

The Study of Knowledge of Newborn Care among Primi Mothers at Savar Thana Health Complex

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ABSTRACT

This paper would like to focus on Knowledge of Newborn Care among Primi Mothers. It aims to look at the child health of Bangladesh. The study's objectives are to assess the newborn care knowledge of primi mother in a selected hospital, Thana health complex, Savar. To determine the knowledge about/regarding newborn care among primi mothers in Thana health complex, Savar has been discussed in this study. explore the attitude of mothers towards newborn care. This paper aims to assess the relationship between socio-demographic data and the knowledge of mothers regarding newborn care. It wants to assess the knowledge regarding thermoregulation; explore umbilical cord care; to assess skincare; to assess the knowledge about kangaroo care, and to assess the knowledge regarding feeding, etc. For this purpose, the study was conducted in Savar Thana Health Complex. It was a capacity of 140 beds hospital. After meeting all inclusion and exclusion criteria, the researchers conducted the study by going to the Savar Thana Health Complex of the selected participant. This setting has been chosen by random sampling because many primi mothers come to take any knowledge to take care of their newborn.

INTRODUCTION

Neonatal care refers to that care given to the newborn infant from the time of delivery through about the first month of life. The term 'neonate' is used for the newborn infant during these 28-30 days period. Those 28 days are critical and require some special care for newborns because they can be easily affected by many diseases. During these first 28 days of life, the child is at the highest risk of dying. Thus, it is crucial that appropriate feeding and care are provided during this period to improve the child's chances of survival and lay the foundations for a healthy life. Mostly neonatal death has happened in Bangladesh because mothers' education and awareness level are not so highly expended. The number of low-birth-weight babies becomes more day by day, and many more cannot survive long because of their lack of knowledge. Chhabra, Patil, Singh, & Sinha, 2014).

In Bangladesh, the neonatal mortality rate declined gradually from 94.1 deaths per 1,000 live births in 1969 (UNICEF. Bangladesh statistics, 2013) to 17.1 deaths per 1,000 live births in 2018 (WHO Neonatal Mortality. Situation and trends 2013). In this regard, newborn care is a comprehensive strategy designed to improve newborns' health through interventions before conception, during pregnancy, and soon after birth, and in the postnatal period. It is a set of recommendations outlined by the World Health Organization (WHO), which includes awareness of primi mother which are thermoregulation, clean delivery and cord care, initiation of breastfeeding, immunization, eye care, recognition of danger signs, care of the preterm/ low birth weight infant and management of newborn illnesses.

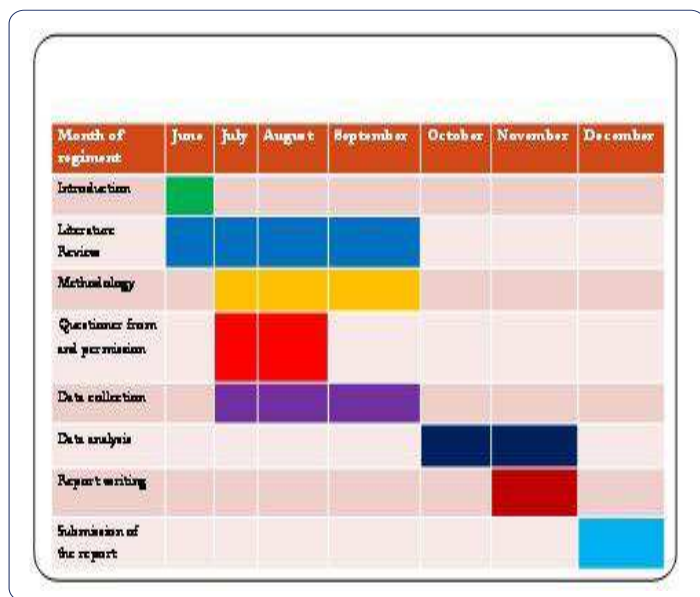
General objectives

The study's objectives are to assess the newborn care knowledge of primi mother in a selected hospital, Thana health complex, Savar. To assess the knowledge about/regarding newborn care among primi mothers in Thana health complex, Savar.

Specific objectives

- To assess the knowledge regarding newborn care among primi postnatal mothers.
- To explore the attitude of mothers towards newborn care.
- To assess the relationship between socio-demographic data and the knowledge of mothers regarding newborn care.
- To assess the knowledge regarding thermo regulation.
- To explore umbilical cord care,
- To assess skincare
- To assess the knowledge about the kangaroo care
- To determine the ability regarding feeding etc.

Log Frame



Literature Review

WHO has come up with the essential newborn care practices which are simple, has a cost-effective measure that can be used by both health care workers and the primary caregiver to ensure improved neonatal outcome? Components of the WHO essential newborn care practices include cord care, breastfeeding, thermoregulation, eye care, immunization, recognition of the danger signs, and care of the low-birth-weight infants.

Studies from various countries showed various substances, including cow dung, ash, oil, and butter, commonly applied on the umbilical cord to promote healing. Dore et al. recommended the practice of keeping the thread clean and dry without using anything. After the umbilical cord separates, minimal discharge is expected; therefore, the area should be kept clean and dry to promote healing. Mothers should be aware of umbilical cord infection signs such as pus discharge, reddening around the umbilical stump, and the surrounding skin. A Benin City Nigeria showed 71.2% of mothers were aware of cord care, 51.3% were influenced by the nurses, 32% by the mother, and 5.8% by the mothers-in-law. (Hadeya & Amal, 2017).

Another study conducted on 307 mothers in an urban slum in Nairobi, Kenya that mothers (91%) knew the need for hygiene during cord-cutting, only 28% knew about hygiene while tying the cord, 79% of mothers were afraid of handling the unhealed line. Less than 50% had good knowledge of postnatal cord care. Thermoregulation in neonates is one of the biological adjustments taking place at birth to maintain the average body temperature of 36.5-37.5°C.

A newborn regulates temperature much less efficiently than an adult and loses heat more quickly. Low birth weight and premature infants are at greater risk. The World Health Organization defined hyperthermia as the auxiliary temperature above 37.5°C and hypothermia below 36.5°C. Hypothermia is a life-threatening condition leading to neonatal mortality; therefore, prevention and hypothermia management are the critical interventions for reducing neonatal morbidity and mortality. Heat loss occurs through conduction, convection, radiation, and evaporation (WHO). A study done in Nigeria showed that neonatal hypothermia remained a significant problem in neonatal practices in sub-Saharan Africa and recommended using low-technical measures such as kangaroo care, hot water bottles, and warm room be lifesaving. (Reang & Bhattacharjya, 2014)

Immunization is the process whereby a person is made immune or resistant to an infectious disease by administering a vaccine. It is the most effective public health intervention that reduces morbidity and mortality from vaccine-preventable diseases; therefore, it plays a more significant role in attaining Millennium Development Goal 4. The Expanded Programme of Immunization was established by World Health Organization in 1974 to ensure universal access to the routine recommended childhood vaccine include BCG, Polio, DTP, measles vaccine-preventable against tuberculosis, poliomyelitis, diphtheria, tetanus, pertussis, and measles. The Ministry of Health South Sudan, Department of Child Health and Expanded Programme on Immunization offers routine immunization to the infant, including BCG live attenuated vaccine given at birth or within the first two weeks. The vaccine efficacy is estimated to be about 51% in preventing any tuberculosis disease. Up to 78% in protecting children from meningeal tuberculosis and oral polio or Sabin live attenuated given at birth. A study done in Kenya by Amolo revealed 17.8% of postnatal mothers identified BCG and OPV at birth, and 7% of postnatal mothers still believed vaccines are harmful. (Mandic, Jovanovic, Mandinic, Ivanovic, Kosanovic, Milicic & Toumb, 2018)

Breastfeeding is the standard way of providing infants with nutrients needed for healthy growth and development. Breast milk is the best milk for the newborn. The proportion of breastfed babies is high worldwide, and there are wide variations in the duration of breastfeeding, with sub-optimal breastfeeding practices still the norm in most countries. Initiation of breastfeeding within the first hour after birth and exclusively for six months of age, with continued breastfeeding and appropriate complementary feeds up to two years of age or beyond (WHO).

Delayed initiation of breastfeeding was found to be associated with increased neonatal mortality. Lack of exclusive breastfeeding substantially increases the risk of poor newborn and childhood outcomes. Globally less than 40% of infants under six months of age were exclusively breastfed.

In contrast, in South Sudan Household Health survey 2010 revealed 45% of infants under six months were exclusively breastfed compared to 21.1% in 2006. Breastfeeding is of benefit to both mother and newborn to the mother; immediate breastfeeding stimulates uterine contraction and delivery of the placenta; therefore, preventing postpartum hemorrhage and early newborn breastfeeding provides nutrition, warmth, and colostrum which contains immunological factors that prevent infections. (Norwood & Slayton, 2013)

Early detection of neonatal illness is an essential step towards improving newborn survival. Every year an estimated three million children die during their first month of life, and about one-third of these deaths occur during the first 24 hours. Most of these deaths occur at home, indicating that few families recognize danger signs of newborn illness. The majority of the neonate is not taken to the health care facilities when they are sick. A study done by Dongre et al. in India showed poor awareness of mothers regarding newborn danger signs and recommend the need for raising awareness building for early recognition and prompt treatment. (Wyne, 2007)

Methodology

A hospital-based cross-sectional study was conducted among primi mothers admitted in the postnatal ward at Savar Thana Health Complex between June 2019 to December 2019. In total, 100 primi mothers, based on their excellent mental status, registration in the record, and willingness to participate, were included in the study. Postnatal mothers who were highly sick, non-responsive, or lost their baby were omitted. Purposive sampling technique was used to select informed and consenting mothers following the questioner. Besides, the sample size for this study is determined by following the standard formula ($n = z^2pq/d^2$) to reach a universal sampling size. At a 95 percent confidence interval, the desired sample size reached 200. However, due to time and resource constraints, 100 patients were chosen randomly, meeting inclusion criteria.

Researchers collected data using a structured questionnaire through a face-to-face interview. Nevertheless, information on mothers' socio-demographic status, antenatal and postnatal period and knowledge, and newborn care attitudes were recorded following standard protocol. Moreover, the data were analyzed using the SPSS statistical software version 26.

Study Site

The study was conducted in Savar Thana Health Complex. It was a capacity of 140 beds hospital. After meeting all inclusion and exclusion criteria, the researchers conducted the study by going to the Savar Thana Health Complex of a selected participant. This setting has been chosen by random sampling because many primi mothers come to take any knowledge to take care of their newborn.

Study population

The study population or sampling? Consisted to primi mothers who are willing to take care of their newborn baby appropriately. Our goal is to assess their knowledge about their newborn babies' care at Savar Thana Health Complex.

Sample Size

The sample size should be large enough to represent the population. It should be as large as possible because the higher the likelihood that the sample is a true representative. Participants were selected through the following criteria: 6.1% prevalence for the main characteristic of the 95% confidence level, sampling error 5% here the confidence interval is (z)=1.96, the sampling error is (e)=0.05, total population (N)=60 and (q) means ($1-p$)=0.54.

According to this calculation, the standard simple was 382. But the researchers selected only 100 primi mothers for time limitation. The participants were selected based on inclusion and exclusion criteria. The formula is given below-

$$n = z^2pq / d^2$$

where,

n =sample size

z =standard normal distributaries with 95% confidential level 1.96

p =Proportion of dependent variables

=(Present proportion of primi mother knowledge about newborn care is 37%)

$$= 0.37\%$$

$$Q = 1 - p$$

$$= 1 - 0.37$$

$$= 0.63$$

d =decision or proportion of error

Usually set as 5%=0.05

Required sample size, $n = z^2pq/d^2$

$$= (1.96)^2 \times 0.37 \times 0.63 / (0.05)^2$$

$$= 3.85 \times 100$$

$$= 385$$

The study will conduct with 385 samples that will contact the inclusion and exclusion criteria. Is academic research and researcher got 6 months to complete the research and data collection is not enough? Within a short period of 358 participants, data collection is not practically possible. For this reason, 100 participants were selected as a sample group from the chosen area.

Sample Technique

During the collection of data, we investigators have taken permission from participants. A data collection form should be needed to enter the collected data from the participants, written consent should be taken. We collected data through a structured questionnaire. Primi mothers have been taken for our research. Our questionnaire was close-ended: "Assess The Knowledge about newborn care among primi mothers questionnaire" used to know the level of knowledge in a selected hospital, Savar Thana Health Complex. The time was fixed and the data based on participants' actual opinions. A Bengali demographic questionnaire was used to recognize the level of knowledge among primi mothers. The interview was face-to-face and provided the opportunity to observe participants' non-verbal expressions, which helps us understand that the participants understood the question. It took 10-20 minutes to collect data.

Data Collection

This is a quantitative cross-sectional study, and the questionnaire form is the structured question included for collecting data from the participant. Our goal to conduct the research study is to determine the relationship between newborn care knowledge within primi mothers. The investigators reviewed some of the relevant previous studies' questionnaires that helped to design the questionnaire to identify critical questions that needed to include. The questionnaire was prepared through the mixed question. In this questionnaire, we tried to keep questions very easy. The length of the question was short that could easily be answerable by participants. Investigator collected data from the questionnaire form and setup sequentially. The questionnaire was in two parts: socio-demographic information and another related to knowledge of newborn care among primi mothers.

Data analysis

Data entry and analysis were done using the Statistical Package for Social Science (SPSS) V.2. Information and data were collected and gathered for study. Firstly, every questionnaire's variables have defined variables names, type, size, numbers, level, values, missing, column, align and measure in variables view SPSS spreadsheet. After that, it is ready to input raw data in the SPSS spread sheet's data view. Next, the data of every participant has inputted in data view and checked for missing values. The investigators used frequencies in SPSS for finding the percentage of socio-demographic factors and knowledge of newborn care among primimothers' questionnaires by reverse scoring of positively worded item. Descriptive statistics were used to determine the relationship between quality of life with age, sex, marital status, educational level, social support and contract, economic condition, etc.

Ethical Consideration

Our researchers were fully aware of the ethical issues. We obtained permission from the head of the Nursing Department of CRP Nursing college. The researcher got permission from the selected hospital, Savar Thana Health Complex's local administration, to conduct the research. Written Consent was taken from the study participants. They all were informed about the aim of the study. We took permission from the structured questionnaire's authority by using knowledge of newborn care among primi mothers to use for this study. Confidentiality was strictly maintained. We were available to answer any survey related to questions or inquiries from the participants. They were right to withdraw their selves from the study at any time.

Results

The study aims to identify the level of knowledge about newborn care among primi mothers at Savar Thana Health Complex. Data were numerically coded using an SPSS V.26 software program. The collected data were calculated as percentages and presented by using Bar, Pie, and Table Chart. After collecting 100 primi mothers from Savar Thana Health Complex, many data types of differentiated data were found in the Savar Thana Health Complex. In this study, so many factors have been justified, such as Age, Maternal Occupation, Educational level, etc.

Age of the participants		
Age	Frequency	Percent
18-20	35	35%
21-23	40	40%
24-25	25	25%
Total	100	100.0

Table 1: Caption: Age range of the participants. Socio-demographic characteristics of the participants Age Range n=100

Footnote: There were 100 participants, and the average age of the participants was 21.86. Among the total participants, respondents were 18-25 years age, 35% were 18 to 20 years age, 40% were 21 to 23 years age and 25% were 24 to 25 years old.

Religion

The majority of the respondents were Muslim with 71%, Hindu 19%, Christian 6%, and Buddhism 4%

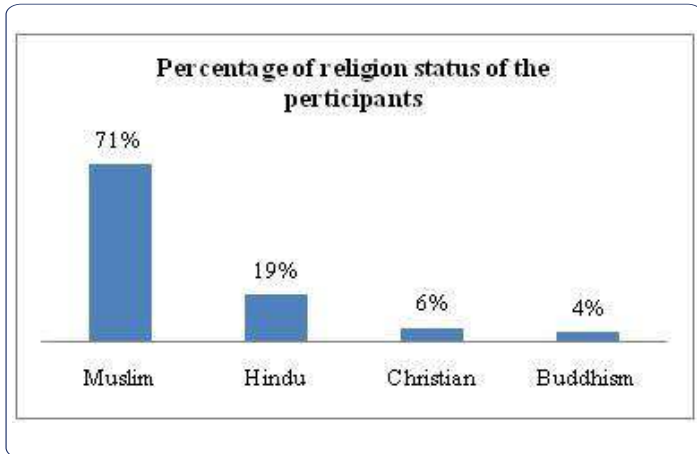


Figure-1A chart showing the percentage of the religious status of the participants

Educational qualification

Caption: Educational qualification of the participants

Label	Frequency	Percentage
SSC	47	47%
HSC	36	36%
Honors	17	17%
Total	100	100%

Table 2: Educational qualification of the participants

Footnote: The majority of the respondents were completed SSC with 47%, HSC with 36%, Honors 17%

Mother Occupation

Most of the participants were housewives with the majority of 70%, while others were day labor with 11% and 19% with service holders.

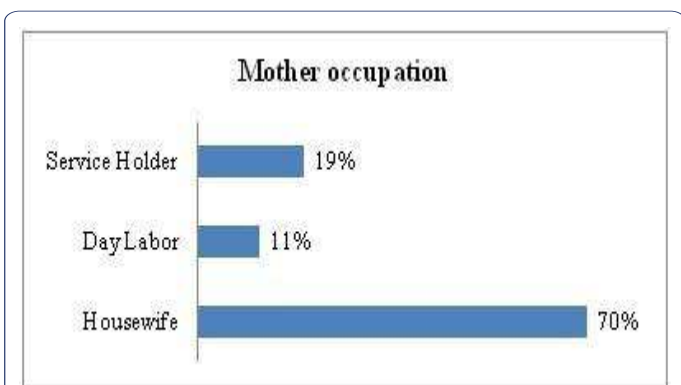


Figure 02-A chart showing the percentage of occupational status of the participants

Financial condition

With the majority of 58% were normal, 28% were more than expected, and 14% were less than average.

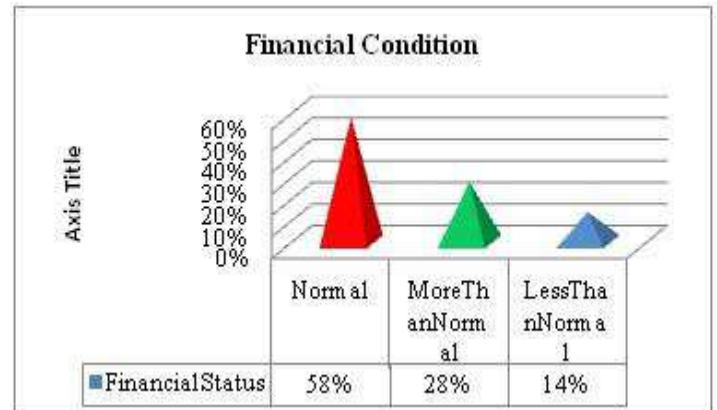


Figure 03-A chart showing the percentage of financial condition

Types of Family

With the majority of 56%, the maximum family was single, and 44% were joint families.

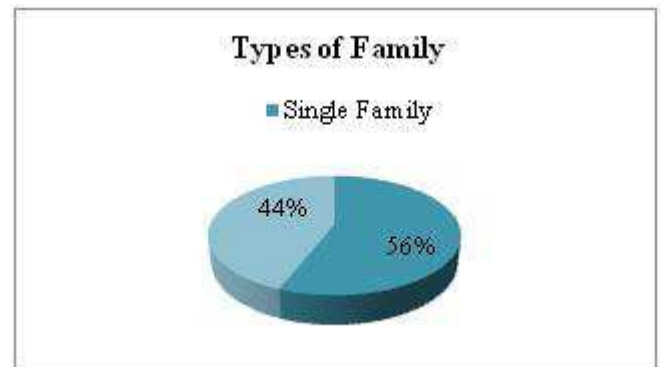


Figure 04: A chart showing the percentage of the family size of participants.

Types of House

With the majority of 59%, most of the participants' houses were rip house, and other 41% of the participants were ground house.

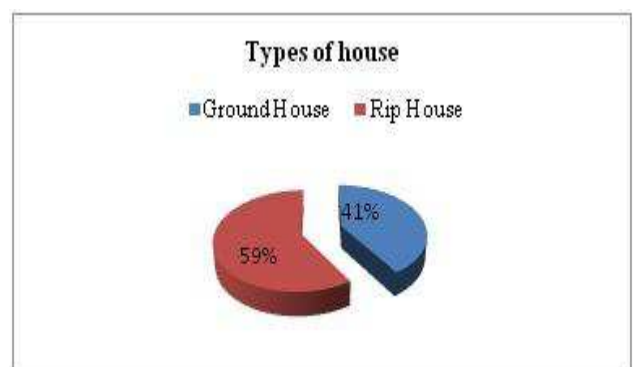


Figure 05-A chart showing the percentage of types of houses.

Knowledge related characteristic of participants Navel and Skin Care

Navel and skincare are very important for newborns. Without appropriate care of the navel and skin, the infection can occur in newborns. The majority of 73% of primi mothers knew the importance of navel care, and 27% primi mothers did not know that.

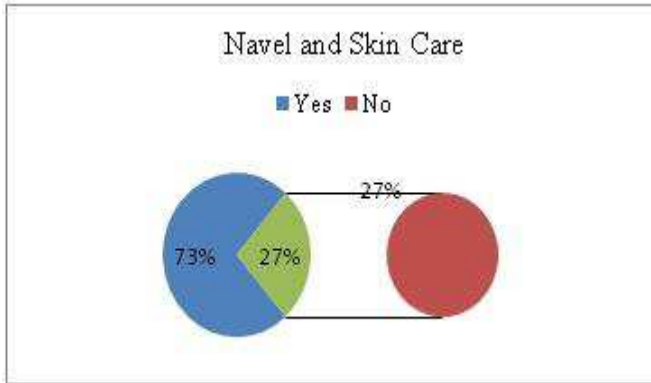


Figure 06- A chart showing navel and skincare knowledge percentage.

Solution use after the diaper change

In this study, most primi mothers had use powder with a percentage of 65%, and 29% used cream as the cleansing solution. On the other hand, 6% only used ointment.

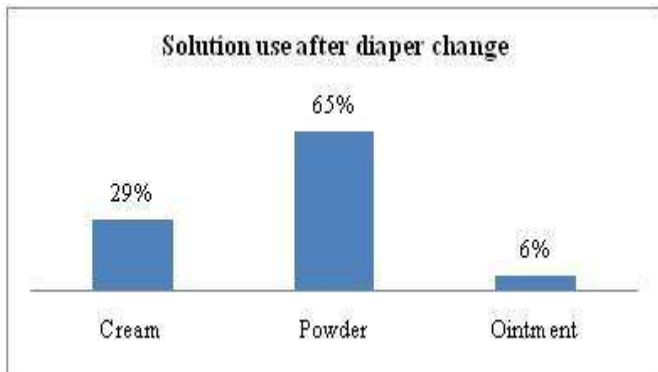


Figure 07- A chart showing solution uses for cleansing newborn

Knowledge about washing hand after changing the diaper

Washing hands and maintaining the hygiene of newborn care is very important. A hand can be used as a medium of transmitting infection. So, hand washing is imperative after changing the diaper. Cause babies' poop can contain many harmful organisms that can affect newborns. In this study, 79% of primi mothers had enough knowledge of washing hands after changing diapers, and the minority of 21% did not have enough knowledge about that.

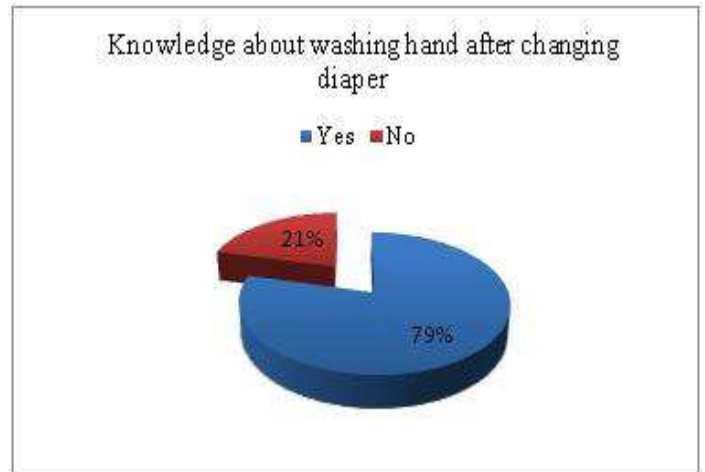


Figure 08- A chart showing washing hand after changing the diaper

Knowledge about foods for newborn

Breast milk is best suited for the newborn. Breast milk contains all of the nutrients in the right proportion, needed for optimum growth and infant development. It prevents malnutrition and infant mortality rate. In exclusive breastfeeding, it makes newborns more intelligent. It is essential for the brain growth of the newborn. But many new mothers do not have any idea about the importance of breast milk feeding for their newborn. Many prime mothers feed their newborn other foods which are harmful to their babies. Those foods can harm their digestive system. In this study, 66% of primi mothers have enough knowledge about exclusive breastfeeding; on the other hand, 21% of mothers agreed to feed their baby other food with breast milk, and 13% had decided to provide only other food to their newborn.

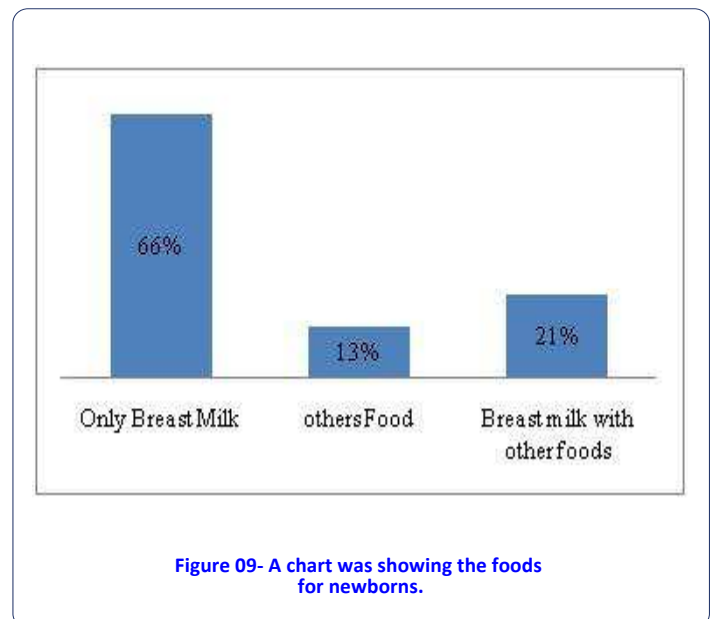


Figure 09- A chart was showing the foods for newborns.

Importance of feeding colostrum

In this study following results shows that the importance of feeding colostrums. In this study, 78% of primi mothers have enough knowledge about feeding colostrum; on the other hand, 22% of mothers did not know the importance of feeding colostrums.



Figure 10- A chart was showing about the importance of feeding colostrum.

The idea about danger sign

In this study following results which shows that the concept about danger sign of newborn. The majority of primi mothers, with a percentage of 60%, did not know about danger signs of newborns others; 40% of primi mothers have enough knowledge about danger signs of newborns.



Figure 11- A chart was showing about the danger sign of newborns.

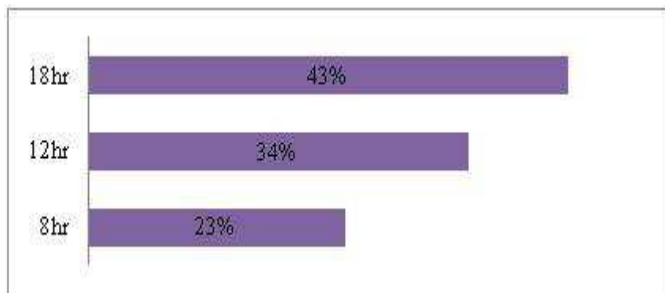


Figure 12- A chart showing the sleeping duration of a newborn

The idea about the newborn sleeping duration

In this study, sleeping duration was divided into three parts, were 8hr, 12hr, and 18hr, which was the exact timing of sleeping duration. The researcher asked mothers about the precise timing of the sleeping duration of the newborn. The majority, with 43%, answered 18hrs, 34% responded to 12hrs, and 23% answered 8hrs. That meant most of the mothers had the exact idea about the sleeping duration of the newborn.

The idea about thermal regulation

Thermal regulation is significant for newborns. Newborns can easily be affected by the common cold, so keeping the baby warm is essential. In this study, the researcher asked the mother about their idea about the importance of thermal regulation. The majority, with 55%, have agreed that they have enough knowledge about keeping their newborns warm, and the minority, with 45%, decided that they did not have an idea about thermal regulation.

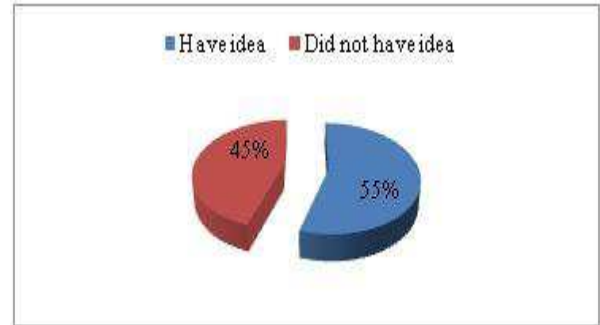


Figure 13- A chart showing about thermal regulation of newborn

Idea about jaundice

Jaundice is expected in the newborn. So the researcher asked mothers to assess their knowledge about newborn jaundice. The majority, with 53%, did not have any idea about jaundice, and 47% had an idea about jaundice.



Figure 14- A chart showing the idea of jaundice

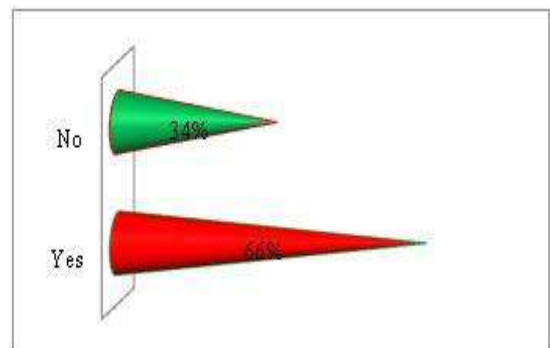


Figure 14- A chart showing idea about immunization

Idea about immunization

With the majority with 66%, primi mothers had enough idea about immunization. Other 34% did not have any idea about vaccination.

Knowledge about postnatal checkup

In this study, the researcher assesses the knowledge about postnatal checkups among primi mothers. Most of the mothers, with 73%, did not have any idea about a postnatal checkup. The other 23% had an idea about postnatal checkups.



Figure 14- A chart was showing postnatal checkup knowledge among primi mothers.

Discussion

Our study found that most primi mothers had use powder with a percentage of 65%, and 29% used cream as a cleansing solution. On the other hand, 6% only used ointment. Washing hands and maintaining the hygiene of newborn care is very important. The hand can be used as a medium of transmitting infection. So hand washing is imperative after changing a diaper. Cause babies' poop can contain many harmful organisms that can affect newborns. Our study also finds that 79% of primi mothers had enough knowledge of washing hands after changing the diaper, and the minority of 21% did not have enough knowledge about that.

Our study revealed that most mothers had inadequate knowledge of cord care on demand(57%). The study's findings were inconsistent with Amolo's study in Kenyatta National Hospital, which found most mothers had adequate knowledge on cord care 19(Amolo L).

In our study, breastfeeding knowledge among mothers was encouraging. The majority of mothers were aware of breastfeeding on demand (66%), usingcolostrum (78%). These findings powerfully suggest the emphasis of health care providers on breastfeeding during antenatal care. Karen, E. et al. in Ghana indicated that all-cause of neonatal mortality could be reduced by 16% if breastfeeding is initiated on the first day of life and by 2% if breastfeeding is commenced within the first hour of life 22(Edmond KM & Others).

Our study found that mothers had positive practices towards breastfeeding, with most mothers agreeing with WHO recommended breastfeeding practices.

These findings were inconsistent with the Rehana et al. study, which found 73% of the mothers had given prolateral feeds, and the exclusive breastfeeding rate was 26% 24(SaadiaGul& others).Our study also found the information on the signs of various illnesses in a newborn on demand 40% of mothers had adequate knowledge, and 60% had no idea on danger signs. The information given to the mothers during antenatal care in our study was much higher than the UpulSenarath et al. study, which found only 11% of Sri Lankan mothers were given information on signs of serious illness in newborn33(UpulSenarath& Others).The main conclusion from the findings is that antenatal care clinics provide an opportunity to educate mothers on essential newborn care, leading to sustained knowledge in the antenatal period.

CONCLUSION

This study revealed that primi mothers were most knowledgeable about breastfeeding and hygiene practices, the importance of feeding colostrum, jaundice, and newborn immunization. On the other hand, mothers were least knowledgeable about postnatal care,danger sign of newborns. These gaps are because of deep-rooted cultural and traditional beliefs as well as ignorance among caregivers. A significant association was found between socio-demographic factors and inadequate maternal knowledge and attitude on newborn care. Furthermore, knowledge and attitude were strongly associated. Therefore, increasing the practices, improving mothers' overall knowledge status, providing proper health education to them regarding the care of newborns, running baby-friendly clinics, and discouraging the unhealthy traditional beliefs are fundamental.

Implementation of the guidelines outlined in the Maternal and Child Health handbook is highly recommended in this regard. Besides, the health planners and policymakers should look into this vital issue targeting different demographic factors. Measures should be taken to provide mother-targeted education consisting of nutritional education, personal hygiene and childrearing, and newborn immunization at birth. Furthermore, the researchers feel the urge to include other family members in the child care process for improving the situation at a macro level.

Recommendation

Essential newborn care information should be ensuredforthe mother during both antenatal care and the postnatal period.

More emphasis is needed on maternal education during antenatal care towards Court care, eye care hermoregulation, and immunization.

This study is primarily to help for future /further complete research.

Education program for health care providers gives education to the primi mother about newborn care.

WHO recommendation on essential newborn care practices recommends the "warm chain," described in 10 steps to ensure the newborn is not at risk of hypothermia. They include warm delivery, immediate drying, skin-to-skin contact, breastfeeding, bathing and weighing postponed, appropriate clothing, rooming-in, courteous transportation and resuscitation, training, and awareness-raising.

REFERENCES

1. Akpabia, A., Klausner, C. P., & Inglehart, M. R. (2008). Mothers'/guardians' knowledge about promoting children's oral health. *American Dental Hygienists Association*, 82(1).
2. Chhabra, K. G., Patil, S., Singh, b., & Sinha, N. (2014). Comparison of oral health status between children in India: A case control study. *Journal of Indian Society of periodontology*, 19.
3. Hadeya, M.H., & Amal, H.A., (2017). Parental oral health knowledge, attitude, practice and caries status of Sudaness cerebral palsy children. *Pediatric & Health research*.
4. Mandic, J., Jovanovic, S., Mandinic, Z., Ivanovic, Kosanovic, D., milicic, B., & Toumb, V.Z. (2018). Oral health in children with special needs. *Vojnosanit Pregl*, 75(7).
5. Norwood, K. W., & Slayton, R. L. (2013). Oral health care for children with developmental disabilities.
6. Reang, T., & Bhattacharjya, H. (2014). Mother's knowledge and practice regarding oral hygiene and challenges in the prevention of dental caries of under-five children in an urban resettlement colony. *International Journal of Medicine Science & Public Health*, 3.
7. Wyne, A. H. (2007). Oral health knowledge in parents of Saudi cerebral palsy children. *Neurosciences*, 12(4).

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