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An Experimental Study To Assess The Effectiveness Of Communication Board On The Communication Process Among Patients With Mechanical Ventilation At Selected Hospitals Of The City'.

1Ms. Priya S. Bhamodre, 2Ms. Sneha Tadulwar, 3Dr. Jitendra Belokar, 4Ms. Shraddha Gaikwad

1M.Sc. Student, 2Assistant Professor, , 3Principal, 4Assistant Professor

1Kamalnayan Bajaj Nursing College, Chhatrapati Sambhajinagaj,

2Kamalnayan Bajaj Nursing College, Chhatrapati Sambhajinagaj,

3Kamalnayan Bajaj Nursing College, Chhatrapati Sambhajinagaj,

4Kamalnayan Bajaj Nursing College, Chhatrapati Sambhajinagaj

ABSTRACT

Every individual wants to share his/her feelings, thoughts and views to feel comfortable and to satisfy himself/herself. So for this, they interact with one another and share their feelings, thoughts and views through the process of communication. Communication is always been a fundamental need of human beings. Good communication likewise improves the standard of care delivering to patients illness was never being an isolated life event. Patients react differently to illness. Individual behaviour and emotional reaction depend on the nature of the illness and the patient attitude towards it. Patients who were supported with mechanical ventilator create undue stress, uncertainty fear and anxiety among the patients. **STATEMENT OF THE PROBLEM** "An experimental study to assess the effectiveness of communication board on the communication process among patients with mechanical ventilation at selected hospitals of the city'. **OBJECTIVES** 1.To assess the level of communication before and after use of communication board among the control and experimental group of patient with mechanical ventilator.2.To determine the effectiveness of the communication board on the communication process by comparing the communication process between the control and the experimental group of patients with mechanical ventilator. 3.To determine the association between selected demographic variables and the level of communication among the control and experimental group of patients with mechanical ventilator. **METHODOLOGY** A post test only quasi-experimental research design was undertaken to assess the effectiveness of communication board on communication process among patients with mechanical ventilation. The study was conducted among mechanically ventilated patient at selected hospitals of the city. 60 patients were selected by using Non-probability purposive sampling technique i.e. 30 in each group. Pre-test was conducted to assess the communication using communication board. Then the two groups were given interventions respectively. On the 8th day, post test was conducted for both groups. The data was analysed for frequency, percentage, mean and standard deviation. Paired t test was done for finding out the effectiveness of the interventions. Independent t test was done to compare both the interventions. **RESULTS OF THE STUDY RESULT** The Mean, standard deviation and mean difference values are compared and student's paired 't' test is applied at 5% level of significance. The tabulated value for n=172-1 i.e., 171 degrees of freedom was 1.96. The calculated 't' value i.e., 9.48 are much higher than the tabulated value at 5% level of significance for

overall knowledge score of patients which is statistically acceptable level of significance. Hence, it is statistically interpreted that the communication board on the communication process among patients with mechanical ventilation. was effective

Key Words: Communication, Communication board, Mechanical ventilator

RESEARCH METHODOLOGY

Research approach- A Quantitative research approach was used for this present study.

Research design:- In the present study A post test only quasi-experimental research design was used for the study.

POPULATION AND SAMPLES

Target population:- The target population selected study target population are patient who are on mechanical ventilator. **Accessible population :-** The accessible population for this study accessible population is patient who are on mechanical ventilator in selected intensive care unit and available at the time of study. **Sampling technique:-** The sample for the present study was selected using Non-probability purposive sampling technique **Sample size:-** In this study sample size is 60 was selected to suit the study.

DATA AND SOURCES OF DATA :-

Setting of the study:- This study is conducted in selected hospital of the city. ***Conceptual frame work :-*** The conceptual framework indicates how the research views the concepts involved in a study-especially the relationship among concepts. Conceptual framework presents logically constructed concepts to provide a general explanation of the relationship among the concepts of the research study **Input :-** It is the process which consists of varying types and amount of matter, material or human energy, information received from the environment.In the present study input refers to the mechanical ventilated patients of multispecialty hospitals of the city (the participants of the study) comprising with their demographic features including Age,Gender,Education, occupation, marital status, family income,etc.. **Throughput :-** It is the process whereby the system transforms, creates and organizes for its ready use. In this study throughput refers to communication board on the communication process. the content included were communication board on the communication process for improving the communication of mechanically ventilated patients. **Feedback :-** Information of environment responses to the system's output. So, the information was acquired could be feedback to the system which could help in maintenance and improvement of the system.

STATISTICAL TOOL AND ECONOMETRIC MODEL:-

Development of research tool :- The investigator developed the tool after updating the knowledge regarding communication board on the communication process for improving the communication of mechanically ventilated patients. The researchers ' expertise, theoretical knowledge and expert advice, along with the literature review, helped to develop the method required for the analysis. The tool was used for gathering relevant data was Communication Pattern Scale to assess the effectiveness of communication process among patients with mechanical ventilator.

Presentation of tool :- The following steps were carried out in preparing the tool 1) Literature review 2)Validity of tool 3)Pre-Testing 4)Reliability. D**escription of the tool-** After considering the suggestion and modification of the tool by the experts; the final tool consists of two parts structured questionnaire, and Clinical Profile.

RESULT AND DISCUSSION

The data collected by the researcher during the data collection from 60 patients was analyse as per the objectives of the study and was organized

SECTION A: Description of subjects based on the demographic variable

Table 1: Distribution of subjects according to demographic characteristics

N=60

Sr No.	DEMOGRAPHIC VARIABLES	GROUPS			
		EXPERIMENTAL (n=30)		Control (n=30)	
		F	%	f	%
1.	**Age**				
	• 18-37 years	08	26.67%	06	20%
	• 38-57 years	10	33.33%	14	46.67%
	• 58-77 years	12	40%	10	33.33%
2.	**Gender**				
	• Male	20	66.67%	16	53.33%
	• Female	10	33.33%	14	46.67%
3.	**Education**				
	• Secondary education	8	26.67%	14	46.67%
	• Higher secondary and above	22	73.33%	16	53.33%
4.	**Occupation**				
	• Employed	12	40 %	16	53.33 %
	• Unemployed	18	60 %	14	46.67 %
5.	**Diagnosis**				
	• C A D	12	40 %	8	26.67%
	• R T A	6	20 %	8	26.67%
	• Mitral Stenosis	2	6.67 %	6	20 %
	• Laparotomy	3	10 %	3	10%
	• Poisoning	4	13.33% 10	4	13.33%
	• Esophageal varices	3	%	1	3.33 %

Table 1 describes the distribution of subjects in experimental and control group according to age, gender, education, occupation and diagnosis.

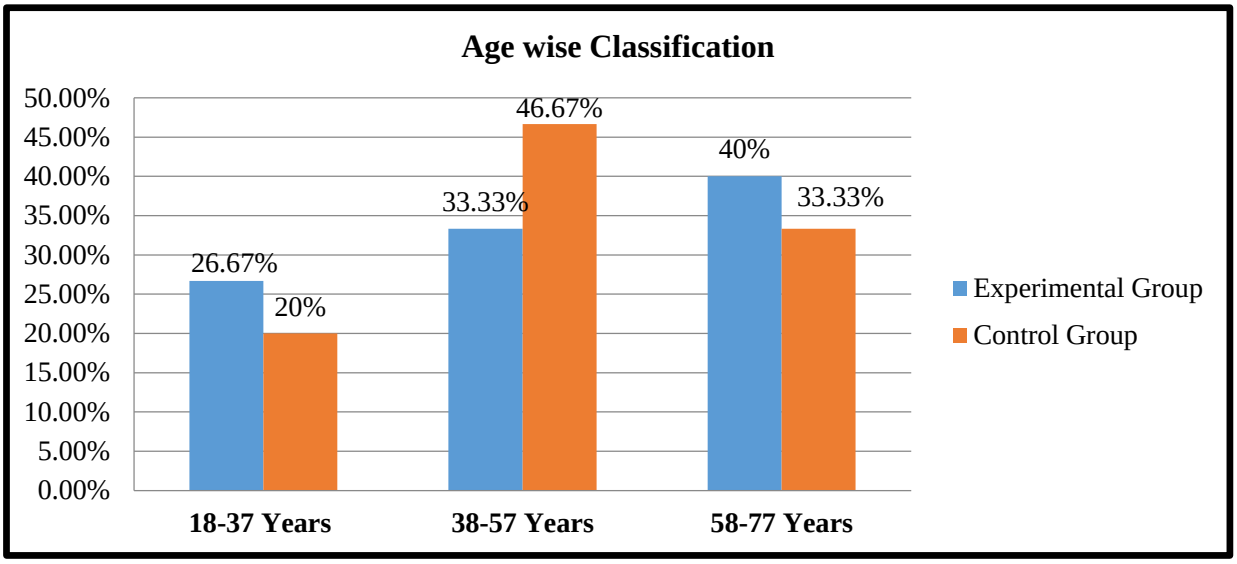

Figure No: 1 Age wise Classification of Subjects

Of the 30 subjects in the experimental group,26.67% belongs to 18-37 years of age,33.33% between 38-57 years of age and 40% of them between 58-77 years of age,where as 30 subjects in control group 20.5 belong between 18-37 years of age group,46.67 % of them belongs to 38-57 years and 33.33% belongs to 58-77 years of age.

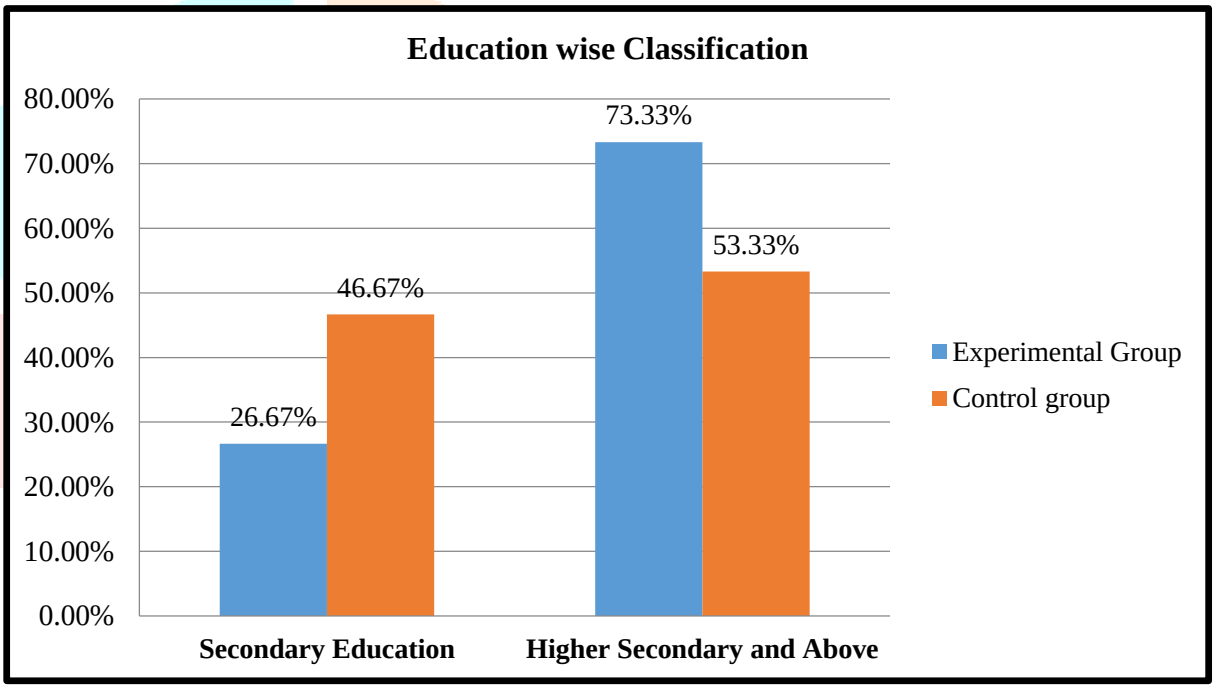

Figure No:2 Gender wise Classification of Subjects

Considering gender of subjects in experimental group 66.67% are the males and 33.33% are females. In control group 53.33% are males and 46.67%are females.

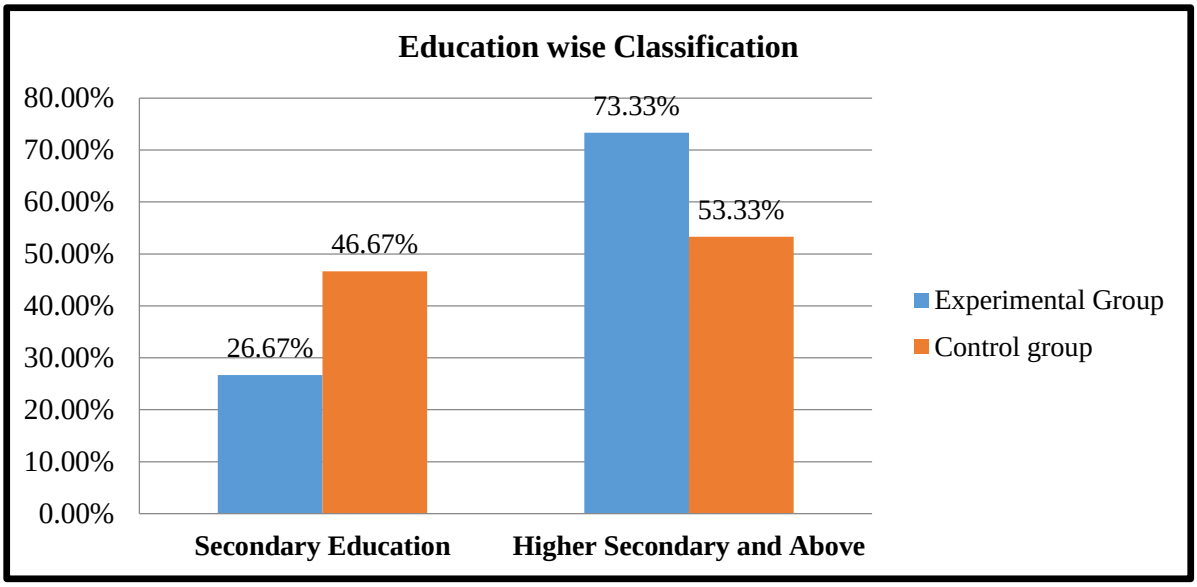

Figure No: 3 Education wise Classification of Subjects

Regarding the educational status in experimental group,26.67% of the subjects had secondary education and 73.33 of the subjects were higher secondary and above. In control group 46.67% of the subjects had secondary education and 53.33% were higher secondary and above.

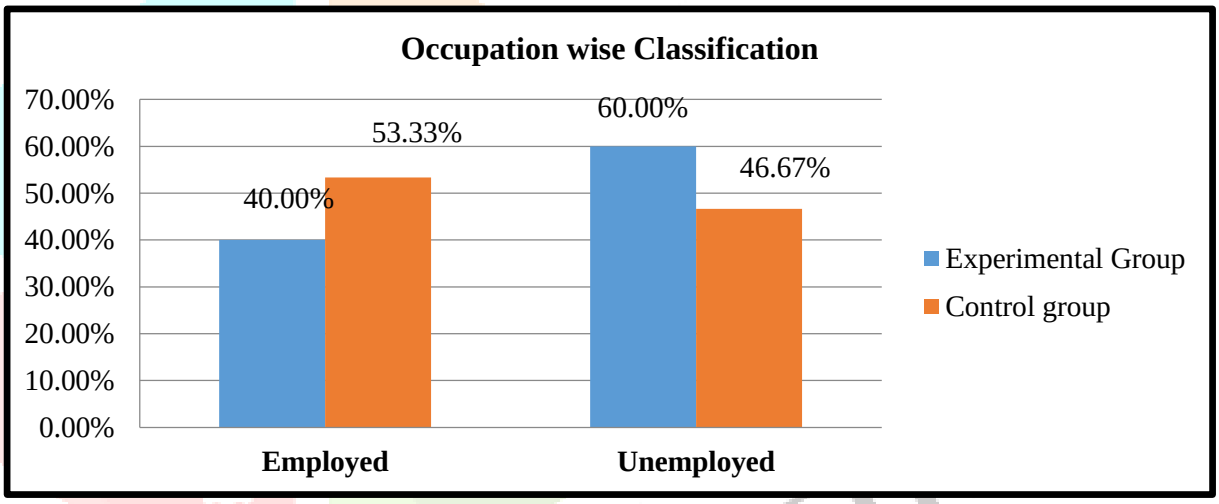

Figure No: 4 Occupation wise Classification of Subjects

According to the occupational status of participated subjects, in experimental group 40% subject were employed and 60% were unemployed. In control group 53.33% employed and 46.67% were unemployed.

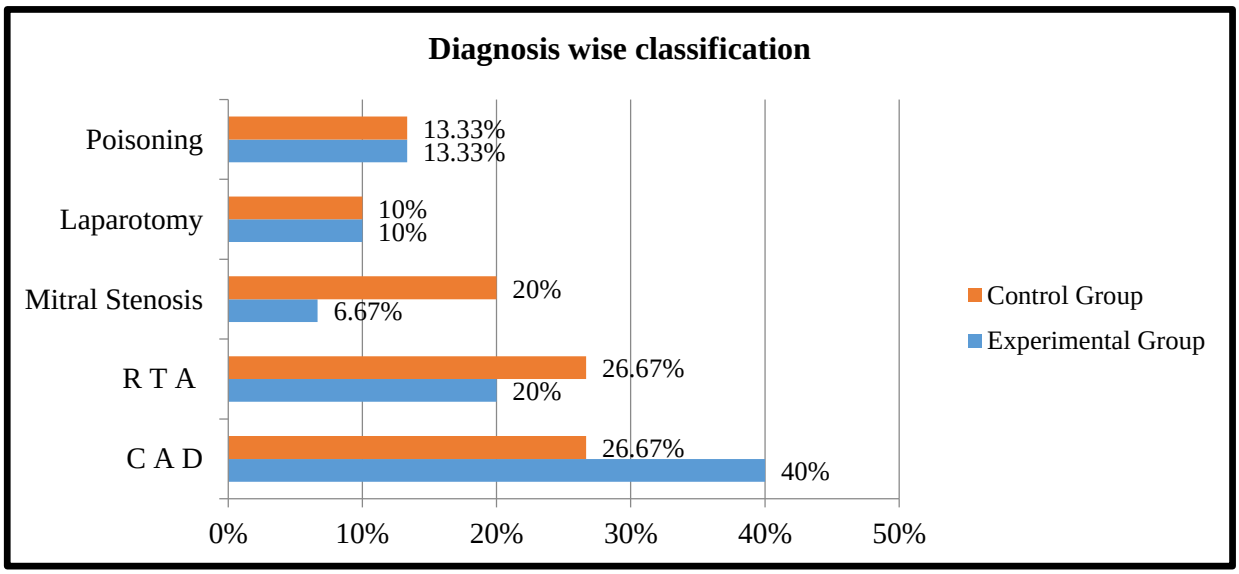

Figure No: 5 Diagnosis wise Classification of Subject

The most common primary diagnosis among the participants both in experimental group was coronary artery disease, that is 40% and in experimental group 26.67% respectively. Road traffic accidents subjects 20% and 26.67% respectively in experimental group and control group.13.33% of subjects admitted by diagnosis poisoning.

SECTION B: DESCRIPTION OF SUBJECTS BASED ON CLINICAL PROFILE

Table 2: Distribution of subjects according to clinical profile

Sr.no	Demographic Variables	Groups			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
1.	Duration of Mechanical Ventilation • 18 Hours • 36 Hours • 54 Hours • 72 Hours	 13 7 6 4	 43.34% 23.33% 20 % 13.33%	 9 11 7 3	 30% 36.67% 23.33% 10%
2.	Previously on Mechanical Ventilation • Yes • No	 3 27	 10% 90%	 6 24	 20% 80%
3.	Length of ICU stay • 2 days • 3 days • 4 days • • 5 days	 17 6 4 3	 56.67% 20% 13.33% 10%	 11 9 6 4	 36.67% 30% 20% 13.33%

Table 2 describes the subjects according the clinical profile. As per the duration of mechanical ventilation, in experimental group 43.34% subjects 18 hours on ventilator as 30 % in control group. 23.33% in experimental and 36.67% in control group subjects 36 hours on ventilator. 13.33% and 10 % respectively subjects from experimental and control group on ventilator for 72 hours. Only 10 % from experimental group and 20% of control group are previously on mechanical ventilator. 56.67% of subjects from experimental group and 36.67% from control group stayed in ICU for 2 days. 10% and 13.33% respectively from experimental and control group admitted in ICU from 5 days.

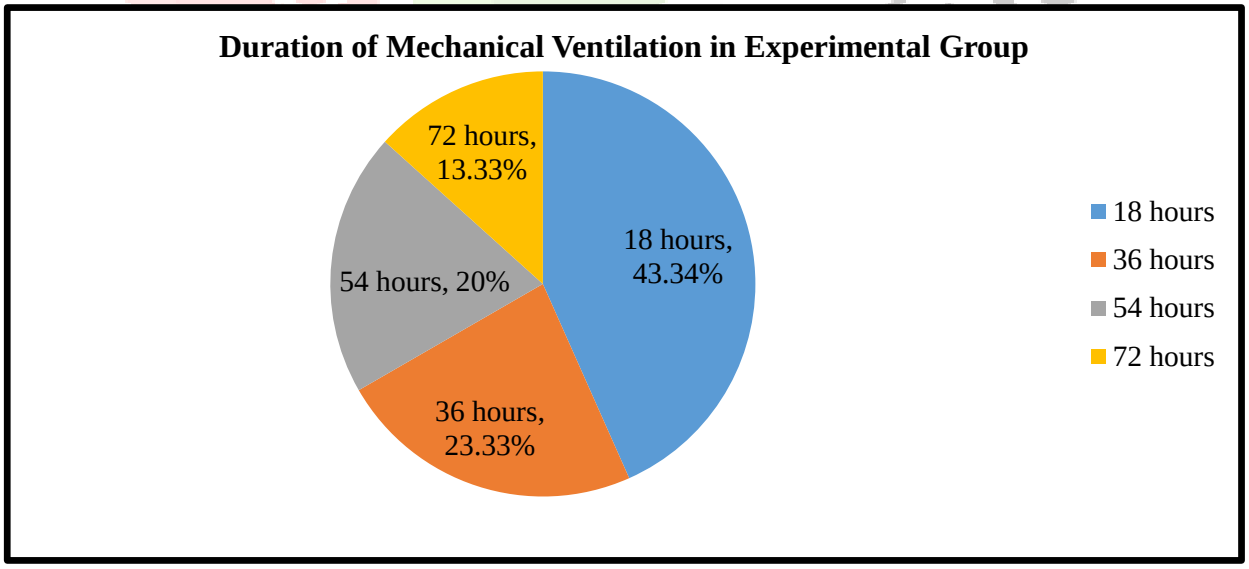

Figure No: 6 Duration of Mechanical Ventilation in Experimental Group

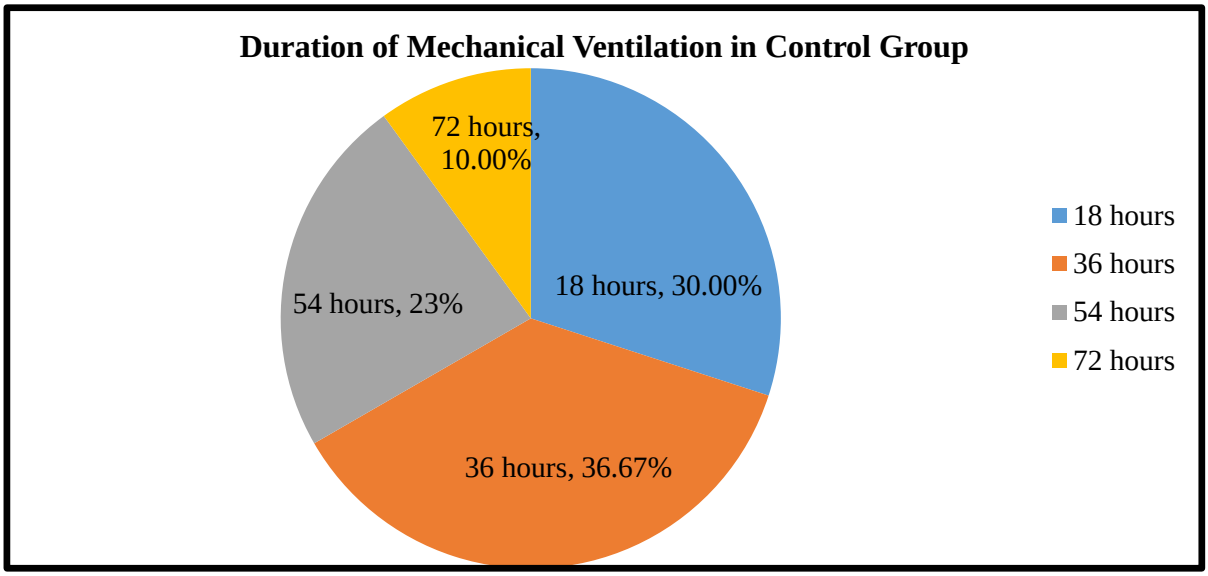

Figure No: 7 Duration of Mechanical Ventilation in Control Group

SECTION C: DESCRIPTION OF SUBJECTS BASED ON PATIENT RESPONSE, STAFF NURSE RESPONSE OVER COMMUNICATION PATTERN.

Table 3: Distribution of subjects based on patient response, staff response

Sr. No.	Variables	Experimental Group		Control Group	
		Mean	SD	Mean	SD
1.	Patients response	22.6	2.45	8.8	0.92
2.	Staff response	25.8	2.04	11.8	0.74

Table 4.3 describes the mean values for patient response, staff response . The mean value for patient response in experimental group was 22.6 but in control group it fell down to 8.8. Like patient response, the mean value for staff response in experimental group found to be higher that is 25.8 whereas in control group it dipped down to 11.8. Similarly, the control group (17.6). The SD of patients response 2.45 and 0.92 respectively for experimental group and control group. Staff response SD for experimental group 2.04 whereas 0.74 for control group.

SECTION D: COMPARISON OF PATIENT RESPONSE ON COMMUNICATION PATTERN IN EXPERIMENTAL AND CONTROL GROUP.

Table 4: Comparison of patient response on communication pattern in Experimental and control group **N=60**

Sr. No.	Group	Mean	SD	't'value
1.	Experimental Group	22.6	2.45	20.68**
2.	Control Group	8.8	0.92	

****P<0.01**

Tables 4 shows that the 't'value is 20.68, for the mean difference in patient response score of the experimental and control group is significant (p<0.01)The mean patient response score of the experimental and control group were 22.6 and 8.8 respectively. It can be inferred that the patient response score is significantly higher in experimental group when compared to control group.

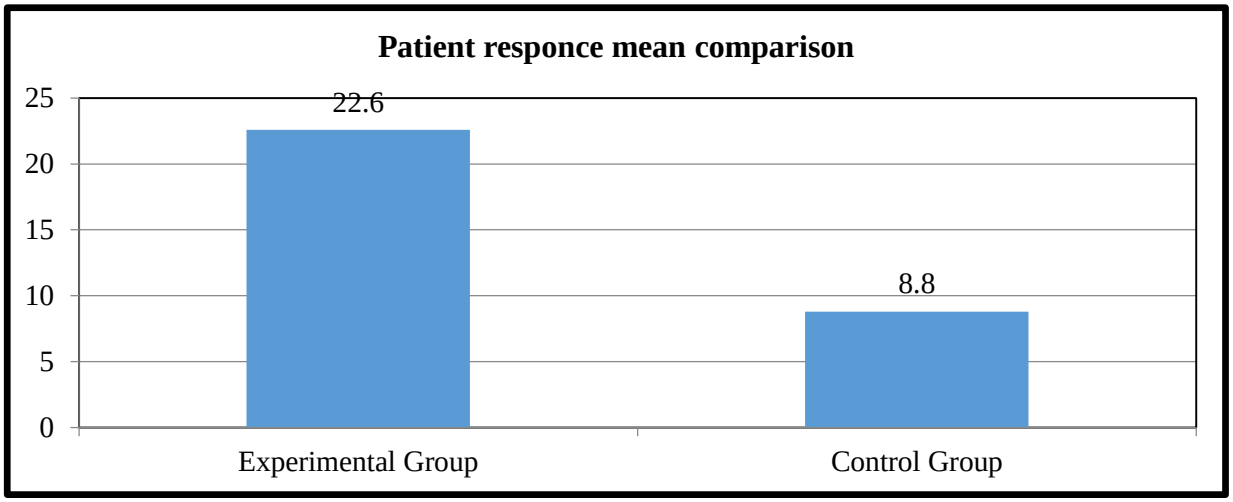

Figure No: 8 Comparison of patient response on communication pattern

SECTION E: COMPARISON OF STAFF NURSE RESPONSE ON COMMUNICATION PATTERN IN EXPERIMENTAL AND CONTROL GROUP

Table 5: Comparison of staff nurse response on communication pattern in Experimental and control group.

Sr. No.	Group	Mean	SD	't'value
1.	Experimental Group	25.8	2.04	29.33**
2.	Control Group	11.8	0.74	

****P<0.01**

Tables 5 shows that the 't'value is 29.33, for the mean difference in staff nurse response score of the experimental and control group is significant($p<0.01$). The mean staff nurse response score of the experimental and control group were 25.8 and 11.8 respectively. It can be inferred that the staff nurse response score is significantly higher in experimental group when compared to control group.

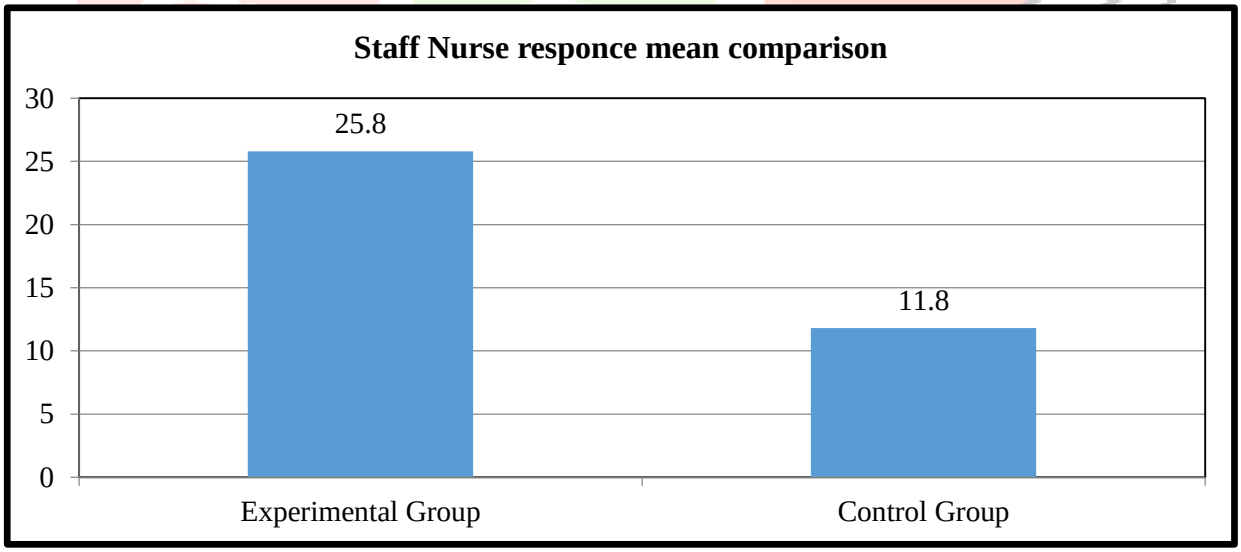

Figure No: 9 Comparison of staff nurse response on communication pattern

SECTION F: CORRELATION BETWEEN PATIENT RESPONSE, STAFF NURSE RESPONSE OVER COMMUNICATION PATTERN

Table 6: Correlation between patient response, staff nurse response over communication pattern N=60

Response	Staff response	Patient response
Staff response	1	0.967
Patient response	0.967	1

RESULT

The Mean, standard deviation and mean difference values are compared and student's paired 't' test is applied at 5% level of significance. The tabulated value for n=172-1 i.e., 171 degrees of freedom was 1.96. The calculated 't' value i.e., 9.48 are much higher than the tabulated value at 5% level of significance for overall knowledge score of patients which is statistically acceptable level of significance. Hence, it is statistically interpreted that the communication board on the communication process among patients with mechanical ventilation. was effective.

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