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A STUDY TO ASSESS THE EFFECTIVENESS OF PTP ON KNOWLEDGE REGARDING ORAL STIMULATION ON IMPROVING SUCKING REFLEX AMONG STAFF WORKING IN SELECTED NICU OF SELECTED HOSPITAL OF REWA, M.P.

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Introduction

Feeding competence is a critical milestone in the growth and survival of preterm infants. Premature babies, born before 37 weeks of gestation, often lack a coordinated sucking, swallowing, and breathing pattern, leading to delayed initiation of oral feeding. This not only prolongs hospital stay but also increases the emotional and economic burden on families.

Oral stimulation therapy—consisting of gentle tactile input to the lips, cheeks, gums, and tongue—has been recognized as a simple and cost-effective nursing technique that promotes the maturation of the sucking reflex and supports early transition to breastfeeding or bottle feeding. The success of such interventions largely depends on the knowledge and skills of nurses working in the NICU, as they play a crucial role in identifying feeding readiness and implementing oral stimulation protocols.

However, many nurses lack formal training on oral stimulation techniques, leading to inconsistent practices. Thus, a structured and scientifically designed Planned Teaching Programme (PTP) is essential to enhance nurses' knowledge and promote evidence-based neonatal care.

This study was undertaken to assess the effectiveness of a PTP on knowledge regarding oral stimulation in improving sucking reflex among staff nurses in the NICUs of a selected multispecialty hospital in Rewa, Madhya Pradesh.

Need for the Study

Preterm birth is a global health issue, affecting approximately 15 million infants annually (WHO, 2023). Feeding difficulties are among the leading complications faced by these infants. In India, preterm births account for nearly 13% of all live births, and neonatal mortality continues to be high, largely due to feeding immaturity and inadequate care practices in neonatal units.

Research has shown that oral stimulation accelerates the transition to full oral feeding and shortens NICU stay by up to 7 days (Fucile et al., 2002). Despite this evidence, many nurses are unaware of the technique or its application in clinical settings. Effective training through a PTP can bridge this gap, ensuring that neonatal nurses possess the necessary knowledge and confidence to perform oral stimulation safely.

Hence, the present study aims to assess the effectiveness of a planned teaching programme in improving the knowledge of staff nurses regarding oral stimulation and its role in enhancing the sucking reflex among preterm infants.

Objectives of the Study

1. To assess the pre-test knowledge level of staff nurses regarding oral stimulation on improving sucking reflex among preterm infants.
2. To administer a Planned Teaching Programme (PTP) on oral stimulation.
3. To assess the post-test knowledge level of staff nurses after the PTP.
4. To evaluate the effectiveness of the PTP by comparing pre-test and post-test knowledge scores.
5. To find an association between pre-test knowledge scores and selected demographic variables of staff nurses.

Hypotheses

- **H_1:** There will be a significant difference between pre-test and post-test knowledge scores regarding oral stimulation on improving sucking reflex among staff nurses at $p < 0.05$.

- **H_2:** There will be a significant association between pre-test knowledge scores and selected demographic variables such as age, qualification, years of experience, and previous training.

Methodology

Research Design

A pre-experimental one-group pre-test post-test design was adopted.

Setting of the Study

The study was conducted in the Neonatal Intensive Care Units (NICUs) of a selected multispecialty hospital in Rewa, Madhya Pradesh.

Population and Sample

The population consisted of all staff nurses working in NICUs. A sample of 50 staff nurses was selected using purposive sampling.

Inclusion Criteria

- Staff nurses working in the NICU with at least 6 months of experience.
- Nurses willing to participate and available during the data collection period.

Exclusion Criteria

- Nurses who had already undergone training on oral stimulation.
- Interns and nursing students.

Tool for Data Collection

A structured knowledge questionnaire with 30 multiple-choice questions was used. It covered the following areas:

1. Anatomy and physiology of sucking reflex
2. Concept and techniques of oral stimulation
3. Benefits and precautions
4. Role of nurses in promoting oral stimulation

Each correct answer carried one mark; total possible score = 30.

Planned Teaching Programme (PTP)

The PTP included an interactive lecture, audiovisual presentation, and demonstration covering:

- Importance of oral stimulation
- Steps of the procedure
- Safety measures and contraindications
- Nurse's role in promoting feeding readiness

The duration of the PTP was 45 minutes, conducted in small groups.

Data Collection Procedure

1. Pre-test was conducted on Day 1 using the structured questionnaire.
2. The PTP was administered immediately after the pre-test.
3. Post-test was conducted after 7 days using the same questionnaire.

Data Analysis

Data were analyzed using descriptive and inferential statistics. Mean, standard deviation, and percentage were calculated. The paired t-test was used to evaluate the effectiveness of the PTP, and chi-square was applied to find associations between knowledge scores and demographic variables.

Results

Demographic Characteristics

Among the 50 participants:

- **Age:** 46% were between 21–25 years, 38% between 26–30 years, and 16% above 30 years.
- **Qualification:** 60% had GNM, 32% had B.Sc. Nursing, and 8% had Post Basic B.Sc. Nursing.
- **Experience:** 54% had 1–3 years of experience in NICU, while 18% had more than 5 years.
- **Training:** Only 20% had attended any prior neonatal care workshop.

Discussion

The findings revealed that the planned teaching programme was highly effective in improving nurses' knowledge regarding oral stimulation and its benefits in enhancing sucking reflex among preterm infants. Similar results were reported by Thoyre et al. (2013) and Kumar & Singh (2021), who emphasized that educational interventions for NICU nurses improved their competence and adherence to evidence-based feeding practices.

Knowledge improvement following PTP demonstrates the effectiveness of structured educational programs in bridging the gap between theoretical understanding and clinical practice. Empowering nurses through such programs can significantly enhance neonatal outcomes, particularly in resource-constrained settings like Rewa.

Nursing Implications

1. **Nursing Practice:** The PTP can be integrated into routine NICU staff orientation programs to improve infant feeding outcomes.
2. **Nursing Education:** Training on oral stimulation should be incorporated into neonatal nursing curricula.
3. **Nursing Administration:** Hospital administrators should develop policies and protocols for implementing oral stimulation therapy.
4. **Nursing Research:** Further studies can be conducted on larger samples to assess the impact of knowledge on practice and neonatal feeding success.

Conclusion

The study concluded that the Planned Teaching Programme was effective in enhancing the knowledge of staff nurses regarding oral stimulation in improving sucking reflex among preterm infants. Adequately trained nurses can play a key role in promoting early feeding readiness, reducing complications, and improving overall neonatal outcomes. Thus, regular educational interventions should be conducted in NICUs to maintain high-quality, evidence-based nursing care.

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