

ORIGINAL RESEARCH

Effectiveness of planned teaching programme on knowledge and practice regarding thermoregulation among the mothers of Under five children in selected hospitals, Dehradun (UK)

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Abstract

Introduction: Thermoregulation refers to the ability to maintain a stable internal body temperature regardless of external conditions. In neonates, particularly preterm infants, thermoregulation is critical due to several factors.

Objective: To assess the knowledge on thermoregulation among the mothers of under five children in selected hospitals, Dehradun (UK), To assess the practise of thermoregulation among the mothers of under five children in selected hospitals, Dehradun (UK), To assess the Effectiveness of planned teaching programme on knowledge and practice regarding thermoregulation among the mothers of under five children in selected hospitals, Dehradun (UK).

Methodology-The researchers have used A Quasi Experimental Research Design (One group Pre-test and Post-test). Non Probability Purposive sampling technique was used. 80 Mothers who fullfill the inclusion criteria were included in the study In the present study the below scales were used to collect the data. Structured Questionnaire and observational checklist was used to assess the Effectiveness of planned teaching programme on knowledge and practice regarding thermoregulation among the mothers of under five children in selected hospitals, Dehradun (UK).

Conclusion: The planned teaching programme significantly improved the knowledge and practices of thermoregulation among mothers of under-five children. Educating mothers on thermoregulation techniques is crucial for reducing temperature-related health issues in children, thereby improving their overall health outcomes.

Key words: Effectiveness, planned teaching programme, knowledge, practice, thermoregulation.

Introduction and Background

The Role of Mothers in Child Development Aspects of Development: Children's development includes physical, social, emotional, and cognitive aspects. Mother's Role: Mothers are often the primary caregivers and have a unique role in encouraging and influencing their children's

development. Bonding and Attachment: Mothers usually form strong bonds and attachments with their children, which are crucial for development. Understanding Neonates Definition: A neonate is an infant in the first 28 days after birth. Dependence: Newborns are highly dependent on caregivers for survival. Challenges Faced by Newborns, Temperature and Environment Change: Upon birth, neonates experience a sudden change from the warm environment of the womb to the colder external world, Physical Characteristics: Surface Area to Mass Ratio: Newborns have a large surface area to mass ratio, Insulation: They have variable amounts of insulation, Metabolic Reserves: They possess limited metabolic reserves. Shivering: They have a decreased ability to shiver. Risks of Cold Stress in Newborns Hypoglycaemia: Low blood sugar levels, Respiratory Distress: Difficulty in breathing, Hypoxia: Low oxygen levels in the tissues, Metabolic Acidosis: Excessive acidity in the body fluids, Necrotizing Enterocolitis***: Severe intestinal disease, Failure to Gain Weight: Inadequate weight gain.

Thermoregulation is a crucial aspect of child care, particularly for under-five children who are more vulnerable to temperature fluctuations. Educating mothers on effective thermoregulation practices can significantly improve the health outcomes of their children. This study aims to assess the effectiveness of a planned teaching programme on the knowledge and practice of thermoregulation among mothers of under-five children in selected hospitals in Dehradun, Uttarakhand.

Objective

1. To assess the knowledge on thermoregulation among the mothers of under five children in selected hospitals, Dehradun (UK)
2. To assess the practise of thermoregulation among the mothers of under five children in selected hospitals, Dehradun (UK)
3. To assess the Effectiveness of planned teaching programme on knowledge and practice regarding thermoregulation among the mothers of under five children in selected hospitals, Dehradun (UK)

Methodology

Research Design: The researchers have used A Quasi Experimental Research Design (One group pretest and posttest)

Sampling techniques: Non Probability Purposive sampling technique was used.

Subject Size: 80 Mothers who fullfill the inclusion criteria were included in the study

Tools of data collection: In the present study the below scales were used to collect the data.

Structured Questionnaire and observational checklist was used to assess the Effectiveness of planned teaching programme on knowledge and practice regarding thermoregulation among the mothers of under five children in selected hospitals, Dehradun (UK)

Section I: Consisted of items related to demographic variables of the subjects of the study.

Section II: Consisted of questions regarding knowledge on thermoregulation among the mothers of under five children in selected hospitals, Dehradun (UK).

Section III: Consisted of checklist regarding practical application of thermoregulation techniques by the mothers of under five children in selected hospitals, Dehradun (UK)

Validity and Reliability of tools: Tools were validated by the experts and the reliability was done by Cronbach's Alpha coefficient test. Cronbach's alphas were $r = 0.86$, & 0.9 for Effectiveness of planned teaching programme on knowledge and practice regarding thermoregulation among the mothers of under five children in selected hospitals, Dehradun (UK)

Study Procedure

1. Pre-Intervention Assessment:

Knowledge Assessment: A pre-test using a structured questionnaire to evaluate the mothers' baseline knowledge regarding thermoregulation.

Practice Assessment: Observation of current thermoregulation practices using a checklist.

2. Intervention:

Planned Teaching Programme: Conducted over multiple sessions covering topics such as:

- Importance of thermoregulation.
- Methods to maintain optimal body temperature in children.
- Recognizing signs of hypothermia and hyperthermia.
- Practical demonstrations of thermoregulation techniques.

3. Post-Intervention Assessment:

Knowledge Re-Assessment: Using the same structured questionnaire to measure any changes in knowledge.

Practice Re-Assessment: Observing changes in thermoregulation practices post-intervention.

Data Analysis

The data collected were analyzed to determine the effectiveness of the teaching programme.

Findings:

The analysis and interpretation of the data collected to assess Effectiveness of planned teaching programme on knowledge and practice regarding thermoregulation among the mothers of under five children in selected hospitals, Dehradun (UK) was described in the following sections:

Section I: Describes the demographic variables of the subjects of the study.

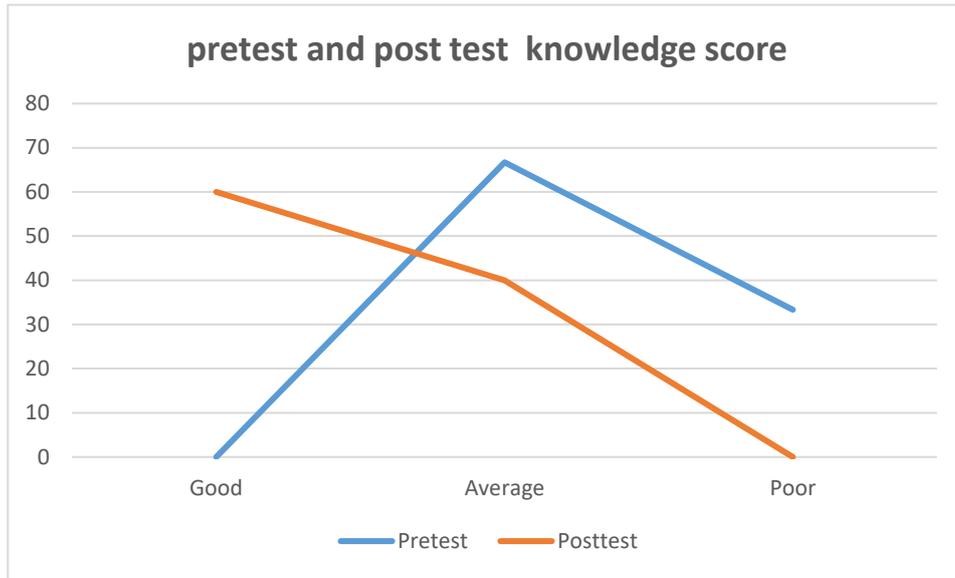
Section II: Describes the analysis regarding pre-test and post test knowledge on thermoregulation among the mothers of under five children in selected hospitals, Dehradun (UK).

Section III: Describes the analysis regarding pre-test and post test practical application of thermoregulation techniques by the mothers of under five children in selected hospitals, Dehradun (UK)

Section IV : Describes the analysis regarding Effectiveness of planned teaching programme on knowledge and practice regarding thermoregulation among the mothers of under five children in selected hospitals, Dehradun (UK)

Table 1 and fig 1: Describes the analysis regarding pretest and post test knowledge on thermoregulation among the mothers of under five children in selected hospitals, dehradun (UK).

Pretest		%	Posttest		%
Good	21 to 30	0	Good	21 to 30	60
Average	11 to 20	66.7	Average	11 to 20	40
Poor	0 to10	33.3	Poor	0 to10	0



The table 1 and fig 1 shows the percentage distribution of pre-test and post-test knowledge scores:

The table indicates a significant improvement in the knowledge scores after the teaching programme: Good scores (21 to 30)** increased from 0% in the pre-test to 60% in the post-test. Average scores (11 to 20) decreased from 66.7% in the pre-test to 40% in the post-test. Poor scores (0 to 10)** decreased from 33.3% in the pre-test to 0% in the post-test.

These results show that the Planned Teaching Programme was effective in enhancing the knowledge of postnatal mothers regarding the prevention of neonatal hypothermia.

Table 2: The paired t-test results show a significant increase in pretest and post test knowledge score

Paired t test	Range	Mean±SD	Mean%	Mean Diff.	Paired t Test	P value	Table value at 0.05	Result
						<0.001		
Pretest knowledge	Jun-19	11.34±4.31	39.4	9.5	15.103	<0.001	2.07	Significant
Post-test knowledge	18-25	23.04±3.3337	83.4					

The paired t-test results show a significant increase in knowledge regarding the prevention of neonatal hypothermia among postnatal mothers after the Planned Teaching Programme, with a p-value less than 0.001, indicating a highly significant result. The mean pre-test knowledge score was 11.34, which increased to 23.04 in the post-test, showing substantial improvement.

Table 3 and fig 2 : Describes the analysis regarding pretest and post test practical application of thermoregulation among the mothers of under five children in selected hospitals, dehradun (UK).

	Pre Intervention Practice score	Post Intervention Practice score	level of significance
Regular practice	10%	40%	P<0.001**
sometimes Practice	20%	45%	
Never practice	70%	15%	

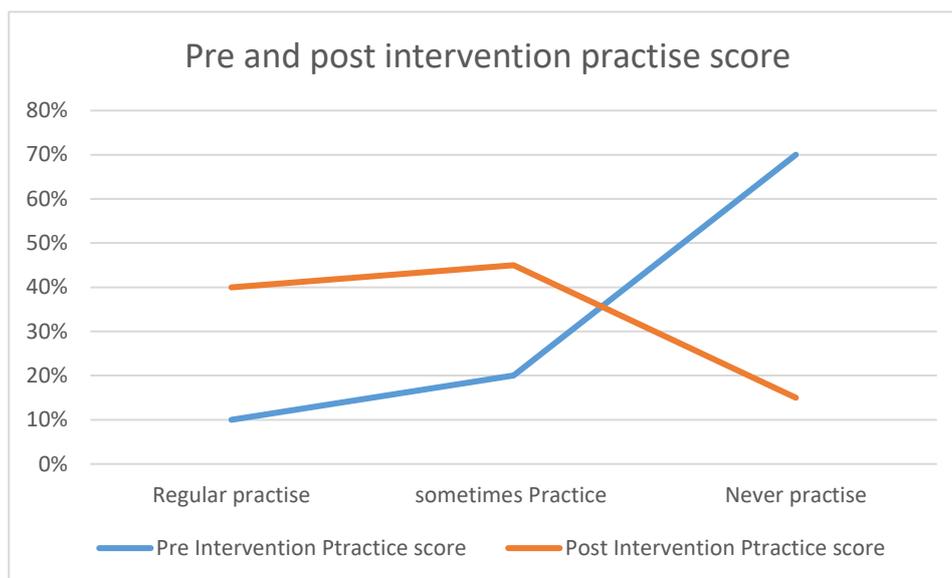


Table 3 and fig 2 : Describes the the pre and post-intervention practice scores, along with the level of significance. The table demonstrates significant improvements in the practice scores post-intervention: Regular Practice increased from 10% to 40%. Sometimes Practice increased from 20% to 45%, Never Practice** decreased from 70% to 15%.

The level of significance ($P < 0.001^{**}$) indicates that these changes are highly significant, suggesting that the intervention had a substantial positive impact on the practice behaviours regarding the prevention of neonatal hypothermia.

Discussion

A similar pre-experimental study with one group pre-test post-test research design was conducted in Sister Nivedita Govt. Nursing College, IGMSC Shimla (Himachal Pradesh) using self-structured knowledge questionnaire. The study result concluded that the planned teaching programme was very effective to increase the knowledge of Nursing students regarding thermoregulation of neonates.

Conclusion

The planned teaching programme significantly improved the knowledge and practices of thermoregulation among mothers of under-five children. Educating mothers on thermoregulation techniques is crucial for reducing temperature-related health issues in children, thereby improving their overall health outcomes.

Recommendations

1. Routine Educational Programmes: Regularly conduct educational sessions for mothers in hospitals and community health centers.
2. Development of Educational Materials: Create easy-to-understand materials (pamphlets, videos) on thermoregulation.
3. Healthcare Provider Training: Train healthcare providers to effectively deliver educational programmes and provide ongoing support to mothers.
4. Further Research: *Conduct similar studies with larger sample sizes and in different regions to generalize findings.

By implementing these recommendations, healthcare providers can ensure better management of thermoregulation in under-five children, leading to improved health and wellbeing.

Conflict of Interest:Nil**References**

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