



A study to assess the effectiveness of a planned teaching programme on radiant warmer in terms of knowledge and practice among staff nurses working in NICU and labour room at hospitals of Rajkot District

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Abstract

Background: “A New Baby is like the beginning of all things-wonder, hope and a dream of Possibilities”. -Eda.J. Le Shan Neonatal Intensive Care Unit (NICU) and Labor Room equipped with advanced modern equipments and supplies has been proved to be successful in managing preterm babies with varied complications and fatal conditions. The Staff Nurses working in NICU and Labour Room with specialization training has a wider role and should have skills in managing Neonates when they are on Radiant Warmer in Neonatal Intensive Care Unit (NICU) and Labor Room.

Objective: To Assess the Knowledge of Staff Nurses on Radiant Warmer among Staff Nurses.

Method: In this study Quantitative Research design. Total 60 samples were selected with Simple random Sampling Technique. The tools used for gathering necessary data were Structured Knowledge Questionnaire & structured observational checklist

Results: The analysis and interpretation of data collected from 60 samples, to assess the effectiveness of A Planned Teaching Programme on Radiant Warmer in terms of Knowledge and Practice among Staff Nurses working in NICU and Labor Room at Hospitals of Rajkot District. Descriptive and Inferential Statistics methods were used to analyze the data. The mean post test Knowledge score (21.02) was higher than mean pre test Knowledge score (11.14) with mean difference of 9.88. The mean post-test Practice score (20.36) was higher than mean pre test Practice score (11.6) with mean difference of 8.76.

Conclusion: In the pretest out of 60 samples, 04 (8%) had poor Knowledge score, 46(92%) Samples had average Knowledge score, none of the sample had good Knowledge score. Where as in post test none of Sample had poor Knowledge score, 2(4%) Sample had Average Knowledge score and 48(96%) Samples had good Knowledge score. Thus, in the post test 2 Samples had average Knowledge and 48 samples had good Knowledge score as compared to in the pre test where 4 samples had poor Knowledge score and 46 Samples had average Knowledge score.

Keywords: Assess, effectiveness, a planned teaching programme, radiant warmer, knowledge, practice, staff nurses, Neonatal Intensive Care Unit, labor room

Introduction

Premature birth is a major health problem because preterm babies are at high risk of breathing difficulties, hypothermia, infections, and death. Most premature newborns require specialized care in the Neonatal Intensive Care Unit (NICU), where trained doctors, nurses, and advanced equipment provide essential treatment.

After birth, newborns are placed under a radiant warmer to maintain body temperature and prevent hypothermia. Radiant warmers use heating elements and temperature sensors to keep the baby warm while allowing easy access for doctors and nurses during treatment.

Neonatal nurses play an important role in caring for newborns in the labor room and NICU. However, there is a shortage of trained neonatal nurses, which affects the quality of care.

Neonatal mortality remains a major concern worldwide and in India. According to UNICEF (2018), about 6.4 lakh neonatal deaths occur annually in India. In Gujarat, neonatal mortality rates are also high, especially among tribal populations, highlighting the need for better healthcare facilities and trained healthcare professionals.

Objectives of the Study

1. To assess the knowledge of staff nurses regarding radiant warmer before and after a planned teaching programme.

2. To assess the practice of staff nurses regarding radiant warmer before and after a planned teaching programme.
3. To determine the association between pre-test knowledge scores and selected demographic variables.
4. To determine the association between pre-test practice scores and selected demographic variables.

Variables

Section I

Age, Gender, Professional Qualification, Clinical Experience in NICU or Labor Room, Attendance of Training regarding Radiant Warmer

Section II

A Structured Knowledge Questionnaire to Assess Knowledge on Radiant Warmer among Staff Nurses Working In NICU and Labor Room

Conceptual Framework

The conceptual framework of the study is based on the General System Model, which consists of Input, Throughput (Process), Output, and Feedback. This framework helps in assessing the effectiveness of a planned teaching programme on radiant warmer among staff nurses working in NICU and labour rooms.

- **Input:** Demographic variables such as age, gender, professional qualification, clinical experience, and previous training on radiant warmer.
- **Throughput (Process):** Development of the teaching programme and tools, validation, pilot study, pre-test, administration of the teaching programme, and post-test.
- **Output:** Improvement in the knowledge and practice of staff nurses regarding radiant warmer after the teaching programme.
- **Feedback:** Evaluation of the programme effectiveness and modification of the teaching programme if the desired outcomes are not achieved.

Review of Literature

1. Review of literature related to Effectiveness of A Planned Teaching Programme
2. Literature related to Knowledge and Practice of Staff Nurses regarding Radiant Warmer

Methodology

- **Research Approach:** Quantitative
- **Research Design:** Pre-Experimental design
- **Setting:** Hospital of Rajkot District
- **Population:** Staff nurse working in NICU&Labour Room at Hospital of Rajkot District
- **Sample Size:** 60
- **Sampling Technique:** Simple random Sampling Technique
- **Method of Data Collection:** Structured Knowledge Questionnaire & structured observational checklist

Results

The study analyzed data from 60 staff nurses to assess the effectiveness of a planned teaching programme on radiant warmer. The post-test mean knowledge score (21.02) and practice score (20.36) were higher than the pre-test scores, indicating improvement after the programme. A moderate positive correlation ($r = 0.51$) was found between knowledge and practice scores. Training related to radiant warmer showed a significant association with knowledge scores, while other demographic variables showed no significant association. The findings proved that the planned teaching programme was effective in improving the knowledge and practice of staff nurses working in NICU and labour rooms.

Conclusion

The study concluded that the planned teaching programme on radiant warmer significantly improved the knowledge and practice of staff nurses working in NICU and labour rooms. Post-test knowledge and practice scores were considerably higher than pre-test scores, and the calculated t-values showed statistically significant improvement. A moderate positive correlation ($r = 0.51$) was found between knowledge and practice scores. Training related to radiant warmer was significantly associated with knowledge scores, whereas other demographic variables showed no significant association. Overall, the planned teaching programme was effective in enhancing both knowledge and practice among the staff nurses.

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