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A Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge Regarding Prevention Of Hypothermia Among Mothers Of Neonates In Selected Hospitals At Bhopal

Kavita Thakre[1], Dr. Bharti Suresh Batra[2], Dr. Archana Selven[3]

[1]Research Scholar, RKDF College of Nursing, SRK University, Bhopal (M.P.)
[2]Supervisor, RKDF College of Nursing, SRK University, Bhopal (M.P.)
[3]HOD, RKDF College of Nursing, SRK University, Bhopal (M.P.)

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Abstract

Hypothermia is a life-threatening condition that occurs when the body temperature falls below normal levels, and if untreated, it can progress to severe hypothermia, which may lead to death. It is particularly crucial to address mild hypothermia promptly to prevent its escalation. Recent studies have shown that moderate hypothermia (core body temperature between 32–34°C) can be used therapeutically to protect neurological functions in patients with severe head trauma, cardiac, or pulmonary distress. This study aimed to assess the knowledge of mothers regarding the prevention of hypothermia in neonates and evaluate the effectiveness of a structured teaching program to enhance their understanding. A pre-experimental, one-group pretest-posttest design was used, with 60 mothers of neonates from hospitals in Bhopal as participants. A structured questionnaire was employed to assess their knowledge, and health education on hypothermia prevention was provided. Results showed a significant improvement in the mothers' knowledge scores after the structured teaching program, with a paired t-test value of 3.78 and a p-value of 0.0, confirming the effectiveness of the program. In conclusion, the structured teaching program proved to be an effective strategy for improving the knowledge of mothers regarding the prevention of hypothermia in neonates.

Keywords: Effectiveness, Knowledge, Structured Teaching Program, Hypothermia, Mothers, Neonates

Background of the study

The healthy newborn infant born at term between 38 to 42 weeks, cries immediately after birth, establishes independent rhythmic respiration quickly adapts with the extra uterine environment, having an average birth weight and no congenital anomalies. The transition from intrauterine to extra uterine life is perhaps the greatest challenge any human being can fall in the curse of lifetime. Approximately 3% to 7% of all newborns require some form of support. Hypothermia is a progressive condition that can develop rapidly and which becomes increasingly serious as the body temperature decreases. It is important to immediately treat mild hypothermia because mild hypothermia leads to severe hypothermia, which frequently results in death. Hypothermia causes physiological, biochemical and hormonal changes which affect the victim's ability to think clearly and rationally.

A study was conducted in Hospitals at Bhopal on 60 mothers of neonates to evaluate the effectiveness of skin to skin contact in the prevention of hypothermia. The mothers of neonates were instructed to keep their babies always in touch with their skin. This study shows that the method was very much successful in the prevention of hypothermia in neonates and the study supports the importance of Kangaroo care method also.

Material and Method

This study was based on evaluative approach and Pre-experimental study, "one group pre and post test design" is used. The sample consisted of sixty mothers of neonates selected hospitals at Bhopal city. Non probability purposive sampling technique was used and structured questionnaire tool was used. First day Pre test was done to assess the level of knowledge and practice regarding prevention of hypothermia among mothers of neonates. Than Health teaching regarding selected prevention of hypothermia and Kangaroo mother care given and on third day Post test was done to assess the level of knowledge regarding prevention of hypothermia among mothers of neonates.

Results

Majority of (43%) the mothers were from age group of 22-25 years.33% of the mothers were newborn mothers, 33% of mothers are multi para mothers and 33% of mothers are primi mothers.

Majority of (52%) the mothers had primary education, (33%) of their mother had secondary education and (15%) of mothers has graduate education, Majority of (97%) the mothers were housewife, 2% of government job and 2% of business. Majority of (47%) mothers family having income of below 5,000/months, (40%) of mothers family having income of 5,000-10,000/months and only (13%) having income above 10,000.

Majority of (75%) the mothers were living in urban area, (13%) the mother were living in slum area and (12%) the mother were living in village area. Majority of (100%) the mothers gained previous knowledge from their parents.

Table 1: Description of comparison between pre-test and post-test knowledge score regarding prevention of hypothermia N=60

Knowledge grade	Pre-test		Post-test	
	F	%	F	%
Poor (score 0-5)	38	63%	0	0%
Average (score 6-10)	19	32%	5	8%
Good knowledge(score 11-5)	3	5%	43	72%
Very good knowledge (score 16-20)	0	0%	12	20%

In pre test, majority of 63% mothers of neonates had poor knowledge regarding prevention of hypothermia, 32% of mothers of neonates had average knowledge and only 5% had good knowledge regarding prevention of hypothermia while In post test, majority of 72% mothers of neonates had good knowledge regarding prevention of hypothermia, 20% of mothers of neonates very good knowledge, 8% of the mothers of neonates had average knowledge and not a single mother had poor knowledge in post test regarding prevention of hypothermia. This indicates that there is a marked improvement in knowledge of mothers of neonates after health teaching.

Table 2: Description of evaluation of the effectiveness of structured teaching programme regarding prevention of hypothermia. N=60

	MEAN	SD	T	DF	p-value
Pre-test	4.51	2.98	3.78	59	0.05
Post -test	13.5	5.15	-	-	

Paired t-test was applied to compare knowledge score before and after health teaching among mothers neonate's. The t-test was found to be 3.78 and corresponding p-value was 0.05. Since p-value is 0.0, null hypothesis was rejected and research hypothesis was accepted. Researcher concluded at 5% level of significance and 59 degree of freedom that knowledge score of mother sneonates improved significantly after receiving health teaching on prevention of hypothermia. Thus, the health teaching on prevention of hypothermia is proved to be effective in delivering the knowledge and awareness.

Table 3: An analysis of the data to find relationship between knowledge and selected demographic variables. N=60

Demographic variables	Chi-square value	Degree of freedom	Table value	Level of Significance	Significance
Age	2.89	6	12.59	P=0.05	Significant
mothers	3.44	6	12.59	P=0.05	Significant
Education	6.59	6	12.59	P=0.05	Significant
Occupation	1.17	6	12.59	P=0.05	Significant
Family income	10.20	6	12.59	P=0.05	Significant
Place of living	2.55	6	12.59	P=0.05	Significant
Previous source of knowledge	0	6	12.59	P=0.05	Significant

There is significant association between age, motherseducation, occupation, income of family, residence and previous source of knowledge about the prevention of hypothermia among the mothers of neonates. It was calculated with the help of Chi-square test.

Discussion

In present study it was observed that health teaching regarding prevention of hypothermia was found to be effective in improving the knowledge and practice regarding prevention of hypothermia among neonates mothers. The paired t test difference in the knowledge was (t=3.78) found significantly high at the level of 0.05 indicating significant increase level of knowledge in the post test. Hence the null hypothesis (H0) was rejected and the research hypothesis (H1) was accepted. Thus providing the structured teaching programme was effective strategy to make a difference among neonates mothers.

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