RESEARCH ABSTRACT

NAME: MRS AGNES ARUN SWAMY

GUIDE: DR SHAKUNTALA PRABHU


KEY WORDS: Paediatric Intensive Care Unit, ventilator, intubation, arterial blood gas analysis.

1. Introduction: When children are sick & hospitalized, they are treated by using various types of equipment's including mechanical ventilators, especially when they are admitted in the intensive care unit.

2. Need of the study:- According to Fenstermacher D & Hong D (2004) it was reported that critical care nurse did not receive any formal education on its uses. The need was felt to develop & validate the protocol for the care of children on ventilator in the pediatric intensive care unit.

3. Statement of the problem: To Develop & assess the effectiveness of the standard operating protocol on the knowledge & practices of the nurses regarding care of children on mechanical ventilator in the paediatric intensive care unit at selected hospitals.

4. Objectives of the study:

Phase - I

1. To evaluate existing protocol in hospitals.
2. To evaluate existing practices.
3. To develop and validate protocol.

Phase - II

4. To assess the knowledge of the nurses, regarding care of children on ventilator before & after the administration of nursing protocol in the experimental and control group.
5. To evaluate the practices of the nurses regarding care of children on ventilator before and after the administration of nursing protocol in the experimental and control group.
6. To assess the usefulness of the protocol (with the help of semi structure opinionairre)
7. To correlate the knowledge & practices of nurses regarding care of children on ventilator among the experimental & control group.
8. To compare the knowledge & practice scores with selected demographic variables (age, years of experience educational qualification and gender.) in the experimental and control group.
5.1 Research Approach & Design: The design used for this study was Quasi-Experimental non-randomised control group design. The target population were the nurses working in the paediatric intensive care unit. It consisted of 80 nurses 40 in the experimental group and 40 in the control group. Purposive sampling technique was used to select the nurses.

5.2 Inclusion criteria: All nurses working in PICU. Children admitted in PICU & on ventilator. Exclusion criteria: Head nurse not involved in direct care.

5.3 Tool and technique: A structured questionnaire, observation checklist and inventory checklist were used as a tool to assess the knowledge and practices of the nurses. Standard Operating Protocols to care the children on ventilator. Validity and Reliability: the validity was done by experts. Reliability was calculated using Cronback alpha formula the ‘r’ value was 0.80 of questionnaire and Inter-rater for observation checklist and inventory checklist values ranged between 0.80 to 0.92.

5.4 Data Gathering Process: The data gathering process commenced on 18th November 2014 and ended on 30th December 2015 the investigator visited the Paediatric Intensive Care Unit.

5.5 Analysis of demographic data of the nurses: 75% (30) of nurses from the experimental group and 72.5% (29) from the control group were in the age group of 21 – 25 years. Gender wise distribution of nurses was 90% (36) nurses were females, and only 10% (four) were male in the experimental group. And in the control group 87.75% (35) nurses were female and 12.5% (five) nurses were male. Majority 47.5% (19) nurses had an experience of one to 3 years in the experimental group and 40% (16) in the control group. The experimental group had diploma in nursing (62.5%) (25) and Basic B.Sc Nursing was 37.5% (15). in the control group nurses qualified with Basic B.Sc Nursing 62.5% (25) and nurses with diploma was 37.5% (15).

5.6 Analysis of knowledge:-

5.6.1 Overall knowledge: - The knowledge score of nurses in the experimental and control group was from poor to good in the pre-test and post-test. In the experimental group in pre-test, it was found that 30 (75%) of the nurses had an average knowledge, in post-test 31 (77.5%) nurses had good knowledge and nine (22%) nurses had average knowledge scores. In the control group in pre-test, it was found that 28 (70%) nurses had an average knowledge seven (17.5%) nurses had poor knowledge and only five (12.5%) had good knowledge. Therefore the improvement of knowledge in the experimental group may be attributed to the
implementation of the Standard Operating Protocol. In the experimental group the mean knowledge scores of the nurses before and after implementation of the SOP was significant at 0.05 level (Z=5.43 & p = <0.0001).

5.7 Analysis of Observed practices:-

5.7.1 Overall observed practice scores: It was found that overall observed practice score varied from poor to good. The pre-test observed practice scores of nurses in the experimental group was average whereas after the administration of the standard operating protocol the post-test scores improved in the post-test I (day 7), and was sustained in post-test II & III. The pre-test observed practice scores of nurses in the control group was average and in the post-test remained average. In the experimental group the mean post-test practice scores of nurses observed after the implementation of SOP was significant at 0.01 level of significance. Whereas in the control group the post-test practice scores of nurses observed remained same.

5.8 Analysis of self-reported practices:

5.8.1 Overall reported practice scores: It was found that the overall reported practice in the experimental group 60% in the pre-test. And in the post-test all the 100% nurses had good self-reported practice score. Where as in control group in pre-test 15% nurses had average self-reported practices and 85% nurses had good self-reported practices. And in post-test 12.5% nurses were with average self-reported practice score and 87.5% were with good self-reported practices. The mean self-reported practice score of nurses before and after the implementation of nursing protocol was significant at 0.01 level research hypothesis was accepted.

6. Correlation between the knowledge and practices of the nurses regarding care of children on ventilator: The pre-test findings revealed in the experimental group there was negative correlation between the knowledge & overall practices as ‘r’ was -0.16. In the control group there was negative correlation between knowledge & overall practices. The Post-test findings revealed in the experimental group there was very low correlation between the knowledge and overall practices as ‘r’ is 0.26.

7. Analysis of opinionarrie regarding nursing protocol on care of children on ventilator: The opinion of the nurses regarding nursing protocol on care of children on ventilator was that 100% samples felt that the nursing protocol was useful to them.

8. CONCLUSION: - This study was done to assess the effect of standard operating protocols knowledge & practices of the nurses while caring the children on ventilator. The researcher was able to achieve all the objectives of the study.