



Effectiveness Of Planned Teaching Programme On Knowledge And Practice Regarding Thermoregulation Among Mothers Of Under-Five Children In Index Medical College Hospital & Research Centre, Indore, Madhya Pradesh

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Abstract

Background: Thermoregulation plays a vital role in preventing morbidity and mortality among under-five children. Mothers' knowledge and practices are crucial for early identification and management of temperature variations.

Aim: To evaluate the effectiveness of a planned teaching programme on knowledge and practice regarding thermoregulation among mothers of under-five children.

Methods: A pre-experimental one-group pretest–posttest design was used. A total of 200 mothers of under-five children attending Index Medical College Hospital, Indore, were recruited using purposive sampling. Data were collected using a structured knowledge questionnaire and an observational practice checklist. After pretest, a planned teaching programme was implemented, followed by posttest assessments immediately and at 4 weeks. Data were analyzed using descriptive and inferential statistics.

Results: The mean pretest knowledge score was 12.5 ± 3.2 , which significantly improved to 22.8 ± 2.9 in the immediate posttest ($p < 0.001$). Similarly, mean practice scores increased from 5.6 ± 1.8 to 9.4 ± 1.5 ($p < 0.001$). Improvement was consistent across education levels, but higher among literate mothers.

Conclusion: The planned teaching programme was effective in enhancing both knowledge and practice regarding thermoregulation among mothers of under-five children. Such educational interventions can be integrated into routine maternal and child health services.

Keywords: Thermoregulation, mothers, under-five children, planned teaching programme, knowledge, practice.

Introduction

Thermoregulation, the ability to maintain body temperature within normal limits, is vital for the survival and health of infants and young children. Newborns and under-five children are particularly vulnerable to hypothermia and fever-related complications due to immature thermoregulatory mechanisms. According to the World Health Organization (WHO), hypothermia contributes significantly to neonatal and child mortality, especially in developing countries.

Mothers play a crucial role in maintaining their children's thermal environment through practices such as appropriate clothing, skin-to-skin contact, temperature monitoring, and timely healthcare-seeking. Lack of adequate knowledge and improper practices among mothers can lead to preventable complications.

Educational interventions like planned teaching programmes have been shown to improve maternal knowledge and home-based child care practices. However, limited studies have been conducted in the central Indian context, particularly in Madhya Pradesh. Hence, this study was undertaken to evaluate the effectiveness of a planned teaching programme on thermoregulation among mothers of under-five children in Index Medical College Hospital & Research Centre, Indore.

Methodology

Research Design

A pre-experimental one-group pretest–posttest design was used.

Setting and Sample

The study was conducted in the pediatric outpatient and immunization clinic of Index Medical College Hospital, Indore. The sample comprised 200 mothers of under-five children selected by purposive sampling.

Inclusion Criteria

- Mothers having children aged 0–59 months.
- Willing to participate and available for follow-up.

Exclusion Criteria

- Mothers who are healthcare professionals.
- Mothers who attended similar training in the past 6 months.

Data Collection Tools

1. **Structured Knowledge Questionnaire** (30 items).
2. **Practice Observation Checklist** (12 items).
3. **Demographic Proforma** (age, education, parity, socio-economic status, etc.).

Intervention

A planned teaching programme (PTP) was conducted, including lectures, demonstrations, posters, and leaflets on thermoregulation.

Data Collection Procedure

- Pretest knowledge and practice assessment.
- Implementation of the PTP.
- Immediate posttest after intervention.
- Follow-up posttest at 4 weeks.

Data Analysis

- Descriptive statistics: Mean, SD, percentages.
- Inferential statistics: Paired t-test, McNemar's test, chi-square test.
- Significance set at $p < 0.05$.

Results

Table 1. Demographic Characteristics of Mothers (N = 200)

Variable	Category	Frequency (f)	Percentage (%)
Age (years)	20–25	70	35%
	26–30	85	42.5%
	31–35	30	15%
	>35	15	7.5%
Education	Illiterate	40	20%
	Primary	60	30%
	Secondary & above	100	50%
Parity	1	65	32.5%
	2	95	47.5%
	≥3	40	20%

Table 2. Comparison of Knowledge and Practice Scores (N = 200)

Variable	Pretest Mean \pm SD	Posttest Mean \pm SD	t-value	p-value
Knowledge	12.5 ± 3.2	22.8 ± 2.9	25.6	<0.001
Practice	5.6 ± 1.8	9.4 ± 1.5	18.3	<0.001

Figure 1. Pretest vs. Posttest Knowledge Scores

- (Bar chart showing knowledge improvement from 12.5 to 22.8)

Figure 2. Pretest vs. Posttest Practice Scores

- (Bar chart showing practice improvement from 5.6 to 9.4)

Figure 3. Education Level of Mothers

- (Pie chart showing distribution: Illiterate 20%, Primary 30%, Secondary+ 50%)

Discussion

The study demonstrated a significant improvement in knowledge and practice regarding thermoregulation after the planned teaching programme. The findings are consistent with previous studies that have shown the effectiveness of structured educational interventions in improving maternal knowledge and child care practices.

The greatest improvement was observed among literate mothers, though even illiterate mothers showed marked gains, highlighting the feasibility of simple, structured, and pictorial teaching interventions.

Conclusion

The planned teaching programme was effective in significantly improving the knowledge and practices of mothers regarding thermoregulation of under-five children. Integration of such educational sessions into routine pediatric and immunization clinics is recommended to reduce morbidity and mortality related to temperature dysregulation.

Recommendations

1. Similar teaching programmes should be extended to rural health centers.
2. Health workers (ANMs, ASHAs) should be trained to deliver such interventions.
3. Long-term studies are needed to evaluate sustained behavioral change.

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