ASSESSING KNOWLEDGE, ATTITUDES AND PRACTICES AMONG EXPECTING AND NEW MOTHERS ABOUT NEWBORN CARE IN PABRA, MANJHAUL, KAMLA, KAZI CHAK VILLAGES OF BEGUSARAI DISTRICT IN BIHAR

Dissertation Submitted to

The IIHMR University, Jaipur

for the partial fulfillment for the award of the degree

of Master of Business Administration (MBA)

in

Hospital and Health Management/Pharmaceutical Management/Rural Management

by

Prasija Jagadeesh Menon

Under the Supervision and Guidance of

J.P. Singh

2022

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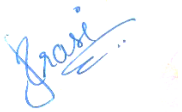
Appendix D: Declaration by Student

DECLARATION BY STUDENT

I hereby declare that this dissertation titled Assessing knowledge, attitudes and practices among postnatal mothers about newborn care in pabra, manjhaul, kamla, kazi chak villages of begusarai district in Bihar is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.



Prasija J Menon

24th June 2022

ATMASHRAY FOUNDATION

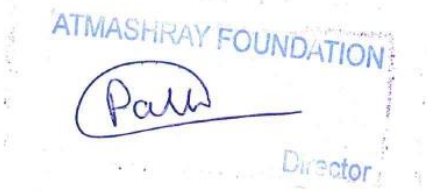
TO WHOMSOEVER IT MAY CONCERN

14th June, 2022

This letter is to certify that **Prasija Menon,** student of IIHMR University Jaipur, has worked in our organization as a Volunteer. She had started working here on **21st March 2022** and worked till **14th June 2022**.

She added great value to our project. We found her to be sincere and honest in her work.

We wish her all the best for her future endeavor.



Pallav kumar Jha
Director

Tel. +91 79037 89340, +91 90413 98915
atmashrayfoundation@gmail.com
VILL AND PO PABRA,
VIA MANJHAUL,
DIST BEGUSARAI,

Dean

CERTIFICATE

This is to certify that dissertation titled "Assessing knowledge, attitudes and practices among postnatal mothers about newborn care in Pabra, Manjhaul, Kamla, Kazichak villages of Begusarai district in Bihar**"** is a record of the research work undertaken by Prasija Jagadeesh Menon in partial fulfillment of the requirements for the award of the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur under my guidance and supervision and her approach to the research study has been sincere, scientific, and analytical.

Faculty Guide
IIHMR University, Jaipur

Date

School Dean
IIHMR University, Jaipur

Date

ABSTRACT

Background: Neo-natal care plays a very crucial part in the overall well-being of a child. Hence it is very important to make sure that every mother has the right knowledge, attitude and practices available at her disposal and she is well-versed with it to provide the best possible care to her new-born. Unfortunately, that is not the case, based on WHO estimate neonatal deaths contribute 45% to the under-five mortality rates. The purpose of this study is to understand the knowledge, attitude and practices among mothers of new-born care so we can find the association of their knowledge and practices with the socio-demographic factors and to come up with the right resources which will be helpful to these new mothers.

Method: It is an observational cross-sectional descriptive study, where the data is collected using convenience sampling technique from the target population during a medical health camp conducted from May 27th to 29th 2022 in the form of a well-structured questionnaire. Data was analyzed using percentage, average methods. The questionnaire was prepared in English, but while conducting face to face interview with the mother the questions were asked in local language with the help of volunteer who spoke the language.

Result: Out of the 72 mothers interviewed, the knowledge of the mothers is below satisfactory, as 75% mothers had wrong knowledge on initiation of breastfeeding and the prevalence of feeding honey/ghee first to the child was still at 50%. Whereas the attitudes and practices were also below average, however as 82% of the attitude that reusing a blade for cutting umbilical cord is not sanitary.

Conclusion: There is a very high scope for improvement through various IEC activities in the villages on a regular basis. Awareness based programs conducted in the rural areas by someone important and respected well within the community so that majority of the population follow these practices.

Keywords: Knowledge, attitude, practice, post-natal mother, new-born care.

ACKNOWLEDGMENT

The completion of this project would not have been possible without many who supported me and guided me. I would like to express my sincere appreciation to IIHMR University for giving me this opportunity to work on this project.

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My special thanks to Mr. Pallav Jha, Founder at Atmashray Foundation, for helping me with finalizing my project to work on during my internship. He guided me and helped me tackle any roadblocks I faced during the period of my internship.

Also, my sincere appreciation to the staff members at Atmashray Foundation who were cooperative and helpful with whatever I needed for my project.

Last but not least, I would also like to acknowledge with a deep sense of gratitude the sacrifices made by my parents and thus have helped me secure the opportunity to be at this university.

TABLE OF CONTENT

LIST OF TABLES

CHAPTER 1: INTRODUCTION

"It's a universal fact that improved maternal, new-born and child health saves money in many ways and benefits individuals, families, communities, and society." (Borghi et al. 2006) In accordance with World Health Organization estimates, neonatal demise is reported at about 45% among children below the age of five. More than one-third of these demises happen in the first 24 hours of being born, whereas three-quarters of the neonatal demises takes place in a week's time after their birth.

As our country moves forward to attain the SDG goal of ending preventable deaths of new-borns and children under 5 and to reduce neonatal mortality rate to as low as 12 deaths per 1000 live births, we see gradual reduction in India's infant mortality rate. According to NFHS-5, IMR was 35 per 1000 live births which has improved from NFHS-4 estimates of 41. Although India's average of infant mortality has fallen, some states still have a high IMR. One of the states being Bihar which has the second highest IMR 0f 46.8 per 1000 live births. (NFHS-5 State Factsheet 2015-16).

"Around 75% of neonatal deaths can be avoided with simple, moofetched devices that already exist, such as antimicrobials for pneumonia and sepsis, sterile edges for cutting umbilical cords, and kangaroo care to keep the babies warm. Inadequate knowledge, poor attitude or inappropriate practice of infant care may lead to undesirable consequences for a child. IEC (Information, Education, and Communication) strategies aimed at behavior change are vital for successful new-born care." (Awoke Kebede. 2016)

The aim of this study is to understand the knowledge, attitudes and practices among mothers and caregivers about new-born care in the villages of Bihar, so we can find the association of their knowledge and practices with the socio-demographic factors and to come up with the right resources which will be helpful to these new mothers.

The objectives of the study are as follows:

- To investigate the KAP of expecting and new mothers about infant care.
- To see the association between socio-economic characteristics and KAP of expecting and new mothers about infant care.

This study will help us understand the reasons for the high infant mortality rate in the state. It will help us understand what the shortcomings in the systemic front are as well as individual form. Once we have the limitations present in front of us, we can come up with recommendations to improve the conditions and decrease the infant mortality rate. The results from this study will help us determine at what level we should intervene and what resources should be provided to new mothers in different demographics to see improvement.

S.no	Title	Author(s)/ Year	Study location	Description
1	"Knowledge, Attitude and Practice of Newborn Care Among Postnatal Mothers at Debre Tabor General Hospital South Gonder, Amhara Region, Ethiopia, 2018."	Hiwot Yisak and Amien Ewunetei	Ethiopia	This study aims to assess the knowledge, attitudes and practices of newborn care among postnatal mothers at general hospital in 2018. "In a sample of 186 patients, 81.2% had good knowledge, 87.6% had a positive attitude, and 89.8% had good practice of newborn care."
2	"Breastfeeding Knowledge, Attitudes and Practices among post-natal mothers in Patna District"	Veena Kumari and Anupama Sharma	India	This study aims to assess the knowledge, attitudes and practices of lactating women of Patna district regarding breastfeeding and exclusive breastfeeding. A sample size of 50 respondent mothers were taken of which 20% mothers have right knowledge of starting/initiating breastfeeding, which indicated poor knowledge among breastfeeding mothers in Patna for the same
3	"Knowledge, Attitude and Practice among mothers about new-born care in Sindh, Pakistan"	Javed Memom, Kouroush Halakouie-Naieni, Reza Majdzadeh, Mir Saeed Yekaninejad, Gholamreza, Garmaroudi, Owais Raza, Shahrzad Nematollahi	Pakistan	The purpose of this study is assessing the knowledge, attitude, and practices (KAP) among mothers about newborns' care and its related factors in district Badin Sindh province of Pakistan. A sample size of 518 was taken for this study. This study revealed that high-risk factors such as immediate bathing, application of traditional substances on the cord, delayed initiation of breastfeeding, discarding colostrum and giving pre-lacteal feed to newborns were highly prevalent.
4	"Knowledge, Attitude and Practice towards essential newborn care among postnatal mothers in rural district of eastern Uganda"	Christine Akoth, Samuel Olowo, Enid Kawala Kagoya, Jacob Iramoit, Julius Nteziyaremye, Rebecca Nekaka, Lydia VN Ssenyonga	United Kingdom	This study aims to determine maternal knowledge, attitude and practices towards essential newborn care in Mbale district, Eastern Uganda. A sample size of 366 postnatal mothers were interviewed. There was good knowledge and positive attitude towards WHO essential newborn care but knowledge on some

				aspects of cord care and immunization was still lacking. The respondents also showcased unsatisfactory practices towards essential newborn care.

CHAPTER 3: METHODOLOGY

It is an observational cross-sectional descriptive study, where the data from the target population was collected in the form of a well-structured questionnaire. The findings will be explained in descriptive format. The study was conducted in Pabra, Manjhaul, Kamla, Kazi chak villages of Begusarai district in Bihar.

Begusarai District population is estimated to be 3,352,525 in 2022 (as per aadhaar.uidai.gov.in) The primary occupation of the people in Begusarai is cultivators of agricultural farming and working in agricultural land as laborers.

The Study Population consisted of:

- Expectant Mothers between the ages of 15 to 49 in the village
- Women of reproductive age between 15 to 49 with children between 0-3 years.

Face-to-face interviews were conducted by utilizing a well-structured, close-ended questions. The information was collected during the free health checkup with the help of an NGO where I am fulfilling my dissertation project. The tentative schedule for the camp is 2-3 days.

Sample Size was determined by the turnup for the free medical camp which was conducted in the village. The aim was to collect data from a minimum of 100 mothers. Convenient Sampling Technique was used to gather data from the new mothers who were present at the camp to do the free tests which were made available to them.

During the medical camp at Pabra, Manjhaul, Kamla, Kazi chak villages, the aim was to get consenting new mothers and expectant mothers to answer a questionnaire. An English questionnaire was translated into local languages such as Hindi, Maithili, etc. with the assistance

of a local professional to ensure the questions are understood by the study population. Data collection was carried out through individual interviews. The questionnaire consists of four parts, one being the socio-demographic details and the other three parts gathered data on the knowledge, attitudes, and practices about new-born care.

Data was analyzed using percentage, average methods and for association cross tabulation was done. Wherever possible responses were recorded in binary format. Microsoft Excel, Google forms etc. platforms were used to compute the data.

CHAPTER 4: RESULTS

Mothers taking part in the study were asked to reflect on their knowledge, attitudes, and practices regarding newborn care. The emphasis is also on understanding knowledge, attitude and practices among mothers with children three years and below.

Socio-Demographic Status of Respondents

Table 1: The socio-demographic characteristics of the respondents

Variables	Frequency (N=72)	Percentage
Age of Mothers		
15-19	4	6%
20-25	38	53%
25-30	19	26%
30 and above	11	15%
Level of Education		
Never attended school	14	19%
Primary School	32	44%
Secondary Education	17	24%
Higher Secondary & above	9	13%
Age of Youngest Child		
0-6 months	18	25%
7-12 months	13	18%
1-2 years	27	38%
2-3 years	14	19%
Place of Delivery		
Home	29	40%
Health Facility	43	60%
Source of New-born care information		
Elders in Family	51	71%
Doctors/Healthcare Centre/ Dais	21	29%

Table 1 shows the socio-demographic data of mothers. Out of 72 mothers, the majority, 53% of the mothers are from the age group of 20-25 years of age followed by 26% of mothers in the age group 25-30. The group of respondents did consist of 6% mothers belonging in the age group of under 20 years. The average age group is 24.5 and their age ranged from 16 to 33. Majority of mothers were of primary level education (44%), followed by 26% of mothers who had attended secondary education. 19% of mothers had attended no formal schooling and a mere 13% had completed higher secondary education and above.

It is worth mentioning that 60% of the deliveries of the respondent mothers took place in health facilities (PHC, District Hospital, Nursing Center etc.) and the remaining 40% were home deliveries. Even with most deliveries in health facilities, when it came to the source of information with regards to new-born care 71% of mothers claimed their sources to be elders in the family and the remaining 29% as doctors, ASHA workers, dais (midwives) etc.

Table 2: The new-born care knowledge of mothers:

Variables	Frequency (N=72)	Percentage
Hours of sleep new-borns require a day		
10-13 hours	13	18%
14-17 hours	32	44%
18-20 hours	27	38%
New-borns should pass urine within		
Within 24 hours	55	76%
2 days	17	24%
More than 2 days	0	0%
Stool of breastfed new-born will be		
Hard	0	0%
Watery	38	53%
Loose and yellow	31	43%
Black	3	4%
New-born must be fed first with		
Ghee	7	10%

Breast Milk	36	50%
Honey	29	40%
Time of initiation of breastfeeding after delivery		
Within1 hour of delivery	18	25%
Within 6 hours of delivery	25	35%
Within 24 hours of delivery	29	40%
Duration of exclusive breastfeeding		
<6 months	28	39%
6 months	33	46%
>6 months	11	15%
Do you think breastfeeding should be allowed when baby/mother is sick?		
Yes	37	51%
No	35	49%
Commonly umbilical cord falls off within		
2 weeks	57	79%
4 weeks	15	21%
6 weeks	0	0%
The new-born should be kept warm by		
Keeping in contact with mother	20	28%
Dressing in warm clothes	28	39%
Both option a & b	17	24%
Keeping room warm	7	10%
Are you aware of national immunization schedule?		
Yes	22	31%
No	23	32%
Have heard of it, no clear idea	27	38%

It may be observed from Table 2 that 44% mothers had the right knowledge about the hours of sleep required by a new-born. Out of 72 respondents only 32 had the right information i.e., 14 to 17 hours of sleep. Most of the mothers (76%) had the right knowledge that the new-born should pass first urine within the first 24 hours after birth and the rest felt it can be up to 2 days whereas no mother seemed to agree that it would take more than 2 days. According to 43% of the mothers the stool of the new-born is loose and yellow in colour which is the right knowledge whereas 53% of mothers had the wrong knowledge that it is watery and some 4% even said it is black in colour. Regarding the knowledge of what the new-born needs to be fed first, 50% of mothers had the right knowledge of feeding breast milk/ colostrum whereas 50% still believed and followed feeding the new-born ghee or honey as the first feed. Some mothers even expressed how they were advised/ believed that the first breast milk (colostrum) is impure, dirty and shouldn't be fed to their babies. 75% of mothers have the wrong knowledge that the first breastfeeding should be within 6 or 24

hours of birth and only 25% mothers had the right information that first breastfeeding should be within one hour of birth. Exclusive breastfeeding for the first six months is universally acknowledged to reduce infant mortality by 13%, but rates remain low in both rural and urban areas. 46% were of the opinion that their new-borns should exclusively be breastfed. Whereas 39% believed it should be less than six months and 11% believed it should be more than 6 months. 51% of the mothers were of the right opinion that new-borns should be breastfed even when the baby/mother is sick while a huge number still believed that they shouldn't be breastfeeding under such circumstances. Seventy-nine percent of the mothers had the right knowledge that the umbilical cord falls off within the first 2 weeks after birth. A very less percent of mothers (28%) had the knowledge of skin-to-skin contact being beneficial in keeping the baby warm while 39% believed dressing the baby in warm clothes is enough. Only 24% had the right knowledge that skin to skin contact as well as dressing the baby in warm clothes, both are important to keep the baby warm. Only 31% of mothers had knowledge of the national immunization schedule while 32% honestly agreed they don't. 38% answered that they have heard of it but had no clear idea.

Table 3: The New-born care attitude among respondents

Variables	Frequency (N=72)	Percentage
How long before new-borns can be given their first bath		
Immediately after birth	11	15%
After 24 hours	38	53%
After 2 days	23	32%
Can blades be reused after cleaning, to cut umbilical cord?		
Yes	13	18%
No	59	82%
Do you find giving skin to skin contact to baby beneficial?		
Yes	23	32%
No	18	25%
Don't Know	31	43%
Do dirty umbilical cords cause infection to baby?		
Yes	36	50%

No	17	24%
Don't Know	19	26%

According to 53% of mothers a new-born should be given their first bath only after 24 hours of birth which is the right attitude to have while 11% believed it should be immediately after birth and 32% were of the opinion it should be after 2 days. It brought a sense of relief that 82% mother's attitude towards reusing a blade after cleaning was negative while still 18% believed it was okay. 43% of the mothers answered they were unaware if skin to skin contact with their child was beneficial. 32% agreed in affirmative while 25% disagreed that skin to skin contact was beneficial. Fifty percent of mothers were of the attitude that unclean umbilical cord may cause infection whereas the rest were equally divided among their answer being no it doesn't and don't know for attitude of keeping unclean umbilical cord may cause infection.

Table 4 depicts the new-born care practices among the respondents

Variables	Frequency (N=72)	Percentage
Do you wash hands before handling baby		
Yes	25	35%
No	16	22%
Not always	31	43%
Do you clean genital area of baby with clean wet cloth after each defecation		
Yes	54	75%
No	6	8%
Not always	12	17%
Do you keep the umbilical cord always clean?		
Yes	37	51%
No	18	25%
Not always	17	24%
Do you massage new-born with oils before giving a bath?		
Yes	43	60%
No	0	0%
Not always	29	40%
Do you wrap the new-born after bath?		
Yes	58	81%
No	6	8%
Not always	8	11%
Do you clean the breast with wet cloth before every feeding?		
Yes	23	32%
No	35	49%
Not always	14	19%
Do you burp the baby after every feeding?		
Yes	35	49%
No	13	18%
Not always	24	33%

On enquiring about whether the mothers wash their hands every time before handling the baby, the majority (43%) answered not always while 35% said that they do and 22% agreed that they don't wash their hands. According to 75% of the mothers, they do clean the genital area of the baby after each defecation. Whereas 8% said that they don't and 17% answered they don't always do it. Fifty-one percent of the mothers practiced keeping the umbilical cord always clean while the rest were equally divided among not always and they don't clean umbilical cord. It was found that 60% of

the mothers massaged their babies with oils before bathing them while 40% mentioned they don’t practice massaging the baby always. 81% of the mothers followed the practice of wrapping their baby after a bath while 11% said that they don’t always do it. By cleaning the breasts after feeding, the mother helps to prevent various infections that are unfavorable for the baby as well. However, a large majority of mothers in the study (68%) didn't follow good hygienic practices due to ignorance. 49% of mothers agreed to the practice of burping their babies after every feed as 33% mentioned that they don’t burp the babies always.

CHAPTER 5: DISCUSSION

In this study out of total mothers interviewed, only 32% mothers have good knowledge, 36% had an overall good attitude and 33% had good practice of new-born care. This statistic is significantly lower than a survey where 57 percent of moms in Sindh, Pakistan's urban area, had strong understanding. The difference may be due to the study population and sample size being different. The above-mentioned study participants were women belonging to urban areas with better rates of education.

As far as bathing time is considered, 75% respondents from our study were of the attitude that the baby should be bathed only after 24 hours. Compared to a research conducted in the Pakistani district of Matiari, where 32% of mothers confirmed of cleaning their infants within six hours. The statistics from the study conducted in Begusarai district shows more respondents with the correct attitude.

Another delicate topic in newborn care is the umbilical cord. When handling the chord, hygiene is crucial, according to WHO. In the current study 82% mothers were of the correct attitude that a blade can’t be reused even if it’s clean to cut the cord. These results were in line with research done in Rohtak, Haryana's metropolitan regions, where 88.6% of deliveries involved a new blade.

WHO states that breastfeeding is the best approach to feed infants and give them the nutrients they need for healthy growth and development. In present study only 25% mothers had the right knowledge of initiation of breastfeeding after birth. These findings weren’t a match with the study that happened in Ethiopia as around 80.9% had the right knowledge of feeding the baby first time within one hour. The possible explanation for the difference might be that the later research was conducted in a metropolitan setting whereas the current study in rural villages of Begusarai district.

CHAPTER 6: CONCLUSION

The results of this study inferred the following, 50% of the mothers have poor knowledge of what the new-born should be fed first and 75% of the mothers had poor knowledge about the initiation of breastfeeding after a new-born is born. The overall knowledge of mothers in the rural villages of Bihar is 32% which is below satisfactory.

The attitudes of the mothers are also below satisfactory even though 53% of the respondents were of the right attitude that bathing the new-born only after 24 hours and 82% of the mothers aware of no reusing of blades during the cutting of umbilical cords, even the ones who delivered at home and the consequences the action that it may cause infection. The overall attitudes of mother about new-born care is 36% which means there is still scope of improvement in improving practices like skin to skin contact among the mother and the new-born, improving attitude about bathing, cleaning baby regularly and its association with avoiding umbilical cord area infection etc.

The overall practice of new-born care was only 33% with scope of improvement required in mothers practicing cleaning the baby after defecation, massaging the baby with oils before bath, wrapping up the baby after bath etc.

There is significant need for improvement in the knowledge of mothers and this can be bought by strengthening health-based programs in rural areas. Awareness based programs conducted in the rural areas by someone important and respected well within the community so that the majority of the population follow these practices. Regular IEC (Information Education Communication) activities in association with the panchayats, medical checkup where knowledge is imparted etc. should be conducted with these villages.

CHAPTER 7: REFERENCES

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