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Study to Assess the Knowledge Regarding Prevention of Hypothermia in Newborns among Postnatal Mothers in Selected Hospital, Jaipur, Rajasthan, India.

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Abstract*: Newborn period is from birth to first 28 days. It is crucial period for the survival of the baby. A timely care to be provided to that newborn, if certain things are not done in time, it will not affect the survival of that baby, but it may carry some bad effects throughout his/her life*

Newborn babies are particularly susceptible to heat loss because of the following factors; they lose heat via evaporation after birth as the amniotic fluid, the water around the baby, evaporates from his skin. The other factors are radiation, conduction, and convection2. Heat loss in newborn is an important factor that needs to be taken into account when caring for a newborn baby. Neonatal hypothermia as a factor contributing to morbidity and mortality risk of newborn has been recognized by WHO. According to WHO 2014 hypothermia occurs when the newborn body temperature drops below 36.5°C (97.7°F) generally because the environment is too cold for the baby. The newborn with a temperature of 36.0-36.4 °C(96.8-97.5°F)is under cold stress(mild hypothermia).A baby with a temperature of 32.0-35.4°C(89.6-96.6°F)has moderate hypothermia, while a temperature below 32°C(89.6°F) is considered to be severe hypothermia. For each of these classifications, there are guidelines in place for responding to or managing hypothermia. .

1. Introduction

Despite the improvements in child-survival over the past 25years, there is still virtually no effective health care system for newborn in developing countries. The issue of neonatal deaths is a serious national health concern, especially in developing countries where 96% of the World's approximates 5 million annual neonatal deaths occur (WHO 2014). India's current neonatal mortality rate of 44 per 1000 live births represents 1.2million children who die each year accounting for 30% of world's neonatal deaths (World Bank2014).

It is estimated that annually 17 million neonates have Hypothermia in developing countries. According to UNICEF 2014 during 1989-2013, a total of 16,555 deaths in the United States, an average of 720 per year, were attributed to exposure to excessive natural cold.

Hypothermia is associated with a number of adverse effects and complications. When the body temperature is below the normal level, the infant is at risk from cold stress. This can cause complications such as increased oxygen consumption, lactic acid production, apnoea, decrease in blood coagulability and the most commonly seen hypoglycaemia. Basic techniques for keeping new-borns warm include keeping them dry, wrapping them in blankets or mummifying, giving them woollen and cotton caps and clothing, or increasing the ambient temperature. More advanced techniques include use of skin-to-skin "kangaroo mother care" "rooming in" etc. Indian mothers are not aware about new-born hypothermia and measures of thermoregulation due to various factors such as ignorance, lack of knowledge, low socioeconomic status, etc. Nurses play a vital role in prevention of new-born hypothermia during the hospitalization of postnatal mothers.

2. Statement of the Problem

A study to assess the knowledge regarding prevention of hypothermia in newborns among postnatal mothers in selected hospital jaipur, Rajasthan, India.

3. Objectives

To assess the knowledge regarding prevention of hypothermia in new born among postnatal mothers

To find out an association between knowledge and Selected demographic variables.

4. Operational Definition

Assess

Assess refers to process of the critical analysis, valuation and judgment of the knowledge of postnatal mothers regarding prevention of hypothermia.

Knowledge

It refers to awareness and understanding of postnatal mothers regarding prevention of hypothermia.

Hypothermia

It is the condition in which the body's core temperature drops below that required for normal metabolism and body functions.

Newborn

It refers to neonates until 28 days after birth, includes both normal, low birth weight and pre-terms in selected hospitals Jaipur.

Postnatal Mother

It refers to the women admitted in the postnatal wards after delivering a live baby in selected hospitals, Jaipur.

5. HYPOTHESIS:

- H1-There will be significant association between knowledge regarding prevention of hypothermia in newborn among postnatal mothers and selected demographic variables.

6. DELIMITATIONS:

The study was delimitated to:

- The study wass delimited to 100 postnatal mothers in selected hospital, Jaipur.
- The study was delimited to postnatal mothers who were willing to participate in the study.
- The study was delimited to postnatal mothers who had undergone normal delivery.

7. Sample Characteristics

- Findings revealed that the highest percentage 68% were in the age group of 23-28 years, 18% were in 29-34 years, remaining both age groups up to 20 years and 35 years or above have 11% and 3%.
- Distribution of the postnatal mothers according to their religion reveals that 70% of postnatal mothers were Hindu, 18% were Muslims, 10% were Christian and 2% were belongs to Sikh.
- Distribution of the postnatal mothers according to their educational status reveals that 44% of the postnatal mothers were in the category of up to secondary education, 35% had senior secondary education, 19% were graduates, and 2% were postgraduates.
- Distribution of the postnatal mothers according to their occupation reveals that 72% were housewife, 15% were private employees, and 13% were govt. employees.
- Distribution of postnatal mothers according to their number of children reveals that 46% have 2 children, 24% have 1 child, 21% have 3 children and 4% have 4 or more children.
- Distribution of the postnatal mothers according to type of family reveals that 68% were belongs to joint family, 32% were belongs to nuclear family.
- Percentage distribution of the postnatal mothers according to their family income per month revealed that 45% belonged to Rs 5001-10,000 income group, 30% of them belonged to Rs, up to 5000 income group, 20% of them belong to Rs, 10001-15000 income group and only 5% of them have income above Rs. 15000 per month.
- The analysed data regarding previous knowledge regarding prevention of hypothermia in newborn, of the postnatal mothers reveals that 13% had got information from health personnel and 87% had no information regarding prevention of hypothermia in newborn.
- The analysed data regarding utilization of antenatal services reveals that highest percentage 70% of postnatal mothers were utilizes services of government agencies, 19% utilize services of private nursing homes, 6% utilizes health services from clinics and 5% from voluntary health agencies.

8. Knowledge Scores of Participants on Prevention of Hypothermia in Newborn

- Level of knowledge of postnatal mothers showed that 4% of the postnatal mothers had poor knowledge regarding prevention of hypothermia in newborn, 49% had average knowledge, 42% of the postnatal mothers had good knowledge and 4% had excellent knowledge regarding prevention of hypothermia in newborn.
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- Overall knowledge of postnatal mothers was 60.03% with mean knowledge score was 18.01 and median was 19 with standard deviation was 4.70 and the knowledge score were in the range of 23-10. It showed that postnatal had good knowledge regarding prevention of hypothermia in newborn.

- The fact was supported by a study done by Wonny Donna L on newborn care among primiparous mothers and found that 63% mothers had adequate knowledge regarding newborn care.
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- Area wise analysis of knowledge score of postnatal mothers indicated that maximum knowledge score was 74.67% in the area of prevention and management of hypothermia in newborn, 45.75% in the area of causes and risk factors, 38.75% in the area of meaning and definition, 31.5% in the area of signs and symptoms of hypothermia and 28% in the area of complications of hypothermia in newborn.
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- The data showed that majority of postnatal mothers had poor knowledge regarding, signs and symptoms and complications of hypothermia in newborn.

9. Association of Knowledge Scores and Selected Demographic Variables

- There is a significant association between the knowledge score of postnatal mothers and selected demographic variables like age of the participants $\chi 2 = 16.92$ ($P<0.05$), educational status $\chi 2 = 18.12$ ($P<0.05$), type of family $\chi 2 = 9.08$ ($P<0.05$), number of children $\chi 2 = 17.92$ ($P<0.05$) and previous knowledge regarding prevention of hypothermia $\chi 2 = 9.29$ ($P<0.05$). Hence the research hypothesis is accepted at the 0.05 level of significance.
- There is no significant association between the knowledge level of postnatal mothers and selected demographic variables like family income $\chi 2 = 15.8$ ($P>0.05$), occupation $\chi 2 = 2.62$ ($P>0.05$), religion $\chi 2 = 9.6$ ($P>0.05$) and utilization of antenatal services $\chi 2 = 6.33$ ($P>0.05$). Hence the research hypothesis is rejected at the 0.05 level of significance.

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