e-ISSN: 0975-1556, p-ISSN:2820-2643

Available online on www.ijpcr.com

International Journal of Pharmaceutical and Clinical Research 2022; 14(3); 617-622

Original Research Article

Community Based Cross-Sectional Study to Determine the Knowledge and Practices of Postnatal Mothers on Essential Newborn Care

Shishir Kumar[1], Archana Kumari[2]

[1]Associate professor, Department of Community Medicine, Lord Buddha Kosi Medical College, Saharsa, Bihar, India

[2]Senior Resident, Department of Anatomy, Lord Buddha Kosi Medical College, Saharsa, Bihar, India

Received: 15-10-2021 / Revised: 20-02-2022 / Accepted: 05-03-2022

Corresponding author: Dr. Shishir Kumar

Conflict of interest: Nil

Abstract

Aim: To assess the postnatal newborn care practices and knowledge in a selected area of Bihar region.

Methodology: A community based cross-sectional study was conducted among 150 postnatal mothers and neonates dyads in the one of the selected Primary Health Centres (PHC). Postnatal mothers were contacted by making home visits along with ASHA (Accredited Social Health Activists) workers and enrolled using convenience sampling techniques. Written informed consent was taken after explaining the purpose of the study from the participants. Postnatal mothers having stable single/ twins/ term/ preterm/ post term/low birth weight newborns, residing in the villages of selected PHC, willing to participate in the study and able to understand Hindi or English were included. The study tool consisted of knowledge and practice questionnaires along with socio-demographic and clinical data sheets.

Results: The mean age (SD) of the participants was 26.35±5.74 years. Majority of postnatal mothers had joint families (78%) and were housewives (95%). More than half of the mothers (66%) had secondary level or above educational status. Most of the newborns were of second birth order (42%) with the mean gestational age (weeks) of 37.73±2.64 weeks. The study included female and male newborns in almost equal proportion. Most of the newborns (65%) weighed between 2500-3499 g. The mean knowledge scores of postnatal mothers on ENBC were 23.4±5.7. About half of postnatal mothers (51%) had moderate knowledge. The mean practice scores of postnatal mothers on ENBC were 23.4±3.0. Only 22% of postnatal mothers had adequate practices.

Conclusion: This study showed that mothers had average knowledge on postnatal newborn care practices. Health education and awareness programs are required to improve knowledge on the various aspects of newborn care practices.

Keywords: Postnatal, Gestation, Preterm, Newborn.

Background

'Birth" means the bestowing of some form of life by the nature, to this world. Being born is the purest virtues that can be held by a living being as after that one is

exposed to life, where one can breathe, feel, have emotions, i.e. its in this world that these one is exposed to all such virtues. This is a state in which we consider the achievement of a new form of life. 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 hemorrhage, protection from infection, identification and observation, nourishment and fluids, love-parent attachment and rest.

The postnatal period-described here as the first 42 days after delivery is crucial to the health and survival of a mothers and her newborn. The most endangered time for both is during the hours and days after birth. Lack of attention in this duration may result in demise or disability as well as missed opportunities to encourage healthy behaviours, affecting females, neonates, and children [1]. Globally an estimated 2.5 million children died in their first month of life, which is approximately 7,000 newborns every day [2, 3]. Deaths in the first month of life, which are mostly preventable, represent 47% of total deaths among children under five. Majority of these newborns died in the first week of life with approximately one million dying in their first day and another one million dying in the following six days. The result is a drop in neonatal deaths worldwide from 5.1 million in 1990 to 2.5 million in 2018 [4].

Though many efforts have been made by the government of India to reduce neonatal mortality in India, it has continued to be great public health problem. Essential newborn care (ENBC) is a comprehensive strategy designed to improve the health of newborns, right from before conception to the postnatal period. ENBC practices, as recommended by World Health Organization (WHO), include drying and wrapping the newborn immediately after delivery, delayed bathing, initiation of early and exclusive breastfeeding, hand washing before providing clean and dry cord care, and eye care, and identification of danger signs [5]. There is ample research evidence to suggest the influencing role of socio-cultural factors in newborn health in the country [6-8].

Utilization of postnatal care can be affected by large number of factors including socio-demographic factors, economic factors, accessibility and availability of maternal and child health services etc [9]. Understanding the factors that influence care-seeking behaviour for postpartum services in India is vital to improve quality of care and planning appropriate interventions. The principal aim and objective of study was to assess the postnatal newborn care practices and knowledge in a selected area of Bihar region.

Materials and Methods

A community based cross-sectional study was conducted among 150 postnatal mothers and neonates dyads in the one of the selected Primary Health Centres (PHC). Birth register at every sub-centre was referred for making a list of postnatal mothers delivered during the study period. Postnatal mothers were contacted by making home visits along with ASHA (Accredited Social Health Activists) workers and enrolled using convenience sampling techniques.

Methodology

Written informed consent was taken after explaining the purpose of the study from the participants. Postnatal mothers having stable single/ twins/ term/ preterm/ post term/low birth weight newborns, residing in the villages of selected PHC, willing to participate in the study and able to understand Hindi or English were included. The postnatal mothers having critically ill newborns and hospitalized or not in a condition to provide information due to her own illness or hospitalization or mental illness were excluded.

The study was conducted from September 2021 to February 2022. The required sample size was determined by assuming the mean knowledge score among postnatal mothers in essential newborn care as 55.3% to 65.3% on home based newborn care [9]. Keeping 55% proportion and 20% precision confidence, the sample size was calculated using the formula: Sample size =4PQ/R2. The calculated sample size was rounded-off to 100 postnatal mothers. So, the sample size of 100 postnatal mothers were enrolled in the study. The study tool consisted of knowledge and practice questionnaires along with socio-demographic and clinical data sheets.

The knowledge and practice questionnaires were a structured interview schedule, prepared after extensive review of literature. In socio-demographic and clinical profile information related to age, religion, type of family, educational status and occupation of postnatal mother and her husband, socio-economic status of family, place of delivery, mode of delivery, birth order, gestational age, sex of newborn, birth weight and age in days on the day of interview were included. Reliability of the tools was established by a test-retest method. The structured knowledge questionnaire had 38 multiple choice questions (MCQs) and True and False items covering various aspects of ENBC like thermal care, breastfeeding, cord care, eye care, hand washing and danger signs.

The practice questionnaire had 28 items, used for assessing the practice of postnatal mothers related to ENBC.A score of '1' was given for correct response and '0' for incorrect response. The maximum possible knowledge and practice scores were 38 and 28 respectively. Knowledge and practice scores were categorized as adequate (>75%), moderate (51-75%) and inadequate (≤50%). The structured interview schedule was pre-tested and validated. Tools used for data collection included socio-demographic and clinical data sheets, knowledge questionnaire and practice questionnaire.

Results

The mean age (SD) of the participants was 26.35±5.74 years. Majority of postnatal mothers had joint families (78%) and were housewives (95%). More than half of the mothers (66%) had secondary level or above educational status.

Table 1: Socio-demographic characteristics of postnatal mothers

Variables	Frequency
Age (years)*	26.35±5.74
Type of family	
Nuclear	22
Joint	78
Educational status	
Illiterate	11
Upper primary	23
Secondary	21
Senior secondary	25
Graduation & above	20
Occupational status	
Housewife	95
Working	05
Socio-economic status**	
Upper class	21
Upper middle class	24

Middle class	27
Lower middle class	18
Lower class	10

Most of the newborns were of second birth order (42%) with the mean gestational age (weeks) of 37.73±2.64 weeks. The study included female and male newborns in almost equal proportion. Most of the newborns (65%) weighed between 2500-3499 g.

The mean knowledge scores of postnatal mothers on ENBC were 23.4±5.7. About half of postnatal mothers (51%) had moderate knowledge. The mean practice scores of postnatal mothers on ENBC were 23.4±3.0. Only 22% of postnatal mothers had adequate practices.

Table 2: Birth profile of newborn

Variables	Frequency
Place of birth	
Institutional	94
Home	6
Mode of delivery	
Normal vaginal	78
Cesarean section/assisted	22
Birth order	
First	31
Second	42
Third	18
Fourth or more	9
Gestational age (week)*	37.73±2.64
Weight (in gm)	
<1999	1
2000-2499	13
2500-3499	65
>3500	12

Table 3: Overall knowledge scores of postnatal mothers

Knowledge	**Frequency (%)**
Inadequate (≤ 50%)	26
Moderate (51-75%)	51
Adequate (>75%)	23

Table 4: Overall practice scores of postnatal mothers

Practices	Frequency (%)
Inadequate (≤ 50%)	4
Moderate (51-75%)	22
Adequate (>75 %)	74

Discussion

The birth of a baby is one of life's most wondrous moments, babies have amazing abilities. Yet they are completely depended on others for feeding, warmth and comfort. Newborn is a continuum of the fetal life and very important transient time to adopt extra uterine life. The physical and mental wellbeing of every

individual depends on the correct management of events in perinatal period. The principle of essential newborn care is simple, requiring no expensive high technology equipment resuscitation, warmth to avoid hypothermia, early breast feeding, hygiene, support for the mother infant relationship and early treatment for low birth weight or sick infants.

Majority of postnatal mothers had joint families (78%) and were housewives (95%). Similar assessments were assessed by different study in our country by some authors [10-12]. This study assessed that more than half of the mothers (66%) had secondary level or above educational status. Some authors in their study found that almost half of the families (51.9%) belong to lower socio-economic class [13].

In this study, 94% mothers were delivered in health facility while 6% mothers were delivered at home. 22% mothers were delivered by caesarean section. This is quite comparable with NFHS 4 fact sheet reported that percentage of institutional deliveries was 75.1% in rural area, [14] 66.8% in Uttar Pradesh, 84.5% in Lucknow district [12]. and 16.7% mothers were delivered by caesarean section [15]. This assessment was quite comparable with some other studies [16, 17]. This findings also supported by the Study conducted in Nepal by Chhetri S *et al* [18] where around three-quarters of the mothers delivered by vaginal delivery, while about 22% of the mothers had caesarean section.

According to National Family Health Survey (NFHS-4), in rural area only 58.5% mothers received postnatal care from health personnel within 2 days of delivery, while children who received a health check-up after birth are very low i.e., 23%. While in Uttar Pradesh this is 51.6% and 22.1% respectively [14]. Utilization of postnatal care can be affected by large number of factors including socio-demographic factors, economic factors, accessibility and availability of maternal and child health services etc [19]. Understanding the factors that influence care-seeking behaviour for postpartum services in India is vital to improve quality of care and planning appropriate interventions. Knowing the activities developed and results achieved by postnatal care programs is important for the planning and improvement of Primary health care. Therefore, there is a need to dispel the hard-core cultural beliefs of the postnatal mothers by education and reinforcement.

Conclusion

This study showed that mothers had average knowledge on postnatal newborn care practices. Health education and awareness programmes are required to improve knowledge on the various aspects of newborn care practices.

References

1. Paudel D, Nilgar B, Bhandankar M. Determinants of postnatal maternity care service utilization in rural Belgaum of Karnataka, India: A community based cross-sectional study. Int J Med Public Heal. 2014; 4:96.
2. Neonatal mortality-UNICEF DATA [Internet] . Available from: https://data.unicef.org/topic/child survival/neonatal-mortality/ Cited on March 3, 2022.
3. Newborns: Reducing mortality [Internet] Availablefrom: https://www. who.int/news-room/fact-sheets/detail/newborns-educing-mortality . Cited on March 3, 2022
4. Newborn care-UNICEF DATA [Internet] Available from: https://data.unicef.org/topic/mate rnal-health/newborncare . Cited on March 3, 2022
5. World Health Organization, Department of Maternal N Child and Adolescent Health. WHO recommendations on postnatal care of the mother and newborn 2013 Available from: http://www.ncbi. nlm.nih.gov/books/NBK190086/.

6. Upadhyay RP, Singh B, Rai SK, Anand K. Role of Cultural Beliefs in Influencing Selected Newborn Care Practices in Rural Haryana. J Tropical Pediatr. 2012;58(5):406-8.
7. Willis JR, Kumar V, Mohanty S, Singh P, Singh V, Baqui AH, *et al*. Gender Differences in Perception and Care-seeking for Illness of Newborns in Rural Uttar Pradesh, India. J Health PopulNutr. 2009;27(1):62-71.
8. Baqui AH, Williams EK, Darmstadt GL, Kumar V, Kiran TU, Panwar D, *et al*. Newborn care in rural Uttar Pradesh. Indian J Pediatr. 2007;74(3):241-7.
9. Pandey D, Meshram P, Sharma A, Tiwari R, Kasar PK. An assessment of utilization of postnatal care services in urban area Jabalpur district. Int J Community Med Public Heal. 2019; 6:3660–6.
10. Baqui A, Williams E, Darmstadt G, Kumar V, Kiran T, Panwar D, *et al*. Newborn care in rural Uttar Pradesh. Indian J Pediatric. 2007; 74:241–7.
11. 10. Chaudhary J, Dhungana GP, Ghimire H. Original research article factors affecting newborn care practices among Tharu mothers in selected village development committees of Chitwan district. J Chitwan Med Coll. 2013; 3:42–5.
12. Mahmood SE, Srivastava A, Shrotriya V, Mishra P. Infant feeding practices in the rural population of north India. J Fam Community Med. 2012; 19:130–5.
13. Bhatt B, Malik JS, Jindal H, Sahoo S, Sangwan K. A study to assess cord care practices among mothers of new borns in urban areas of Rohtak Haryana. In J Basic Appl Med Sci. 2015; 5:5–60
14. India-Key Indicators India-Key Indicators INTERNATIONAL INSTITUTE FOR POPULATION SCIENCES [Internet] Available from: http://www.rchiips.org/nfhshttp://www.iipsindia.org . Cited on March 3, 2022
15. District Fact Sheet Lucknow Uttar Pradesh [Internet] Available from: http://rchiips.org/NFHS/FCTS/UP/UP_Factsheet_157_Lucknow.pdf . Cited on March 3, 2022.
16. Madhu K, Chowdary S, Masthi R. Breast feeding practices and new born care in rural areas: A descriptive cross-sectional study. Indian J Community Med. 2009; 34:243–6.
17. Samina A, Mohan J, Nandkishor K. Prevalent neonatal care practices in rural area of central India: The truth revealed. Panacea J Med Sci. 2014; 4:43–6.
18. Chhetri S, Shah R, Rajbanshi L. Gaspar R, editor. Factors associated with utilization of complete postnatal care service in Baglung municipality, Nepal. Int J Reprod Med. 2020; 2020:2892751.
19. Pandey D, Meshram P, Sharma A, Tiwari R, Kasar PK. An assessment of utilization of postnatal care services in urban area Jabalpur district. Int J Community Med Public2019; 6:3660–6.