A STUDY TO ASSESS THE ASSOCIATION OF POST-INTERVENTIONAL SATISFACTION LEVEL REGARDING COMMUNICATION PATTERN WITH DURATION OF STAY ON MECHANICAL VENTILATION AMONG MECHANICALLY VENTILATED PATIENTS.

Mrs. Ireven Kaur* | Dr. Tarandeep Kaur**

*Registered Nurse (Division 1), AHPRA/NMBA Nursing and Midwifery Board of Australia.

**Associate Professor, Khalsa College of Nursing, Amritsar, India.

DOI: <http://doi.org/10.47211/trr.2021.v07i01.016>

ABSTRACT

The present study aimed to assess the association of post-interventional satisfaction level regarding communication pattern with duration of stay on mechanical ventilation among mechanically ventilated patients who had undergone cardiac surgery. The data was collected from 60 mechanically ventilated patients (30 in experimental group and 30 in control group) admitted in selected hospital, Amritsar, Punjab. Purposive sampling technique was used to select the sample. Two groups were selected for the study, one experimental and one control. 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.

The study findings revealed that, according to association of post-interventional satisfaction level regarding communication pattern in experimental and control group with duration of stay on mechanical ventilation was found significant as computed by chi-square at $p < 0.05$ in experimental group whereas, in control group, it was found statistically non-significant.

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

ABOUT AUTHORS:

Author Mrs. Ireven Kaur is Registered Nurse (Division 1), AHPRA/NMBA Nursing and Midwifery Board of Australia.

Author Dr. Tarandeep Kaur is Associate Professor, Khalsa College of Nursing, Amritsar, India. She has presented papers in various conferences and also has many publications to her name.

INTRODUCTION

The patient who is on mechanical ventilator faces severe obstruction to communicate their feelings and needs to health care provider. When communication is obstructed, patient is unable to express his/her physical, physiological and psychological needs, and most of the time which are not clearly understood by health care providers. Physical needs such as hygiene, sleep, rest, comfort, and communication, physiological needs like, breathing, thirst, and hunger, and psychological needs such as love, affection and safety and security needs, if these basic needs are not met; patient feels anger, frustrated, loses his faith on treatment and on care providers. Results in drug treatment errors, misdiagnosis, unnecessary lengthening the stay in hospital, poor prognosis and further deterioration of patient's condition.¹

Communication is an essential component of effective care in hospital setting, especially in ICU where patients can experience altered communication abilities due to their critical illness. Patient's outcomes are influenced by patient's abilities to communicate effectively and participate in their care.²

The patients receiving mechanical ventilation experience an intensified need to communicate while their ability to do so is compromised as the endo-tracheal tube prevents speech. Although the use of communication board to enhance communication with such patients has been suggested, few descriptive or empirical studies have addressed the content and format of these devices or of patient's perspective on decreasing frustration with communication.³

The use of a board as an intervention to enhance communication has been proposed by health care practitioners such as different types of boards that could be used to help patients communicate during mechanical ventilation a magic slate board, magnetic plastic letters and board, an alphabet, a picture board, and a sample writing board. By using the different types of communication boards health care practitioners can easily identify the problems.⁴

A survey report showed nurses and patients regarding methods used to communicate. Pre-intervention assessments reported 60% of MV patients were extremely frustrated with their inability to communicate and 75% of nurses perceived their methods and resources to be inadequate. Post intervention assessment reported 51% of patients preferred the EZ Board as their best method compared to other communication aids and basic methods, and 58% of nurses reported the EZ Board as the most beneficial method.⁵

Need of the Study

Communication is vital for effective care and assessment should include the level of consciousness and cognitive functioning, the ability to receive and process information by sight, hearing and touch, and potential effect of medication. Alternative methods of communication for patients who are intubated but awake, are commonly available but assessment of their appropriateness for individual patients are crucial. Lots of things can interfere with communication including; a tube inserted in the throat to clear the passage airway, illness that weakens the muscles of the voice and hands, stroke and trauma and various neurodegenerative disease.⁶

The patients in ICU who are unable to communicate verbally may use non-verbal communication techniques to relate their needs, such as mouthing words, writing or using gestures. However, these techniques, which can be subjectively interrupted by communication patterns, may lead to misinterpretations of the intent, further contributing to patient frustration and distress. All devices essential for communication should be documented in the patients plan of care, to optimize both nurse and patient effort in overcoming communication impairment, such tool should be evidence based when available.⁷

Research Problem

A Study to assess the association of post-interventional satisfaction level regarding communication pattern with duration of stay on mechanical ventilation among mechanically ventilated patients.

Objective

To find the association of post-interventional satisfaction level regarding communication pattern with duration of stay on mechanical ventilation among mechanically ventilated patients.

Materials and Methods

RESEARCH APPROACH

Quantitative research approach

RESEARCH DESIGN

True experimental

RESEARCH SETTING

The present study was conducted in Fortis-Escorts Hospital, Amritsar.

TARGET POPULATION

The target population was mechanically ventilated patients.

SAMPLE AND SAMPLING TECHNIQUE

Purposive sampling technique was used to select the 60 sample (30 in experimental and 30 in control group).

RESULTS

Table 1: Association of post-interventional satisfaction level regarding communication pattern in experimental and control group among mechanically patients with Duration of stay on mechanical ventilation
N=60

Duration of stay on mechanical ventilation	Experimental group n=30			Control group n=30		
	Dissatisfied	Satisfied	Total	Dissatisfied	Satisfied	Total
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
1-2 days	5 (83.3)	17 (70.8)	22 (73.3)	15 (55.6)	1 (33.3)	16 (53.3)
3-4 days	1 (16.7)	7 (29.2)	8 (26.7)	12 (44.4)	2 (66.7)	14 (46.7)
Total	6 (100)	24 (100)	30 (100)	27 (100)	3 (100)	30 (100)
		df	χ^2		χ^2	
		1	4.384*		2.536 ^{NS}	

Maximum Score=100

Minimum Score= 20

*Significant at $p < 0.05$

NS-Non-significant

Table 1 depicts the association of post-interventional satisfaction level regarding communication pattern among mechanically patients with duration of stay on mechanical ventilation. It shows that in experimental group, 5 ventilated patients who were on mechanical ventilation for 1-2 days were dissatisfied regarding communication pattern, followed by 1 ventilated patient for 3-4 days, while 17 ventilated patients who were on mechanical ventilation for 1-2 days were satisfied regarding communication pattern, followed by 7 ventilated patients for 3-4 days and in the control group, 15 ventilated patients were dissatisfied regarding communication pattern with 1-2 days, followed by 12 who were on mechanical ventilation for 3-4 days, whereas 2 patients on mechanical ventilation for 3-4 days were satisfied regarding communication pattern, followed by 1 patient on mechanical ventilation for 1-2 days. The association of post-interventional satisfaction level regarding communication pattern among mechanically ventilated patients with duration of stay on mechanical ventilation was computed by chi-square and was found statistically significant at $p < 0.05$ in experimental group whereas in control group, it was found statistically non-significant at $p < 0.05$.

Hence, it was concluded that duration of stay on mechanical ventilation had significant association with post-interventional satisfaction level regarding communication pattern among mechanically ventilated patients in experimental group.

CONCLUSION

It can be concluded that it is useful to develop a strategy that can help in communicating needs of patients with a view to improve interpersonal relationship between nurses and patients. The results of research study highlighted the importance of use of communication board for mechanically ventilated patients to meet their unmet needs and reduce their frustration level. It can be said that the duration of stay on mechanical ventilation had significant association with post-interventional satisfaction level regarding communication pattern among mechanically ventilated patients in experimental group.

REFERENCES

1. Grossbach I, Shranberg S, Martensson, I, Fridlund B. Factors influencing the patient during weaning from mechanical ventilation: A national survey. *Intensive and Critical Care Nursing*. 2011; 18: 219-229.
2. National Institute of health. An algorithm for selecting a communication technique with intubated patients. *Dimensions of Critical Care Nursing*. November 2009; 11: 222-229.
3. Communication Bill of Rights [Online]. American Speech-Language-Hearing Association (ASHA), National Joint Committee for the Communication Needs of Persons with Severe Disabilities. Available at: http://www.asha.org/NJC/bill_of_rights.htm. Accessed January; 2011.
4. Howard J, Fried-Oaken M, Stewart S. Feedback on AAC intervention from adults who are temporarily unable to speak. *Augmentative and Alternative Communication*; 2000; 7: 43-50.
5. Reed, Richard Hurtig, Debora Downey. The use of Augmentative and Alternative communication in acute care setting. Iowa speech and Hearing Association Conference; 2008. Available at <http://www.uiowa.edu/~comsci/research/speechlab/powerpoints/Implementing.pdf>. Accessed October; 2008.
6. Cheryl Veney. *Nursing the critically ill*. Harcourt publishers limited; 2000: 203-209.
7. Ruth M. Kleinpell et al. Communication in ICU. *Advance for nurses*. 2008: December10; 6: 18-21.