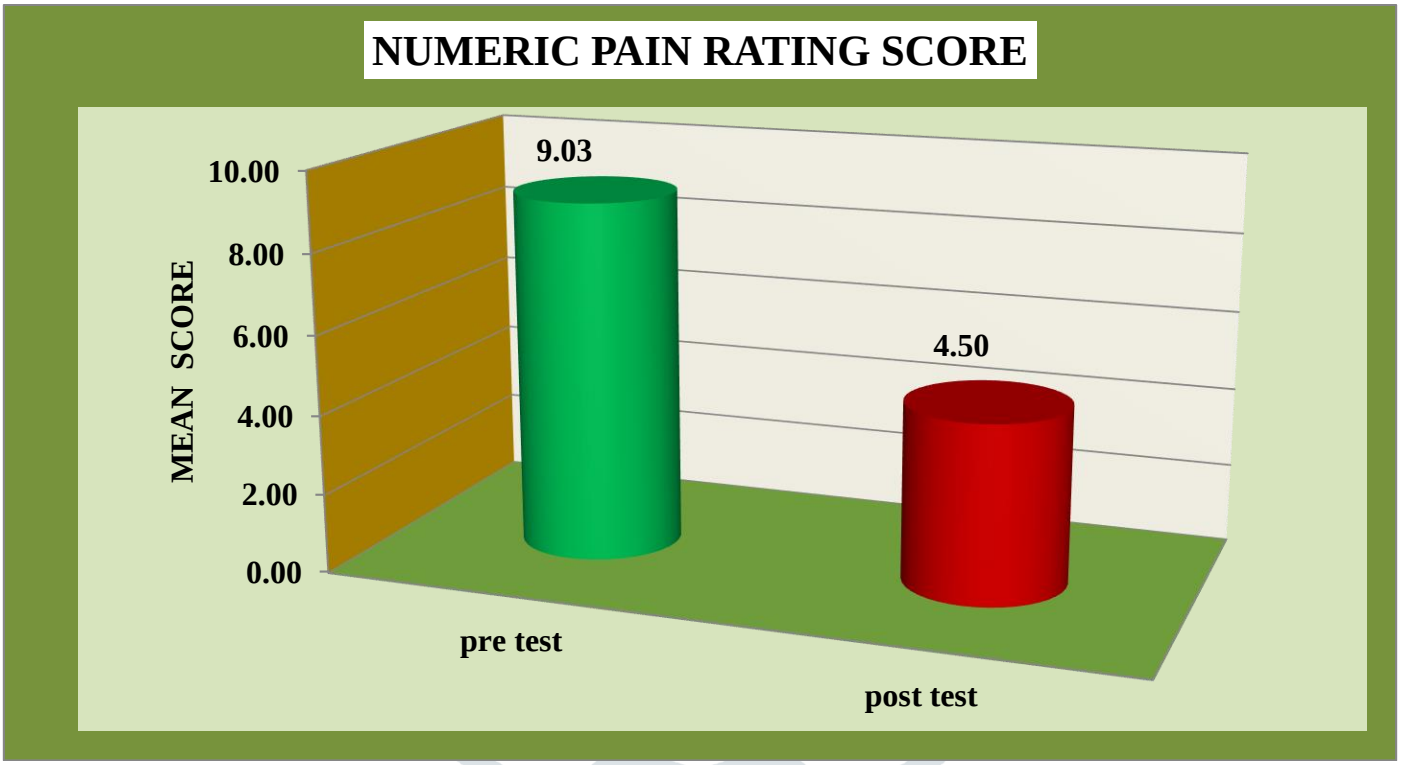

Figure - 2 Bar graph showing the comparison of mean pre -test and post-test Level of pain .

Frequency & percentage distribution of pre test and post State - trait anxiety inventory among patients undergoing coronary artery bypass surgery measured by state and trait anxiety scale.

Table :3 Frequency & percentage distribution of pre test and post State -trait anxiety inventory among patients undergoing coronary artery bypass surgery measured by state and trait anxiety scale.

State -trait anxiety inventory	Pre -test			
	Frequency	Percentage	Frequency	Percentage
20- 37 Mild anxiety	0	0	9	30
38- 44 Moderate anxiety	5	16.6	19	63.3
45 -80 Severe anxiety	25	83.3	1	3.3
Total	30		30	

Shows the that pre-test level of State -trait anxiety and post- test level State-Trait anxiety . According to Pre -test of state -trait anxiety 25(83.33%) had severe anxiety 5(16.6%) had Moderate anxiety. post-test level of state anxiety 19(63%) had Moderate anxiety 9(30%) had Mild anxiety and 1(3.33%) had severe anxiety.

Table :4 Mean , mean percentages gain and mean differences and "t" test of pre test and post test score of sample on State -trait anxiety inventory.

State - trait anxiety inventory	Mean	Mean Difference	SD	Calculated t value	Table value	DF	Level of significant
Pre test	57.36	18.43	8.97	15.21	2.05	29	0.05
Post test	38.93		3.68				

Shows the comparison Between Pre-test and Post-test score of samples obtained by State -trait anxiety inventory on level of state - trait anxiety among undergoing coronary artery bypass surgery. According to State anxiety score the mean Pre -test score was 57.36 and the post-test score was 38.93 with the mean difference of 18.43 . The table also represents that the standard deviation of pre-test score was 8.97 and standard deviation of post-test score was 3.68 . The calculated 't' was 15.21 and the tabulated 't' was 2.05 at 0.05 level of significant. According to trait anxiety score the mean Pre -test score was 55.70 and the post-test score was 36.93with the mean difference of 18.84 . The table also represents that the standard deviation of pre-test score was 7.49 and standard deviation of posttest score was 3.10 . The calculated 't' was 13.76 and the tabulated 't' was 2.05 at 0.05 level of significant. It reveals that mean post-test of State -trait inventory score was significantly lower than mean pre-test of State -trait inventory score. This indicates that difference obtained in the mean pre -test of State -trait inventory score and mean post-test score of State -trait inventory score was a real difference and not by chance. Therefore, the null hypothesis Ho was rejected and research Hypothesis H_1 was accepted . It reveals that Nurse led intervention (Foot reflexology and pre operative education) was effective in lower the level of Anxiety among the samples . Investigator concluded that there was significant decrease in the mean post-test of State -trait inventory score as compared to the mean pre-test of State -trait inventory score after Given nurse led intervention (pre operative education and Foot reflexology therapy.

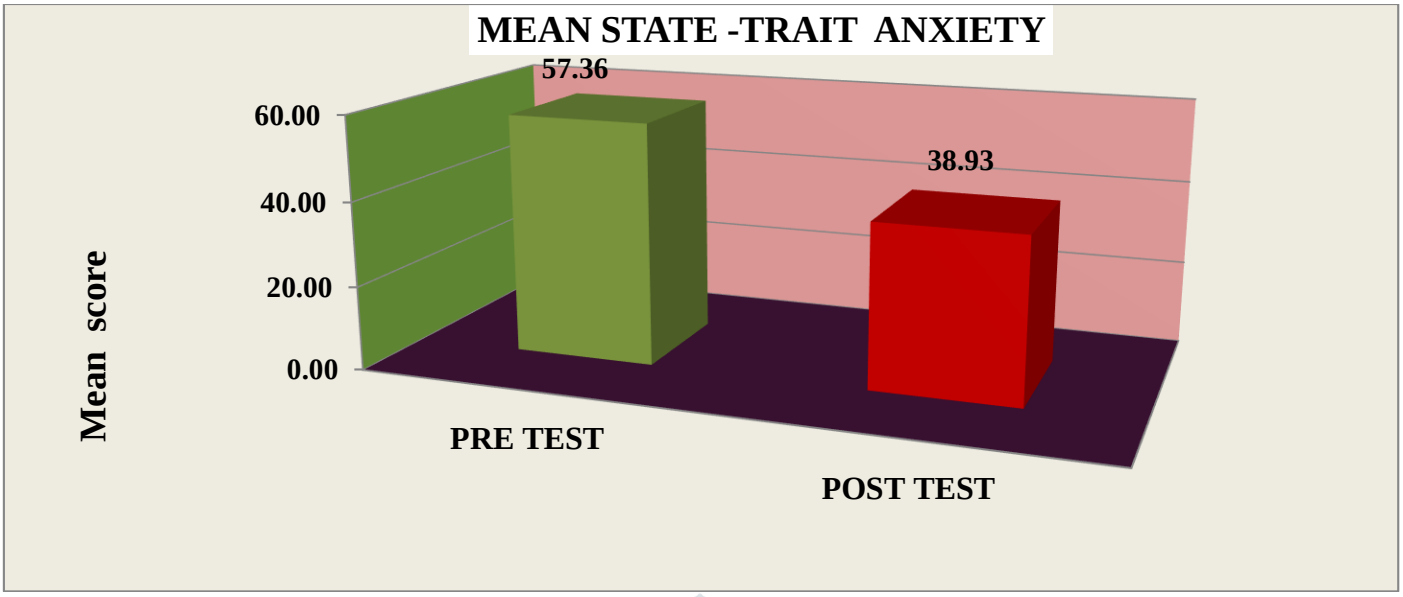

Figure - 3 Bar graph showing the comparison mean of pre-test and post-test of " State-Trait Anxiety Inventory – State" of samples

Table :4 Mean , mean percentages gain and mean differences and "t" test of pretest and post test score of sample on quality of life index survey form 36.

Health domains	Pre test		Post test		Mean differences	Calculated t value	Table value	DF	S/NS
	Mean	SD	Mean	SD					
Physical Health	24.0	7.0	66	7.7	42	23.5	2.05	29	S
Role limitation due to physical health	40.0	14.08	80	15.2	40	12.1	2.05	29	S
Role Limitation Due To Emotional Health	33.33	24.76	78.89	20.50	45	8.06	2.05	29	S
Energy /fatigue	24	6.34	57.5	7.85	33.5	19.7	2.05	29	S
Emotional Well Being	17.6	6.18	58	8.29	40.4	28.3	2.05	29	S
Social Function	25.8	12.69	58	10.96	32.2	18.8	2.05	29	S
Pain	27.3	8.68	56	9.6	28.7	17.4	2.05	29	S
General health	15.2	4.71	54	5.63	38.8	31.9	2.05	29	S
Health changes	33.33	11.99	64.1	15.6	30.67	15.7	2.05	29	S

Shows the comparison Between Pre-test and Post-test score of samples obtained by Quality of life index survey form 36 on level of health related quality of life among undergoing coronary artery bypass surgery. According to Physical Health score the mean Pre -test score was **24.0** and the post-test score was 66 with the mean difference of 42. The table also represents that the standard deviation of pre-test score was 7.0and standard deviation of post-test score was7.7. The calculated 't' was 23.5 and the tabulated 't' was 2.05 at 0.05 level of significant. According to Role limitation due to physical health the mean pre-test score 40.0 and the post-test mean score is 80 with the mean difference of 40. The table also represents that standard deviation of pre test score was 14.08 and standard deviation of post -test score was15.2. The calculated 't' was 12.1 and the tabulated 't' was 2.05 at 0.05 level of significant According Role limitation due to emotional health the mean pre-test score 33.33 and the post-test mean score is 78.89 with the mean difference of 45. The table also represents that standard deviation of pre- test score was 24.76 and standard deviation of post -test score was 20.50. The calculated 't' was 8.06 and the tabulated 't' was 2.05 at 0.05 level of significant. According to above table the energy /fatigue the mean pre-test score 24 and the post-test mean score is 57.5 with the mean difference of 33.5 . The table also represents that standard deviation of pre- test score was 6.34 and standard deviation of post -test score was7.85 . The calculated 't' was 19.74 and the tabulated 't' was 2.05 at 0.05 level of significant. According to emotional wellbeing the mean pre-test score 17.6 and the post-test mean score is 58 with the mean difference of 40.4 . The table also represents that standard deviation of pre- test score was 6.18 and standard deviation of post -test score was8.29 . The calculated 't' was 28.3 and the tabulated 't' was 2.05 at 0.05 level of significant. Social function of the samples the mean pre-test score was 25.8 and the mean posttest score was 58 with the mean difference of 32.2. The table also represents that standard deviation of pre- test score was 12.6 and standard deviation of post -test score was10.9. The calculated 't' was 18.85 and the tabulated 't' was 2.05 at 0.05 level of significant. According to pain the mean pre-test score 27.3 and the post-test mean score is 9.6 with the mean difference of 31.9. The table also represents that standard deviation of pre- test score was 8.68 and standard deviation of post -test score was 9.6. The calculated 't' was 17.40 and the tabulated 't' was 2.05 at 0.05 level of significant. According to General health the mean pre-test score 15.2 and then post-test mean score is 54 with the mean difference of38.8. The table also represents that standard deviation of pre- test score was 4.7 and standard deviation of post -test score was5.6 . The calculated 't' was 31.96 and the tabulated 't' was 2.05 at 0.05 level of significant . According to health changes the mean pre-test score 33.33 and the post-test mean score is 64.1 with the mean difference of 30.6 . The table also represents that standard deviation of pre- test score was 11.9 and standard deviation of post -test score was 15.6 . The calculated 't' was 15.7 and the tabulated 't' was 2.05 at 0.05 level of significant . It reveals that mean post-test of Quality of life survey form 36 score was significantly lower than mean pre-test of Quality of life survey form 36 score. This indicates that difference obtained It reveals that mean post-test of Quality of life survey form 36 score was significantly lower than mean pre-test of Quality of life survey form 36 score. This indicates that difference obtained in the mean pre -test of Quality of life survey form 36 score and mean post-test score of Quality of life survey form 36 was a real difference and not by chance. Therefore, the null hypothesis Ho was rejected and research Hypothesis H_1 was accepted . It reveals that Nurse led intervention (self care booklet) was effective in improve the health related quality of life among the samples . Investigator concluded that there was significant decrease in the mean post-test of Quality of life survey form 36 score as compared to the mean pre-test of Quality of life survey form 36 score after Given nurse led intervention .

Shows the association of pre test level of pain among patients undergoing coronary artery bypass surgery with their selected demographic variables .

For the Age group with the pre-test level of numerical pain rating scale, the calculated value of fisher chi square test **5.84** was less than the table value 7.82 at 3 degrees of freedom at 0.005 level of significance. Therefore, age was not significant association with the Numerical pain rating scale. For the Gender with the pre-test level of Numerical pain rating scale, the calculated value of chi square test is **0.072** was lower than the table value 3.84 at 1 degree of freedom at 0.005 level of significance. Therefore, the gender was not significant association with the Numerical pain rating scale. For the Religion with the pre-test level of Numerical pain rating scale, the calculated value of chi square test is **2.92** is lower than the table value 9.48 at 4 degree of freedom at 0.005 level of significance. Therefore, Religion was not significant association with the Numerical pain rating scale. For education qualification with the pre-test level of Numerical pain rating scale, the calculated value of fisher chi square test is **3.75** was lower than the table value 7.82 at 3 degrees of freedom at 0.005 level of significance. Therefore, then education qualification was not significant with the Numerical pain rating scale. For Occupation with the pre-test level of Numerical pain rating scale, the calculated value of fisher chi square test is **3.51** was lower than the table value 9.48 at 4 degrees of freedom at 0.005 level of significance. Therefore, the occupation was not significant with the Numerical pain rating scale. For Marital status with the pre-test level of Numerical pain rating scale, the calculated value of fisher chi square test is **1.241** was lower than the table value 5.99 at 2 degrees of freedom at 0.005 level of significance. Therefore, the Marital status was not significant with the Numerical pain rating scale. For Family income with the pre-test level of Numerical pain rating scale, the calculated value of fisher chi square test is **2.838** was lower than the table value 7.82 at 3 degrees of freedom at 0.005 level of significance. Therefore, the Family income was not significant with the Numerical pain rating scale. For physical activity with the pre-test level of Numerical pain rating scale, the calculated value of fisher chi square test is **4.04** was lower than the table value 3.84 at 1 degrees of freedom at 0.005 level of significance. Therefore, the Physical activity was not significant with the Numerical pain rating scale. For Diet with the pre-test level of Numerical pain rating scale, the calculated value of fisher chi square test is **0.017** was lower than the table value 5.99 at 2 degrees of freedom at 0.005 level of significance. Therefore, the diet was not significant with the Numerical pain rating scale. For the Habit with the pre-test level of numerical pain rating scale, the calculated value of fisher chi square test **4** was greater than the table value 3.84 at 1 degrees of freedom at 0.005 level of significance. Therefore, Habit was significant association with the Numerical pain rating scale. For the Family history of cardiac disease with the pre-test level of numerical pain rating scale, the calculated value of fisher chi square test **0.599** was lower than the table value 3.84 at 1 degrees of freedom at 0.005 level of significance. Therefore, the Family history of cardiac disease was not significant with the Numerical pain rating scale.

Shows the association of pre test level of State- Trait anxiety among patients undergoing coronary artery bypass surgery with their selected demographic variables.

For the Age group with the pre-test level of state trait inventory , the calculated value of fisher chi square test **1.352** was less than the table value 7.82 at 3 degrees of freedom at 0.005 level of significance. Therefore, age was not significant association with the state trait inventory. For the Gender with the pre-test level of state trait inventory, the calculated value of chi square test is **0.48** was lower than the table value 3.84 at 1 degree of freedom at 0.005 level of significance. Therefore, the gender was not significant association with the state trait inventory. For the Religion with the pre-test level of state trait inventory , the calculated value of chi square test is **18.379** is greater than the table value 9.48 at 4 degree of freedom at 0.005 level of significance. Therefore, Religion was significant association with the state trait inventory.

For education qualification with the pre-test level of state trait anxiety inventory, the calculated value of fisher chi square test is **0.115** was lower than the table value 7.82 at 3 degrees of freedom at 0.005 level of significance. Therefore, the education qualification was not significant with the state trait anxiety inventory.

For Occupation with the pre-test level of state trait anxiety inventory, the calculated value of fisher chi square test is **6.034** was lower than the table value 9.48 at 4 degrees of freedom at 0.005 level of significance. Therefore, the occupation was not significant with the state trait anxiety inventory.

For Marital status with the pre-test level of state trait anxiety inventory, the calculated value of fisher chi square test is **5.314** was lower than the table value 5.99 at 2 degrees of freedom at 0.005 level of significance. Therefore, the Marital status was not significant with the state trait anxiety inventory.

For Family income with the pre-test level of state trait anxiety inventory, the calculated value of fisher chi square test is **3.969** was lower than the table value 7.82 at 3 degrees of freedom at 0.005 level of significance. Therefore, the Family income was not significant with the state trait anxiety inventory. For physical activity with the pre-test level of state trait anxiety inventory, the calculated value of fisher chi square test is **0.001** was lower than the table value 3.84 at 1 degrees of freedom at 0.005 level of significance. Therefore, the Physical activity was not significant with the state trait anxiety inventory.

For Diet with the pre-test level of state trait inventory, the calculated value of fisher chi square test is **0.711** was lower than the table value 5.99 at 2 degrees of freedom at 0.005 level of significance. Therefore, the diet was not significant with the state trait anxiety inventory. For the Family history of cardiac disease with the pre-test level of state trait anxiety inventory, the calculated value of fisher chi square test **0.207** was lower than the table value 3.84 at 1 degrees of freedom at 0.005 level of significance. Therefore, the Family history of cardiac disease was not significant with the state trait anxiety inventory.

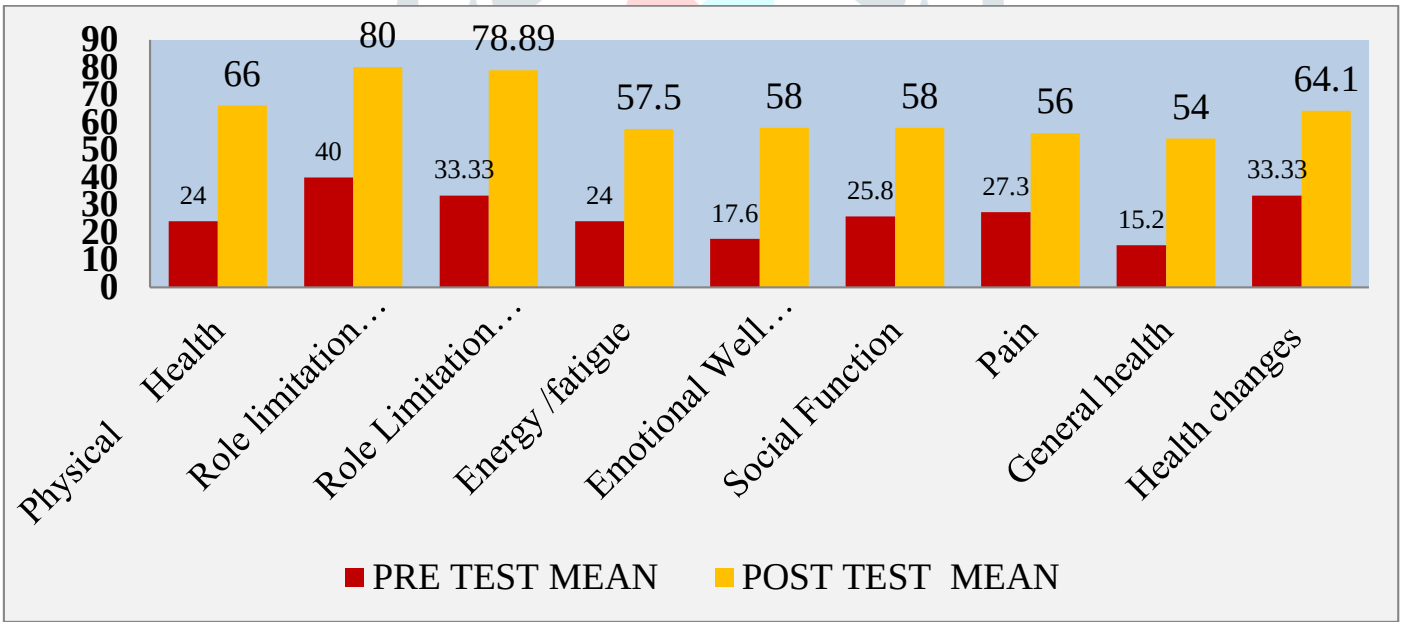

Figure - 3 Bar graph showing the comparison domains wise mean score of pre-test and post-test of Health related quality of life .

Table :5 Shows the association of pre test level of Health related quality of life among patients undergoing coronary artery bypass surgery with their selected demographic variables.

Demographic Variables	Sr No	Pre -Test Level Of Domains Of Health Related Quality Of Life	Chi Square	DF	Table Value	S/NS
Age	A1	Physical Function	6.8	6	12.59	NS
Gender			1.9	2	5.99	
Religion			4.8	8	15.5	NS
Education Qualification			6.13	6	12.5	NS

Occupation			16.39	8	15.5	S
Marital Status			1.87	4	9.48	NS
Family Income			15.58	6	12.59	S
Physical Activity			2.21	2	5.9	NS
Diet			2.06	4	9.48	NS
Habit			1.3	1	3.84	NS
Family History Of Heart Disease			0.905	2	5.99	NS
Age	A2	Role Limitation Due To Physical Health	6.8	6	12.5	NS
Gender			1.96	2	5.99	NS
Religion			4.8	8	15.5	NS
Education Qualification			6.13	6	12.5	NS
Occupation			16.1	8	15.5	S
Marital Status			1.87	4	9.4	NS
Family Income			15.5	6	12.59	NS
Physical Activity			2.2	2	5.9	NS
Diet			2.06	4	9.4	NS
Habit			1.3	1	3.8	NS
Family History Of Heart Disease			0.9	2	5.99	NS
Age	A3	Role Limitation Due To Emotional Health	3.8	6	12.5	NS
Gender			1.08	2	5.9	NS
Religion			2.22	8	15.5	NS
Education Qualification			2.85	6	12.59	NS
Occupation			4.48	8	15.5	NS
Marital Status			0.53	4	9.48	NS
Family Income			3.37	6	12.59	NS
Physical Activity			1.84	2	5.9	NS
Habit			1.33	1	3.84	NS
Diet			1.68	4	9.48	NS
Family History Of Heart Disease			0.259	2	5.99	NS
AGE	A4	Energy/fatigue	1.73	3	7.82	NS
Gender			1.14	1	3.84	NS
Religion			12.32	4	9.48	NS
Education Qualification			3.78	3	7.82	S
Occupation			5.20	4	9.48	NS
Marital Status			2.31	2	5.9	NS
Family Income			1.34	3	7.82	NS
Physical Activity			0.09	1	3.84	NS
Habit T			1.98	2	5.99	NS
Diet			1.33	1	3.84	NS
Family History Of Heart Disease			1.787	1	3.84	NS
AGE	A5	Emotional Wellbeing	2.30	3	7.82	NS
Gender			2.85	1	3.84	NS
Religion			5.13	4	9.48	NS
Education Qualification			3.28	3	7.82	NS
Occupation			2.31	4	9.4	NS
Marital Status			0.918	2	5.9	NS
Family Income			2.16	3	7.82	S
Physical Activity			8.57	1	3.84	NS
Habit T			1.60	2	5.99	NS
Diet			0.001	1	3.84	NS

Family History Of Heart Disease			2.41	1	3.84	NS
AGE	A9	Health Changes	1.68	3	7.82	NS
Gender			7.5	1	3.84	S
Religion			3.505	4	9.48	NS
Education Qualification Occupation			2.43	3	7.82	NS
Marital Status			3.07	4	9.48	NS
Monthly Family Income			1.071	2	5.9	NS
Physical Activity			1.442	3	7.82	NS
Habit T			5.6	1	3.84	NS
Diet			1.66	2	5.9	NS
Family History Of Heart Disease			1.33	1	3.84	NS
Family History Of Heart Disease			2.069	1	3.84	NS

- Age was not significant association with the Quality of life survey form 36 domains Physical health.
- the gender was not significant association with the Quality of life survey form 36 domains Physical health.
- Religion was not significant with the Quality of life survey form 36 domains Physical health.
- the education qualification was significant with the Quality of life survey form 36 domains Physical health
- the occupation was not significant with the Quality of life survey form 36 domains Physical health.
- the Marital status was not significant with the Quality of life survey form 36 domains Physical health
- the Family income was not significant with the Quality of life survey form 36 domains Physical health.
- the Physical activity was not significant with the Quality of life survey form 36 domains Physical health.
- the diet was not significant with the Quality of life survey form 36 domains Physical health.
- Habit was significant association with the Quality of life survey form 36 domains Physical health.
- Habit was significant association with the Quality of life survey form 36 domains Physical health.
- the education qualification was significant with the Quality of life survey form 36 domains role limitation due to physical health.
- Occupation was significant with the Quality of life survey form 36 domains role limitation due to physical health.
- the Physical activity was significant with the Quality of life survey form 36 domains Emotional wellbeing.
- the gender was significant association with the Quality of life survey form 36 domains Health changes .
- the Physical activity was significant with the Quality of life survey form 36 domains Health changes.

DISCUSSION

The following Discussion could be drawn from the present study findings : In present study , lower the level the pain ,anxiety and improved the Health related quality of life by administration Nurse led intervention Significant association found before and after administration of nurse led intervention . The present study assessed the Effect of Nurse led Interventions on pain, anxiety and Health related quality of life Among patients under going Coronary artery bypass Graft surgery at Selected hospitals Of Ahmedabad City." Before given Nurse led intervention pain and anxiety is moderate and severe after it was decrease the level of pain and anxiety and health related quality of life was improved after given nurse led interventions.

CONCLUSION

The present study was to evaluate the Effect of Nurse led Interventions on pain, anxiety and Health related quality of life Among patients under going Coronary artery bypass Graft surgery at Selected hospitals Of Ahmedabad City. The investigator

collected the samples by Non probability purposive sampling technique. The investigator collected the data by using Numerical pain rating scale was used by the investigator to evaluate the effect of foot reflexology on post-operative pain among patients underwent open heart surgery, The STAI is a standardized instrument for measuring the level of anxiety. The health related quality of life of the participants was measured by using the Quality of Life index survey form 36 . The investigator collected data in the month of February 2024. Investigator selected non probability purposive sampling technique, the investigator approached the sample individually. The patients with undergoing coronary artery surgery were informed regarding the research study objectives and written informed consent was obtained initially. The investigator took pre test of anxiety level by use State- trait anxiety scale , pre test of pain level (2nd post operative day) using numerical pain rating scale and health related quality of life assess by using quality of life index survey form 36 The investigator Administered Nurse led intervention - pre operative education before surgery and give foot reflexology therapy for duration for 07 days after post operation. then giving self care book-late for the improving health related quality of life . then investigator took post test of the anxiety by using state -trait anxiety scale and took post test of pain by using numerical pain rating scale on 8th post operative day and took post test of health related of quality of life of the patients after patients discharge when patient coming for follow-up. Descriptive and inferential statistical methods were used to analyses the data. the data collected before and after administration of nurse led interventions on Numeric pain rating scale, state –trait anxiety inventory, Quality of life index survey form 36 Among patients undergoing coronary artery surgery to be analyzed by using frequency, percentage, mean, standard deviation, t test was presented in form of table and graph. Numeric pain rating scale on level of pain among patients undergoing coronary artery bypass graft surgery. The mean pre- test score was 9.03 and the mean post-test score was 4.50 with the mean difference of 4.53 . The table also represents that the standard deviation of pre-test score was 0.88 and standard deviation of posttest score was 1.19 . The calculated 't' was 22.45 and the tabulated 't' was 2.05 at 0.05 level of significant. obtained by State -trait anxiety inventory on level of state - trait anxiety among undergoing coronary artery bypass surgery. According to State anxiety score the mean Pre -test score was 57.36 and the post-test score was 38.93 with the mean difference of 18.43 . The table also represents that the standard deviation of pre-test score was 8.97 and standard deviation of post-test score was 3.68 . The calculated 't' was 15.21 and the tabulated 't' was 2.05 at 0.05 level of significant. Pre-test and Post-test score of samples obtained by Quality of life index survey form 36 on level of health related quality of life Mean , mean percentages gain and mean differences and "t" test of pre test and post test score of sample on quality of life index survey form 3**6.** According to Physical Health score The calculated 't' was 23.57 and the tabulated 't' was 2.05 at 0.05 level of significant. According to Role limitation due to physical health. The calculated 't' was 12.10 and the tabulated 't' was 2.05 at 0.05 level of significant According Role limitation due to emotional health. calculated 't' was 8.06 and the tabulated 't' was 2.05 at 0.05 level of significant. According to above table the energy /fatigue. The calculated 't' was 19.74 and the tabulated 't' was 2.05 at 0.05 level of significant. According to emotional wellbeing . The calculated 't' was 28.34 and the tabulated 't' was 2.05 at 0.05 level of significant. Social function. The calculated 't' was 18.85 and the tabulated 't' was 2.05 at 0.05 level of significant. According to pain The calculated 't' was 17.40 and the tabulated 't' was 2.05 at 0.05 level of significant. According to General health The calculated 't' was 31.96 and the tabulated 't' was 2.05 at 0.05 level of significant. According to health changes The calculated 't' was 15.70 and the tabulated 't' was 2.05 at 0.05 level of significant . This indicated the null hypothesis is rejected and research hypothesis was accepted . Hence it was proved that the nurse led interventions is effective on pain, anxiety and health related quality of life among patients under going coronary artery bypass graft surgery at selected hospitals of Ahmedabad city."

Ethics declarations
Ethics approval and consent to participate

1) Narayana Multispecialty Hospital, Ahmedabad City, 2) HCG hospitals, Ahmedabad City

Consent for publication
Written consent for publication was obtained from each participant.

Acknowledgement

I sincerely thank my Almighty God for his abiding grace, his kind help and blessings throughout the study without which nothing would have been possible. His presence gave me the strength to successfully complete this study. I would like to extend deep gratitude to **Dr. Sunitha Mathew**, Principal, JG College of nursing for her valuable suggestions and great help in completion of this study. I would like to thank my Research Guide **Ms. Chandrika Dharajiya,** Associate Professor, JG College of Nursing. Ahmedabad. For her constant guidance, suggestions. motivation, encouragement and support throughout the study. She is supportive and encouraging right from the conception stage to its final report. The stress of work became lighter and inter sting under their sympathetic and encouraging attitude. It is indeed a great honor and privileges to be guided by her. I express my gratitude to her. I greatly obliged to my Co-Guide **Ms. Swapna Suhas kadukkat**, Associate Professor, JG College of Nursing. Ahmedabad. With her inspiring teaching and guidance, valuable suggestions, sustained devotion and meticulous attention to detail. It is indeed a great honor and privilege to be guided by her. I express my gratitude to her. I would like to express my deep sense of indebtedness and warm gratitude to my beloved Parents and my Family members whose constant love, support and prayers during the entire period of my study has been the source of inspiration and motivation for me in this research and all my endeavors.

REFERENCES

BOOKS

1. . B.T., B. (2003). MEDICAL SURGICAL NURSING, Ist edition, New Delhi:JAYPEE brothers.

2. B.T., B. (2007). NURSING RESEARCH, 2nd edition. Banglore: Jaypeebrothers.

3. chugh.S.N. (n.d.). TEXTBOOK OF MEDICAL- SURGICAL NURSING IstEdition. New Delhi: Wolters Kluwer (India) Pvt.Ltd,

4. Joyce, B. M. (2007). TEXT BOOK OF MEDICAL-SURGICAL NURSING.ewDelhi: Elsevier Publication.

5. Lewis, B. (6th edition 2013). TEXT BOOK OF MEDICAL SURGICALNURSING New Delhi: Elsevier Publication.

6. Linda. (4th edition 2016), UNDERTAKING MEDICAL AND SURGICALNURSING. New Delhi: Jaypee Publication.

7. Linton. (6th edition 2012). TEXT BOOK OF MEDICAL AND SURGICALNURSING. Canada: Elsevier Publication.

8. lippincott. (2011). Text book of medical-surgical nursing, delhi: elseiver.

9. Misher, M. (1995). TEXTBOOK OF MEDICAL-SURGICAL NURSINGvolume- 2 2nd Edition. America: WB Saunders.

10. Patrick. (2nd Edition 1991). TEXT BOOK OF MEDICAL AND SURGICALNURSING. Canada: Lippincott Publication.

11. Prabhakara. (1st edition 2008). BIOSTATISTICS. New Delhi: JaypeeBrothers Medical Publishers pvt. ltd.

12. Sharma, S. K. (2nd edition 2014). NURSING RESEARCH ANDSTATISTICS. New Delhi: Elsevier Publication.

13. suddarth's, B. &. (n.d.). TEXTBOOK OF MEDICAL-SURGICALNURSING. New delhi: Wolters kluwer.

JOURNAL

1. Sied Saeed Najafi, M. F. (2014 Ju). **THE EFFECT OF MASSAGETHERAPY BY PATIENTS' COMPANIONS ON SEVERITY OF PAININ THE PATIENTS UNDERGOING POST CORONARY ARTERYBYPASS GRAFT SURGERY: A SINGLE-BLIND RANDOMIZEDCLINICAL TRIAL**. Int J Community Based Nurs Midwifery. , 2(3): 128–135.

2. Irene Lie 1, H. A. (2007 Apr;). **EFFECTS OF A HOME-BASEDINERVENTION PROGRAM ON ANXIETY AND DEPRESSION 6MONTHS AFTER CORONARY ARTERY BYPASS GRAFTING: ARANDOMIZED CONTROLLED TRIAL.** .jpsychores. , 411-8.

3. Kebapcı A, Kanan N**. EFFECTS OF NURSE-LED CLINICALPATHWAY IN CORONARY ARTERY BYPASS GRAFT SURGERY: AQUASI-EXPERIMENTAL STUDY**. J Clin Nurs. 2018 Mar;27(5-6):980-988. doi: 10.1111/jocn.14069. Epub 2018 Jan 8. PMID: 28881078.4. Khalid A, S. A. (Vol 26 No 6 (2022): December 2022). **ASSOCIATION OFPREOPERATIVE PAIN-RELATED EDUCATION WITHPOSTOPERATIVE PATIENT CARE AMONG IN-HOSPITALCARDIAC PATIENTS.** ANAESTH. PAIN INTENSIVE CARE. apicjournal , 756-766.

5. Feuchtinger J, Burbaum C, Heilmann C, Imbery C, Siepe M, Stotz U,Fritzsche K, Beyersdorf F. **ANXIETY AND FEAR IN PATIENTS WITHSHORT WAITING TIMES BEFORE CORONARY ARTERY BYPASSURGERY--A QUALITATIVE STUDY.** J Clin Nurs. 2014 Jul;23(13-14)

6. Heilmann C, Stotz U, Burbaum C, Feuchtinger J, Leonhart R, Siepe M,Beyersdorf F, Fritzsche K. **SHORT-TERM INTERVENTION TOREDUCE ANXIETY BEFORE CORONARY ARTERY BYPASSSURGERY--A RANDOMISED CONTROLLED TRIAL**. J Clin Nurs.2016 Feb;25(3-4):351-61

7. Stana Pačarić, T. T. (2020 Feb 22). **ASSESSMENT OF THE QUALITY OFLIFE IN PATIENTS BEFORE AND AFTER CORONARY ARTERYBYPASS GRAFTING (CABG): A PROSPECTIVE STUDY.** INTERNATIONAL JOURNAL Environ Res Public Health. , VOL -17(4).

8. Akila Muthukrishnan 1, N. A. (2022 Nov 1.). **ANXIETY AND QUALITYOF LIFE OUTCOMES AFTER CORONARY ARTERY BYPASSGRAFT SURGERY - A PROSPECTIVE COHORT STUDY**. j.cpcardiol,Epub .

9. Ambina K.1, S. U. (2020). **QUALITY OF LIFE AMONG POST CABGATIENTS.** Vol. 14 Indian Journal of Forensic Medicine & Toxicology / ,Vol. 14.

10. Macken LC, Yates BC, Meza J, Norman J, Barnason S, Pozehl B. **HEALTHRELATEDQUALITY-OF-LIFE OUTCOMES IN CORONARYARTERY BYPASS SURGERY PATIENTS AND PARTNERS.** JCardiopulm Rehabil Prev. 2014 Mar-Apr;34(2)

11. Verwijmeren L, Noordzij PG, Daeter EJ, van Zaane B, Peelen LM, vanDongen EPA. **PREOPERATIVE DETERMINANTS OF QUALITY OFLIFE A YEAR AFTER CORONARY ARTERY BYPASS GRAFTING:A HISTORICAL COHORT STUDY**. J Cardiothorac Surg.2018Nov19;13(1)

12. Hokkanen M, Huhtala H, Laurikka J, Järvinen O. **THE EFFECT OFPOSTOPERATIVE COMPLICATIONS ON HEALTH-RELATEDQUALITY OF LIFE AND SURVIVAL 12 YEARS AFTER CORONARYARTERY BYPASS GRAFTING - A PROSPECTIVE COHORT STUDY**.J Cardiothorac Surg. 2021 Jun 14;16(1)

13. Creber RM, Dimagli A, Spadaccio C, Myers A, Moscarelli M, Demetres M,Little M, Fremes S, Gaudino M. **EFFECT OF CORONARY ARTERYBYPASS GRAFTING ON QUALITY OF LIFE: A META-ANALYSISOF RANDOMIZED TRIALS**. Eur Heart J Qual Care Clin Outcomes. 2022May 5;8(3):259-268.

14. Abbaszadeh Y, Allahbakhshian A, Seyyedrasooli A, Sarbakhsh P, Goljarian S,Safaei N. **EFFECTS OF FOOT REFLEXOLOGY ON ANXIETY ANDPHYSIOLOGICAL PARAMETERS INPATIENTS UNDERGOINGCORONARY ARTERY BYPASS GRAFT SURGERY: A CLINICALTRIAL**. Complement Ther Clin Pract. 2018 May;31 E pub 2018 Mar 3.:220-228

15. Chandrababu R, Nayak BS, Pai VB, N R, George LS, Devi ES, George **A.EFFECTS OF FOOT MASSAGE AND PATIENT EDUCATION INPATIENTS UNDERGOING CORONARY ARTERY BYPASS GRAFTSURGERY: A RANDOMIZED CONTROLLED TRIAL**. ComplementTher Clin Pract. 2020 Aug;40:101215. doi: 10.1016/j.ctcp.2020.101215. Epub2020 Jun 20

16. Nargiz Koşucu S, Şelimen D. **EFFECTS OF MUSIC ANDPREOPERATIVE EDUCATION ON CORONARY ARTERY BYPASSGRAFT SURGERY PATIENTS' ANXIETY**. J Perianesth Nurs. 2022Dec;37(6):807-814. doi: 10.1016/j.jopan.2021.12.002. Epub 2022 Jun 25.

17. Bagheri-Nesami M, Shorofi SA, Zargar N, Sohrabi M, Gholipour-Baradari A,Khalilian A. **THE EFFECTS OF FOOT REFLEXOLOGY MASSAGEON ANXIETY IN PATIENTS FOLLOWING CORONARY ARTERYBYPASS GRAFT SURGERY: A RANDOMIZED CONTROLLEDTRIAL.** Complement Ther Clin Pract. 2014 Feb;20(1):42-7.

18. Najafi SS, Rast F, Momennasab M, Ghazinoor M, Dehghanrad F,Mousavizadeh SA. **THE EFFECT OF MASSAGE THERAPY BYATIENTS' COMPANIONS ON SEVERITY OF PAIN IN THEPATIENTS UNDERGOING POST CORONARY ARTERY BYPASSGRAFT SURGERY: A SINGLE-BLIND RANDOMIZED CLINICAL TRIA**l. Int J Community Based Nurs Midwifery. 2014 Jul;2(3)

19. Abbaszadeh Y, Allahbakhshian A, Seyyedrasooli A, Sarbakhsh P, Goljarian S,Safaei N. **EFFECTS OF FOOT REFLEXOLOGY ON ANXIETY ANDPHYSIOLOGICAL PARAMETERS IN PATIENTS UNDERGOINGCORONARY ARTERY BYPASS GRAFT SURGERY**: A clinical trial.Complement Ther Clin Pract. 2018 May;31:220-228. doi:10.1016/j.ctcp.2018.02.018. Epub 2018 Mar 3.

20. Abhilasha Valmik Gaidhani, R. V. (Vol 5, No 1 (2022)). **THEFFECTIVENESS OF PRE-OPERATIVE CARE BUNDLE ON POSTOPERATIVEUTCOME AMONG ADULT PATIENTSUNDERGOING CARDIAC SURGERIES IN SELECTED HOSPITALS.**Malahayati International Journal of Nursing and Health Science .

WEBSITES

1. a, C. R. (2017). *science direct*. Retrieved from https://www.sciencedirect.com/science/article/pii/S221413911630047

6.

2. Amjad Ali, 1. S. (October 2020). Retrieved from :https://www.researchgate.net/publication/347628606.

3. Bachar, B. J., & Manna., B. (2022.). Retrieved fromhttps://www.ncbi.nlm.nih.gov/books/NBK507836/.

4. Salvi, M. S. (2021, July). Retrieved fromhttps://www.tojqi.net/index.php/journal/article/view/4056/2776.

5. WHO. (2021, JUNE 11). Retrieved from https://www.who.int/newsroom/fact-sheets/detail/cardiovascular-diseases-(cvds).

6. https://shodhganga.inflibnet.ac.in/handle/10603/180729.

7. (WHO, 2021)https://www.singlecare.com/blog/news/heart-diseasestatistics/#heart-attack-stroke-statistics.

8.https://www.google.com/search?q=What+is+the+current+statistics+of+heart+disease+in+India%3F&sa=X&ved=2ahUKEwiEvoj3hM77AhXPSmw.

9. https://www.ahajournals.org/doi/full/10.1161/CIRCULATIONAHA.114.00872.

10. https://www.grandviewresearch.com/industry-analysis/coronaryartery-bypass-graft-cabg-market.

11. https://www.tojqi.net/index.php/journal/article/view/5128