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Impact of Educational Intervention on Bedside Communication among Nurses: An Intervention to Improve Knowledge

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Abstract:-
Background/Aim: Communication is a lifelong process. Nurses accompany clients and their families on a personal journey from the wonder of birth to the mystery of death. The research aimed to evaluate the effectiveness of the educational intervention on knowledge of bedside communication among nurses.

Materials and methods: The Quasi-experimental one-group (pre-test - post-test) designs were used. The samples of 100 nurses were selected by using simple random sampling and provided educational intervention to the nurses regarding bedside communication.

Results: The pre-test mean score of knowledge was (10.15) the post-test mean score of knowledge was (20.59) as well as the 'z' value of knowledge was (25.70) at ($p<0.05$), which indicates that there were significant changes in knowledge, but there was no association between knowledge with demographic variables like age, sex, qualification, experience and sources of knowledge ($p<0.05$).

Conclusion: The results showed that the educational intervention was improved knowledge of bedside communication among nurses, which will help the nurses interact excellently at the bedside.

Keywords:- *Bedside, Communication, Educational, Intervention, Knowledge, Nurses.*

I. INTRODUCTION

Communication is the interactive process of transmitting information between two or more entities. The communication process includes the sender, message, channel, receiver, and feedback. The modes of communication are face-to-face, oral communication, and written communication. Non-verbal communication has facial expression, gaze, eye contact, gesture, body movement, posture, touch, spatial behaviour, clothing, physical appearance, and electronic communication using electronic media like the telephone, the internet, radio, and television.[1] More than 70% of communication processes are effective listening and speaking. These abilities are fundamental in nursing because nurses have the most contact with patients as critical members of the treatment process. According to the reports, only 36% of participants understood listening and speaking skills, while 64% had a poor experience with verbal communication skills. While verbal communication skills are considered the foundations of communication in everyday life, nonverbal communication skills are also necessary.[2]

The average communication skills among nurses in Sanandaj were 66.98 (maximum score of 90), indicating a moderate patient safety culture and communication skills. Hence, the nurses should improve their communication skills to improve the patient's safety status. The communication skills can improve during the nurse's formal education or in-service training. [3]

Neglecting communication principles, a lack of empathy, poor interpersonal communication, palliative care skills, ignoring patients' cultural backgrounds, and a lack of organisational support will result in unilateral contact. Unilateral communication can reduce with cancer patients by improving their communication skills through various strategies, such as empowering nurses through cognitive empathy and using communication models such as the Comfort model. [4]

Intensive care Nurses in intensive care units (ICUs) care for critically ill patients, and their duties may include communicating with patients' loved ones and caregivers. Critical care nurses should constantly strive to improve their existing communication skills with patients and caregivers and learn new communication skills to help with patient care. Empathy, active listening, and physical interaction with patients and their families enabled meaningful communication. Effective communication is necessary for providing nursing care to critically ill patients. [5]

In modern nursing as a human service, there is a need for dialogue and the development of a positive interpersonal climate with each sick person, especially in our multicultural society. Nurses must succeed in their careers and study communication and interpersonal relationships as part of their education. [6]

Providing healthcare services that respect and meet the needs of patients and caregivers is critical in promoting positive care outcomes and perceptions of quality of care, thereby completing a significant aspect of the patient-centred care requirement. Effective patient communication is essential for patient care and recovery.[7] Many factors, including those related to patients, nurses, and the environment, act as barriers to effective therapeutic communication, resulting in a decrease in effective communication, impacting the quality and comprehensiveness of care. [8]

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The following barriers to nurse-patient communication have been identified: cultural differences between nurses and patients, interference from patients' companions, caring for a critical patient, and a lack of time for nurses. Care provided by native and same-gender nurses, the absence of patients' companions, the creation of a quiet environment, and an increase in the number of nursing staff could all help overcome these barriers. [9]

Bedside communication is patient information between nurses at the patient's bedside. During a shift, nurses are close in contact to communicate with patients, families, healthcare providers, and other axillary departments. Patient safety is a crucial aspect of nursing care, and completing bedside reports helps patients achieve better results. Communication errors are the most common reason for adverse events during patient care. Health care providers make every possible effort to avoid communication errors during patient handoff. [10]

The nurses can adopt the 7 "C's" for effective communication, which would include (i) making the message "clear" and understandable to the client. (ii) The "correct" language is delivered; (iii) the message should contain "complete" information; (iv) The communication must also be "concrete," leaving no opportunity for misunderstanding. (v) The message would have to be "concise" and to the point. (vi) The sender must "consider" the receiver's opinions, knowledge, mindset, background, and other factors. (vi) For the message to be positive and focused, the sender must be "courteous" to the client's feelings and points of view. [11]

When communicating with patients, there are numerous factors to consider. In all conversations with the patient, be transparent, considerate, and benevolent, and consider their cultural expectations. Respond to calls from nurses as quickly as possible. When communicating, make sure that the patient's full attention is captured. Use non-threatening language, justify what they want to do, and refrain from giving the patient orders. Use simple, understandable phrases rather than medical terms, as most patients are unfamiliar with these terms. Speak clearly and politely. Always standing in front of the patient can see the nurse's face, as lip reading is part of normal hearing. Make use of appropriate body language.[12]

Professional communication between the nurse-patient greatly influences patient satisfaction with nursing care. Improving patient satisfaction in the hospital should be one of the hospital's top priorities. As a result, enhanced patient satisfaction can be achieved by educating staff, particularly nurses, and identifying motivating and dissatisfying factors. 13

The nurses' experiences were being exceptional, altruism, psychosocial support, updated knowledge and skills for interaction management, reaction to actions related to different factors, a supplement of patient-physician communication deficiency, and professional identity and socialisation basis of communication. Nurse recognition, description, and perception of communication can all provide valuable data for professional planning and reducing or eliminating communication problems. Improving professional communication can also ensure the quality of professional services offered to patients. [14]

Therefore, there is a need to deeply evaluate bedside communication knowledge among nurses to understand the concept and facilitate nurses in recruiting advanced communication skills, thereby improving the quality of care.

II. MATERIALS AND METHODS

The study employed a quasi-experimental (one-group pre-test-post-test design). The study was conducted on 100 nurses at the O. P. Jindal Institute of Cancer and Cardiac Research, India. The educational intervention on bedside communication was the independent variable. In contrast, the level of knowledge on bedside communication was the dependent variable. Age, sex, qualification, experience, sources of knowledge was the extraneous variables. The samples for this investigation were chosen using a simple random sampling procedure. The study inclusion criteria were nurses those willing to participate and those who were not available for data collection were excluded.

Based on the literature review, a self-structured questionnaire was developed in English, consisting of the following: Part I consist of demographic variables such as age, sex, qualification, experience, and sources of knowledge. Part II consists of 25 self-structured knowledge questionnaires (Multiple Choice Questions). The following topics are listening and empathy, barriers in communication, bedside communication, innovations facilitating communication, communication-dealing with challenging scenarios, scripted communication, professional nursing etiquette: the correct answer score (01) and the wrong answer score (00). After converting the level of knowledge score to a percentage, it is divided into three categories: likely inadequate (50), moderately adequate (51-75), and adequate (> 76). The content validity of the tool was validated by experts and analysed based on the modifications and recommendations. The pilot study was carried out among ten nurses who met the inclusion criteria to test the feasibility and reliability of the tools. Furthermore, the reliability of the knowledge tool was analysed by the Split-Half method. The results showed excellent reliability (r = 0.90). Those nurses who have participated in the pilot study were excluded from the main study sample.

III. ETHICAL CONSIDERATION

Before data collection began, the researcher obtained formal permission from the Institutional Ethical Committee. The researcher was explained the aim and procedure of the study to all nurses and obtained their informed consent. They participated willingly, with the option to withdraw at any time with no legal ramifications.

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A. Description of the intervention

Data collection was done from 19/03/2022 to 29/03/2022. The researcher distributed a self-structured questionnaire on the first day, instructed the nurses to fill the demographic variables, and assessed the pre-test level of knowledge with 25 multiple-choice questions for 25 minutes in the auditorium. The researcher reminded them that their answers would be kept confidential. The PowerPoint presentation of the bedside communication was held for two hours. The following topics were covered: listening and empathy, barriers in communication, bedside communication, and innovations facilitating communication, communication- dealing with challenging scenarios, scripted communication, and professional nursing etiquettes. On the seventh day, the researcher collected the post-test level of knowledge for 25 minutes in the auditorium.

B. Data analysis

The data was analysed using the International Business Machines (IBM) Statistical Package for the Social Sciences (SPSS) for Windows, Version 21. Frequency and percentage are used as demographic variables. Computed the mean and standard deviation (SD) to describe the level of knowledge. Found the effectiveness of knowledge on bedside communication by using the 'z' value ($p<0.05$). Chi-square analysis was used to findout the association between pre-test knowledge and their selected demographic variables.

IV. RESULTS

Regarding frequency and distribution of demographic variables by age; the majority of them, 81 (81%), belonged to the age group of 22-32 years, 11 (11%) were in the 33-43 age range, and four (4%) was in the 44-54 age range, and four (4%) were in >55 years. Regarding sex, 84 (84%) were female, and the rest of the 16 (16%) were male. Regarding the qualifications majority of them were 73 (73%) have General Nursing Midwifery (GNM), 14 (14%) have Post basic B.Sc Nursing, eight (8%) have B.Sc Nursing, five (5%) have M.Sc Nursing. Regarding experience majority of them, 82 (82%), have 0-5 years, eight (8%) of them have 6 to 10 years, three (3%) of them have 11- 15 years, one (1) have 16- 20 years, and six (6%) have > 21 years. Finally, when it comes to the sources of knowledge received, the majority of them, 62 (62%), were from Continue Nurses Education, 19 (19%) were from mass media, 19 (19%) were from family and friends.

With regards to the level of knowledge, the majority of them, 83 (83%), had inadequate knowledge, 11 (11%) had moderately adequate knowledge, and six (6%) had adequate knowledge in the pre-test. However, after the educational intervention, the majority of them, 84 (84%), had adequate knowledge, 13 (13%) had moderately adequate knowledge, and three (3%) had inadequate knowledge as assessed by the post-test.

The pre-test mean score of knowledge was (10.15), the post-test mean score of knowledge was (20.59), and the 'z' value of pre-test and post-test knowledge (25.70) indicates that there were significant changes in the knowledge ($p<0.05$). Hence, the researcher concluded that educational training effectively gained nurses' knowledge of bedside communication
(Table 1)

(n = 100)

Knowledge	Mean	SD	z value
Pre-Test	10.5	3.2	
			25.70*
Post-Test	20.59	2.5	

Table 1 indicates the mean, SD, and "z" value of knowledge regarding bed **side communication** among nurses

*p<0.05 (significant); SD-standard deviation

The obtained chi-square value for the age (3.67), sex (0.44), qualification (4.29), experience (5.42) sources of knowledge (2.2) indicate that there was no association between the above variables with bedside communication.

V. DISCUSSION

The study aimed to assess the pre-test and post-test level of knowledge regarding bedside communication among nurses, evaluate the effectiveness of the educational intervention on knowledge of bedside communication as well as find out the significant association between pre-test knowledge with selected demographic variables such as age, sex, qualification, experience, sources of knowledge among nurses.

Vijay Anand and G. Dhanalakshmi (2017) supported the finding of the structured instruction program on therapeutic communication knowledge among 70 staff nurses working in psychiatric hospitals in Chennai, India. The mean was 58.82, and the pre-test standard deviation was 11.1%. The mean in the post-test was 88.476, with a standard deviation of 16.1, and the paired "t" value $p<0.05$ was significant.[15]

Mansoorian MR et al. (2016) conducted a similar study with 50 nurses to determine the effects of workshop education on nurses' professional communication linked to clients' health. After the intervention, the mean score increased in three categories: subordinates (11.62), superiors

(8.87), and colleagues (6.04), with significant changes in all three subgroups. [16]

Farahani Mohammad et al. (2007) conducted a similar study on teaching communication skills to nurses on patient satisfaction with nurse-patient relationships, involving 60 nurses and 80 patients at Imam Khomeini and Vali- e-Asr hospitals. There was a significant change in patient satisfaction (p 0.001). [17]

Herawati, V.D. et al. (2018) conducted the study with 54 nurses, 27 allotted to the experiment and control groups, and created an SBAR (Situation, Background, Assessment, Recommendation) observation checklist to help nurses communicate information about nursing shift handover. In the experiment group, there was a significant improvement in the use of SBAR on nursing shift handover compared to the control group (p 0.05). [18]

VI. CONCLUSION

For a nurse, communication is a lifelong process. Nurses accompany clients and their families on a personal journey from the wonder of birth to the mystery of death. Therefore, healthcare personnel, particularly nursing graduates, must emphasise clear communication patterns to work in the most challenging clinical scenarios. In addition, the current scenario of nursing turnover and movement into different countries and regions necessitates adaptation to local dialogue to practice nursing safely. As a result, nurses must learn good communication skills to properly care for people.

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