MAK HILL Publications Research Journal of Medical Sciences

Research Article
doi: 10.59218/makrjms.2023.12.368.373

Traditional Cultural Practises and Beliefs in Odisha and their Effects on Neonatal Care

[1]Gobinda Hembram, [2]Jatadhari Mahar, [3]Satyaranjan Mallick and [4]Sumanta Panigrahi

[1-4]*Department of Paediatrics, S.V.P.P.G.I.P, S.C.B., Medical College and Hospital, Cuttack, India*

ABSTRACT

Several babies delivered at home have limited access to contemporary medical care. They are primarily raised using cultural and traditional practices. Relatively little is known about the impact of customary neonatal care practises on newborn survival. All communities have ideas and practises about pregnancy, childbirth and child care. These beliefs and practises are crucial to children's health. This knowledge-attitude-practice (KAP) study was undertaken to assess the various harmless, harmful and welcoming practices prevailing among the new mothers and their families with the help of a structured dichotomous questionnaire. Prior to the main research a pilot study was conducted and necessary changes were made in the methodology. All the new-borns with age 28 days or less were included in the study and their mothers were interviewed. Significant association ($p<0.05$) was found between maternal age, maternal education, family's income, family structure, religion and certain cultural beliefs and practices pertaining among them. Some of the rituals performed by the mothers are beneficial and must be encouraged, some are damaging and need to be discouraged while some are harmless to the babies, which should be simply disregarded. While medical science has advanced in many ways in the twenty-first century and the government has created a number of successful health programmes, traditional cultural child care practises still prevail in Odisha and across the nation. The fundamental causes and underlying ideas behind traditional child care practices that have detrimental impacts on the health of the mother and the unborn child must first be uncovered in order to reform these practices.

OPEN ACCESS

Key Words
Practises and beliefs in odisha

Corresponding Author
Sumanta Panigrahi,
Department of Paediatrics
SVPPGIP, SCB Medical College and Hospital, Cuttack India
sumantap@rediffmail.com

Author Designation
[1-3]Assistant Professor
[4]Associate Professor

Received: 20 November 2023
Accepted: 14 December 2023
Published: 15 December 2023

Citation: Gobinda Hembram, Jatadhari Mahar, Satyaranjan Mallick and Sumanta Panigrahi, 2023. Traditional Cultural Practises and Beliefs in Odisha and their Effects on Neonatal Care. Res. J. Med. Sci., 17: 368-373, doi: 10.59218/makrjms.2023.12.368.373

INTRODUCTION

Neonatal health is the key to child survival. The risk of mortality and morbidity is influenced by critical newborn medical procedures used during labour and the neonatal period. The Indian society is still heavily reliant on traditions. Nearly every family has its unique practises for caring for newborns. In India the neonatal period is when the majority of traditional and cultural practises are observed[1]. The impact is comparatively greater in isolated rural areas, challenging tribal terrain and impoverished urban slums. Even the urban elite and those who are well-educated are partially prone to some questionable traditional cultural newborn care practices, especially when they are influenced by elderly women in the family and neighbourhood[2]. Each year in India there are 1.34 million deaths of children aged under five, 1.05 million infant deaths and 0.748 million new-born deaths. The country accounts for more than a quarter (26 per) of the world's neo-natal deaths[3]. More than half (56 per) of under-five deaths happen in the first 28 days of life and nearly three-quarters of these new-born deaths occur in the first week of life[3]. Prematurity (35%) and newborn infections (33%) are the main causes of newborn fatalities in India.

In India the impact of customary newborn care practices on newborn survival is comparatively less understood. Thus, it becomes very important to study this aspect of neonatal care in detail. Literature about traditional and cultural beliefs and practises is scarce both nationally and specifically in this region of the state of Odisha. So the goal of the current study is to go deeper into the problems and determine whether there is, in fact, any connection between them.

MATERIALS AND METHODS

This prospective, observational research was a knowledge-attitude-practice (KAP) study conducted at SVPPGIP and SCB Medical College and Hospital, Cuttack for a period of two years from 1-31st August-July 2014-2016 with the purpose to determine the frequency of traditional cultural practices and beliefs among the mothers in Odisha and its association with child bearing and new-born care. The study involved various harmless, harmful and welcoming practices prevailing among the new mothers and their families. To seek potential solutions depending upon the type of the prevailing practices towards raising healthy babies was the primary objective of this study. All the new-borns admitted in the Department of Pediatrics, SVPPGIP and SCB Medical College and Hospital, Cuttack during the study period comprised the study population and only neonates i.e. those aged less than 28 days were included in the study. Those older than 28 days or critically ill were excluded. Additionally the new-borns whose mothers declined to participate in the study were excluded from the study.

The traditional cultural practises and beliefs regarding neonatal care were identified through interviews with the mothers of the newborns, with the aid of a structured dichotomous questionnaire prepared with reference to the standard formats in previous studies. For evaluation of socio-economic status, Kuppuswamy scale was used. The data collection tool or questionnaire for in-depth interview consisted of two parts. Information about socioeconomic, maternal, birth and delivery-related factors made up the first section. The second section provided details on crucial newborn practises that were carried out before, during and after birth as well as the traditional cultural practises that came next. The instrument was further modified according to local context and culture. The questionnaire, prepared in both English and Oriya languages, started with closed ended questions followed by open ended questions. A pilot study was conducted over 20 subjects from SVPPGIP and SCBMCH, Cuttack from 1-30th July-August 2014 and essential improvements were made in the methodology. Geographic, cultural and religious considerations were used to validate the questionnaire. Mothers were provided with a comfortable area and were informed about the purpose of the study. Written informed consent was taken from all the mothers prior to the start of the study. During data collection, interviews were conducted in Oriya using the local vocabulary. Each interview lasted for about 20 min. Data was collected and recorded systemically. All the data from the mothers of study subjects was collected by the principal investigator to avoid interviewer bias.

The results so obtained were recorded in Microsoft Excel software. Statistical analysis was performed using the SPSS statistical package (version 23.0: SPSS). Continuous variables were presented as Mean±SD. Categorical variables were expressed as frequencies (%). Open-ended responses to questions about customary child care methods were listed and converted into percentages. Chi-square test was used to compare the categorical data and obtain p-value. A difference with $p<0.05$ was deemed significant.

OBSERVATIONS AND RESULTS

A total of 170 neonates satisfying the inclusion and exclusion criteria were included in the study and their mothers were interviewed. Most of the new mothers were young and educated up to primary school Table 1. In our study, more than 85% of the babies aged less than 14 days. Male babies outnumbered female babies in the ratio 3:1. Almost all the deliveries were in hospitals or nursing home set-up.

Table 1. Maternal and neonatal demographic features (N = 170) N = the total number of neonates=the total number of mothers according to Kuppuswamy socioeconomic scale 2015. In our study,

Table 1: Maternal and neonatal demographic features (N = 170) N = the total number of neonates = the total number of mothers

Maternal variables	Frequency (%)
Age distribution (in years)	
≤25	109 (64.1)
26-30	49 (28.8)
≥30	12 (7.1)
Type of family	
Nuclear	38 (22.4)
3-generation	27 (15.8)
Joint or extended	105 (61.8)
Educational status	
Illiterate	9 (5.3)
Primary school	12 (7.1)
Middle school	39 (22.9)
High school	77 (45.3)
Intermediate or Diploma	19 (11.2)
Graduate	10 (5.9)
Post-graduate and above	4 (2.4)
Socioeconomic status* (in rupees)	
≥39174	19 (11.2)
19587-39173	37 (21.8)
14960-19586	16 (9.4)
9794-14689	29 (17.1)
5876-9793	24 (14.1)
1978-5875	43 (25.3)
≤1977	2 (1.2)
Religion	
Hindu	155 (91.2)
Muslim	13 (7.6)
Others	2 (1.2)
Neonatal variables	Frequency (%)
Age distribution (in days)	
1-14	145 (85.3)
14-21	11 (6.5)
22-28	14 (8.2)
Gender distribution	
Male	124 (72.9)
Female	46 (27.1)
Mode of delivery	
Vaginal	157 (92.4)
Caesarean	13 (7.6)
Birth order	
First child	106 (62.4)
Second child	49 (28.8)
Third or more	15 (8.8)
Place of delivery	
Home	1 (0.5)
Hospital/Nursing home	169 (99.5)

ANC registration was 100%. Various cultural customs surrounding covering of the baby after birth, bathing, feeding, care of the cord, neonatal jaundice were evaluated and depicted in Table 2. Practices to prevent evil eye and other beliefs related to the baby's clothes, bathing of the mother, instillation of drops to the baby were also evaluated. Some of these were harmful and should be discouraged, some were beneficial and should be encouraged like leaving the mother and baby alone, breastfeeding which can strengthen the bond between them.

The majority of customs and beliefs practised in Indian households are inherited, however some are not. The acquired ones depend on a number of variables, including the mother's maturity and educational level the family's monthly income and the family structure. Many customs are influenced by the mother's and the family's religious convictions Table 3.

DISCUSSION AND CONCLUSION

Traditional cultural practices related to child bearing do exist in different parts of India. Some are relevant, some practices are harmful and others are neither harmful nor beneficial to the baby. In this study, various practices by mothers during pregnancy, childbirth and post-partum period are included. In our study, majority of mothers were aged less than 25 years (61.4%) belonged to joint or extended family (61.8%) were Hindu by religion (91.2%) were educated up to primary school (>80%) and had family income less than 9794 (40.6%). According to Reshma *et al*. the majority of mothers (46%) were between the ages of 26 and 30, belonged to nuclear family (57%) majority (57%) were Hindu by religion, educated up to high school (42%) and had family income less than 11361 (40%)[4]. Thus, both the studies were comparable in terms of religion, education and monthly family income. In our study, most of the neonates were male babies, aged 1-14 days and were the first child of their families. According to Grover *et al*. 44% of infants were third order or older, 56% of newborns were male and the majority (40%) of babies were between the ages of 14 and 21 days[5]. Male newborns therefore outnumbered female newborns in both studies.

Most births in our study occurred in hospitals and were vaginal births Table 1. The HMIS report from 2013 states that 10% of births in Odisha are Caesarean sections and 77% are institutional deliveries against all ANC registrations in the state[6]. The number of C-sections in Odisha is 5.1%, whereas the percentage of deliveries in medical facilities is 35.6% and the percentage of deliveries at home is 63.8%, based on data from the NFHS-3[7]. That means percentage of hospital deliveries are increasing, home deliveries are less preferred and normal deliveries are preferred over caesarean section in Odisha. The results of this study confirmed that mothers performed various traditional practices regarding the first bath of their babies. In this study, 95.9% mothers massaged with baby oil before bath Table 2. This is almost similar to Reshma *et al.* study, which found that 95% mothers massaged with baby oil before bath[4]. Improved skin condition, reduced risk of skin damage and infection, greater thermoregulation via less trans epidermal water loss, absorption of vital lipids and improved mother-infant bonding through repetitive tactile stimulation are some of the potential advantages of oil massaging before bathing[8]. In this study 63.5% mothers performed 21st day celebration which is commonly performed by Hindu communities ($p<0.00$) popularly known as "Ekushiya". 7.6% mothers performed 40th day celebration which is commonly performed by Muslim communities ($p<0.00$). As far as we are aware, no studies have been published regarding the celebration of the 21st and 40th day. In our study 16.5% mothers applied turmeric paste to the baby before giving 1st baby bath. According to research by Reshma *et al*. 24% of mothers used turmeric paste before bathing the baby[4]. According to Grover *et al*. 34% of mothers gave their infant their first bath after

Table 2. Various cultural practices and beliefs among the mothers and family members of the new-borns

Cultural practices and traditions	Frequency (%)
Antenatal care	
Pregnancy registration	170 (100)
Antenatal check-ups	168 (98.8)
Iron and folic acid intake	167 (98.2)
Ultrasonogram done	164 (96.5)
Calorie restricted diet	14 (8.2)
Calorie-rich diet	156 (91.8)
Stayed at maternal home	20 (11.8)
Wrapping of baby after birth	
a. Type of cloth used	
- new	52 (30.6)
- old	118 (69.4)
b. Time of wrapping	
- <5 min	139 (81.8)
- 10-30 min	19 (11.2)
- half to 1 hrs	10 (5.8)
- >1 hour	1 (0.6)
- unknown	1 (0.6)
Bathing practices	
First bath within 7 days	13 (7.6)
First bath after 7 days	157 (92.4)
21st day celebration	108 (63.5)
40th day celebration	13 (7.6)
Oil massaging	163 (95.9)
Applying turmeric paste before bath	28 (16.5)
Adding honey and salt to bathing water	2 (1.2)
Adding gold coin to bathing water	1 (0.6)
Adding stones to bathing water	3 (1.8)
Feeding practices	
a. breast-feeding initiation time	
- <1 hr	92 (54.1)
- 1-4 hr	42 (24.7)
- 4-24 hr	9 (5.3)
- >24 hr	27 (15.9)
b. Additional practices	
- colostrum given	156 (91.8)
- colostrum discarded	14 (8.2)
- pre-lacteal feeds	18 (10.6)
- feeding milk with “kumkumkesar”	3 (1.8)
- home remedies for digestion	18 (10.6)
- giving hot water to stool evacuation	5 (2.9)
Cord care practices	
Applying ashes, soot, cow dung	8 (4.7)
Use of rectified spirit	65 (38.2)
Applying heat to make it dry	23 (13.5)
After fall of the dried cord	
Buried	129 (75.9)
Throwing into a pond	21 (12.4)
Keeping it safe	11 (6.5)
Practices to prevent evil eye	
Applying kajal on face and forehead	167 (98.2)
Tying black thread	55 (32.4)
Applying tikka or tilak on forehead	69 (40.6)
Tying metal with thread	47 (27.6)
Tying thread with hair or piece of wood	6 (3.5)
Jaundice care	
Exposing to sunlight	16 (9.4)
Giving sugar water to baby	8 (4.7)
Dressing baby with yellow clothes	13 (7.6)
Frequent breast-feeding	8 (7.6)
Other practices	
Instillation of oil into the ears	51 (30)
Use of eye or ear drops	24 (14.1)
Use of pacifier	7 (4.1)
Wiping of tongue with a cloth	108 (63.5)
Baby is not allowed to go outside after 6pm	156 (91.8)
Baby’s clothes not kept outside at night	149 (87.6)
Placing the baby’s first stool under the bed	3 (1.8)
Not trimming nails until 40 days	17 (10)
Leaving mother and baby together	83 (48.8)
Not allowing mother to step outside until 40 days post-delivery	45 (26.5)
Mother taking bath within 7 days of delivery	45 (73.5)
Mother taking bath after 7 days of delivery	125 (26.5)

Table 3. Association between cultural practices and selected demographic variables (N = 170) *Chi-square test

Maternal age	<25 years (n = 105)	>25 years (n = 65)	p-value
Use of pacifier	7 (6.7)	0	0.045
Wiping of tongue with soaked cloth	60 (57.14)	48 (73.85)	0.033
Baby's clothes not kept outside at night	86 (81.9)	63 (96.9)	0.003
Maternal education	<10th class(n = 61)	>10th class (n = 109)	
Tieing black thread or bangles	26 (42.62)	29 (26.6)	0.04
Monthly income (in rupees)	<10,000 (n = 92)	>10,000 (n = 78)	
Use of pacifier	7 (7.6)	0	0.016
Baby's clothes not kept outside at night	89 (96.7)	67 (85.9)	0.012
First baby bath <7 days	11 (11.9)	2 (2.57)	0.039
Type of family	Nuclear (n = 38)	Others (n = 132)	
Antenatal check-ups	36 (94.7)	132 (100)	0.049
Wiping of tongue with soaked cloth	30 (78.9)	78 (59.1)	0.035
Religion	Hindu (n = 155)	Others (n = 15)	
Application of ashes/cow dung on umbilical cord	3 (1.94)	5 (33.3)	0.00
First baby bath at <7days	9 (5.8)	4 (26.7)	0.018
Massaging with baby oil	151 (97.4)	12 (80)	0.016
Initiation of breast-feeding <4hrs	128 (82.6)	6 (40)	0.001
Colostrum given	146 (94.2)	10 (66.7)	0.003
Tying metal with thread	39 (25.16)	8 (53.33)	0.031
Instillation of oil in the ears	42 (27.1)	9 (60)	0.015
21st day celebration	106 (68.4)	2 (13.3)	0.00
40th day celebration	0	13 (86.7)	0.00

one week of life, however in our study, 92.4% of moms gave their baby their first wash after seven days[5]. In our study 1.2% mothers added honey and salt to bath water, 0.6% mothers added gold coin to bath water and 1.8% mothers added stones to the bathing water. The women believed that by following these customs, their children would not smell unpleasant and would grow up to be wealthy. Nevertheless, these procedures run the danger of damaging a baby's skin and making them hypothermic, which raises the possibility of neonatal sepsis. Therefore, such practices should be discouraged.

Majority of mothers initiated breast-feeding within the first hrs after delivery. According to WHO guidelines, breastfeeding must be initiated within the first hour of birth and continue exclusively for the first six months of life[9]. In this study 8.2% mothers discarded colostrum while 10.6% mothers provided pre-lacteal feeds like honey, sugar water and glucose water. According to research by Reshma *et al*., 31% of moms provided pre-lacteal feeding and 16% of mothers threw away the colostrum[4]. Mothers believed colostrum was impure and could be detrimental to the unborn child, which is why it wasn't given to them. Sweet pre-lacteal foods were believed to influence the child's personality and protect from diseases. These practices are harmful and should be discouraged. Colostrum should be given as it increases immunity[10]. 10.6% mothers in our study gave home remedies to improve digestion, 2.9% mothers gave hot water to evacuate stool and 1.8% mothers fed milk mixed with "kumkumkesar". In Reshma *et al.* study, 53% of mothers gave home remedies like Gripe mixture, garlic, ginger and herbal leaves to improve the baby's digestion, 32% of mothers gave hot water for better stool evacuation and 16% mothers fed milk mixed with "kumkumkesar"[4]. Therefore, our investigation found relatively few traditional feeding practises as compared to previous studies. It is advisable to discourage the use of home treatments for digestion and stool evacuation.

According to research by Reshma *et al.*, 24% of mothers buried the umbilical cord, 10% applied heat to it and 55% covered it with ashes, soot, powder or dry cow manure after falling[4]. So in our study, applications on cord stump was comparatively lower but application of heat and burying of cord was higher. It is assumed that the location of the cord's burial affects the baby's personality-burying the cord in school premises would incur quality education, burying close to temples or mosques would instil their off-springs a devotion to God. It is not advisable to apply soot or cow dung on cord as this poses a danger for infection and neonatal sepsis. The remaining cord-related practises are harmless and should be disregarded. No comparative data is available regarding application of rectified spirit over cord. Every community observes the belief in the evil eye. It is recommended to prevent some practises such applying tikka or tilak, as they raise the risk of sepsis in newborns.

In our study significant association was found between religion and application of ashes/cow-dung on cord stump (p>0.00) 1st baby bath within 7 days of birth (p = 0.018) massaging with oil (p = 0.016) initiation of breast feeding (p = 0.001) giving colostrum (p = 0.003) tying metals with thread (p = 0.031) instillation of oil into ears (p = 0.015) 21st day and 40th day celebration. Significant association was also found between type of family and antenatal scheck-ups (p = 0.049) and wiping of tongue (p = 0.035) Table 3. More antenatal check-ups were done by joint and other families, while wiping of baby's tongue was more common in nuclear families. Mother's age has significant association with pacifier use (p = 0.045) wiping of tongue (p = 0.033) not placing baby's clothes

outside at night (p = 0.003). Mother's education had significant association with tying of black thread on arms and legs (p = 0.040). Tying of black thread into baby's hands or legs was more among mothers educated up to primary education. Family income had significant association with pacifier use (p = 0.016) not placing baby's clothes outside at night (p = 0.012) and first baby bath (p = 0.039). These practices were more common among those mothers having family income less than 10,000 rupees.

This study on traditional cultures and beliefs comprises only small number of neonates and mothers representing only the tip of the iceberg, thus it is not possible to project the results of this study as a true reflection of society as a whole. Some of the rituals performed by the mothers are beneficial and must be encouraged. The fundamental causes and underlying ideas behind traditional child care practices that have detrimental impacts on the health of the mother and the child must first be uncovered and then inculcated in various national health programmes in order to reform these practices.

REFERENCES

1. Morau, D., 2003. Comparison of continuous 3-in-1 and fascia iliaca compartment blocks for postoperative analgesia: Feasibility, catheter migration, distribution of sensory block, and analgesic efficacy. Regional Anesthesia Pain Med., 28: 309-314.
2. Capdevila, X., P. Biboulet, M. Bouregba, Y. Barthelet, J. Rubenovitch and F. d'Athis, 1998. Comparison of the three-in-one and fascia iliaca compartment blocks in adults. Anesth. Analg., 86: 1039-1044.
3. NH., 2023. World Children's Day, https://www.unicef.org/world-childrens-day?gclid=EAIaIQobChMIhurX_d6TgwMV80NBAh1sZgD8EAAYASAAEgLQ0_D_BwE.
4. Reshma, R. Sujatha, 2014. Cultural practices and beliefs on new-born care among mothers in a selected hospital of mangalore taluk. NUJHS., 4: 21-24.
5. Asim, M., B. Mahmood and M.M. Sohail, 2015. Infant health care. Professional. Med. J., 22: 978-988.
6. Odisha., 2013. HMIS analysis report 2013., https://scholar.google.com.pk/scholar?q=6.+Odisha+HMIS+analysis+report+2013.+Available+from&hl=en&as_sdt=0&as_vis=1&oi=scholart
7. NFHS., 2001. Orisha state report., http://rchiips.org/NFHS/NFHS-3%20Data/Orissa_state_report.pdf.
8. Mullany, L.C., G.L. Darmstadt, S.K. Khatry and J.M. Tielsch, 2005. Traditional massage of newborns in Nepal: Implications for trials of improved practice. J. Trop. Pediatr.s, 51: 82-86.
9. WHO., 2014. Breastfeeding recommendations of WHO., http://www.who.int/topics/breastfeeding/en.
10. Hanson, L.A., 2004. Immunobiology of Human Milk: How Breastfeeding Protects Babies. Amarillo, TX, USA., https://www.amazon.com/Immunobiology-Human-Milk-Lars-Hanson/dp/0972958304**.**