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A Study To Assess The Knowledge and Practice of Postnatal Mothers Regarding Neonatal Care in Selected Rural Areas Under Hessargatta PHC, Bangalore-North

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Abstract

Introduction and Objectives: Newborn/Neonate babies constitute the foundation of life. The neonate period refers from birth to 28 days of life. This period necessitates the provision of a conducive environment normally by the mother and to develop a good mother baby relationship. First week of life is the crucial period in the life of an infant. The normal neonate continues to adapt to extra uterine life in the first weeks after delivery, remaining vulnerable to airway obstruction, hypothermia, hypoglycemia and infection. This necessitates the provision of an environment that is optimal for physiological needs. The provision of this environment, normally by the mother is sustained by the developing mother-baby relationship. This study was conducted to assess the knowledge and practice of postnatal mothers regarding neonatal care in selected rural areas under Hessargatta PHC Bangalore- North. The objectives of the study are to determine the level of knowledge and practice of postnatal mothers regarding neonatal care. Find the association between knowledge and practice score with selected demographic variables. Find the correlation between knowledge and practice and develop information booklet on neonatal care.[1]

Methodology: Descriptive survey approach was adopted. To collect the data structured interview schedule was prepared and administered to 70 postnatal mothers of neonates based on the purposive sampling technique at selected rural areas under Hesargatta PHC, Bangalore-North. The tool consisted of section- A consist of Demographic variables consisting 12 items, section-B consist of 3 knowledge items with 30 questions and section-C consists of 11 items with 35 questions. The Reliability of the tool was established.

Results: About the distribution of knowledge scores of postnatal mothers regarding neonatal care, majority 59(84.28%) had inadequate knowledge. 9(12.86%) had moderate knowledge and 2(2.86%) had adequate knowledge regarding neonatal care. About the distribution of knowledge of practice scores of postnatal mothers regarding neonatal care, majority 39(55.71%) had average knowledge, 29(41.43%) had poor knowledge and 2(2.86%) had good knowledge regarding neonatal care.

Interpretation and conclusion: The overall knowledge and practice scores of postnatal mothers were 84.28 percent and 55.71 percent respectively. This is found to be average knowledge and practice. Wherever there is lack of knowledge or practice a information guide sheet will be provided to the mothers.

Conclusion: This study enables us to understand that the postnatal mothers had some knowledge and practice regarding neonatal care. The Mothers were more enthusiastic in seeking information regarding neonatal care.

Keywords: Assess, Knowledge and practice, Postnatal mothers, Descriptive study.

Introduction

"A healthy child is a sure future" is the WHO themes."

Plea of The Baby at Birth

I have come from an extremely warm, quiet and comfortable abode Protect me at birth from microbes and cold

I am wet and naked, dry me, cover me, please me under a heater

I don't know how to smile, let me announce my arrival with a cry

Don't hurt me, but gently clean my wind pipe to let me cry

Don't give infection but give me breath to save my life

I have been swimming all there in womb don't be in hurry to bath me in the labour room.

Children are the future of the nation. Today's children are tomorrow citizens. Only healthy citizens can build up a healthy nation. Hence, the focus of every citizen should be to promote his health and safeguard his interest.

Every child should be allowed to achieve his optional growth and development potential. So that he can effectively contribute towards the nation's productivity. A newborn baby's survival is dependent on his ability to adapt to an extra uterine environment. The transition from intrauterine to extra uterine life is a dramatic one and demands considerable and effective physiological alterations by the baby in order to ensure survival. The fetus leaves the uterine environment, which has been completely life sustaining for oxygenation, nutrition, excretion and thermoregulation. The aquatic amniotic sac has permitted movement but freedom to extend the limbs has been limited towards the end of pregnancy as the size of the capacity of the uterus. Though the fetus is sensitive to sound, the dim uterine environment has dulled the impact of the noise of the outside world.[2]

The future of our nation depends on the way is which we nurture our children today. More than 1/3t of all child deaths throughout the world occur in just the first 28 days of life. The newest component of the global child survival programme is to develop interventions to reduce neonatal mortality and morbidity. Thus, the public health community has focused increasingly on the vulnerably first year of life as an important key to this battle. The rate of deaths among newborn has remained nearly static. 60% of births worldwide take place in the home, and many more in poor regions. Therefore, an interesting fact which has emerged is that neonatal mortality is indirectly proportional to the birth occurring at home. So, successful interventions required an integrated to approach to identify feasible as well as effective practices regarding care given to the newborn.[3]

Every minute 50 babies are born in India accounting for 25 million births every year almost 3 neonates die every minute leading to 5 million neonate’s death every year. The current neonatal mortality rate is 47 per 1000 live births (WHO publication 2000). The neonatal mortality rate is high in most of the states. But, it is even higher in the problem states of Uttar Pradesh, Madhya Pradesh, Bihar, etc. At the national level the project is giving

priority to preventive essential care for normal newborns. Certain proven cost effective intervention is known example maternal toxoid, promotion of clean deliveries, breast feeding, temperature maintenance and recognition of severe illness.

Neonatal mortality accounts for more than half the infant mortality [95 per 1000 live birth] in India, which is 3-4 times more than that in western countries. Thus poor neonatal care is responsible for many deaths even during later childhood. In studies conducted in the different states namely, Punjab, Nepal and Andhra Pradesh there are certain traditional practices that still prevail regarding neonatal care like, the new born has bathed with cold water, after bath the powder is instilled to the eyes. Warmth is provided to the newborn by exposing the infant to the sun. The infant is put to her mother breast on the 3rd day after birth following a ceremony to clean the mother's nipple etc.[4]

In short, prompt and essential neonatal care given by mothers which is basically based on sound knowledge and good practices can bring down the neonatal mortality and morbidity rate. The government of India with support of world bank has introduced a national programme called "reproductive and child health programme" in which component of neonatal care is stressed on more in order to concentrate on and reduce the neonatal mortality rate by providing essential neonatal care. The challenge of preventing this high tool of lives has been the focus of major initiatives by the government of health professionals in recent years. As neonatal sepsis, birth asphyxia and pre- maturity are leading causes of neonatal deaths in home cared rural neonates, a major reason for the high newborn mortality is the lack of care at birth. Thus improved neonatal care can lead to better infant survival. As the mother is the key person in maintaining the health status of her child, the knowledge, skills and practices of the mother should be enhanced to provide essential neonatal care.[5]

All the neonates have certain needs that must be met for them to thrive and take their place in society. There are nine universal needs of the newborn infant that is, a clear airway, established respiration, warmth, protection from haemorrhage, protection from infection, identification and observation, nourishment and fluids, love- parent attachment and rest. The WHO guidelines for essential newborn care encompasses cleanliness, thermal protection, initiation of breathing, early and exclusive breast feeding, eye care, immunization, management of illness and care of low birth."[6,7]

Neonatal mortality rate contributes to the major part of infant mortality rate. In India 50-60% of all infants deaths occur within the first month of life. That is nearly half of all deaths before the age of one year occur during the neonatal period. It may be due to prematurity or low birth weight, birth asphyxia, neonatal tetanus or sepsis and also due to lack of knowledge of mothers regarding neonatal care. According to Department of Women and Child Development survey (2008), neonatal mortality rate was 37.1%/1000live births in Karnataka.[8]

Department of community medicine, Manipal College of Medical Sciences, Pokara, Nepal, conducted a study on home delivery and newborn care practices among urban women in western Nepal. A cross-sectional survey was carried out during January- February 2006. Two trained health workers administered a semi-structured questionnaire to the mothers who had delivered at home. A total of 240 mothers were interviewed, planned home deliveries were 140(58.3%) and 100(41.7%) were unplanned. The umbilical cord was cut after expulsion of placenta in 154(64.2%) deliveries and cord was cut using a new/boiled blade in 217(90.4%) deliveries. Mustard oil was applied to the umbilical cord in 53(22.1%)

deliveries. Only 100(45.8%) Newborns were wrapped within 10 minutes. Among all 16 (10.8%) did not feed colostrum to their babies. Pre-lacteal feeds were given to 37(15.2%) newborn babies. Initiation rates of breast feeding were 57.9% within one hour and 85.4% within 24 hours. It was observed that the mother's education has a positive impact on the newborn care practices than any other factors.[9]

During the Community Health Nursing clinical postings in villages under Hessarghatta PHC, investigator noticed certain wrong practices that were followed by care givers and mothers such as, neonates were not clothed adequately, application of kajal, feeding honey, castor oil, water and sugar to newborn. And also investigator observed some other beliefs and practices regarding neonatal care like fire, water, grains and equipment like knives are placed under the bed for 40 days so as to protect the infant from evil spirit. This could be due their inadequacies in knowledge regarding neonatal care.

Many studies were assessed by the investigator in various settings inside and outside Karnataka, but no such study was conducted in the similar settings. This stimulated the investigator to take up the study in given setting. As harmful and wrong practices followed by mothers and caregivers without the basis of scientific knowledge have proved fatal to the life of the neonates which has to change. As the mothers are key person to identify minor illness of the newborn like hyperthermia, umbilical cord infection/bleeding, respiratory tract infection, discharge from the eyes etc. Therefore, the investigator felt a strong need to assess knowledge and practice of postnatal mothers regarding neonatal care and to develop an information booklet in this regard.

A study reported that the benefits of kangaroo care for mothers are less defined. Early intervention to help mothers recognize infant cues and to understand infant behaviour are particularly beneficial for promoting and bonding attachment and maternal competence, especially for mothers in difficult social situation. The study describes how kangaroo care for the mother and her newborn may have helped facilitate the mother's transition to motherhood despite challenging circumstance.[10]

A cross-sectional survey was done regarding selected newborn care practices related to cord care, thermal care and breast feeding in rural Uttar Pradesh and included 13,167 women who had a live birth at home during the two years preceding data collection. Logistic regression was used to identify socio demographic, antenatal and delivery care factors that were associated with the three care practices. The associations between newborn care practices and antenatal care, counselling and skilled delivery attendance suggest that evidence based newborn care practices can be promoted through improved coverage with existing health services."[11]

A study was conducted regarding proposed guidelines for skin-to-skin treatment of neonatal hypothermia also called kangaroo care. An intervention in which the unclothed diapered infant is placed on the mother's bare chest. Skin-to-skin care has been recognized as a way to facilitate maternal-infant attachment and promote thermoregulation. Based on findings the researcher concluded that the research supports the use of skin-to-skin care as an alternative to traditional rewarming. The evidence was graded and organized into an evidence-based practice guideline for the uses of skin-to- skin care in the treatment of mild hypothermia in the low risk neonates."[12]

A study conducted by Department of Community Medicine, Malmma Azad Medical College Delhi regarding newborn care practices in the urban slum of Delhi by interviewing 82 mothers of newborn in the

study area The result reveals that bathing the baby immediately after birth was commonly practiced in 38(82.6%) of home deliveries. Fingers were used to clean the air passage in most of the home deliveries 29(63%). About 61% (28) of the home delivered newborns were not weighed at birth. Rooming in was practiced in majority of the cases. A few of home delivered neonate (12) were given injection tetanus toxoid by unqualified practitioners. Based on results there is an urgent need to reorient health care providers and to educate on clean delivery practices and early neonatal care.[13]

A case control study was conducted on 150 healthy, full-terms new born and their mothers to compare the incidence of omphalitis among three groups, each using a different type of newborn cord care: povidine- iodine, dry care and topical human milk. Outcome was measured in terms of the presence or absence of omphalitis and the number of days elapsed before cord separation. An ongoing questioner was administrated by telephone every other day after the participants left the hospital. In addition to demography information, the cord separation day and any signs of omphalilis were recorded in the questioner. There were no significant differences between the three groups in terms of ompalitis occurrence. The study concluded that the cultural practice of applying human milk to the umbilical and the cord stump appears to have no adverse effects and is associated with shorter cord separation times than are seen with the use of antiseptics"[14]

A prospective descriptive study was conducted regarding the neonatal Bowel output study by group of researchers. Indicators of adequate breast milk intake in neonates during the K-day study period mother kept a long of their infants daily naked weight number of feeding number of daily bowel movement and color of all bowel movement one hundred thirty one participants were enrolled in the study findings indicated that move bowel movement per day during the first 5days following birth were significantly associated with less initial weight loss earlier transition to yellow bowel movement earlier return to birth weight and heavier weight at kadays.[15]

A study conducted on home deliver and new born care practices among urban women in west Bengal. A cross sectional survey was carried out in the immunization clinics of pokhar city. Two trained health workers administered a semi-structured questionnaire to the mothers who had delivered at home. A total of 140 mothers were interviewed, planned home delivers were 100 and 40 were un planned. Only 6.2% of deliver had a skilled birth attendant present and 15.8% mothers gave birth alone 16.2% women had used a clean home delivery kit, the umbilical cord cut after expulsion of placenta in 54 delivers and cord was cut using new blade in 86 deliveries. Mustard oil applied to the umbilical cord in 53 delivers, only 87 new born were rapped within 10 mint and 23 were rapped with 30 mint majority 93.8% of the new born were given a bath son after birth, mustard oil massage of the new born was a common practices 76 mothers don't feed colostrums to their babies. Pre lacteal feeds were given to 20 new born initiation rate of breast feeding were 57.9% with in 1 hours 85.4% with in 24 hours he concluded high risk home deliver and new born care practices are common in urban population and also practice sly like delay wrapping, bathing, mustard oil massage, pre lacteal feeding and discarding colostrums need to be addressed by culturally acceptable community-based health education programs.[16]

A study carried out in a slum cum resettlement Colony (Area-I) and four villages (area-II) of Delhi. Management of the newborn by the 25 functioning traditional birth attendants who conducted 83.64% deliveries in area-1 and 16.22% in area-II was studied. Majority of TBA's did

not have the concepts of washing hands before conducting PV examination or deliveries. Most of the TBA's i.e. 21 out of 25 used a razor blade to cut the umbilical cord of which 9 used a fresh blade. No TBA left the cord untied. Vigorous patting in upright and also after holding the baby upside down was the commonest (68%) method of neonatal resuscitation. All TBA's massaged and bathed the baby everyday. Majority of the TBA's 18 out of 25 referred the baby to a health agency for immunization though they did not know the exact schedule.[17]

A study conducted which aim is to evaluate the effect of an essential newborn care training program for maternity ward staff in improving newborn care practices after hospital discharge. The intervention was a 4-day training program and primarily aimed at increasing knowledge and skills and skills of ENC among health care providers in the maternity hospitals. Before the intervention, 144 mothers - newborn pairs were followed up and interviewed at their households within 28-35 days of delivery. Three months after the intervention, 150 mother infant's pairs were interviewed at home. Results revealed that there was a significant improvement in umbilical cord care practices at home following the intervention.[18]

A study was done on effect of home-based neonatal care on neonatal morbidities in the intervention arm of the field trial in rural Gadchiroli by comparing the early vs. late periods and the possible for these effects. They collected data by making home visits during pregnancy, home deliver and during neonatal period they estimated the incidence and burden of neonatal morbidities over the three year these data they observed the home-based neonatal care and health reduced the incidence and burden of neonatal morbidity by nearly half.[19]

A study was conducted to examine the effect of early skin to skin contact between mothers and their healthy full term babies on initiation and duration of breast feeding. A randomized controlled trial comparing skin to skin with routine care was done in 204 mother and baby pairs, 102 randomized to each group. He found in the skin to skin 91% babies had a successful first feed compared with 83% in the routine care group. The [4:30 pm, 15/7/2024] Thanking God: difference between the groups in the success rate for the first Breast feed and rates at four months was not statistically significant.[20]

Material and method

This study was descriptive in nature. It aims at finding out the existing knowledge and practices of postnatal mothers regarding neonatal care in selected rural areas under Hessargatta PHC. Setting of the study was in selected rural areas under Hessargatta PH. The population of the study consisted of postnatal mothers having normal healthy and living neonates. The sample is of 70 postnatal mothers who have normal healthy and living neonates.

Purposive Sampling Technique was considered appropriate for this study. Purposive Sampling Technique was selected on the judgment of the researcher to achieve particular objectives of the research on hand.

Description of tool

A structured interview schedule and check list was prepared to assess the knowledge and practice of postnatal mothers regarding neonatal care after extensive reading of related literature on neonatal care, Research advisors and experts in the field of obstetric and child health were also consulted.

Check list was structured list was structured into 3 parts:

Section A: Dealt with demographic data which included variables like age, Religion, educational status f mother and husband, occupational Status of mother and husband, income, type of family.

Section B: Consists of check list assessing the

knowledge of postnatal mother Regarding neonatal care.

This section has 3 items:

- Thermal care
- breast feeding
- prevention of infection

Sampling technique

The scoring was designed as follows, with respect to the structured questionnaire cach question had three options, one mark was allotted for the right response and no mark was awarded for the wrong answer. The total score allotted was 30 marks.

- Inadequate knowledge : < 50%
- Moderate knowledge : 50-75%
- Adequate knowledge: > 75%

Section C: This section consists of check list regarding practices followed by Postnatal mothers regarding neonatal care and has 11 items. The number of questions under various heading was given below

- Maintenance of temperature.
- Early and exclusive breast feeding.
- Cord care.
- Elimination.
- Hygiene
- Growth and Development
- Immunization.
- Maternal Care
- Psychosocial Aspects
- Minor Ailments
- Traditional Practices

Scoring technique

The scoring was designed as follows, with respect to the structured questionnaire each question had Yes/No options, one mark was allotted for the right response and no mark was awarded for the wrong answer. The total score allotted was 35 marks.

- Inadequate knowledge :< 50%
- Moderate knowledge :50-75%
- Adequate knowledge :> 75%

Testing of tool

Validity

The content validity of the tools was obtained based on the opinion of a Paediatrician and seven experts from the field of Community Health Nursing. 80% of the items were agreed by the experts and the remaining 20% items were modified based on the suggestion of experts.

Reliability

To ensure the reliability of the tool, it had been administered to 10 postnatal mothers who were not included in the main study. The reliability of internal consistency was assessed by split half method by using Kari Pearson correlation by deviation method.

The reliability co-efficient knowledge and practice of postnatal mothers (r=0.8) both of which showed a positive correlation and indicated that the tool was reliable for the study

Pilot study

Pilot study is defined as a small version of a proposed study conducted to refine the methodology (Nancy Burns, 2000). Pilot study is a small preliminary investigation of the same general characters as the major study, which is designed to acquaint the researchers with the problem that can be corrected in preparation for a larger project. After having obtained formal administrative approval from the medical officer of Hessargatta PHC, Bangalore. Participants were informed about the purpose of the study and consent was taken. Pilot study was conducted in rural areas, Bangalore North. The respondents who were selected for the pilot study were excluded from the main study.

Findings of the pilot study

The investigator selected ten postnatal mothers by

random sampling technique they were exchided in the actual study. The reliability co-efficient knowledge and practice of postnatal mothers (r=0.8) both of which showed a positive correlation and indicated that the tool was reliable for the study.

Procedure for data collection

Formal permission was obtained from the concerned authority to conduct the study. Consent was obtained from each subject after giving assurance of confidentiality. Permission from the concerned authority: Formal permission was obtained from Medical Officer of Hessargatta PHC to conduct main study.

Ethical consideration

For this study the investigator took into consideration the ethical issues. No ethical issues raised by conducting this study.

- Prior permission was obtained from Medical Officer to conduct the main as well as Pilot Study.
- Written informed consent was obtained from the study samples with request form. Explanation regarding the purpose of the study was given.
- The subjects were informed that the confidentiality of the data will be maintained.
- The subjects were informed that their participation was purely on the basis and they can withdraw from the study at any time.

Plan for data analysis: The data were analyzed in terms of the objectives of the study using Descriptive and Inferential Statistics.

Descriptive and Inferential Statistics

- Frequency and Percentage distribution of Demographic Variables were done.
- Mean, Mean Percentage and Standard Deviation were used to determine the level Knowledge and Practice of Postnatal Mothers.
- Correlation coefficient will be used to study the correlation between knowledge and practice.
- Chi-square test was used to find out association Knowledge and Practice and the Selected Demographic Variables.

Research hypothesis

RHI- There will be significant difference in the level of knowledge of postnatal mothers regarding neonatal care.

RH2- There will be significant difference in the knowledge of practice of postnatal mothers regarding neonatal care.

RH3- There is significant association between the knowledge and practice of postnatal mothers regarding neonatal care with selected baseline variables such as age of the mother, religion, education of mother and her husband, occupation of mother and her husband, family monthly income, type of family, parity, place of delivery, sex of the child.

RH4- There will be significant correlation of knowledge and practice of postnatal Mothers regarding neonatal care.

Organization of study findings: Both Descriptive and Inferential Statistics were used to analyse the data. Analysis is organized under the following headings.

Section A: Demographic Variables of mothers.

Section B: Assessment of knowledge of postnatal mothers regarding neonatal care.

Section C: Assessment of practice of postnatal mothers regarding neonatal care.

Section D: Association of knowledge of postnatal mothers regarding neonatal care with their selected demographic variables.

Section E: Association of practice of postnatal mothers regarding neonatal care with their selected demographic variables.

Section F: Correlation between knowledge and practice

of postnatal mothers regarding neonatal care.

Description of Demographic Profile of the Sample

This section deals with distribution of participants to the Demographic characteristics. The obtained data on Demographic Profile are described under the following subheadings which include Age of mother, Religion, Education status of mother, Education status of husband, Occupation of mother, Occupation of husband, Family monthly income, Type of family, Parity, Place of delivery and Sex of the child. The data was analyzed by using Descriptive Statistics and are summarized in terms of Frequency and Percentage.

Section A: Demographic Variables of Postnatal Mothers

Table 1: showing Frequency and Percentage distribution of Demographic Variable-Age in years

Demographic variable	Frequency number	Percentage
Age of Mother a. Below 19	10	14.29
b. 20-24 years	43	61.42
c. 25-29 years	14	20.00
d. 30 and above	3	4.29

The above table shows that maximum number of participants 43 (61.42%) were in the age group of 20-24 yrs, 14 (20%) were in the age group of 25-29 yrs age, 10(14.29%) were in the age group of below 19 yrs and 3 (4.29%) were in the age group of 30yrs and above.

Table 2: showing Frequency and Percentage distribution of Demographic variable- ReligionN-70

Demographic variable	Frequency number	Percentage
Religion a. Hindu	50	71.43
b. Muslim	12	17.14
c. Christian	1	1.43
d. Others	7	10.00

The above table shows Religion wise distribution of respondents, in this majority 50 (71.43%) of the women belong to Hindu religion, 12 (17.14%) were Muslims, 1 (1.43%) of the mothers belong to Christian and 7 (10. %) were belong to other religion.

Table 3: showing Frequency and Percentage distribution of demographic Variable-Education of motherN-70

Demographic variable	Frequency number	Percentage
Education of Mother a. Illiterate	5	7.14
b. Primary Education	7	10.00
c. Secondary Education	19	27.14
d. PUC	35	50.00
e. Graduation	4	5.72
f. Post-graduation	0	0.00

The above table shows that 35(50%) of participants have completed their Pre- University, 19(27.14%) their Secondary Education, 7(10%) their Primary Education, 5(7.14%) are Illiterate and 4(5.72%) have completed Graduation.

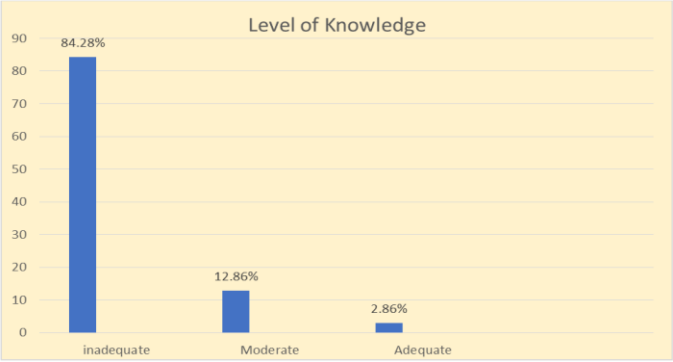
Table 4: showing Frequency and Percentage distribution of Demographic Variable-Type of familyN-70

Demographic variable	Frequency number	Percentage
Type of family a. Nuclear	16	22.86
b. Joint	54	77.14

The distribution of Type of family depicts that majority 54(77.14%) of the families were Joint families and 16(22.86%) were Nuclear families.

Section B: Assessment of Knowledge of Postnatal Mothers Regarding Neonatal Care

Graph 1: showing Knowledge of Postnatal mothers regarding Neonatal care.N-70



The above figure shows the distribution of knowledge scores of Postnatal mothers regarding Neonatal care. Overall Majority 59(84.28%) had Inadequate Knowledge, 9(12.86%) had Moderate Knowledge and 2(2.86%) had Adequate Knowledge regarding Neonatal care. So the research hypothesis (RH,) is accepted.

Table 5: showing Range, Mean, Mean% and SD of Knowledge among Postnatal mothers regarding Neonatal care

Domain	Statement	Max Score	Range	Respondents level of Knowledge		
				Mean	SD	Mean %
Knowledge	30	30	4 -25	10.91	3.81	36.38

The above table presents the Mean, Mean Percentage and Standard Deviation of Knowledge scores of postnatal mother regarding Neonatal care. The Mean scores of postnatal mothers regarding neonatal care is 10.91, Mean Percentage is of 36.38% and SD is of 3.81.

Section-C: The Knowledge of Practice of Postnatal Mother Regarding Neonatal Care.

Table 6: shows Knowledge of Practice of Postnatal mothers regarding Neonatal care. N-70

Level of Practice	Respondents	
	No.	%
Poor (<50%)	29	41.43
Average (50-75%)	39	55.71
Good (>75%)	2	2.86

The above table shows the distribution of knowledge of practice scores of postnatal mothers regarding neonatal care. Overall Majority 39(55.71%) had Average Knowledge, 29(41.43%) had Poor Knowledge and 2(2.86%) had Good Knowledge regarding neonatal care. So the research hypothesis (RH_2) is accepted.

Discussion

The findings of the study have been with reference to the objectives, hypothesis:

The first objective of the study was to assess the level of Knowledge among Postnatal mothers regarding Neonatal care

Among 70 postnatal mothers Majority 59(84.28%) had Inadequate Knowledge, 12.88%) had Moderate Knowledge and 2(2.86%) had Adequate Knowledge regarding Neonatal care. The overall Mean for level of Knowledge score of Postnatal mothers regarding Neonatal care is 10.91, Mean percentage is of 36.38% and SD of 3.81.

The second objective of the study was to assess the level of Practice of Postnatal mothers regarding Neonatal care

The assessment of practice showed that the Majority

39(55.71%) had Average Knowledge, 29(41.43%) had Poor Knowledge and 2(2.86%) had Good Knowledge regarding Neonatal care.

The third objective of the study was to determine the association of knowledge and practice with selected demographic variables.

Age of mother: Maximum number of participants 43 (61.42%) belong to 20-24 yrs age group, 14 (20%) belongs to below 25-29 yrs age group, 10(14.29%) belongs to below 19 yrs age group and 3 (4.29%) belongs to 30 and above yrs age group.

Religion: Majority 50(71.43%) of the women belong to Hindu religion, 12 (17.14%) were Muslims, 1 (1.43%) of the mothers belong to Christian and 7 (10. %) were belong to other religion.

Education of participant and husband: Majority 35(50%) of participants have completed their Pre-university, 19(27.14%) their secondary education, 7(10%) their primary education, 5(7.14%) are illiterate. and 4(5.72%) completed graduation.

Education wise distribution of participant's husband 22:31.43%) have completed their pre-university, 19(27.14%) have completed secondary education, 17 (24.29%) are illiterate, 6(8.57%) have primary education, 4(5.71%) have completed graduation. and 2(2.86%) have completed their post-graduation.

Occupation of mother: Maximum number of mothers 57(81.43%) were unemployed, 7 (10%) were practicing apiculture, 5(7.14%) were daily wagers and only 1 (1.43%) were private employed.

Occupation of participant husband: 30(42.86%) were practicing Agriculture, 19 (27.14%) were Daily wagers, 14(20%) were Self-employed, 5 (7:14%) were Private employed and only 2(2.86%) were Government employed.

Family income: The distribution based on family monthly income shows that 34 (50%) of participant had a monthly Income of Rs.2001-4000, 20 (28.57%) had a monthly Income below Rs.2000, 9(12.86%) had a monthly Income Rs of 4001-6000, 2(2.86%) had a monthly Income of Rs6001-8000 and 4 families were earning above Rs 8001.

Type of family: The distribution of Type of family depicts that Majority 54(77.14%) of the families were Joint families and 16(22.86%) were Nuclear families.

Parity: The distribution of Parity depicts that Majority 36(51.43%) of the mothers were Primipara and 34(48.57%) were Multipara

Place of delivery: The distribution of Place of delivery is that Majority 69(98.57%) of the mothers were delivered in Hospital and only 1(1.43%) of the mother delivered in Home

Sex of the child: The distribution of Sex of the child is that Majority 48(68.57%) of child were Male and 22(31.43%) of the child are Females.

The fourth objective of the study was to correlate between Knowledge and Practice of Postnatal mothers regarding Neonatal care.

The analyzed data reveals that Correlation Coefficient between Knowledge and Practice among the mothers the overall Mean score of Knowledge was 10,91 with SD 3.81 and overall Mean score of Practice was 18.18 with SD 4.36. This suggest a Positive Correlation between Knowledge and Practice (r=0.38) significant at 0.001 It indicates that if people's knowledge level will increase it will result in better practice.

The study was supported by Were F who had conducted knowledge and practice in an area in Uttar Pradesh. The findings of the study revealed that knowledge and practice was significantly correlated with education status (p less than 0.001).

Conclusion

The study was taken to asses the Knowledge of Postnatal mother regarding neonatal care in selected rural areas under Hessargatta PHC, Bangalore North. In the present study 70 postnatal mothers were selected using Purposive Sampling Technique.

The conclusion drawn from the study was as follows:

The majority of postnatal mothers participated in the study. The mothers had some knowledge regarding neonatal care. The mothers were more enthusiastic in seeking information regarding neonatal care. They gave free and frank responses regarding neonatal care. The study was based on Orem's self-care theory. It provides a comprehensive systematic frame work to enhance knowledge and practice regarding neonatal care. Further, conclusion was drawn on the basis of the findings of the study which includes:

1. Knowledge of postnatal mothers regarding neonatal care was inadequate.
2. Practice followed by postnatal mothers regarding neonatal care was moderate.
3. A statistically significant association was observed between Age of the mother, Educational status of Mother, Educational status of Husband, Occupational status of mother. Occupational status of husband, Type of family, Income. But, there was No Significant association between Level of Knowledge and Selected Demographic variable such as Parity, Place of delivery and Sex of child with Knowledge at 0.05 level of Significance.
4. A statistically significant association was observed between Age of mother, Educational status of Mother, Type of family, Income, Place of delivery. But, there was No Significant association between Level of Knowledge and Selected Demographic variable such as Religion, Occupational status of Mother, Occupational status of Husband, Parity and Sex of child with practice at 0.05level of knowledge.
5. There was a Significant Positive Correlation between Knowledge and Practice among Postnatal mothers regarding Neonatal care at 0.01 level of significance.

Nursing implications of the study

The findings of the study can be used in the following areas of nursing profession.

Nursing practice

- Nurses are the key persons of the health team, who plays a major role in health promotion and maintenance. Nursing care is an art and science in providing quality care. This study implies a basis for developing standards of care in the community.
- The nurse personnel need to prepare an information booklet regarding neonatal care which can be studied at home with other family members. This booklet should be clear, simple and understandable.
- The specific interventions such as thermal care, exclusive breast fooding. prevention of infection, care during minor ailments may increase hope and self-help practice and knowledge regarding neonatal care.
- Most of the postnatal mothers have some knowledge and some knowledge of practice regarding neonatal care. Health teaching is an integral part of nursing care delivery system. It can be imparted through mass media ie through radio. television, documentary files, pamphlets etc.

Nursing education

- The nursing curriculum should consist of content and activities like preparation of booklets, handouts, pamphlets regarding neonatal care.
- As a nurse educator, there are abundant opportunities for nursing professionals to educate the

mothers as well as their family regarding neonatal care in community area.

- The study emphasizes significance of short term in-service education programs for community health nurses related to health education regarding neonatal care.

Nursing Administration

- The nursing administrator can take part in conducting programmes to improve the knowledge and practice of postnatal mothers regarding neonatal care.
- The nursing administrator can mobilize the available resource personnel towards the health education to postnatal mothers and family members regarding neonatal care.
- The nurse administrator should take interest in providing information on neonatal care. She should be able to plan and organize programmes taking into consideration the cost effectiveness and carry out successful educational programmes.
- The nurse administrators should explore their potentials and encourage innovative ideas in the preparation of appropriate information modalities. She should organize sufficient manpower, money and material for disseminating health information. Necessary administrative support should be provided to conduct health education or written information to all.
- The nurse administrators can make provision for staff nurses to provide health education to the mothers and family members.
- Health education material such as, leaflets and pamphlets should be made available to antenatal and postnatal mothers.

Nursing Research

- This study helps the nurse researchers to develop appropriate health education tools for educating the mothers and families about neonatal care according to their demographical characteristics.
- The study will motivate the beginning researchers to conduct same study with different variables on the large scale. The public and private agencies should also encourage research in this field through materials and funds.
- Nursing research can help to identify the existing knowledge gap in the nursing profession. This will help to improve the quality and standard of nursing care hased on evidence-based practice.
- Nurse researchers can also take measures to implement findings of the present study to develop health teaching programmes, family teaching programmes on neonatal care.

Limitation

1. The study is confined to postnatal mothers who have delivered a healthy and living child.
2. The study is confined to postnatal mothers who have delivered a healthy and living child in selected rural villages under Hessargatta PHC.

Suggestions

The findings of the study suggest

- The nurse educators should improve knowledge of mothers through education programmes.
- The nurse educators should improve knowledge of practice of mothers through educational programmes.
- Adequate knowledge and practice about neonatal care will help a mother to overcome neonatal problems.

Recommendations

- A similar study can be undertaken with a larger number of samples to generalize the findings.
- A similar study can be undertaken with control group

design.

- A comparative study can be done in both rural and urban areas.

Summary

Newborn babies constitute the foundation of life, all new born infants have certain needs that must be met for them to thrive and take their place in society. During the Community Health Nursing clinical postings in villages under Hessargatta PHC, Imestigator noticed certain wrong practices that were followed by care givers and mothers such as, neonates were not clothed adequately, application of kajal, feeling honey, castor oil, water and sugar to newborn. And also investigator observed some other beliefs and practices regarding neonatal care like fire, water, grains and equipment like knives are placed under the bed for 40 days so as to protect the infant from evil spirit This could be due their inadequacies in knowledge regarding neonatal care.

Many studies were assessed by the investigator in various settings inside and outside Karnataka, but no such study was conducted in the similar settings. This simulated the investigator to take up the study in given setting. As harmful and wrong practices followed by mothers and caregivers without the basis of scientific knowledge have proved fatal to the life of the neonates which has to change. As the mothers are key person to identify minor illness of the newborn like hyperthermia, umbilical cord infection/bleeding, respiratory tract infection, discharge from the eyes etc. so this led the investigator for selecting this study a study to assess the knowledge and practice of postnatal mothers regarding neonatal care in selected rural areas under Hessargatta PHC

* RHI- There will be significant difference in the level of Knowledge of Postnatal mothers regarding Neonatal care.

RH2- There will be significant difference in the Knowledge of Practice of postnatal mothers regarding Neonatal care.

RH3-There is no significant association between the Knowledge and Practice of postnatal mothers regarding Neonatal care with selected baseline variables such as Age of the mother, Religion, Education of mother and her Husband, Occupation of mother and her Husband, Family monthly Income, Type of family, Parity, Place of delivery, Sex of the child.

* RH4- There will be Significant in the correlation of Knowledge and Practice of postnatal mothers regarding Neonatal care.

Identifies whether the respondents understood the wordings of questionnaire a to refine the instruments.

Findings of the pilot study.

The investigator selected ten postnatal mothers by random sampling technique they were excluded in the actual study. The investigator did not face any significant problem and the study was found feasible.

Major findings of the study: A. Findings related to demographic characteristics of the subjects.

Maximum number of postnatal mothers 43 (61.42%) belong to 20-24 yrs age group.

Majority 50 (71.43%) of the mothers belong to Hindu religion.

Majority 35(50%) of mothers have completed their Pre-university education.

Majority of participant's Husband 22(31.43%) have completed their Pre- University education.

Maximum number of mothers 57(81.43%) were Unemployed.

Majority of the Occupation status of participant's Husband 30(42.86%) were practicing Agriculture.

Majority 54(77.14%) of the families were Joint families.

Majority 35 (50%) of participant had an monthly Income of Rs.2001-4000.

Majority of parity depicts that 36(51.43%) of the mothers were Primipara.

Majority 69(98.57%) of the mothers were delivered in Hospital.

About the gender of babies born majority 48(68.57%) of children were Male

R. Findings related to Knowledge of Postnatal mothers regarding Neonatal care.

About the distribution of Knowledge scores of Postnatal mothers regarding Neonatal care, Majority 59(84.28%) had Inadequate knowledge. 9(12.86%) had Moderate knowledge and 2(2.86%) had Adequate knowledge regarding neonatal care. So the research Hypothesis (RH) is accepted.

C. Findings related to Practice of Postnatal mothers regarding Neonatal care.

About the distribution of Knowledge of practice scores of postnatal mothers regarding neonatal care, Majority 39(55.71%) had Average knowledge, 29(41.43%) had Poor knowledge and 2(2.86%) had Good knowledge regarding Neonatal care. So the research Hypothesis (RH,) is accepted.

D. Findings related to association between Demographic variables with Knowledge scores. The association between Knowledge score and Demographic variables was computed by using chi-square test. There was significant association between Age of the mother and knowledge score.

* There was significant association between Occupational status of mother and knowledge score.

* There was significant association between Occupational status of husband and knowledge score

There was significant association between Family income and knowledge score.

There was no significant association between Religion, Educational status of mother, Educational status of Husband, Type of family, Parity, Place of delivery and Sex of child with knowledge scores.

E. Findings related to association between Demographic variables with Practice scores.

There was significant association between Educational status of Husband with practice scores. There was significant association between Type of family with practice scores. There was significant association between Place of delivery with practice scores. There was no significant association between Age of the mother, Religion, Educational status of mother, Educational status of Husband, Family Income, Parity and Sex of the child with practice scores.

F. Findings related to Correlation between Knowledge and Practice of Postnatal mothers regarding Neonatal care.

There was a Positive Correlation between Knowledge and Practice of Postnatal mothers regarding Neonatal care at 0.001 level of significance (r = 0.38).

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