

# “A STUDY TO EVALUATE THE EFFECTIVENESS OF NURSING INTERVENTIONS ON MANAGEMENT OF DYSPNEA AMONG PATIENTS WITH CONGESTIVE HEART FAILURE IN RAMA HOSPITAL AND RESEARCH CENTRE, KANPUR”.

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## ABSTRACT:

A pre-experimental one group pretest post-test research design was used to assess the effectiveness of nursing interventions on management of dyspnea among patients with congestive heart failure in Rama hospital and research center, Kanpur. A sample of 60 congestive heart failure patients were selected by using non probability convenience sampling technique. Observational checklist and BORG scales were used to assess the level of dyspnea. Nursing interventions were given in 1 hour for 3 days those who have fulfilled the inclusion criteria. After 3 days of procedure post test was conducted. The data was analysed by using the descriptive & inferential statistics (i.e. frequency & percentage, mean, median, standard deviation, Z test, chi-square). The study concluded that in pretest 24(40%) patients had mild dyspnea, 32 (53.4%) had moderate dyspnea, 4(6.7%) had severe dyspnea and in post-test 21(35%) had Eupnea and 27(45%) had mild dyspnea, 12(20%) had moderate dyspnea based on observational checklist. The study indicates that there is significant association between the post test score on dyspnea and the selected socio demographic variables like alcohol, education, monthly income of the family, among patients with congestive heart failure.

- I. **INTRODUCTION:** Congestive failure is the inability of the heart to pump sufficient blood to meet the needs of the tissues for oxygen and nutrients. Dyspnea is a common manifestation of congestive heart failure. Dyspnea is a frightening experience. Nursing care is essential to reduce the complications and mortality rates.

**Key words:** congestive heart failure, dyspnea, BORG scale, Nursing interventions.

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- II. **NEED FOR THE STUDY:** Framingham Heart Study found a prevalence of heart failure in men of 8 per 1000 at age 50 to 59 years, increasing to 66 per 1000 at ages 80 to 89 years. The quality of nursing care is essential to reduce the mortality rates. So, the investigator felt a need to conduct the study.

III. **PROBLEM STATEMENT:**  
"A STUDY TO EVALUATE THE EFFECTIVENESS OF NURSING INTERVENTIONS ON MANAGEMENT OF DYSPNEA AMONG PATIENTS WITH CONGESTIVE HEART FAILURE IN RAMA HOSPITAL AND RESEARCH CENTRE, KANPUR".

IV. **OBJECTIVES OF THE STUDY:**

1. To assess level of dyspnea among the patients with congestive heart failure.
2. To evaluate the effectiveness of nursing interventions on management of dyspnea among congestive heart failure patients.
3. To associate the post test scores on effectiveness of nursing interventions on dyspnea with selected Socio demographic variables.

**HYPOTHESES:**

- **Null hypothesis:**
  1.  $H_0$ : There will not be statistically significance difference in level of dyspnea among patients with congestive heart failure who received planned nursing interventions.
- **Research hypotheses:**
  1.  $H_1$ : There will be statistically significant difference in level of dyspnea among patients with congestive heart failure who received planned nursing interventions.
  2.  $H_2$ : There will be statistically significant association between the effectiveness of nursing interventions with their socio demographic variable among patients with congestive heart failure.

**DELIMITATIONS:**

The study is limited to,

- Adult patients with congestive heart failure admitted in the Rama hospital and research Centre, Kanpur".
- A Sample size of 60 adult patients only.
- 6 weeks of data collection period only.

**PROJECTED OUTCOME:**

The present study will help to develop an evidence-based care plan for patients with congestive heart failure who are admitted with dyspnea.

V. **METHODOLOGY:**

**RESEARCH APPROACH:**

A quantitative research approach was utilized to determine the effectiveness of the nursing interventions on dyspnea among patients with congestive heart failure.

**RESEARCH DESIGN:**

Pre experimental one group pretest post-test design was adopted by the investigator to conduct the study.

**SETTING OF THE STUDY:**

The study was conducted at Rama hospital and research Centre, Kanpur".

**SAMPLE:**

The sample consists of the patients who are admitted with Congestive Heart Failure in Rama hospital and research Centre, Kanpur" and fulfilled the inclusion criteria.

**SAMPLING TECHNIQUE:**

The samples are selected by Non-probability convenience sampling technique.

**SAMPLE SIZE:**

The sample size of the study was 60 patients who are admitted with dyspnea and congestive heart failure at Narayana Medical College Hospital.

**VARIABLES OF THE STUDY:**

**INDEPENDENT VARIABLE:**

Selected Nursing interventions like positioning, oxygen administration and deep breathing exercises, providing comfort devices (pillows), encouraging the patient to breath with nose not by mouth, monitoring pulse Oximetry, monitoring respiratory status, psychological support, educating the patient and family regarding the diet are the independent variable.

➤ **DEPENDENT VARIABLE:**

Dyspnea among patients with congestive heart failure.

➤ **DESCRIPTION OF THE TOOL:**

**THE TOOL CONSISTS OF THREE PARTS:**

- **PART-I:** It consists of socio demographic variables of patients with congestive heart failure which includes age, sex, education, religion, type of family, marital status, food habits, occupation, Monthly income of the family, habit of smoking, use of cigarettes, use of other substances, History of systemic diseases, height, weight, History of systemic diseases, BMI, Type of heart failure, type of medications used.

➤ **PART-II:**

It consists of observational checklist for assessment of respiratory status of patients with Congestive heart failure. Dyspnea will be classified as mild, moderate, and severe on the basis of score obtained.

**SCORING KEY:**

OPTION	SCORE
Normal	2
Moderate	1
Severe	0

**SCORE INTERPRETATION:**

0-11	Severe dyspnea
11-22	Moderate dyspnea
22-33	Mild dyspnea
34	Eupnea

**PART-III: BORG self-reported scale.**

Nothing at all	Very slight	Slight	Moderate	Somewhat severe	Severe	Very Severe	Maximal
0	1	2	3	4	5	6	7

**SCORE INTERPRETATION:**

0	Eupnea
1-3	Mild to moderate
4-6	severe
7	Maximal

**VI. DATA ANALYSIS**

The analysis of the data was mainly classified in 4 sections:

**Section I:** - Frequency and percentage distribution of socio demographic variables of the patients with congestive heart failure.

**Section II:** - Effectiveness of nursing interventions on management of dyspnea among patients with congestive heart failure.

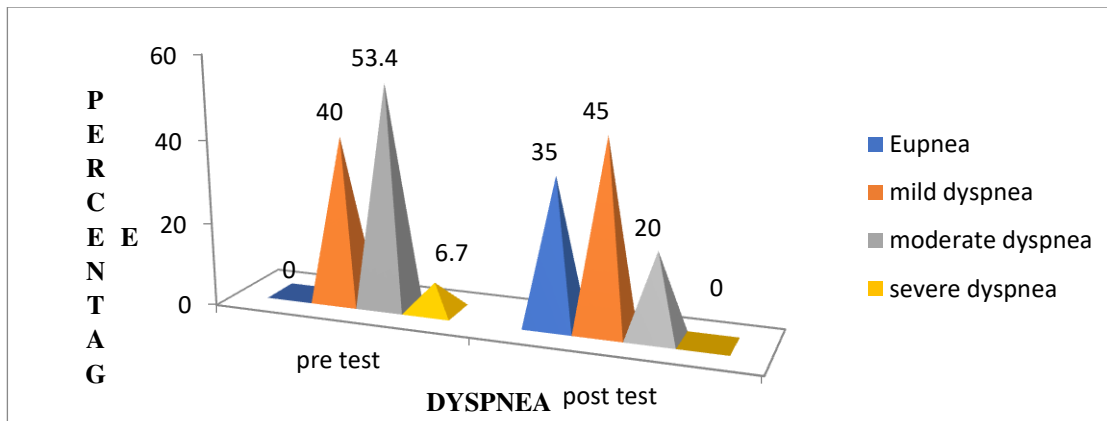
**Section III:** - Frequency and percentage distribution of dyspnea based on BORG scale.

**Section IV:** -. Associate the effectiveness of nursing interventions on level of dyspnea with selected socio demographic variables among patients with congestive heart failure.

**SECTION-II Effectiveness of Nursing interventions on Management of dyspnea among patients with congestive heart failure.**

Sl.no	Level of dyspnea	Pre test		Post test	
		F	%	F	%
1.	Eupnea	-	-	21	35
2.	Mild dyspnea	24	40	27	45
3.	Moderate dyspnea	32	53.4	12	20
4.	Severe dyspnea	4	6.7	-	-
	<b>TOTAL</b>	<b>60</b>	<b>100</b>	<b>60</b>	<b>100</b>

**Table 1** - Reveals that effectiveness of nursing interventions on management of dyspnea among patients with congestive heart failure. The result indicates that in pretest 24(40%) had mild dyspnea, 32 (53.4%) had moderate dyspnea, 4(6.7%) had severe dyspnea and in post-test 21(35%) had Eupnea and 27(45%) had mild dyspnea, 12(20%) had moderate dyspnea.



## VII. RESULTS

### Major findings of the study: -

- 25(41.7%) belong to 51-60yrs and were males 48(80%).
- 34(56.7%) and belongs to joint family 28(46.7%).
- 55(91.6%) were Hindus and were married 60(100%)
- 60(100%) were non-vegetarians
- 30(50%) were coolie and earning Rs. 1501-4000 monthly.
- 40(66.7%) were smokers and smoking daily.
- 24(60%) were smoking 3-6 cigarettes per day and having 3-6 ounces of alcohol per day.
- 52(86.7%) were having the habit of taking coffee.
- 32(53.3%) had the history of hypertension and 40(66.7%) were having Normal body mass index.
- 49(81.7%) had the left side heart failure.
- 32(68%) were using anti-hypertensive medications.

The study concluded that in pretest 24(40%) patients had mild dyspnea, 32 (53.4%) had moderate dyspnea, 4(6.7%) had severe dyspnea and in post-test 21(35%) had Eupnea and 27(45%) had mild dyspnea, 12(20%) had moderate dyspnea based on observational checklist.

The study indicates that there is significant association between the post test score on dyspnea and the selected socio demographic variables like alcohol, education, monthly income of the family, among patients with congestive heart failure.

### RECOMMENDATIONS FOR FUTURE RESEARCH:

- A similar study can be conducted for larger group of samples.
- A similar study can be conducted to find the effectiveness of specific nursing interventions in reducing different symptoms of congestive heart failure.
- A similar study can be conducted by comparing the effectiveness

of specific nursing interventions between congestive heart failure and other heart diseases.

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