

An exploratory study on traditional practices of families during the perinatal period among traditional birth attendants in Uttarakhand

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ABSTRACT

Introduction: India has a current maternal mortality rate of 130 which contributes to 20% of the total mortality rate in the world and more than a quarter of neonatal deaths; nearly 0.75 million neonates have died in India. The present study aimed to explore the cultural practices during the perinatal period including newborn care in Uttarakhand. **Materials and Methods:** A qualitative descriptive design to explore self-experience for significant years in the field of maternal care and deliveries among 990 traditional birth attendants from 13 districts of Uttarakhand. Focused one-to-one in-depth interviews were done to collect the data. The data was expressed by participants in the form of narrations, picturizations, songs, and role-plays to show the techniques which were translated from the language of interviews to English before analysis of the data. **Results:** Wide variety of cultural practices have been identified during various stages of the perinatal period. Most of the participants (80%) expressed that families believe that the pregnant women should not eat green vegetables, yam, pulses, red grams, papaya, and mangoes and that she should eat less during pregnancy. The routine activity should be done regularly to make labor process easier. Most of the mothers (90%) delivered on the floor of the cowshed demarcated with cow dung. Participants expressed that the mother had to walk for 2 km for taking bath after delivery before she touches the baby. Sprinkling cow's urine is also a common practice after delivery in and around the house and on the mother. It was also found that they don't breastfeed the baby for 3 days since colostrum is not considered good for the baby. **Conclusion:** The practices which are proven to be beneficial to the mother and baby should be advocated to keep our cultural practices alive, at the same time it is important to discourage communities from harmful practices concerning the mother and the baby.

Keywords: Cultural practices, dais, home deliveries, perinatal period, traditional practices, trained birth attendants, Uttarakhand

Introduction

In South Asia, health conditions which affect mothers during the perinatal period are the major contributing factors for the disease burden.^[1] It has been observed that there has been substantial interest to understand the sociocultural environment during pregnancy and childbirth in low- and middle-income countries over the past two decades. Hence,

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the focus of care could direct culturally appropriate to have greater chances of successful pregnancy and childbirth. The significant research has centered on traditional and cultural factors involved in childbirths and rearing practices.^[2,3] A lot of emphases has been given in research on potential traditional practices which are harmful during the perinatal period in rural South Asia where home deliveries are common. Various researches conducted in rural India found that cord-cutting with unsterile equipment, delayed breastfeeding, and bathing the newborn early are potentially dangerous.^[4]

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Out of 800 women dying every day due to pregnancy-related causes, India alone contributes to 20% of it, with the current maternal mortality rate of 130.^[5] India contributes to one-fifth of global live births and more than a quarter of neonatal deaths. Nearly, 0.75 million neonates died in India in 2013, the highest for any country in the world.^[6-10] Government of India is implementing several schemes like Janani Suraksha Yojana (JSY), Janani Shishu Suraksha Karyakaram (JSSK) to improve antenatal care, increase institutional deliveries, and enhancing the longevity of newborns. Despite these efforts, institutional deliveries in India has increased from 38.7% to 78.9% in the decade to 2015-16 (NFHS-4) and around 20% of deliveries are not happening at the institution and neonatal mortality is not showing expected fall in several states of the country for last many years. Uttarakhand is one of the states reporting a high maternal mortality rate of 165 with 68.6% institutional deliveries,^[11] and 40 neonatal mortality rate.^[12]

Uttarakhand popularly known as “Dev Bhoomi”, land of Gods has strong cultural and traditional practices existing for thousands of years.^[13] A new thought process has been generated to examine the traditional practices in the light of science and technology, so that good practices and culture can be preserved and our society can be benefited from that, and at the same time, regressive practices can be discarded.^[14] The present study was planned to explore cultural practices during pregnancy, labor, and postnatal period including newborn care.

Methodology

A qualitative descriptive study was conducted at the Rural Development Institute (RDI), Himalayan Institute Hospital Trust, Uttarakhand. This was based on participants self-experience for significant years in the field of maternal care and deliveries. At RDI 990 traditional birth attendants from all 13 districts of Uttarakhand have visited for their training on safe mother and childhood practices in the last 10 years. This document is a record of experiences narrated by those traditional birth attendants. In-depth interviews were done to collect data by using semi-structured predesigned and pretested interview schedule. The interview schedule included demographic information of TBAs and open-ended questions on traditional practices during pregnancy, labor and post-partum. The researcher has taken verbal informed consent from each TBA. The data which was expressed by the participants in the forms of narrations, picturizations, songs and role-plays to show the techniques, was translated from the language of the interview to English before analysis of the data. The present document represents the collective picture of Uttarakhand state.

Results

This data is a collective record of traditional practices reported by 990 traditional birth attendants. Before training had started, participants were requested to express their experiences related to cultural practices during the perinatal period through singing

songs, making traditional pictures, doing role-play having a discussion with investigators. As participants have come from far reach areas of Uttarakhand, most of them were expressed in their own Garhwali or Kumaon language. Data was translated with the help of local language expert into descriptions/verbatim. Themes which were extracted about the practices related to pregnancy, delivery, and postnatal period are described below:

Demographic profile of the participants

Most of the participants (80%) were illiterate and only 20% had studied up to fifth class. The majority (60%) of the participants were 35–55 years. More than half of the participants were having experience of conducting deliveries at home from the last 25 years of their life.

Traditional practices during pregnancy

During the antenatal period, women undergo many physiological and emotional changes, which requires special care regarding her nutrition, rest, regular health checkups, family support etc., Since many ages, pregnancy has been considered as a time for celebration and many customs and practices are associated with it. The practices and beliefs prevalent in different regions of Uttarakhand are mentioned below.

Food and eating habits

Most of the participants (80%) from the Garhwal region mentioned that “it is commonly believed that pregnant women should not eat green vegetables, yam, pulses, red grams, papayas, and mangoes”. In most of the responses (75%) participants expressed that “pregnant women should also not eat full stomach as this can put pressure on the growing baby” and baby would grow larger in size and it may result in difficulty at the time of delivery. Furthermore, most of the participants (85%) from Garhwal region expressed that, they believe pregnant women are not encouraged to drink much water, because it would enter the side of the abdomen and lead to pressure on the baby.

Rest

Most of the places of Uttarakhand believe that if a woman is made to beat the paddy, it will avoid complications for her at the time of delivery. In Garhwal, it is commonly believed that pregnant women should not wear red-colored clothes as this is considered a sign of miss happening.

Traditional practices during intranatal period

Intranatal period is the most crucial period of the whole process of birthing, minor mistake, or wrong practice can endanger the lives of women and the baby. Since ages, different communities have different practices.

Place of delivery

Participants from the Garhwal region expressed that, “mostly (90%) women deliver on the floor of the cowshed, which is usually covered with dried, long grass, and old sacks.” In the Kumaon region, 80% of the participants expressed this

practice as “the place of delivery is demarcated with cow dung line and only a few people are allowed to enter the room”.

Cleanliness

Most of traditional birth attendants (87%) do not have the practice of washing hand before delivery.

Food and fluids during labor

Special food items are given during labor like strong sugary tea, porridge etc., as it is believed that this will help in easing the delivery process.

Delivery process

- In Garhwal, most of the women (92%) deliver the baby in the sitting position and at times it is being reported that heel of the foot is used to support the pelvis.
- In Yamkeshwar area of Garhwal, there is a tradition that if delivery is taking time then they show railway ticket to mother to expedite the process and they believe that if the ticket is of faraway station that will help in expediting the process and also “*Banslochan*” (Root of Bamboo tree) is given to expedite the process.
- In Tehri Garhwal area, there is a practice that if delivery is getting delayed then the family member invites five brahman saint (*Pandit*) to sit at the door of the room where women are in labor and they recite mantras so that delivery can proceed at normal speed.

Traditional practices during the postnatal period

During the postnatal period also, different communities have different practices and beliefs which needs to be examined in the light of current scientific knowledge.

Cutting the cord

Majority of the participants (72%) expressed their view as the cord is usually cut with a knife while placing the cord on a wooden piece. In Kumaon region, the cord is tied at one point and cut while placing it on the coin. Whereas, in Garhwal region cord blood is rubbed on the lips of the baby in the belief that it will make baby’s lips red.

Cord care

Oil, ghee, turmeric and mother’s milk are usually applied in the umbilical area of the baby.

Disposal of placenta and waste

Placenta and other waste which gets accumulated during delivery are usually dumped under the heap of dung.

Care of women

In Kumaon, usually after delivery, women are sent to take bath 1–2 km away from the place of delivery in an isolated place and purify herself before entering the home, usually, only dai accompanies. In Garhwal region, postnatal women take bath after 6 days if a baby girl and after 5 days if baby boy is born. In the Kumaon region, the postnatal women are given

light food and porridge prepared with wheat flour, while dry fruits (almond), and fatty food items are given to father of newly born.

The postnatal woman is not allowed to do any work for a minimum of 21 days in Garhwal region. A fire is burnt to make the room warm. The mother and infant are given body massages and fomentation. The urine of cow is sprinkled on the back of postnatal women when she resumes her periods after delivery, till then she is not supposed to use a common bed and sleeps on a separate bed.

Care of a baby

If the baby does not cry after birth, noise is made by a striking metal plate and water is sprinkled on the baby’s eyes. To protect the baby from the evil eye, majority of the families put black thread around neck or waist along with “*taabeez*” (locket) of bhojpatra, pig’s teeth etc., and new clothes are not allowed to put on the baby. If mother and baby leave maternal home before 6 months after delivery then knife or a sharp metal used for cutting the grass is put along with them to protect them from ghost, evil eye and so on.

Baby is usually given honey as the first thing and word “Om” is written on his tongue with thin gold straw considering that it will make the child wiser. Wet Kajal is put in the eyes of babies in the belief that this will make his eyes bigger. Soap is inserted into the baby’s anus to relieve him from constipation. In the Kumaon region, the baby is given dung bath just to remove lanugo and is considered that this process will make him sacred. Wheat flour is rubbed on the baby’s body to remove body hair. Warm oil is put in the nose and ear in the belief that this will clear ear and nostrils. If the baby cries because of stomachache, then warm ash is tied on his stomach and if the baby has any stomach problem, a warm stick is stroked over his stomach to remove the wind.

Breastfeeding

Usually, the mother starts breastfeeding after 3 days of delivery. Many times, colostrum is not given to the baby, considering it as stored milk not appropriate for the babies. Surprisingly “*Makoda Test*” is done in few communities. This test is being done to see whether the milk of the mother is suitable for the baby or not. Makoda is Hindi language refers insects, few insects can take breast milk expressed in a *Katori* (bowl), if after drinking that milk, insects survive then the milk is suitable for the baby otherwise not.

The baby is made to suck jaggery if the baby has any difficulty in sucking the breast milk. If baby coughs during the breastfeeding mother blow air towards the baby’s palate with her full strength. In Chamoli and in Garhwal people beat the thali to inform people that girl baby is born. In Kumaon region on the door or at the entry point of the house Latjira (*Achyranthes aspera*) grass is hung to protect women and the baby from the evil eye.

Discussion

The present study was done to explore the traditional practices of Uttarakhand by exploring the experience of local traditional birth attendants who were conducting the deliveries for more than 25 year of their life.

Traditional practices during pregnancy

It was reported by the majority of TBAs that pregnant women should not eat green vegetables, yam, pulses, red grams, papaya, and mangoes. However, there is no scientific evidence to support the above belief in avoiding certain vegetables or fruits. Withers *et al.*,^[15] also mentioned regarding the traditional practice of nutritional taboos during the perinatal period. Here, one issue could be with black seeds of papaya, which are purgative in nature and may lead to abortion if taken in large amount, which, therefore should be avoided.^[8]

Pregnant women should not eat full stomach as this can put pressure on growing baby and they were not encouraged to drink much water. This practice should be discouraged by creating awareness among community along with the misconception that baby would grow larger in size, that may lead to a difficult delivery.^[16,17] Study^[18] have reported that good, nutritious, a variety of foods are good for the mother as well as the baby's health. In most of the places of Uttarakhand it is believed that if a woman is made to beat the paddy, it will avoid complications during the time of delivery. Although there is no problem if the women continue with her routine work, during pregnancy strenuous work should be avoided especially during the third trimester.^[19]

Traditional practices during intranatal period

Conducting delivery on the floor of cowshed was very high (90%) in Garhwal region, it is a very harmful practice, because of very high chances of transmission of infection, which can endanger the life of women and baby. In the Kumaon region, people demarcate delivery area by cow dung which was restricted for limited people. Although allowing few people to be a part of the process reduces the chances of infection to mother and baby, but the practice of putting a line with dung is not suitable in the light of existing scientific knowledge. Instead, they should find some other alternative. In one study,^[15] it was found that mothers and family members had preferred deliveries at home for greater control and fear of medical intervention.

Special food items such as strong sugary tea, porridge etc., were given to mother for easing the delivery process. It could be considered good practice. However, precaution is required if women are diabetic or cardiac patient. Most of TBAs (87%) reported that they do not wash hand before delivery. Whereas, studies from the southern part of India and Nepal^[20,21] reported that the majority (74%) of TBAs perform hand washing before delivery.

In present study from Garhwal, maximum (92%) mothers were given a sitting position for delivery and used the heel of the foot to support pelvis during crowning, this position may not be favorable for delivery as chances of rupture of pelvic muscles are very high causing injuries to the baby. In a study,^[15] it was mentioned that the mothers preferred to use traditional positions for delivery instead of seeking medical help.

Traditional practices during postnatal period

As per the latest recommendation, new blade is preferred for cutting the cord when delivery is done at home situations.^[22] In the present study, uncleaned sharp instruments were used such as a knife, and in the Kumaon region, the cord was cut by placing on a coin. These practices, where the umbilical cord was cut with an unclean blade, risk the child to develop various infections, as reported by Withers *et al.*^[15]

Many participants reported that as a traditional practice they were applying oil, ghee, turmeric, and mother's milk on the cord stump as in contrast to the latest recommendations stating that nothing should be applied over the cord stump.^[23] It is interesting to know that mothers' milk has been recommended for the treatment of cracked nipple as it has anti-infective properties hence applying mother's milk on the cord is not a harmful practice. However, it still needs proper scientific exploration.

A study^[15] found that postnatal mothers are weak, fragile, and vulnerable for diseases. However, in Kumaon area, post-natal mothers were sent 1–2 km away from the home for bath as purifying herself. This practice could be unhealthy as delivery is an exhaustive process where postnatal mother's need rest and hygiene care should be provided in the house. In Garhwal region, postnatal mothers take bath after five or six days based on the gender of the baby born. After delivery cleanliness and maintenance of hygiene is necessary, which should be ensured.^[20]

In accordance with present study findings, Gedamu *et al.*,^[24] revealed that giving massage and fomentation to mother and infant are very common practices during the postnatal period. In the Kumaon region, the baby is given dung bath just to remove the lanugos and it is considered that this process will make him sacred. It is a very harmful practice that can lead to infection, hence needs to be completely discouraged. In most places of Uttarakhand sprinkling of cow's urine on postnatal women is considered auspicious, even when she resumes her menstrual period after delivery. This kind of practice needs to be discouraged, as the process of delivery should not lead to a feeling that women are not clean or has become dirty.

It was expressed by the participants that to protect baby from the evil eye, the majority of the families put a black thread or "taabeez" or Pig's teeth. Apparently, it has no harmful effect, but the community should be made aware that the baby should be given good nutrition, breast milk, immunization for keeping him healthy. Putting wet kajal in the eyes of babies in the belief

that this will make his eyes bigger, not true, it is harmful, hence needs to be discouraged. A study also reported as putting *kajal* is a common practice in Indian families, but in reality it is a harmful practice for the kids.^[25,26]

The baby is usually given honey as the first food. Here, primary health care provider's including trained Dais' role is to motivate to give colostrum as first nutrition. Role of honey is required to be further explored for its usefulness as the first food item.

In Uttarakhand, usually the mother starts breastfeeding after 3 days, NFHS-4 recommends early initiation of breastfeeding within an hour of delivery is beneficial for the baby as well as the mother.^[27] Many times, colostrum is not given to baby considering it as stored milk not appropriate for babies. Appropriate practices regarding colostrum and milk feeding should be promoted in the community.^[15,28] In few communities "Makoda Test" is done to see whether the milk of the mother is suitable for baby or not. The community should be made aware in all most all circumstances (except few like mother is new case of TB without treatment, the mother is on cytotoxic drugs, or HIV positive) mother's milk is most appropriate nourishment.

Conclusion

Uttarakhand has ample cultural and traditional practices observed during the perinatal period. The beneficial practices to mother and baby should be advocated to keep alive our cultural practices such as feeding the mother with special type of sugar tea, porridge, and so on which helps in labor processes, giving massage to postnatal mother and baby for relaxation and soothing, etc., and at the same it is important to discourage communities to stop practicing restrictions on dietary intake during pregnancy, conducting deliveries on floor of cowshed, cutting cord with knife, etc., which could be harmful to mother and baby. It is an important responsibility on primary health care providers to correct the traditional practices and myths which are practiced by traditional birth attendants and dais' while caring mothers during the perinatal period.

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Conflicts of interest

There are no conflicts of interest.

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