All Child Need Lap

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Introduction

Womb is a "Secure receptacle" indicates an important feature where embryo completes its 9 months of development. The mother's womb provides insulation against external agents, light and sound, variations in temperature and protects the baby against shock and pressure.[1]

In the womb, the fetus is protected from internal and external pressure by a wealth of natural shields and the fetus is safe in the womb because it is well insulated and designed as the perfect baby carrier.[2] during intrauterine life, the fetal temperature is 0.5^0c higher than the maternal temperature due to methods reaction that generates heat. After the birth, infant is exposed to air and environment which have lower temperature.[3]

Thermoregulation in adult is achieved by muscular activity and metabolic activity. During fetal life, above mechanism in mother are responsible for maintaining the fetal body temperature.[4]Newborn infants usually are considered to be tiny and powerless, completely dependent on others for life.[5]

Newborn infants are unique in their physiology and health problems that they experience.[3]They are naked, wet and have a large surface area to mass ratio, with variable amounts of insulation, limited metabolic reserves, and a decreased ability to shiver.[6]

Hypothermia is an essential aspect of neo-natal care especially in the immediate neonatal period. So great care is necessary by clothing the baby properly and to maintain the surrounding temperature and humidity, which suits the individual infant.[7]

Neonatal hypothermia defined by the World Health Organization(WHO) as auxiliary temperature less than 36.5^0c, is a major contribution to neonatal illness and deaths both in the developed and developing parts of the world out of 150 live birth aged 0 to 28 days 62%(93) had hypothermia. With an incidence of in which mild hypothermia accounted for 47.3% and moderate is 52.7%.[8]

Newborn babies have poor heat regulating mechanisms because of larger surface area of babies compared to their weight making them prone to hypothermia and its ill effects.

Heat loss in a newborn occurs through 4 routes- radiation, convection, conduction and evaporation.[3]

Physiologic mechanism for preserving core temperature include vasoconstriction, maintaining the fetal position, jittery large muscle activity and "non- shivering thermo genesis"[6] Babies attempt to conserve heat by peripheral vasoconstriction. This leads to increased anaerobic metabolism at the ill perfused areas with acidosis with severe hypothermia, hypoxemia, hypoglycemia and metabolic acidosis develop, leading to mortality.[3]

Normal body temperature of neonate's is36.5^0C-37^0C (97.7^0f-99.5^0f). Hypothermia is when the normal body temperature is below the 36.5^0C according to severity. There are mainly four stages of hypothermia that is:

1. Cold stress hypothermia: when temperature below 35^0C (95^0f).
2. Mild stage hypothermia: The temperature between 32^0C-35^0C (90^0f -95^0f).
3. Moderate stage hypothermia: Temperature between 28^0C-32C (82^0f -90^0f).
4. Severe stage hypothermia: Temperature below 28^0C (82^0f).

So survival and health of neonates is very important. The most effective management strategy for hypothermia is its prevention. The temperature range during which the basal metabolic rate of the baby is at a minimum, oxygen utilization is least and baby thrives well is known as 'Thermo-neutral range of temperature' or Neutral Thermal: Environment. So preventing hypothermia and maintaining a neutral thermal environment is important to prevent other complications.

It can be done by medical and paramedical staff by adapting the measures of

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hermoregulation like warm chain. Mothers should be educated regarding hypothermic and thermoregulation, kangaroo mother care, rooming in, and promoting breast feeding.

Need for Study

Neonatal period is very crucial. It is accurate to say that during the first few minutes especially when a risk situation exists prompt and adequate care should be carried out. Newborn hypothermia remains one of the most important contributors to neonatal mortality and my in both health facilities and communities of low resource settings. Recent data from the community in Nepal and India have expanded our understanding of population based burden in South Asia, and the hypothermia mortality risk relationship is becoming increasingly clear. Neonatal health promotion programs for home births need to focus on the behavioral changes necessary to optimize thermal care of newborns, especially in the hours immediately after birth. Research to further elucidate both the impact of specific thermal care interventions on hypothermia risk and the overall contribution of these practices in improving survival of newborn is required.[9]

The Unicef says that the global under 5 child mortality rate has decreased continuously during the last three decades ,from 110per 1,000 in 1980 to 60per 1,000 in 2009, and the number of child deaths worldwide each year has decreased from 13.5 million in 1980 to an estimated 7.7 to 8.8 million in 2008.[10]

The number of neonatal deaths (newborn dying under the age of 28 days) has also decreased, from 4.6 million deaths in 1990 to approximately 3.1 to 3.6 million in 2009.[11]The World Health Organisation stated that approximately 125 million infant born every year, 8 million die before reaching one year of life due to various complications among that about 2.5% newborn die due to hypothermia.[12]

Dr Lucy A Meska (2013) study revealed that modes of thermoregulation identified by the mothers included kangaroo care 128(33%) and warm clothing 347(90%). So researcher find the need of present study to assess knowledge regarding thermoregulation.[13]

Karsten Lunge, Kojoyeboah Antwi (2014) stated that household and agricultural labour responisibilties in the immediate postnatal period was a challenge for mothers to provide continous thermal care to their newborn. The study suggested the need to understand and addressing community based practices.[14]

WHO says that in India and other developing countries approximately 50% of infants death occurs within 24 hours of life. The existing neonatal mortality rate in India is 76/1000 live births in urban areas .Out of this 50% neonatal death, 26% neonatal deaths are due to hypothermia complications.[15]

So the above statistics shows that mothers are not aware about hypothermia, so the investigator developed out insight to conduct the study to propagate the knowledge for prevention of hypothermia among mothers of neonates.

Problem Statement

A pre-experimental study to assess the effectiveness of information booklet regarding prevention of hypothermia in neonates among postnatal mothers at Government Rajindra hospital, Patiala, Punjab.

Objectives

1. To assess the pre-test knowledge regarding prevention of Hypothermia in neonates among postnatal mothers.
2. To assess the post-test knowledge regarding prevention of Hypothermia in neonates among postnatal mothers.
3. To compare the pre-test and post-test knowledge regarding prevention of hypothermia in neonates among postnatal mothers.
4. To find out association of post-test knowledge regarding prevention of Hypothermia in neonates with selected socio-demographic variables.

Operational Definitions

1. **Knowledge-** It refers to level of understanding and awareness of postnatal mothers regarding prevention of hypothermia in neonates.

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2. **Effectiveness-** It refers to gain in knowledge of postnatal mothers about prevention of hypothermia in neonates through information booklet.
3. **Prevention-**It refers to measures taken by postnatal mothers to prevent the occurrence of hypothermia in neonates.
4. **Hypothermia-**Hypothermia is reduced body temperature that happens when a body dissipates more heat than it absorbs. It occurs when the body temperature drops below 36.5^0C or 97.7^0F in the new born infant.

Stages of hypothermia are:-

a) **Cold stress hypothermia**-Temperature below 35^0C(95^0F).
b) **Mild hypothermia**-Temperature between 32^0C-35^0C(90^0F-95^0F).
c) **Moderate hypothermia**-Temperature between 28^0C-32^0C(82^0F-90^0F)
d) **Severe hypothermia**-Temperature below 28^0C(82^0F)

5. **Postnatal Mothers**-It refers to postnatal mothers in age group 18-35 years at Government Rajindra Hospital, Patiala.

Hypothesis

H_1: There will be significant difference in pre-test and posttest knowledge score of postnatal mothers regarding prevention of Hypothermia in neonates.

H_2: There will be significant relationship of posttest knowledge score of women regarding preventive measures of Hypothermia in neonates with selected demographic variables such as age, education, occupation, area of residency, family income and source of information.

Null Hypothesis

H_{01}: There will not be significant difference between pretest and posttest knowledge score of postnatal women regarding prevention of Hypothermia in neonates.

H_{02}: There will not be significant association of post-test knowledge score of postnatal mother regarding preventive measures of Hypothermia in neonates with selected demographic variables.

Delimitation

1. The study is delimited to the postnatal mothers with age group of 18-35 years at Government Rajindra Hospital Patiala.
2. This study is delimited to the postnatal mothers who can understand Punjabi language.

Review of Literature

Although the literature is widely recognized genre of scholarly writings, there is no clear understanding of what constitute a body of literature. Review of literature is a key step in research process. Review of literature refers to an extensive, exhaustive and systematic examination of publications relevant to research project.

The review of the related literature is valuable guide to define the problem, recognizing its significance, suggesting promoting data gathering devices appropriate study design and source of data. Review of literature of present study was organized in two sections as given below:-

Mr. Suresh. S (2008) conducted an experimental study to determine the effectiveness of health education on kangaroo mother care among mothers of low birth weight babies in selected Children's Hospitals Bangalore. Findings of the study revealed that mean temperature was satisfying during follow up and was stable around 37+-7.6`C at discharge of program with mean daily weight gain of 33+1-7.6g with one case of death. The result of study point out efficacy of kangaroo method on thermo regulation, weight gain and survival of preterm babies. So it can be promoted in developing countries as it is low cost and more effective.[16]

Suman RP, Udani R, Nanavathi R. (2008) conducted a study related to low birth weight newborns and kangaroo mother care. A randomized controlled trial to compare the effect of kangaroo mother care (kMC) and conventional methods of care(CM)on growth in low birth weight babies (>2000g) on 206 neonates with weight <2000g.By this study we can conclude that kangaroo mother care improves growth and reduces morbidities in low birth weight infants and also it is simple,

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acceptable of mothers and can be practiced in home.[17]

Dr.Lucia Amolo (2009) conducted a cross sectional study to assess knowledge and attitude of postnatal mothers on essential new born care. this study reveals that more than 90% of mothers knew of breast feeding on demand, exclusive breast feeding and colostrums use. modes of thermo regulation identified included kangaroo care(7%)warm room(4%) and warm clothing(93%).At least 6 of 13 newborn danger signs were identified by more than 90% of mothers. The study concluded that postnatal mothers have positive attitude towards cord care and breast feeding but negative attitude towards other components of new born care like thermoregulation.[18]

Usha M Bhandari, Sangeeta N Kharde, Sudha A Raddi et al (2010) conducted a study to evaluate the effectiveness of planned teaching program on knowledge of mothers on prevention of hypothermia among mothers in selected hospitals of Belgaum. Based on the findings of the study there was increase in all areas of knowledge after administration of planned teaching program (PTP).Thus, it was inferred that PTP was the best teaching strategy in improving knowledge to postnatal mothers on prevention of hypothermia which is commonly encountered in developing countries, can be prevented if mothers are educated through on going in service programs by nurses.[19]

Mr.Mathews. P.Joy (2010) conducted a study to evaluate the effectiveness of structured teaching programme on knowledge regarding prevention of hypothermia among mothers of neonates admitted in selected Paediatric hospital Bangalore. In the pre test maximum mothers had (63%) average knowledge where as in the post test (93%) mothers had good score (77).AV aids was an effective strategy in imparting knowledge to postnatal mothers in prevention of hypothermia.[20]

L C Mullany, J Kartz, S K Khatr et.al (2010) conducted a longitudinal cohorts study conducted to quantify incidence, age, distribution and seasonality of neonatal hypothermia among a large population. Researcher concluded that mild or moderate hypothermia was nearly universal with substantially high risk in the cold season. However, incidence in the hot season was also high, thus year round thermal care promotion is required .[21]

Mohamed Asif padiyath, Vishnu Bhat B, Maheswari Ekambaram (2012) conducted a study on knowledge, attitude and practice of neonatal care among postnatal mothers. The study revealed that knowledge of mothers was inadequate in areas of umbilical cord care (35%), thermal care (76%) and vaccine preventable diseases. 90% of them still practice oil instillation into nostrils of newborn and 61% of them administer gripe water to their babies. This study indicates that awareness and attitude of postnatal mothers towards neonatal care has lots of lacunae especially in those who belongs to the lower socio economic status. There is scope for improvement by providing better care and health education for antenatal mothers.[22]

Dr. Lucy A Meska (2013) conducted a cross sectional study to assess the knowledge and practices towards selected aspects of essential newborn care among postnatal mothers at Juba Teaching Hospital. The study reveals that mean age of the mothers was 26.2 (50_+6.3) years. Only 45(11%) mothers attained tertiary education. The antenatal history revealed (66%) mothers had at least 4 ANC only 70 (18-20%) mothers knew that umbilicus should be left uncovered. More than 346(91.1%) mothers knew of breast feeding on demand, 309(80.5%) mothers knew of exclusive breast feeding and use of colostrums was known by (83.9%) mothers. Maintenance of thermoregulation identified by the mothers included kangaroo care 128(33%) and warm clothing 347(90%). The study concluded that adequate knowledge was found towards breastfeeding with knowledge gaps existing in cord care, thermoregulation.[13]

Rama R, Gopalakrishnan S, Uday Shankar PM (2014) conducted a study on assessment of knowledge regarding newborn care among mothers in Kanchupuran District, Tamil Nadu. This study has revealed that presence of huge knowledge gap and lacunae in this regard

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inspite of the fact that the RCH program is given top priority by the government. Despite the fact that Tamil Nadu records the highest number of institutional deliveries, the existing knowledge gap in key areas of postnatal and neonatal care will greatly affect the success of maternal and child care will greatly affect the success of maternal and child care services. It is essential to target the mothers at an earlier stage i:e during the early antenatal period. Therefore, an adequate and revamped awareness and education program coupled with effective health care delivery system will go a long way in achieving better health related indicators as far as reproductive and child health services are concerned.[23]

Pramuditha Madhvi, Rachitha Wickremasinghe, K.B.N. Jayasooriya, N.I.S. Nawarathne and R.C.P. Ranawera (2014), conducted a study on mother's knowledge and practices on thermoregulation of neonates bin Sri Lanka. According to the study more than 50%(63%cn=95) of the mothers in the sample had neonates with hypothermic condition. Thus, this study revealed that half of the mothers in the sample had hypothermic babies. Working in private sector (P=0.9) has higher probability having hypothermic babies than mothers staying at home or self employs (P=0.6). This risk in mothers working in government sector (P=0.36) lower gestational age (28-32 weeks) and the higher gestational age (38-40weeks) babies were more prone to hypothermia than babies in normal gestational age (33-37weeks).

Further as study revealed, mode of the delivery and the birth weight of babies were contributed to hypothermia among the babies. The major discovery of the study was though mothers had satisfactory level of knowledge(65%) about hypothermia and its preventive methods, practical application of mother's knowledge(34%) were very poor.[24]

Sandhya Jagadale, Jyoti Salunkhe (2014) conducted a study to evaluate the effectiveness of kangaroo mother care on low birth weight babies. In the present study it was observed that temperature regulation was more stable in the KMC group than CMC group. There is no significant effect on low birth weight babies in KMC compared to CMC group. The findings indicate that KMC enhances promotion of breast feeding. Hence KMC is cost effective, safe, most acceptable method of caring for LBW babies.[25]

Karsterr Lunge, Kojo Yeboah Antwi et al (2014) conducted a focus group discussion for prevention and management of neonatal hypothermia in Rural Zambia. The study reveals that household and agricultural labour responsibilities in the immediate provide continous thermal care to their newborn. The study concluded that understating and addressing community based practices on hypothermia prevention and management might help to improve newborn survival in resource limited settings.[26]

Mahama Saaka and Mariam Iddrisu,(2014)conducted a study on patterns and determinants of essential newborn care practices in rural areas of Northern Ghana. The level of coverage of essential newborn care practices in the district was generally low, suggestive of the fact that most essential neonatal interventions are not reaching newborns coverage of skilled attendants at delivery was very low. Birth preparedness practices were also poor and high risk newborn care practices are common place.[27]

Saadia Gul, Rehana Khali and faiza Shoukat (2014) conducted a study on newborn care knowledge and practices among mothers attending pediatric outpatient clinic of a hospital in Tamil Nadu. Antenatal coverage was good among the mothers but did not translate into optimal intrapartum and postnatal practices. There is need to promote hygienic delivery delivery practices for home births, delayed bathing and immediate and exclusive breastfeeding. Maternal education and income status play an important role in their knowledge and practices regarding newborn care.[28]

Haftom Gabrehiwot Misgna, Haftu Berhe Gebru and Mulugeta Molla Birhanu (2014) conducted a study on knowledge, practice and associated factors of essential newborn care at home among mothers in Golomekada District, Eastern Tigray, Ethiopia. The finding about

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essential newborn care, knowledge and practice of mothers revealed that 80.4% had good knowledge and 92.9% had good practice. Most mothers had good knowledge on temperature maintenance, breast feeding initiation and first bathing time. In addition to their knowledge, almost all mothers practiced the main essential newborn care except a substance (oil and butter) application to the cord stump. The majority of mothers apply oil and butter on the cord stump which may lead to many neonatal infections. 98% mothers had ANC follow up though 18.2% mothers are still delivered at home. Similarly, knowledge of essential newborn care, place of residence and occupation are significantly associated with mothers practices of essential newborn care.[29]

Mrs Sinmayee Kumari Devi, M S Kalpana Badhei, (2015) conducted a study on impact of Structured Teaching Programme (STP) among the mothers of newborn regarding prevention of neonatal hypothermia in Odisha. It was inferred that STP was the best teaching strategy in imparting on prevention of neonatal hypothermia which is commomly encountered in developing countries, can be prevented if mothers are educated through ongoing in teaching programme by nurses.[30]

Mrs. Malathi K (2015) conducted a study on effectiveness of structured teaching programme on knowledge regarding measures of thermoregulation in newborn among postnatal mothers. The mean percentage of postnatal score (78.7%) was higher than the mean percentage of pre test knowledge score (35.6%). The calculated paired 't' value is greater than the table value (0.05,49 df)=1.96. It showed a significant difference between mean pre and post test knowledge scores. The finding of the study revealed that there was a deficit in knowledge of postnatal mothers before administration of STP. The results indicates that the STP is effective in increasing the knowledge of postnatal mothers on measures of thermoregulation in newborn.[31]

Mr. Shrishail. B. Tambakad, Mrs. Sumitra. L A(2015)conducted a study on effectiveness of planned teaching programme (PTP) on knowledge regarding prevention of neonatal hypothermia among postnatal mothers. Based on the study the following conclusions were drawn. Over all pre test knowledge scores of mothers regarding prevention of neonatal hypothermia was low, which suggested that there is need for planned teaching programme. Post test results shown that there is significant improvement in the level of knowledge. It can be concluded that planned teaching programme (PTP) was effective method of teaching the mothers to improve their knowledge regarding prevention of neonatal hypothermia.[32]

Elizebeth, Vinitha, Prabavathy, Vishnu Priya, Sriram, Anbarasi, Sagundala Devi (2015) conducted a study to assess the knowledge on kangaroo mother care among mothers of low birth weight babies have a moderately adequate knowledge regarding kangaroo mother care. Analysis also proved that there is no relation between the knowledge and the demographic variables. Health education can have significant in improving knowledge and practices regarding kangaroo mother care among all the mothers.[33]

Avadhesh Kumar, Mameshi Shrivastava, Shamshad Ahmad, O.P. Upadhyay (2015) conducted a study on knowledge and practices of newborn care among postnatal mothers in Tertiary Care Hospital of Varanasi. The study was conducted under certain objectives to assess the cultural practices and belief on newborn care among mothers and to associate with demographic variables. Inspite of the fact that most of the mothers were literate, harmful newborn care practices were common. Maternal education and income status play an important role in their knowledge and practices regarding newborn care.[34]

Pushpamala Ramaiah and Abeer Mokhtar Bero Mokh (2016) condyucted a study to determine the knowledge and practice regarding kangaroo mother care among postnatal mothers of preterm babies at Rural Centres of India. It was concluded that there is need to improve the knowledge and practice with regard to KMC, hence the self-instructional module was developed for the maternity centre's to improve the wellbeing of neonatal care of preterm babies.[35]

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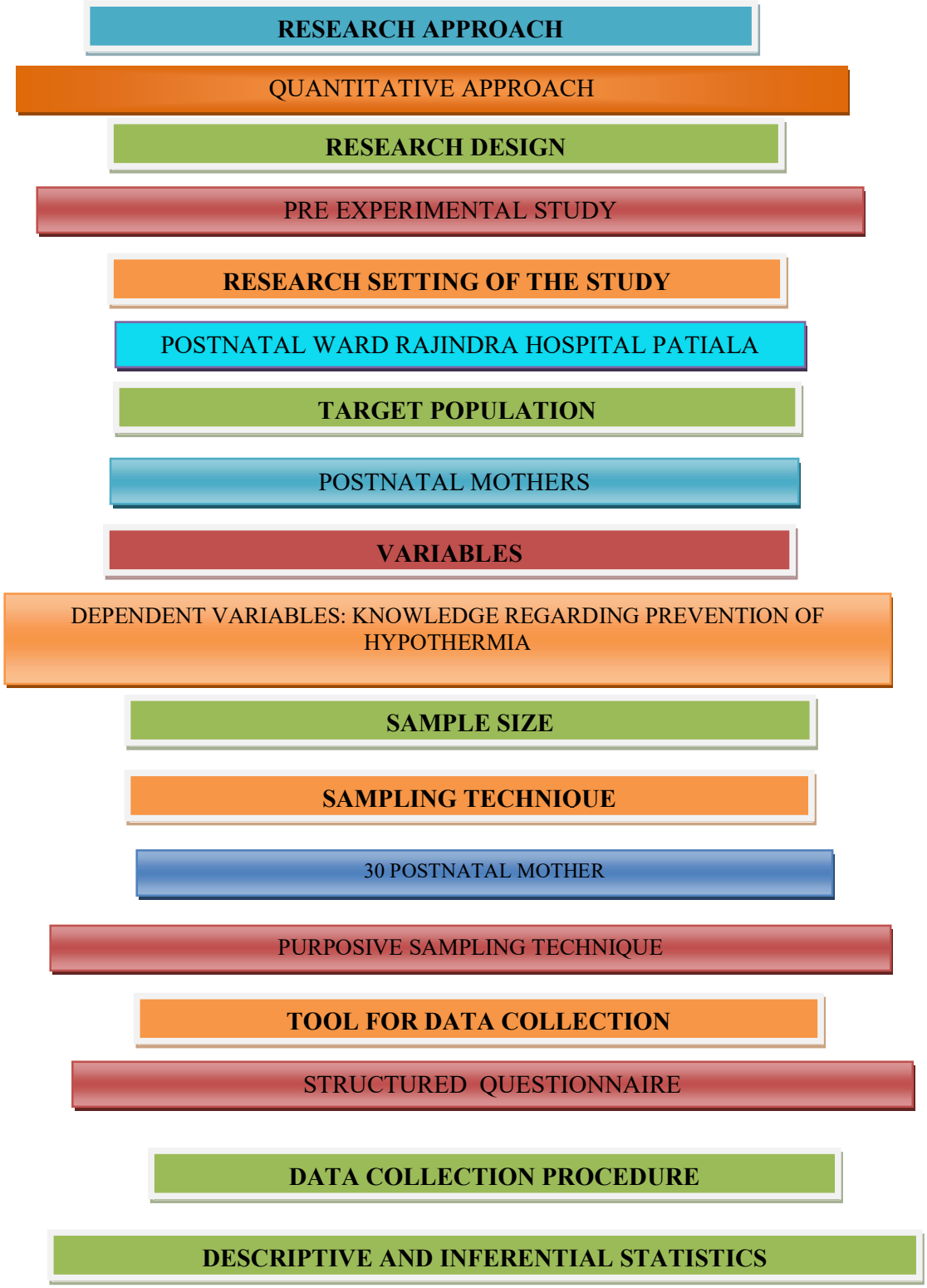
Schematic Representation of Methodology



Methodology

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This chapter deals with the methodology adopted for the study to assess the effectiveness of information booklet regarding prevention of hypothermia in neonates among postnatal mothers at Rajindra hospital Patiala. This chapter include the description of the :-

1. Research approach:-

In this study Quantitative research approach was adopted.

2. Research design:-

Pre- experimental one group pre-test and post-test design is used.

1. Postnatal mothers willing to participate in the study.
2. Postnatal mothers Present during data collection.
3. Postnatal mothers who have a live child birth.
4. Postnatal mothers who are able to understand Punjabi

5. Sample size:-

The sample size of the study will comprises to 30 postnatal mothers.

6. Sampling techquine:-

Purposive sampling technique will be used in the study.

7. Research variables:-

1. Dependent variables:-

Knowledge regarding prevention of hypothermia.

2. Independent variables:-

Information booklet regarding prevention of hypothermia.

3. Extranous variables:-.Demographic variables:

Age, Education, Occupation, area of residence, family income, source of information.

8. Criteria for sampling selection Inclusion criteria:-Inclusion criteria are haracteristics that the prospective subjects must have if they are to be included in the study.

9. Selection and development of tool

The tool was developed on the basis of literature review and personal experience of the investigation in the Pediatric.

The tool was used for collecting the background information include age, education, occupation, area of residence , family income, source of information. The structured knowledge questionnaire will be administered as a tool for the present study. Tool was selected after reviewing the related literature and after the consultation with experts in concerned field.

Experimental group→ Pre test →Treatment → Post test

[No control group]

3. Research setting:-

Postnatal mothers admitted at Rajindra hospital Patiala. This hospital have super-speciality department s which provide tertiary level care to patients .

4. Target Population:-

The target population was postnatal mothers of neonates at Rajindra hospital, Patiala.

10. Description of tool:-

Structured questionnaire which consist of two parts :-

Part 1:-This section was the first section seeking information in socio demographic status :- age ,education, Occupation, area of residence, family income, source of information .

Part 2:-Structured questionnaire on knowledge regarding prevention of hypothermia. This consist of questions to assess the knowledge regarding prevention of hypothermia in neonates.

11. Content validity:-

The content validity of tool was confirmed by the8 experts .Selected from fields of specialization in child health and child health nursing and obstetrics nursing.

12. Pilot study:-

The pilot study was conducted with 10% of total sample population in labour room at Rajindra hospital Patiala

13. Reliability of tool:-

It was conducted by using split half technique:

Tool Reliability: 0.97

14. Ethical consideration:-

Prior to the study ethical clearance was obtained from the concerned authorities,

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Medical superintendent of Rajindra hospital Patiala.

15.Data collection:- Identification of subjects and the precise systematic gathering of information relevant to the research purpose or specific objectives , questions or hypothesis of a study .

- Formal permission was obtained from concerned authorities .
- The investigator had introduced the group and purpose of the study.
- The investigator had obtained written consent from study participants.
- Demographic data was assessed.
- Knowledge regarding prevention of hypothermia was assessed by using structured questionnaire.

16. Data Analysis

Descriptive statistics:- Descriptive statistics was used to describe the basic features of the data in study. It provides simple summaries about the sample and the measures. Together with simple graphic analysis, they form the basis of virtually every quantitative analysis of data.

Frequency, percentage distribution was used for describing socio demographic variables and level of knowledge .

- Mean percentage and standard deviation was used to describe the knowledge
- Paired T test was used to check knowledge of postnatal mothers regarding prevention of hypothermia.

Inferential statistics:-

Non-parameter chi-square test was used to find out the association between demographic variables and knowledge of postnatal mothers .

17. Summary:-This chapter include the research approach, research design, research setting, target population, sample size, sampling technique, research variables, criteria for sampling selection, selection and development of tools, description of tool, content validity, pilot study, reliability of tool, ethical consideration, data collection and data analysis.

Analysis And Interpretation Of Data

This chapter deals with analysis and interpretation of data collected from a sample of 30 postnatal mothers at Government Rajindra hospital Patiala, Punjab.

The analysis and interpretation was done in accordance with the objectives laid down for the study. The data was analyzed by calculating the score in terms of mean, mean percentage, standard deviation and paired 't' test . Chi square was used to assess the association of knowledge score with demographic variables. The level of significance chosen was $p<0.05$.

Objectives:

1. To assess the pre-test knowledge regarding prevention of Hypothermia in neonates among postnatal mothers.
2. To assess the post-test knowledge regarding prevention of Hypothermia in neonates among postnatal mothers.
3. To compare the pre-test and post-test knowledge regarding prevention of hypothermia in neonates among postnatal mothers.
4. To find out association of post-test knowledge regarding prevention of Hypothermia in neonates with selected socio-demographic variable.

Section-1

Socio-demographic data of subjects

Table 1

Frequency and percentage distribution of subjects according to socio-demographic variables

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Sample Characteristics	Experimental Group	
	F	%
Age (in years)		
18-23	7	23.33%
24-29	19	63.33%
30-35	04	13.33%
Education:		
Up to matric	20	66.66%
Senior Secondary	05	16.67%
Graduation or above graduation	05	16.67%
Occupation		
Home maker	26	86.66%
Health professional	01	3.33%
In other field	03	10.00%
Area of Residence		
Slum	00	00
Rural	22	73.33%
Urban	08	26.66%
Family income (per month)		
≤Rs.10,000 /-	16	53.33%
Rs.10,000-Rs.20,000	13	43.33%
Rs.20,000 or above	01	3.33%
Source of information		
Family/friends/relatives	15	50.00%
Mass media	04	13.33%
Health personnels	08	26.66%
No information	03	10.00%

Table 1 shows the frequency and percentage distribution of subjects according to socio-demographic variables.

According to age, majority of the subjects i.e. 19(63.33%) was in the age group of 24-29 years, followed by 7(23.33%) was in the age group of 18-23 years and remaining 4(13.33%) was in the age group of 30-35 years.

In relation to education, majority of the subjects i.e.20(66.66%) was educated up to matric level, followed by 5(16.67%) of subjects was educated up to senior secondary level and remaining5(16.67%) are graduate or above.

In respect to occupation, majority of the subjects i.e. 26(86.66%) are house wife, followed by 01(3.33%) of the subjects was in the health profession and in other field 3(10%).

In terms of area of residence, majority of subjects 22(73.33%) was from the Rural areas followed by 8(26.66%) in urban areas.

As per monthly income of family, 16(53.33%) subjects was in income group of < Rs10,000, 13(43.33%) subjects was in Rs.10,000-Rs.20,000 income group, remaining 1(3.33%) was in the income group of Rs.20,000 or more.

In relation to source of information, majority of subjects 15(50.00%) had acquired information from family, friends, relatives, 8(26.66%) had acquired information from health personnelsand4(13.33%) had acquired information from mass media,3(10%) had no information

Section Ii

Objective 1: To assess the pre-test knowledge regarding prevention of Hypothermia in neonates among postnatal mothers.

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Table 2.1: Pre-test knowledge regarding prevention of Hypothermia among postnatal mothers.

N=30

Level of knowledge	Knowledge score	F	%
Good	21-30	00	0.00%
Average	11-20	12	40.00%
Poor	0-10	18	60.00%

Maximum score = 30

Minimum score = 0

Table 2.1 Depicts the pre-test knowledge regarding prevention of Hypothermia in neonates among postnatal mothers. In pre-test, majority of postnatal mothers 18 (60.00%) have poor knowledge, followed by 12(40.00%) who had average knowledge and no subject had good knowledge regarding prevention of Hypothermia in neonates.

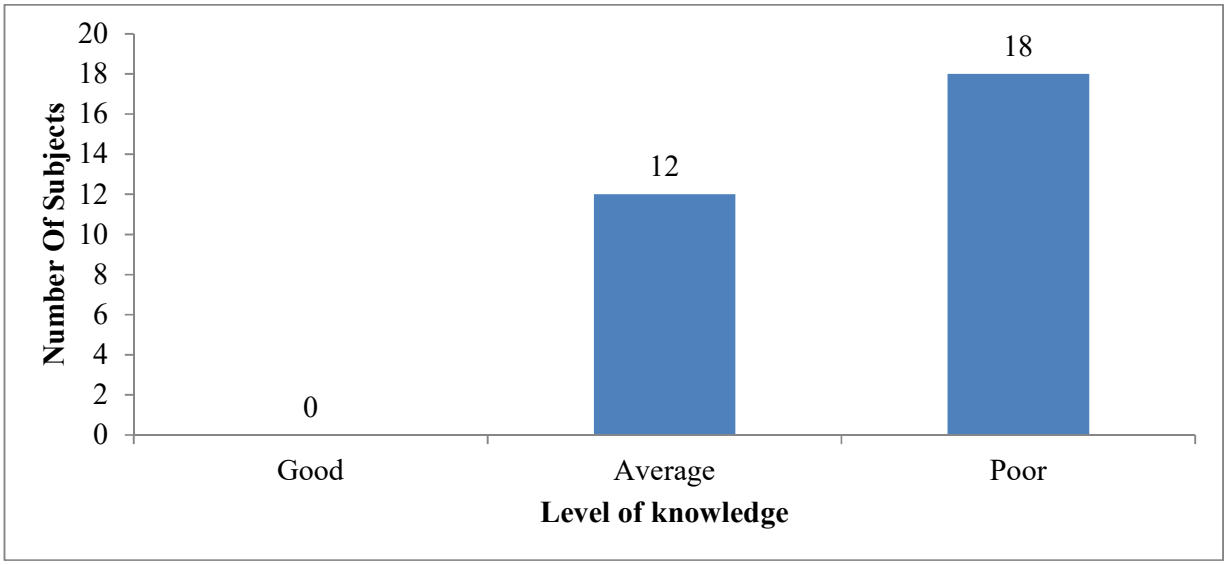

Fig.no.2.1Bar graph showing percentage distribution of pre test level of knowledge regarding prevention of Hypothermia in neonates among postnatal mothers.

Objective 2: To assess the post-test knowledge regarding prevention of Hypothermia in neonates among postnatal mothers.

Table 2.2 : Post-test knowledge level regarding prevention of Hypothermia in neonates among postnatal mothers.

N=30

Level of Knowledge	Knowledge score	F	%
Good	21-30	14	46.66%
Average	11-20	15	50.00%
Poor	0-10	01	3.03%

Maximum score=30

Minimum score=0

Table 2.2 shows that in post-test, majority of postnatal mothers 15(50.00%) had average level of knowledge, followed by 14(46.66%) had good level of knowledge and only 1(3.03%) had poor level of knowledge regarding prevention of hypothermia in neonates.

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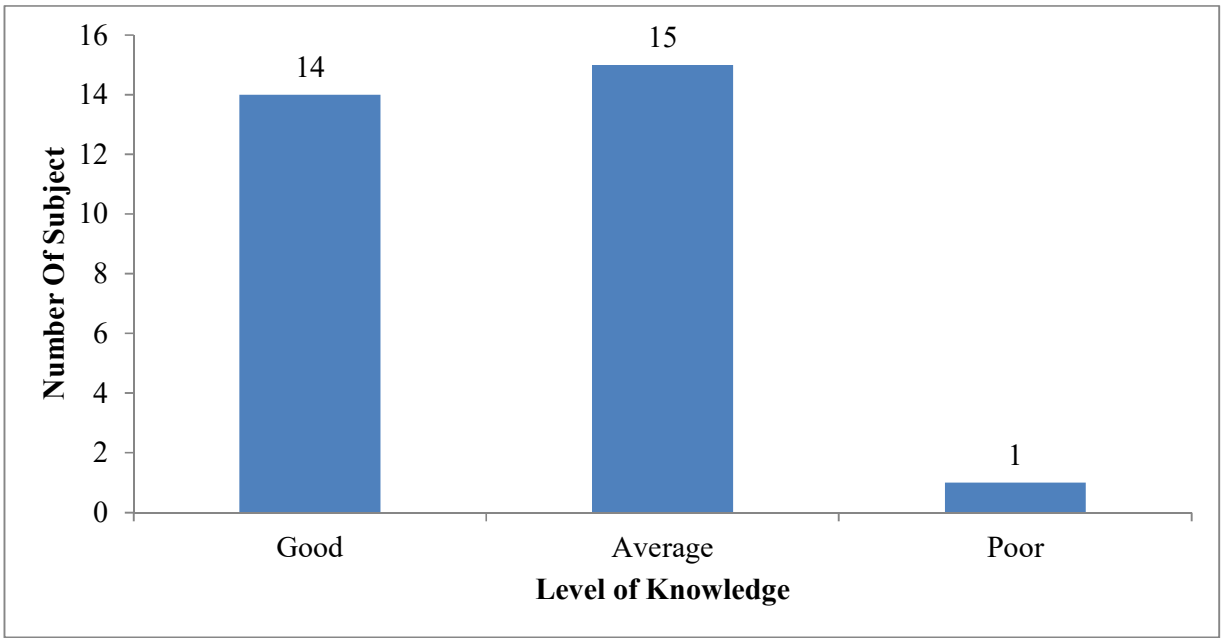

Fig.no.2.2 Bar graph showing frequency distribution of Post-test level of knowledge regarding prevention of Hypothermia in neonates among postnatal mothers.

Objective 3: . To compare the pre-test and post-test knowledge regarding prevention of hypothermia in neonates among postnatal mothers.

Table 3.1 : Comparison of pre-test and post-test knowledge level regarding prevention of Hypothermia in neonates among postnatal mothers. N =30

Level of knowledge	**Knowledge score**	**Pre-test group knowledge**		**Post-test group knowledge**	
		F	**%**	**F**	**%**
Good	21-30	00	00.00%	14	46.66%
Average	11-20	12	40.00%	15	50.00%
Poor	0-10	18	60.00%	01	3.03%

Maximum score =30
Minimum score = 0

Table 3.1 shows that in pre-test, majority of subjects 18(60.00%) had poor level of knowledge but in post-test 1(3.03%) had poor level of knowledge. In pre-test 12(40.0%) had average level of knowledge but in post test

15(50.0%) had average level of knowledge. In pre test 0(0.00%) had good knowledge but in post test 14(46.66%) had good level of knowledge.

Hence it was concluded that after providing the information booklet maximum subjects had average level of knowledge.

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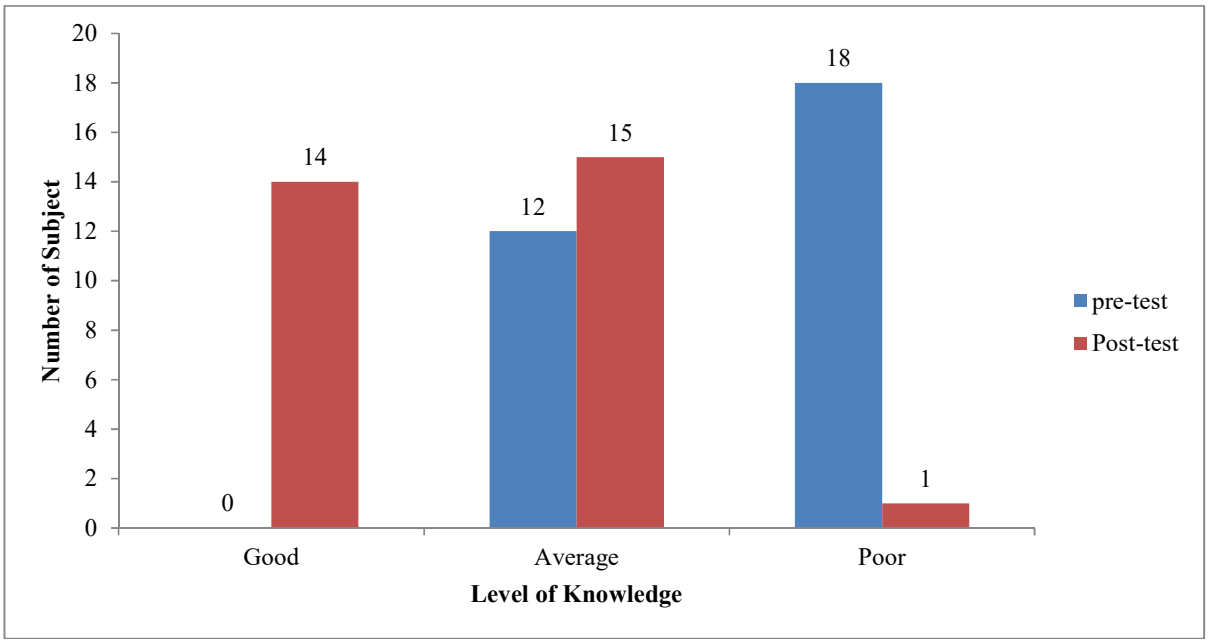

Fig.no.3.1 Bar graph showing the Comparison of percentage of pre-test and post-test knowledge level regarding prevention of Hypothermia in neonates among postnatal mothers.

Table 3.2 Comparison of pre-test and post-test knowledge score regarding prevention of Hypothermia in neonates among postnatal mothers.

T-test		Mean score	S.D.	T-test	Table Value At 0.05	Result
Knowledge score	**Pre-test**	10.02	3.51	10.1	2.05	Significant
	Post-test	20.30	3.01			

**significant (p<0.005)
NS- Non significant

Table no.3.2 shows that T-test value is 10.1, more than table value that was 2.05 at the 0.05 level of significance and the mean score of pre-test knowledge was 10.02 and the mean score of post –test knowledge was 20.30. There was significance difference in pretest and posttest knowledge regarding prevention of hypothermia in neonates among postnatal mothers at government Rajindra hospital Patiala, Punjab.

Section III

Objective: 4 to find out the association of post-test knowledge regarding prevention of Hypothermia in neonates among postnatal mothers with selected socio-demographic variables.

Table 4.1: Association between demographic variables and level of knowledge regarding prevention of Hypothermia in neonates among postnatal mothers.

Variables	Level of knowledge			Chi square	Df	Table value	Result
	Good	Average	Poor				

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Age (yrs) 18-23 24-29 30-35	 4 8 3	 3 10 1	 0 1 0	1.956	4	2.78	Not Significant
Education Up to matric Senior secondary Graduation or above graduation	 9 2 3	 10 3 2	 9 2 3	0.95	4	2.78	Not Significant
Occupation Home maker Health professional In other field	 12 0 1	 13 1 2	 1 0 0	1.267	4	2.78	Not Significant
Area of Residence Slum Rural Urban	 0 9 5	 0 12 3	 0 1 0	1.29	4	2.78	Not Significant
Family income <Rs.10,000/- Rs.10,000-20,000/- Rs.20,000-or above	 8 6 0	 8 6 1	 0 1 0	2.352	4	2.78	Not Significant
Source of information Family/friends/relatives Mass media Health personnels No information	 5 0 7 2	 9 4 1 1	 1 0 0 0	11.27	6	2.45	Significant

***p<0.05 S (Significant)**
NS- Not Significant

Table 4.1 Shows the association between the level of knowledge and socio demographical variables. The calculated value of chi squarewas11.27more than the table value 2.45 at df 4, with 0.05 level of significance in source of information, that's why this value was significant. There was no association between other demographic variables age, education, occupation, area of residence, level of knowledge and family income.

Discussion

The present study had been undertaken with a view to evaluate the knowledge of postnatal mothers regarding prevention of Hypothermia in neonates. This chapter relates the findings of the present study in accordance with the studies done earlier. The findings of the present study have been discussed in accordance with the objectives of this study.

In the first section of analysis, socio-demographic variables of postnatal mothers showed that majority of postnatal mothers were in age group of 24-29 years19 (63.33%). Minimum of subjects were educated up to matric 20(66.66%). Most of postnatal mothers

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were house wife 26(86.66%). Majority of subjects had family monthly income ≤10,000 Rs. 16(53.33%). Maximum of subjects had acquired information from family, friends and relatives 15(50.00%).Most of the subjects area of residence was rural area 22(73.33%).

Dr.Lucy A Meska (2013) conducted a cross sectional study to assess the knowledge and practices towards selected aspects of essential newborn care among postnatal mothers at Juba Teaching Hospital. The study reveals that mean age of the mothers was 26.2 (50±6.3) years. Only 45 (11%) mothers attained tertiary education. The antenatal history revealed (66%) mothers had at least 4 ANC only 70 (18-20%) mothers knew that umbilicus should be left uncovered. More than 346(91.1%) mothers knew of breast feeding on demand, 309(80.5%) mothers knew of exclusive breast feeding and use of colostrums was known by (83.9%) mothers. Maintenance of thermoregulation identified by the mothers included kangaroo care 128(33%) and warm clothing 347(90%). The study concluded that adequate knowledge was found towards breastfeeding with knowledge gaps existing in cord care, thermoregulation.[13]

In the second section of analysis, pre-test knowledge among married women was assessed and it was found that majority18 (60.00%) of subjects had poor level of knowledge regarding prevention of hypothermia in neonates and minimum 12 (40.00%) had average level of knowledge and 0(0.00%) subjects had good knowledge regarding prevention of hypothermia in neonates.

Mrs. Malathi K (2015) conducted a study on effectiveness of structured teaching programme on knowledge regarding measures of thermoregulation in newborn among postnatal mothers. The mean percentage of postnatal score (78.7%) was higher than the mean percentage of pre test knowledge score (35.6%). The calculated paired 't' value is greater than the table value (0.05,49df)=1.96. It showed a significant difference between mean pre and post test knowledge scores. The finding of the study revealed that there was a deficit in knowledge of postnatal mothers before administration STP. The results indicates that the STP is effective in the knowledge of postnatal mothers on measures of thermoregulation in newborn.[31]

In post-test level of knowledge among postnatal mothers, it was found that most of subjects 15(50.00%) had average knowledge regarding prevention of hypothermia in neonates and half of subjects 14(46.66%) had good knowledge regarding prevention of hypothermia in neonates. So it is concluded that there is enhancement in the knowledge of postnatal mother with the effectiveness of information booklet.

Mr. Mathews. P.Joy (2010) conducted a study to evaluate the effectiveness of structured teaching programme on knowledge regarding prevention of hypothermia among mothers of neonates admitted in selected Paediatric hospital Bangalore. In the pre test maximum mothers had (63%) average knowledge where as in the post test (93%) mothers had good score (77). AV aids was an effective strategy in imparting knowledge to postnatal mothers in prevention of hypothermia.[20]

In the third section of analysis, it was found that among postnatal mothers the pre-test knowledge score (mean was 10.02) and post-test knowledge score (Mean was 20.30).It is concluded that the difference in the knowledge score among post natal mothers in the pre-test and post-test was statistically significant at < 0.005.(The T-test value was 10.1)

In the fourth section of analysis, there was significant association between post-test knowledge among postnatal mothers with the source of information (the chi-square value was 11.27 that was more than table value 2.45).But there was no association between post-test knowledge among postnatal mothers with the age, education, occupation, area of residence and family income.

Haftom Gabrehiwot Misgna, Haftu Berhe Gebru and Mulugeta Molla Birhanu (2014) conducted a study on knowledge, practice and associated factors of essential newborn care at home among mothers in Golomekada District, Eastern Tigray, Ethiopia. The finding about essential newborn care, knowledge and

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practice of mothers revealed that 80.4% had good knowledge and 92.9% had good practice. Most mothers had good knowledge on temperature maintenance, breast feeding initiation and first bathing time. In addition to their knowledge, almost all mothers practiced the main essential newborn care except a substance (oil and butter) application to the cord stump. The majority of mothers apply oil and butter on the cord stump which may lead to many neonatal infections. 98% mothers had ANC follow up though 18.2% mothers are still delivered at home. Similarly, knowledge of essential newborn care, place of residence and occupation are significantly associated with mother's practices of essential newborn care.[29]

Summary, Conclusion and Recommendation

This chapter gives a brief account of the study undertaken including conclusion drawn from the findings, limitations, implication of the study and recommendation for the future research.

Research problem:

"A pre-experimental study to assess the effectiveness of information booklet regarding prevention of hypothermia in neonates among postnatal mothers at Government Rajindra hospital Patiala, Punjab."

Objectives:

1. To assess the pre-test knowledge regarding prevention of Hypothermia in neonates among postnatal mothers.
2. To assess the post-test knowledge regarding prevention of Hypothermia in neonates among postnatal mothers.
3. To compare the pre-test and post-test knowledge regarding prevention of hypothermia in neonates among postnatal mothers.
4. To find out association of post-test knowledge regarding prevention of Hypothermia in neonates with selected socio-demographic variable.

Hypothesis

H_1: There will be significant difference in pre-test and post test knowledge score of postnatal mothers regarding prevention of Hypothermia in neonates.

H_2: There will be significant association of posttest knowledge score of post natal mothers regarding prevention of Hypothermia in neonates with selected demographic variables.

Null Hypothesis

H_{01}: There will not be significant difference between pre test and post test knowledge score of regarding prevention of Hypothermia in neonates postnatal mothers

H_{02}: There will not be significant association of post-test knowledge score of postnatal mother regarding prevention of Hypothermia in neonates with selected demographic variables.

Conclusion

Out of 30 subjects, in pre-test majority 18(60.00%)had poor knowledge score,12(40.00%) subjects had average knowledge and the remaining 0 (0.00%) had good knowledge score of postnatal mothers regarding prevention of hypothermia in neonates. But in the post-test, postnatal mothers at Government Rajindra hospital, Patiala, The most of subjects ,15(50.00%)had average knowledge, followed by 14(46.66%) had good knowledge and the remaining 1(3.03%) had poor knowledge score. There was significant association of demographic variables,source of information (11.25 was more than the table value 2.45) and between the level of knowledge of postnatal mothers.

Implication of the study:

The study findings have certain very important implication for the nursing profession that is nursing education, nursing practice, nursing administration and nursing research.

Nursing Education

The present study has implications on nursing education. The study findings reveled that there is a deep impact of health awareness through information booklet on the level of knowledge of postnatal mothers. The nursing curriculum should lay stress on prevention of hypothermia in neonates. The health awareness program developed during this study may be used by the student nurses as a

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tool to carry out health education session in the Hospital.

Nursing Services

The tool developed during this study further helps to identify the knowledge level of postnatal mothers regarding prevention of hypothermia in neonates. The health personnel and nursing student can educate the postnatal mothers regarding prevention of hypothermia in neonates.

Nursing Administration

The need of well organized health awareness is felt to promote the knowledge among postnatal mothers regarding prevention of hypothermia in neonates. The nursing administration should organize information booklet to educate the postnatal mothers regarding prevention of hypothermia in neonates**.**

Nursing Research

The information contained in present study can be valuable source of data for further researches. It can help them in conducting research with large sample size. Nursing students should actively conduct research in this field so as to become aware of the prevention of hypothermia in neonates and will help to educate the postnatal mothers regarding prevention of hypothermia in neonates.

Recommendations

1. The study can be replicated on large sample to validate and generalize its findings.
2. A comparative study can be carried out between subjects in postnatal mothers at Government Rajindra hospital, Patiala.
3. An exploratory study can be done to assess the knowledge and practices of postnatal mothers regarding prevention of hypothermia in neonates.
4. A true experimental study by randomization can be done to further substantiate the results obtained.

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