A STUDY TO ASSESS THE EFFECTIVENESS OF COMMUNICATION BOARD ON THE SATISFACTION LEVEL REGARDING COMMUNICATION PATTERN AMONG MECHANICALLY VENTILATED PATIENTS

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ABSTRACT

The research statement was titled as "A Study to assess the effectiveness of Communication Board on the Satisfaction level regarding Communication Pattern among Mechanically Ventilated Patients." The data was collected from 60 mechanically ventilated patients (30 in experimental group and 30 in control group) admitted in selected hospital, Amritsar, Punjab using Purposive sampling technique. Two groups were selected for the study, one experimental and one control group. The experimental group was provided with the communication board as an intervention to meet their communication needs (4-5 times during morning time) by researcher, until they are extubated. The control group was not provided with communication board, they relied on standard care and on the experience of nurses. Modified likert scale was used to assess the post-interventional satisfaction level regarding communication pattern after extubation, in both experimental and control group. Study findings revealed that, according to post-interventional satisfaction level regarding communication pattern, majority (80%) of mechanically ventilated patients in experimental group were satisfied regarding communication pattern, followed by (20%) dissatisfied, whereas in control group majority (88.9%) of mechanically ventilated patients were dissatisfied regarding communication pattern, followed by (11.1%) satisfied. According to comparison of post-interventional satisfaction level regarding communication pattern among mechanically ventilated in control and experimental group, a significant difference was found with t value 7.69 at $p < 0.05$ level of significance.

Key Words: Satisfaction level, Communication Board, Communication Pattern, Mechanically Ventilated Patients.

ABOUT AUTHORS

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INTRODUCTION

Communication is the imparting of thoughts, opinions, or information by speech, writing, or signs. The communication falls into one of two categories of purposes to inform or call to action. Patients with physical and sensory disabilities, such as deafness and blindness and patient with endo-tracheal intubation and mechanical ventilation have been shown to face considerable barriers when communicating with health care professionals.¹

Mechanical ventilation is indicated when the patient's spontaneous ventilation is inadequate to maintain life. It is also indicated as prophylaxis for imminent collapse of other physiologic functions, or ineffective gas exchange in the lungs. Because mechanical ventilation only serves to provide assistance for breathing and does not cure a disease, the patient's underlying condition should be correctable and should resolve over time.²

Verbal communication is not possible in situations like person who has head injury, stages of coma, respiratory distress and patients who are on mechanical ventilator support in many critical disease conditions. In such situation both messenger and receiver use non-verbal form of communication technique. Non-verbal form of communication can occur through gesturing, nodding head, mouthing, signals, facial expressions, body language, writing, moving and lips movement etc. Each individual is unique in nature and each one will develop their own expressive techniques, which is easy for them to communicate.³

Mechanically ventilated patients experience many barriers to communicating their needs. The lack of ability to communicate with care providers and family during periods of mechanical ventilation results in high-risk situations. Healthcare practitioners can use include interpreting a patient's nonverbal forms of communication such as mouthing, gesticulating, nodding, and writing. Such non-verbal methods not only require energy but are tiring and emotionally draining for these patients.⁴

Patient with mechanical ventilation experiences many barriers to communicate their needs. Patients have reported that their inability to communicate results in unrecognized pain, feeling of loss of control, depersonalization, anxiety, fear, distress, and frustration. The author discusses the difficulties and stresses mechanically ventilated patients experience in the intensive care unit (ICU) when trying to communicate with doctors and nurses. Mechanically ventilated patients are unable to express their feelings and needs through verbal communication because the endo-tracheal tubes running through their vocal cords make speech impossible, contributing to their frustration and anxiety.⁵

NEED OF THE STUDY

More than 7, 34,000 open-heart procedures are performed each year and the patients who undergone open heart surgery are subjected to mechanical ventilation which impairs their communication process. It is the responsibility of the health care practitioners to assess and determine an effective means for their patient's ability to communicate while they are verbally unable to do so. The author invented the communications tool as a result of his first-hand observations with frustrated patients. The report also suggested that every year in India, 16000 (65%) coronary artery bypass grafting surgeries are performed. American Heart Association (2007) estimates that by 2020 India will have the largest cardio vascular death burden in the world. Apollo heart centre (2003) suggest that, every year 8, 00,000 CABG are performed worldwide.⁶

A research study exemplifies communication picture boards to bridge communication barriers between health care professionals and patients. The authors have distributed more than 2, 200 boards to facilities across the state in its efforts to ensure that every patient receives effective medical care. The article strongly advocates the use of communication boards, stating that they should become an integral part of the health in communication. Although communication boards may not be an appropriate tool for diagnosing diseases or requesting consent, they are useful for everyday communication purposes.⁷

Research Problem

A Study to assess the effectiveness of Communication Board on the Satisfaction level regarding Communication Pattern among Mechanically Ventilated Patients in selected Hospital of Amritsar, Punjab.

Objectives

1. To assess the post-interventional satisfaction level regarding communication pattern in experimental and control group among mechanically ventilated patients.
2. To compare the post-interventional satisfaction level regarding communication pattern in experimental and control group among mechanically ventilated patients.

MATERIALS AND METHODS

Research approach: Quantitative approach

Research design: Experimental, Post-test only control group (after only) design

Research setting: Study was conducted in Fortis-Escorts Hospital, Amritsar.

Population: The target population was mechanically ventilated patients. The accessible population was

mechanically ventilated patients who had undergone cardiac surgery in selected hospital of Amritsar, Punjab.

Sample and Sampling technique

Purposive sampling technique was used to select the sample. A total sample of 60 patients (30 patients of control group and 30 patients of experimental group).

RESULTS

Objective 1: To assess the post-interventional satisfaction level regarding communication pattern in experimental and control group among mechanically ventilated patients.

Table-1

Frequency, percentage distribution and mean of mechanically ventilated patients in experimental and control group according to post-interventional satisfaction level regarding communication pattern

N=60

Satisfaction level regarding communication pattern	Experimental group n=30				Control group n=30			
	n	%	Mean	S.D	N	%	Mean	S.D
Satisfied (≥ 75)	24	80			3	11.1		
Dissatisfied (< 75)	6	20	79.50	4.33	27	88.9	65.07	9.30

Table 1 depicts the frequency, percentage and mean of mechanically ventilated patients in experimental and control group according to post-interventional satisfaction level regarding communication pattern. Majority (80%) of mechanically ventilated patients in experimental group were satisfied regarding communication pattern, followed by (20%) dissatisfied, whereas in control group majority (88.9%) of mechanically ventilated patients were dissatisfied regarding communication pattern, followed by (11.1%) satisfied.

Hence, it can be concluded that majority of mechanically ventilated patients in experimental group were satisfied regarding communication pattern with the use of communication board.

Objective 2: To compare the post-interventional satisfaction level regarding communication pattern in experimental and control group among mechanically ventilated patients.

Table-2

Comparison of post-interventional satisfaction level regarding communication pattern in experimental and control group among mechanically ventilated patients

N=60

Groups	Post-interventional satisfaction level			
	Mean	S.D	Df	T
Experimental	79.50	4.33		
Control	65.07	9.30	58	7.69*

***Significant at $p < 0.05$**

Table 2 depicts the comparison of mean post-interventional satisfaction level regarding communication pattern of experimental and control group among mechanically ventilated patients. The mean (79.50) of post-interventional satisfaction level regarding communication pattern in experimental group was more than the mean (65.07) of post-interventional satisfaction level regarding communication pattern in control group. The comparison of post-interventional satisfaction level regarding communication pattern among mechanically ventilated in control and experimental group had significant difference with 't' value (7.69) at $p < 0.05$ level of significance.

CONCLUSION

It can be concluded that patients with mechanical ventilation experiences many barriers to communicate their needs. Because the number of people affected with coronary artery disease and undergoing Coronary Artery Bypass Grafting (CABG) is on rise. These patients are subjected to endo-tracheal intubation and mechanical ventilation which impairs the communication process. Impairment in communication affects the quality of care that is provided and can lead to disruption in the therapeutic relationship between the nurse and the patient. The inability to express the needs and problems of patients during mechanical ventilation also leads to feelings of negativism and anxiety among the patients. Hence, it is necessary to have means to communicate when speech is not option.

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