



EFFECTIVENESS OF COMMUNICATION BOARD ON LEVEL OF SATISFACTION AMONG PATIENTS WITH MECHANICAL DEVICE IN APOLLO HOSPITALS, BANNERGHATTA ROAD, BANGALORE

Nursing

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ABSTRACT

Effective communication is crucial for patient satisfaction and quality of care in the hospital settings, particularly for patients with mechanical devices who often face challenges in verbal communication. This study aimed to evaluate the effectiveness of a communication board in enhancing communication and patient satisfaction at Apollo Hospitals, Bangalore. A quasi-experimental study design was conducted, involving a sample of 180 patients who were divided into two groups: an experimental group (n=90) that utilized a communication board and a control group (n=90) that received standard care. Non-probability convenience sampling was used to select participants. Data collection included demographic profiling and the Communication Pattern Satisfaction Scale, which was specifically developed for this study. The results demonstrated a significant improvement in communication satisfaction among patients in the experimental group. They reported a higher mean satisfaction score of 10.85 compared to the control group, indicating a meaningful difference in their experiences. Statistical analysis confirmed that the difference in communication satisfaction scores between the two groups was significant ($p < 0.05$). In conclusion, the use of the communication board was effective in enhancing both communication and patient satisfaction among individuals with mechanical devices. These findings suggest that implementing communication boards in healthcare settings can significantly improve the quality of interactions between patients and healthcare providers, ultimately leading to better patient care outcomes. The study advocates for the broader adoption of such tools in hospitals to facilitate effective communication in challenging scenarios.

KEYWORDS

Communication board, patient satisfaction, mechanical device, standard care

INTRODUCTION:

Communication is essential for survival and forms the basis of relationships and self-perception. In healthcare, effective communication is crucial for promoting patient health, employing both verbal and non-verbal strategies tailored to individual needs. Cultural contexts heavily influence these methods, and barriers can arise when patients struggle to express themselves, leading to feelings of isolation.

Nursing emphasizes holistic care that addresses each patient's unique needs. Hospitalization in critical care units often creates significant physical and psychological separation from family, adding to patient stress. Current practices favour low sedation for mechanically ventilated patients, allowing them to be awake and express their needs. However, their inability to communicate verbally often leads to reliance on non-verbal techniques, which can be misinterpreted, resulting in frustration.

In the ICU, nurses are vital caregivers, spending considerable time with patients. Effective communication is critical for fostering health and autonomy, but training in communicating with intubated patients is often inadequate, impacting satisfaction. Mechanically ventilated patients face barriers that prevent them from voicing their needs, leading to unrecognized pain and increased anxiety. To enhance communication satisfaction, integrating tools like communication boards is essential. This study aims to assess the effectiveness of these boards in improving the communication skills of critical care nurses, ultimately enhancing the quality of care in critical settings.

NEED FOR THE STUDY:

Each individual is unique, and nursing care must be individual and holistic based on patient needs. Hospitalization in a critical care unit imposes unavoidable separation from family and affects the patient physically and psychologically. When patients cannot communicate verbally, it further adds to their agony and impacts the provision of effective and quality care. This necessitates the need for nurses to establish a trusting relationship with patients to enhance their communication. Hence, the investigator chose this study to improve nursing care by assessing whether communication boards could improve communication and satisfaction among mechanically ventilated patients.

AIM

The main aim of this study was to assess the effectiveness of a communication board on patients with mechanical devices at Apollo

Hospitals.

Objectives Of The Study:

Determine the satisfaction level of the communication board among patients with mechanical devices.

Assumptions

Communication plays a vital role in patient care.

Research Methodology

Research Approach: Quantitative research approach

Research Design: Quasi-experimental study

Setting Of The Study: Apollo Hospitals, BG Road, Bangalore

Population: Patients with mechanical devices

Sample: Patients with mechanical devices who are conscious at Apollo Hospitals, BG Road, Bangalore.

Sample Size: 90 patients in a conscious state

Sampling Technique: Non-probability convenient sampling technique

CRITERIA FOR SAMPLE SELECTION:

Inclusion Criteria:

- Patients who are conscious and oriented to person, place, and time with a mechanical device
- Patients aged 20 and above

Exclusion Criteria:

- Patients receiving sedative agents
- Blind patients
- Patients who are hemodynamically unstable at the time of the study

Sample Size:

The sample size was 180. The first 90 subjects were assigned to the control group, and the remaining 90 subjects were considered to be the experimental group.

Data Collection Procedures And Instruments:

Section-A: Demographic Profile

Includes age, gender, educational status, and occupation.

Section-b: Communication Pattern Satisfaction Scale

This tool was developed after an intensive review of related literature and was designed to suit the study. The maximum score for the communication pattern scale was 30, and the minimum score was 0. It is a 3-point observational rating scale consisting of 10 items for patient responses, with 2 reversed score items.

Communication Board

In the top section, the "I AM" folder contains descriptive words to convey states and emotions, accompanied by illustrations (e.g., a smiling face for "happy"). Adjacent to this is the "I WANT" folder, which lists phrases expressing needs like "water" and "help," with corresponding images for clarity. A third folder, "I WANT TO MEET," includes phrases for requesting specific individuals (e.g., "doctor"), with visual representations like a stethoscope.

The middle section displays the alphabet and numbers, enabling patients to spell out words or numbers, enhanced by optional icons for clarity.

In the bottom section, a pain chart features anterior and posterior views of the human body, alongside descriptive expressions of pain (e.g., "sharp" and "throbbing") with relevant visuals. A vertical pain scale from 0 to 10 illustrates pain intensity, with a smiling face at 0 and a grimacing face at 10. Finally, common conversational phrases are provided to facilitate communication, with an empty space designated for personal notes or additional needs. This layout aims to empower patients by improving communication in healthcare settings.

Section A: Distribution Of Subjects According To Demographic Characteristics, N=180

Frequency And Percentage Distribution Of Subjects					
SL: NO	Demographic variables	Experimental		Control	
		f	%	f	%
1	Age				
	18-37	20	22.22	13	14.44
	38-57	47	52.22	50	55.55
	58-70	13	14.44	27	30
2	Gender				
	Male	59	65.55	46	51.11
	Female	31	34.44	44	48.88
3	Education				
	Secondary	49	54.44	53	58.88
	Higher secondary & above	41	45.55	37	41.11
4	Occupation				
	Employed	56	62.22	59	65.55
	Unemployed	34	37.77	31	34.44
5	Diagnosis				
	CAD	16	17.77	10	11.11
	RTA	18	20	20	22.22
	Oral cancer	8	8.88	12	13.33
	Neuro disorders	15	16.66	17	18.88
	others	33	36.66	31	34.44

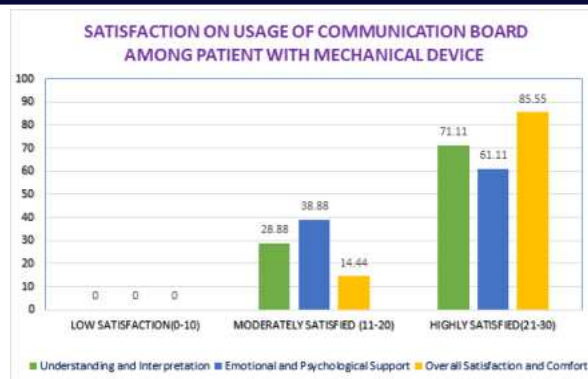
Table1 describes the distribution of subjects in experimental and control group according to age, gender, education, occupation and diagnosis.

Of the 90 subjects in the experimental group, 52.22% belong to 38-57 years of age and 22.22% between 18 and 37 years of age, whereas, 90 subjects in control group (55.55%) belong between 38 and 57 years of age and 30% belong to 18-37 years of age.

Considering the gender of subjects in experimental group 59% are the males and 31% are females. In control group 51.11% are males and 48.88% are females.

Regarding the educational status in experimental group, 54.44% of the subjects had secondary education and 45.55% of the subjects were higher secondary & above. In control group 58.88% of the subjects had secondary education and 41.11% were higher secondary & above.

The most common primary diagnosis among the participants both in experimental & control group was coronary artery disease, which is 36.66% and 34.44% respectively.



Section B: Patient Satisfaction On Communication Board

In the Understanding and Interpretation domain, no respondents reported low satisfaction, with 71.11% expressing high satisfaction, indicating that most patients felt their needs were effectively understood. However, 28.88% reported moderate satisfaction, suggesting areas for improvement. Similarly, in the Emotional and Psychological Support domain, while all respondents felt some level of support, 38.88% were moderately satisfied, and 61.11% reported high satisfaction, indicating a strong but improvable emotional connection. Finally, the Overall Satisfaction and Comfort domain showed an impressive 85.55% of respondents feeling highly satisfied, with no reports of low satisfaction. This highlights the communication board's effectiveness in enhancing patient comfort, though the 14.44% of moderate satisfaction points to opportunities for further enhancement. Overall, these findings suggest a positive reception of the communication board, while also emphasizing the need for ongoing improvements to optimize patient experiences in healthcare settings including care homes.

Major Finding Of The Study:

The 't' value is 1.09, for the mean difference in patient response score of the experimental and control group is significant ($p < 0.05$). The mean patient response score of the experimental and control group were 10.85 and pooled SD 21.01 respectively. It can be inferred that the patient response score is significantly higher in experimental group when compared to control group.

DISCUSSION

Broader Impact Of Communication Boards:

The study's results affirm that communication boards are a valuable tool for improving communication not only for patients with mechanical device, but also for those with other conditions that impair their ability to speak. The communication board provided a structured method for patients to express their needs, preferences, and discomforts, which is crucial for those who are unable to communicate verbally due to mechanical devices or other health conditions. This supports existing literature, such as the works by Sharma (2020) and Pakhede (2019), which demonstrate the positive impact of communication boards on patient satisfaction and communication efficiency.

Enhancing Patient Satisfaction:

The increased satisfaction observed in the experimental group highlights the role of communication boards in mitigating the frustration and isolation felt by patients who cannot verbally communicate.

Challenges And Limitations:

Despite the positive outcomes, the study faced several challenges and limitations. The quasi-experimental design limits the ability to establish causality, and the sample size, while sufficient, may affect the generalizability of the results. Additionally, the effectiveness of the communication board may vary depending on individual patient needs and the specific features of the board used. Future research should focus on refining communication board designs, exploring their applications across different patient populations, and evaluating their long-term effects on patient outcomes.

Recommendations:

Based on the study's findings, it is recommended that healthcare settings incorporate communication boards as a standard tool for

patients with communication impairments, whether due to mechanical ventilation or other conditions that affect their ability to speak. Training for healthcare providers on the use of communication boards and continuous assessment of their effectiveness can enhance their impact. Exploring additional communication aids and technologies may further improve patient-provider interactions and care quality.

In conclusion, the communication board proves to be an effective tool in improving communication and satisfaction among patients with mechanical devices and other communication impairments. Its integration into patient care practices represents a significant advancement toward more patient-centered care in various clinical settings.



Customized Communication Board For Patient With Mechanical Device

REFERENCES

1. Wallander, M. M., et al. (2019). Observational study with a phenomenological-hermeneutical approach to assess communication patterns among mechanically ventilated patients admitted in ICU, Medical Hospital, Norwegian Europe. *Journal of Clinical Nursing*, 28(1-2). <https://doi.org/10.1111/jocn.14633>.17
2. Rodrigues, O., & Raja, D. (2018). Efficacy of communication board on communication of verbally non-communicative patients. *International Educational Research Journal*, 4(3), 1-3.
3. Gorwin, K., et al. (2019). Quasi-experimental study to assess the communication skills of nurses to identify communication problems among intubated patients admitted in MICU, Hospital of Medical Sciences, Iran. *Journal of Nursing Education and Research*, 10. https://doi.org/10.4103/JNMS.JNMS_1_19
4. Bhardwaj, K., et al. (n.d.). An experimental study to evaluate the effectiveness of communication board on communication difficulty among mechanically ventilated patients at Institute of Liver and Biliary Sciences (ILBS), Vasant Kunj, New Delhi. *International Journal of Scientific Research*. ISSN 2277-8179.
5. Sharma, K. (2020). Effectiveness of communication board on level of satisfaction in communication among mechanically ventilated conscious patients. *International Journal of Nursing Critical Care*, 6(2), 1.
6. Gurjar, B., & Kumar, S. (2021). Effectiveness of communication board on level of satisfaction of communication pattern among patients on mechanical ventilation in selected hospitals in Haryana. *Universe International Journal of Interdisciplinary Research*, 1(11), 1-10.