

A Study to Assess the Effectiveness of Communication Board on the Level of Satisfaction of the Communication Pattern among the Clients on Mechanical Ventilator at Selected Hospitals

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Abstract: *Communication has been acclaimed as the foundation of all nursing care, especially for ventilated patient who is increasingly dependent on the speech and hearing channel for sensory stimulation. A true experimental study with quantitative research approach was conducted in ICU at selected hospitals. The sample comprised of 60 ventilated patients who were selected by using non probability purposive sampling technique. Experimental group was treated by administering modified communication board consisting of 5 items Physical care, mental care, empathy & attention, communication & information, Surrounding & physical discomfort as an intervention. Data was collected using a self structured observation checklist. Data was analyzed using descriptive and inferential statistics. The results of this study showed that ventilated patients in ICU had communication problems on ventilator. There was an improvement in the communication pattern of the ventilated patients after providing communication board.*

Keywords: communication board, mechanically ventilated client, communication pattern, level of satisfaction

1. Introduction

“Communication is the imparting or interchange 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 endotracheal intubation and mechanical ventilation have been shown to face considerable barriers when communicating with health care professionals.”

“Communication disorders are estimated to affect 5%–10% of the general population, and in one study more than 15% of admissions to university hospitals involved patients with 1 or more disabilities severe enough to prevent almost any form of communication. In addition, patients with communication disabilities are already at increased risk for depression and other co morbidities.”

In the United States, 55 000 patients are cared for daily in more than 6 000 intensive care units (ICUs). The most common reason for ICU admission is respiratory failure and the need for a mechanical ventilator. Although hospital mortality for such patients ranges from 30% to 50%, only 16% of patients receiving mechanical ventilation die directly of respiratory failure.

In a recent retrospective study of stressful experiences of patients who received mechanical ventilation in an ICU, a majority of subjects (78.1%) remembered having trouble speaking during ventilator treatment. Most of those subjects (82.7%) rated speaking difficulties as moderately to extremely bothersome. Episodes of terror were associated with not being able to talk because of endotracheal intubation.

A 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 and 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 endotracheal tubes running through their vocal cords make speech impossible, contributing to their frustration and anxiety.

2. Literature Survey

Hweidi M. (2007) a cross-sectional study was conducted, data was collected from 165 patients, 2-3 days after being discharged from Critical Care Units in two Jordanian governmental hospitals. A structured interview guide including the Intensive Care Unit Environmental Stressor Scale was used. Having tubes in nose or mouth, being in pain, not able to sleep and hearing the buzzers and alarms from the machinery, being thirsty, and not being in control of your-self were considered by patients as the main stressors.

Happ MB et al. (2011) a Descriptive observational study was conducted to describe communication interactions, methods, and assistive techniques between nurses and nonspeaking critically ill patients in the intensive care unit, at School of Nursing, University of Pittsburgh, Pennsylvania, USA in 2011. Video recorded interactions between 10 randomly selected nurses (5 per unit) and a convenience sample of 30 critically ill adults (15 per unit) who were awake, responsive, and unable to speak because of respiratory tract intubation were rated. Although

communication exchanges were generally (>70%) successful, more than one-third (37.7%) of communications about pain were unsuccessful. Mean rate of completed communication exchange was 2.62 exchanges per minute.

3. Problem definition

“A study to assess the effectiveness of communication board on the level of satisfaction of the communication pattern among the clients on mechanical ventilator at selected hospitals”.

4. Objectives

- 1) To assess the post test level of satisfaction of the communication pattern among the patient on mechanical ventilator in both experimental and control group.
- 2) To compare the post test level of satisfaction of the communication pattern among the patients on mechanical ventilator between experimental and control group.
- 3) To associate the post test level of satisfaction of the communication pattern among the patients on mechanical ventilator in both experimental and control group with their selected demographic variables.

5. Methodology/ approach

Universe of the study: Included those individuals on mechanical ventilator admitted in ICU who were between age of 18 to 75 years, those who were female and male, were oriented to person, place and time during observation and how effective will be communication board to communicate with those patients.

Tools & Techniques: The study is true experimental in that design is post test only control group design. 60 samples were selected for the study in that 30 were under control group and 30 were under experimental group. Only experimental group is administered with communication board. The check list was developed for assessing the level of satisfaction of the communication pattern among the clients on mechanical ventilator of both the groups.

Table 1

Group	Intervention	Post test
Experimental group	Administration of communication board.	Check list to assess the level of satisfaction.
E	X	02
Control group	No Intervention	Check list to assess the level of satisfaction.
C	—	02

Representation of research Design:

C ——— 02
E ——— X ——— 02

Keys:

C :Control group
E :Experimental group
2 :Post test
X :Intervention

Sample and Sampling technique

Mechanically ventilated patients in the ICU at selected hospitals Purposive sampling is used to select sample for the present study. Purposive sampling is the type of non-

probability sampling in which the samples are gathered in a process that does not give all the individuals in the population equal chances of being selected in the sample.

6. Results

Data was collected using a self structured observation checklist. The analysis was done with the help of descriptive & inferential statistics such as mean, SD, percentage, 't' test, & 'p' value.

The data was analyzed and is presented in the following sections:-

Section I: Demographic variables of ventilated patients in the ICU.

Section II: 2.1: Assessment of level of satisfaction in control group without administration of communication board.

Section II: 2.2: Assessment of level of satisfaction in experimental group after administration of communication board.

Section III: 3.1: Effectiveness of communication board.

Section III 3.2: Comparison of control group and experimental group level of satisfaction of samples showing effectiveness of communication board regarding communication to ventilated patients.

Section VI: Association of post- test score regarding communication to ventilated patients with selected demographic variables.

Figure I

Scores	Mean	S.D.	t value	P value
Post test (control)	3.87	2.18	23.81	0.000.
Post test (experimental)	15.9	1.71		

Significant- $p < 0.05$

The p value is less than the level of significance that is 0.05. This indicates that there is statistical significance difference between the Post- test (control) & Post test (experimental) regarding communication to ventilated patients.

Hence it proves that, the significance post test level of satisfaction of experimental group was higher as compared to the post test level of satisfaction of control group.

This statistical difference shows the effectiveness of communication board.

There is no significance association between age, gender, religion, marital status, occupation, family monthly income, duration of stay on mechanical ventilator & duration of present illness.

7. Discussion

The finding of the study was discussed with reference to the objectives and with the findings of the other studies in this section. The present study was undertaken to assess the effectiveness of communication board on the level of satisfaction of the communication pattern among the clients on mechanical ventilator at selected hospital. Effective communication is one of the foundations of professional nursing practice and the art of caring holistically for patients.

Indeed, as nurses are the professional groups that have the greatest contact with patients, ensuring their communication needs are fully met has been established as one of the most important skills of nursing. Even with developments in technology, most health care remains firmly communication-centered. Therefore, the more effectively and efficiently the nurse communicates, the more accomplished they will become in fulfilling their health care role.

L. Fathima (2012) a true experimental study was conducted to assess the effectiveness of communication board in meeting patient's needs, and to compare the level of satisfaction, in the post-operative Intensive Care Unit (ICU) of Vijay heart foundation Chennai in 2012. 400 intubated CABG clients were selected, by randomization, a total of 200 subjects being allocated equally in both experimental and control groups using simple random sampling method. An observational check list was used for assessing the ability of intubated patients in meeting their needs. In experimental group, 192(96%) of the subjects were able to meet their needs adequately after using the communication board as compared to 7(3.5%) in control group. 155(77.5%) subjects of experimental group showed maximal satisfaction with their ability to communicate needs as compared to only 2(1%) in control group. 128(64%) subjects of control group had minimal satisfaction with their ability to communicate their needs. The study concluded that the communication board was tested by the investigator and found appropriate for the 400 intubated CABG subjects.³³

Grossbach et al. (2011) a study conducted in 2010 at School of Nursing at University of Minnesota, Minneapolis, USA., Shows that communicating effectively with ventilator-dependent patients is essential so that various basic physiological and psychological needs can be conveyed and decisions, wishes, and desires about the plan of care and end-of-life decision making can be expressed. Numerous methods can be used to communicate, including gestures, head nods, mouthing of words, writing, use of letter/picture boards and common words or phrases tailored to meet individualized patients' needs. High-tech alternative communication devices are available for more complex cases. Various options for patients with a tracheostomy tube include partial or total cuff deflation and use of a speaking valve. It is important for nurses to assess communication needs; identify appropriate alternative communication strategies; create a customized care plan with the patient, the patient's family, and other team members; ensure that the care plan is visible and accessible to all staff interacting with the patient; and continue to collaborate with colleagues from all disciplines to promote effective communication with non-vocal patients.³²

8. Conclusion

Results of this current study suggest that we should talk to ventilated patients and contributes to the reflection on the practice of communication with ventilated patients, in order to sensitize nurses and other health care professionals to the importance of communication in the intensive care unit and contributes to improving the overall quality of care. The findings of the present study showed that the post test

satisfaction score of experimental group was higher than the post test satisfaction score of control group. The study findings concluded that ventilated patients are satisfied with communication pattern. The communication board had great potential for improving communication with ventilated patients.

9. Future Scope

The future scope of this study has implications for nursing administration, nursing education, nursing research and nursing practice.

Nursing practice

Nurses should be trained to improve their skill about communication to ventilated patients. For achieving knowledge they should have good observation, skill and also they should have up to date knowledge on how to communicate with an ventilated patients. The result of the study will help the nurse to enlighten their knowledge on importance of health education. The intensive care unit nurse should organize and conduct teaching programmes among other or junior registered staff nurses on communication to ventilated patients to prevent complication of ICU syndrome.

Nursing education

The health care delivery system at present is giving more emphasis on preventive aspects and health promotion. The study also implies that health personnel have to be trained well on how to communicate with the ventilated patients in the ICU. Staff nurses in the ICU should be trained to acquire knowledge in assessing the clients with mechanical ventilation and plan out a teaching program based on how to communicate with them in the ICU. Although communication is included in the nursing curriculum more emphasis should be given to develop the skill so that they can impart the information to the clients effectively. Nurses need to be made aware that family participation is an important aspect of care.

Nursing administration

Professional organizations in nursing are convinced of the importance of nursing research as a major contribution to meeting the health and welfare needs of the people. One of the aims of nursing research is to expand and broaden the scope of nursing. the expanded role of a professional nurse emphasizes those activities which promote health maintenance behavior among the people. The present study is only an initial investigation in the area of assessing the knowledge of the registered staff nurses on communication to ventilated patients. Further research in the area will help the nurse to prepare observational checklist on skills in knowledge and practice regarding communication to ventilated patients.

Nursing research

The emphasis on research is to improve the quality of nursing care. Nursing research represents a critically important tool the nursing profession to acquire knowledge. The study emphasizes to identify the needs of the patients and try to fulfill them with the help of communication board. The nurse researcher should be aware about the existing

health care system and the status of nursing profession. Thus it helps to improve their clinical knowledge, skill and attitude of the nurse. In this study, level of satisfaction is highlighted by the use of communication board, thus it makes a useful as well as effective and cost effective intervention to communicate with the ventilated patients.

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