INTRA HOSPITAL PATIENT SAFETY TRANSPORTATION PROTOCOL FOR CRITICAL CARE PATIENTS

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ABSTRACT:

Nurses, in every day clinical practice, deal with critically ill transported patients, who need holistic nursing care and their role can be multifunctional, since they participate in almost every part of patient's care having different and complex responsibilities. Nurses working as members of the intra hospital transport team should provide qualitative, continuing health care and vigilance for the occurrence of complications during transport. Statement of the problem: "a study to evaluate the effectiveness of structured teaching program on patient safety protocol for critical care patients in terms of knowledge among ICU nurses at selected hospitals in Meerut." Oobjectives of the study: To prepare and validate the structured teaching program on safety protocol for critical care patients. To evaluate the effectiveness before and after administration of structured teaching program in term of knowledge on patient transportation safety protocol for critical care patients among ICU nurses in experimental group as compared to control group. To find the association between post test knowledge score regarding patient transportation safety protocol for critical care patients with their selected socio demographic variables in experimental group. Methodology: An evaluative research approach was used in the study to determine the effectiveness of structured teaching programme in terms of knowledge regarding patient transportation safety protocol among nurses working in ICUs at selected hospitals Meerut. The research design selected for the study was Quasi-experimental non equivalent control group post-test design. 60 staff nurses (30 in experimental and 30 in control group) were selected in hospital setting by non-probability purposive sampling technique. Structured knowledge questionnaire tools and graphical interpretation questions were used to assess the knowledge regarding patient transportation safety protocol among staff nurses working in ICUs. Data was collected and analyzed using descriptive and inferential statistics. Findings of the study: The study revealed that the mean post-test knowledge score of staff nurses in experimental group (12.36) is significantly higher than then mean post test knowledge score of control group (5.43). The mean difference between the post test knowledge score of

both the group was found to be (6.93). Then unpaired' value (7.64) at the df (58) was found to be statically significant at 0.05 level of significance. Conclusion: The study concluded that nurses working in ICUs were having deficit knowledge regarding patient transportation safety protocol and structured teaching programme was found to be an effective method to improve the knowledge of ICU nurses.

Index Terms- Structured Teaching Program, Patient Safety Protocol.

I. INTRODUCTION

Every day, nurses in clinical practice deal with critically patients during transportation who need nursing care and their role can be multifunctional in hospital, since they participate almost in every part of patient's care having different & complex responsibilities. Nurses is working as member of the intra hospital transportation team should be provided to patient a qualitative, continuing health care and vigilance for the complications during transport. The nurses also responsible for preparing and stabilizing the patient before sending a patient for transport and after admitting a patient to destination department. During the intra hospital transport, the patient health conditions may be adversely affected by various external factors when a patient moving from the bed. If any changes of patient's position can cause physiological alterations, disconnection of intravenous catheters or I/V line, extubation of portable ventilator inside ICU causing respiratory problem like respiratory distress. As per the Indian society of Critical Care Medicine guidelines (2007) intra hospital transport involves development protocol and written the procedures about decision to transport, identifying high risk of patients, preparation of the patients, effective accompanying personnel, essential equipments, emergency drugs, pre transportation coordination & good communication between the all accompanying personnel and care during transportation.

Need for the study: ICU's range of India which can compete with the best in the worldwide. It is a difficult task to develop the guidelines for such diverse requirements. A poorly patient transportation organized and hastily done about patient transfer can significantly contribute to morbidity and mortality in hospital. This article reviews about protocol for an effective intra-hospital transfer and current scenario of patient transportation in developing countries like India. In hospital nurses are a constant presence mainly at the bedside and regularly interact with doctors, patient's relatives, and other all members of the health team. Health team members, nurses therefore play a role for critically patient safety during transportation and performing countless other tasks to ensure patients receive high-quality of care. Hence, in this study regarding patient during intra hospital transportation safety protocol to educate ICU nurses.

RESEARCH HYPOTHESIS (at 0.05 level of significance): H_1– There is a significant difference between post test knowledge scores before and after administration of structured teaching program on patient transportation safety protocol among ICU nurses in experimental group compare to control group.

H_2- There is a significant association between post test knowledge scores on patient transportation safety protocol among ICU nurses in experimental group with their selected socio demographic variables.

CONCEPTUAL FRAMEWORK: Wiedenbach's theoretical framework was used in this study.

METHODOLOGY: RESEARCH APPROACH: A quantitative evaluative research approach is adopted for this study. RESEARCH DESIGN: The research design selected for the present study is quasi experimental non equivalent control group post-test design. SETTING OF THE STUDY: The study was conducted in Chhatrapati Shivaji Subharti Hospital in Meerut. Chhatrapati Shivaji Subharti Hospital is located in the Delhi-Haridwar bypass road (NH-58). POPULAION: The population included in the study was the nurses working in ICUs at Chhatrapati Shivaji Subharti Hospital, Meerut during the period of the study. SAMPLE: In this study, samples were the nurses working in ICUs at Chhatrapati Shivaji Subharti hospital, Meerut. SAMPLE TECHNIQUES: Non – probability purposive sampling technique was used in the study. SAMPLE SIZE: The sample size in the study consists of 60 samples which includes 30 samples in experimental group and 30 samples in control group. INCLUSION CRITERIA : Nurse working in ICUs of selected hospital, Nurses who were willing to participate in the study, Nurses with qualification of GNM, B. Sc (N) & Post B.Sc (N), Nurses who were present at the time of data collection. EXCLUSION CRITERIA: Nurses on leave during the period of study, Nurses who have attended conference or workshop regarding patient transportation safety protocol

DEVELOPMENT OF STRUCTURED TEACHING PROGRAMME: A structured teaching programme regarding patient transportation safety protocol for staff nurses working in ICU's was developed. The structured teaching programme was based on review of related research and non - research literature and opinions of the experts. It consists of the Introduction about patient safety, Patient transportation safety, Physiological alteration, Assessment condition of patient during transportation, Complication during intra hospital transportation, Steps of transportation

RELIABILITY OF THE TOOL: The reliability co-efficient of structured knowledge tool was calculated by using correlation coefficient formula. The value of correlation co-efficient was calculated and it was found to be reliable (r=0.78).

Assessment of knowledge of nurses working in ICUs regarding patient transportation safety protocol in experimental and control group: In experimental group pre test, majority i.e. 21 (70%) had poor knowledge and 09 (30%) had moderate knowledge. In contrast post test score shows that majority of nurses i.e. 22 (73.3%) had moderate knowledge where as 08 (26.7%) had adequate knowledge regarding patient transportation safety protocol. In control group in pre test, majority i.e. 29 (96.7%) had poor knowledge, where as 01 (3.33%) had moderate knowledge. In contrast post test score shows that majority of nurses i.e. 26(86.7%) had poor knowledge whereas very less nurses, 04 (13.3%) had moderate knowledge regarding patient transportation safety protocol.

Table showing comparison of Mean, Mean Difference, Standard Deviation (SD), SD Difference (SD$_D$) and Paired t- value of pre and post test knowledge score in experimental group: Data represented in table shows the comparison of mean pre and post-test knowledge score regarding patient transportation safety protocol in experimental group. The mean post test knowledge score (12.36) was significantly higher than the mean pre test knowledge score (8.26) with the mean difference of 4.1. The pre (1.36) and post test (3.93) standard deviation was compared with the SD difference 2.57. The

obtained paired calculated t-value was 5.06 which were higher than the tabulated value 2.05 at df 29 at 0.05 level of significance. Hence null hypothesis H_o is rejected so accepted alternative hypothesis (H_1). So it is statistically interpreted that the structured teaching programme is effective in educating nurses working in ICUs regarding patient transportation safety protocol.

RESULT AND DISCUSSION: 1. Findings to do comparison between pre test and post test level of knowledge regarding patient transportation safety protocol among nurses working in ICUs in experimental group: The mean pre-test knowledge score of experimental group was (8.26) and standard deviation was (1.36) against the maximum score (30). The range of obtained score was between (5-20) indicating there was the knowledge deficit in patient transportation safety protocol. The mean post-test knowledge score of experimental group was (12.36) and standard deviation (3.93) against the maximum score of (30).The range of obtained score was between (12-20). The paired calculated t-value was 5.06which was higher than the tabulated value 2.05 at df 29 at 0.05 level of significance. Hence null hypothesis H_{01} is rejected so accepted alternative hypothesis (H_1) indicating that there was an increase of knowledge regarding patient transportation safety protocol among nurses working in ICUs. **2. Findings to compare the post test score of knowledge regarding patient transportation safety protocol in experimental and control group:** Mean post-test knowledge score of nurses in experimental group (12.36) and mean post – test knowledge score of control group (5.43). The obtained unpaired t test calculated value (7.64) which was significantly higher than the tabulated t-value which was 2.00 at df (58) at 0.05 level of significance. Hence null hypothesis (H02) is rejected so accepted alternative hypothesis (H_2). Thus it was inferred from the findings that the structured teaching programme was effective in increasing the knowledge regarding patient transportation safety protocol. **3. Findings the association of post test knowledge scores regarding patient transportation safety protocol among nurses working in experimental group:** There is no significant association between post-test knowledge score regarding patient transportation safety protocol among nurses working in ICUs with their selected socio demographic variables. Hence, null hypothesis (H03) is rejected and accepted alternate hypothesis (H3), because the tabulated values of age, gender, qualification were higher than the calculated value other than years of experience and area of practice.

CONCLUSION: On the basis of the above findings of the study following conclusion could be drawn: There was knowledge deficit among staff nurses regarding patient transportation safety protocol among staff nurses working in ICUs. The structured teaching programme was found to be effective in increasing the knowledge of staff nurses in experimental group regarding patient transportation safety protocol among staff nurses working in ICUs. The findings of the study suggest that it is mandatory to educate staff nurses working in ICUs. So, according to the study it is recommended to implement structured teaching programme regarding patient transportation safety protocol for the staff nurses working in ICUs regularly to increase their knowledge. **LIMITATIONS:** This study was confined to a small number of staff nurses i.e. 60 staff nurse (30 each in experimental and control group) this limits generalization of the findings. The study sample was selected by using non-randomized purposive sampling technique which limits the

generalization of the findings. **RECOMMENDATIONS:** This study can be replicated in large samples so that finding can be generalized. A comparative study can be done to see the difference in the effect of the structured teaching programme regarding patient transportation safety protocol interpretation in government, urban and rural hospitals. A follow up study can be conducted to assess the knowledge of staff nurses regarding patient transportation safety protocol. A study can be conducted to identify the educational need of staff nurses regarding patient transportation safety protocol.

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