International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Kaur TP. Int J Reprod Contracept Obstet Gynecol. 2019 Jan;8(1):24-30
www.ijrcog.org

pISSN 2320-1770 | eISSN 2320-1789

DOI: http://dx.doi.org/10.18203/2320-1770.ijrcog20185100

Original Research Article

Integrating age old cultural reproductive health practices with modern medicine to bring down morbidity and mortality among Birhor tribes of Jharkhand, India

Tejinder Pal Kaur*

Tata Steel Rural Development Society, Tata Steel, Jamshedpur, Jharkhand, India

Received: 15 November 2018
Accepted: 03 December 2018

***Correspondence:**
Dr. Tejinder Pal Kaur,
E-mail: tejinderp.kaur@tatasteel.com

ABSTRACT

Background: Among the primitive tribe of Jharkhand, Birhor's are the smallest group, and have been tagged as 'critically endangered' with population ~5000 (Census 2011). Traditional health care practices, traditional medicines, rituals and supernatural methods of treatment are integral part of tribal community. The main objective of the study was to integrate the cultural health practices focusing on reproductive health with modern medicine so that it impacts maternal and infant mortality.
Methods: A three- and half-year study was done in one of the outreach clinical area of Tata Steel Rural development society in Chotabanki village, East Singhbhum, Jharkand, India, among the Birhor tribes. The study was based on primary quantitative data -Data collection was by interviewing the respondents using questionnaires. Numerous interactive sessions with community members were conducted to learn about their cultural practices related to maternal and infant health.
Results: There was a definite change in behaviour in some of traditional health practices, related to maternal and child health. Acceptance of modern health services impacted the health indicators, resulting in increase in population growth by 7.6% with zero still birth, maternal and infant mortality.
Conclusions: As medical professionals, extra effort should be taken to understand their cultures regarding health. By establishing a balance between their age-old cultural practices and modern medicine, we may get healthier and résistance free community & success in controlling morbidity and mortality.

Keywords: Birhor, Chotabanki, East Singhbhum, Primitive tribes, Traditional health practices

INTRODUCTION

The Tribal communities form a large chunk of the total population of the Jharkhand state. Among the 32 tribes in Jharkhand, eight are under Primitive Tribe Groups with a population of ~ 2.23 Lakhs (Census-2011).[1]

Among the primitive tribe, Birhor's are the smallest tribe. UNESCO has tagged these tribes as 'critically endangered' with population hovering around 5000 (Census-2011). These groups, with zero or negative population growth and very low literacy rate, live on hunting wild animals and collecting forest produce.[2-4].

The awareness regarding prevention, diagnosis, treatment and care is very low among tribal people.

Treatment seeking behaviour for most health problems including Reproductive and child health, revealed initial inclination to home remedies, followed by visits to the traditional healers. Health facilities are visited only when these problems become critical. Some of the diseases are

also believed to be caused by spirits and therefore treatments by traditional healers are preferred.[5] The objectives of this research is to study the traditional health care practices regarding maternal and neonatal health among the Birhor community of Chotabanki village, Palasbani panchayat, District of East Singhbhum, Jharkhand, India and also to evaluate the impact on behaviour changes in some of the practices after merging with modern medicine.

METHODS

Study was done in one of the outreach clinical area of Tata steel rural development society for a period of three &half years, starting April 2015. The study was focused on the Birhor tribes of Chotabanki, a village in Palasbani panchayat in the District of East Singhbhum, comprising of 23 household with a total population of 105 (House to house survey 2014) .

The data for this study was collected through primary source. For the collection of data, the methods used were,

- Census method
- Interview method
- Observation method.

Though the prime focus of the study was on the health of the primary target i.e. the reproductive group (adolescent girls and married women), the views of the secondary group of people-husbands, mothers-in-law, decision makers of the family & the community leaders were also studied. The first six months of the study were spent to get the acceptance of the community for the study.

- 100% House to house survey was done.
- 28 mothers (100%) were interviewed (Further segregated for mothers who had children post 2015 and mothers who had children before 2015).
- 20 school going adolescent girls (100%) were interviewed
- 16 husbands (67%) were interviewed using a predesigned questionnaire.

Multiple community interactions were conducted to learn about the Age-old health practices. The participants for community meetings consisted of community leaders, tribal healers, Dai Ma & men/women of the tribe. The interactive sessions with the elders and health providers made us aware of their cultural beliefs in health which they practiced.

Inclusion criteria

- Women who had children post 2015, pregnant women, women who had children before 2015
- Adolescent, school going girls
- Husbands
- Mother- in- laws and Dai ma
- Opinion leaders.

Exclusion criteria

- Adolescent, school going &non-school going boys;
- Children below 9 years of age.
- Aged men and women;
- All who were under influence of alcohol intoxication during survey period.

Data analysis was done using Microsoft Excel, from April 2015 onward, we had evidence-based data, but before 2015 the data was based on verbal interaction with the specific group. Consent was taken from the women and men who took part in the survey. One to one interaction was done with all pregnant ladies, lactating mothers, adolescent girls, husbands, and the elderly ladies who had borne children.

RESULTS

Most of the data is divided into tribal practice before March 2015, and after intensive intervention from April 2015 to September 2018.From a population of 105, 64 primary targets were interviewed (women with children, husbands, adolescent girls).

Before April 2015, there were 91 no. of births, 5 no. of abortions, 2 no. of still births and 20 no. of Infant deaths. After April2015, there were 11 no. of births, 0 still births, 3 no. of Low birth weight babies, and 0 infant mortality and maternal mortality (Table 1).

Table 1: Increase in population.

	Population	Births	Still births	Low birth weight	Infant death	Mortality in general population
April 2015 -March 2016	105	1	0	0	0	3
April 2016-March 2017	103	4	0	1	0	0
April 2017-March 2018	107	5	0	2	0	1
April 2018-Sept 2018	112	1	0	0	0	0

Table 2: Increase in antenatal check-ups during pregnancy and awareness in adolescents and married men for antenatal check-ups.

Knowledge regarding importance of antenatal checkups	Before31st March 2015		After 31st March 2015		Adolescent girls school going		Married men	
	Births	91	Births	11	Nos	20	Nos	16
	Nos	%	Nos	%	Nos	%	Nos	%
ANC done	28	30.8	10	90.9	14	70.0	13	81.3
ANC not done	63	69.2	1	9.1	0	0.0	2	12.5
Do not know	0	0.0	0	0.0	6	30.0	1	6.3

Table 3: Increase in iron and folic acid during pregnancy and awareness for iron consumption for adolescent and married men.

Consumption of Iron and Folic acid during pregnancy	Before 31st March 2015		After 31st March 2015		Adolescent girls school going		Married men	
	Births	91	Births	11	Nos	20	Nos	16
	Nos	%	Nos	%	Nos	%	Nos	%
Iron intake	29	31.9	10	90.9	20	100.0	11	68.8
Not taken	62	68.1	1	9.1	0	0.0	5	31.3

In these three and half years there was an increase in population from 105 to 113 (~7.6 %) (Table 1).

Most of the ladies went to the 3rd trimester with haemoglobin from 9gm % to 12gm %. There was an increase in Antenatal check-ups from 31% to 91% which led to the increase of consumption of Iron supplement from 32% to 91% (Table 2 and 3). There was an increase in postnatal check-ups from 37% to 91%, 70 % adolescent girls said it was important for postnatal check-ups, for the wellbeing of mothers and their newborn. 69% husbands confirmed that postnatal check-ups were important (Table 4).

Table 4: Increase in postnatal check-up for pregnant mothers and awareness in adolescent girls and married men

Knowledge regarding importance of postnatal checkups	Before31st March 2015		After 31st March 2015		Adolescent girls school going		Married Men	
	Births	91	Births	11	Nos	20	Nos	16
	Nos	%	Nos	%	Nos	%	Nos	%
PNC important and done	34	37.4	10	90.9	14	70.0	11	68.8
PNC Not done	47	51.6	1	9.1	0	0.0	4	25.0
Do not know	10	11.0	0	0.0	6	30.0	1	6.3

Table 5: Quantity of food intake during pregnancy and awareness in adolescent girls and married men.

Nutrition during pregnancy	Women pre and post April 2015		Adolescent girls school going		Married men	
	Nos	28	Nos	20	Nos	16
		%		%		%
More than normal	0	0.0	18	90.0	3	18.8
Same as normal	16	57.1	0	0.0	11	68.8
Less than normal	11	39.3	0	0.0	0	0.0
Do not know	1	3.6	2	10.0	2	12.5

Quantity of food intake during pregnancy remained the same as before in 57% of pregnant women, with decrease in food intake in 39% of women (Table 5). Only 18 % of the younger mothers, avoided alcohol intake during pregnancy, but alcohol was consumed regularly during lactating. 100% adolescent girls said that alcohol was bad during pregnancy and lactation. Husbands claimed to convince their wives against alcohol consumption during pregnancy but had little success (Table 6). There was an increase of hospital deliveries from 2% to 73%. Still 27%

deliveries are conducted at home, despite the facilities by the government to promote institutional deliveries (Table 7). Only the very elderly confirmed of giving prelacteal like goat milk to the baby, but the younger generation have started putting the baby to breast immediately after birth. 100% confirmed of not giving prelacteal. For husbands 6% believed in giving goat milk, as it cleans the mouth of the baby and treats glossitis. 35% of adolescent girls believed that the baby should be given breast milk immediately. Most of them were not sure of prelacteal, there was an increase in colostrum feeding, from 74% to 82% (Table 8). 100% of the women, men were convinced that tattooing was important, 5% of adolescent girl said this should not be done, 100% of the males wanted to have their children tattooed, yearly. This was one cultural practice which was difficult to break. A small change in their perception was felt among the adolescent group.

Table 6: Alcohol consumption during pregnancy and awareness for adolescent girls and married men.

Consumption of alcohol during pregnancy	Women pre and post April 2015		Adolescent girls school going		Married men	
	Nos	28	Nos	20	Nos	16
		%		%		%
No Alcohol taken	5	17.9	20	100	16	100
Alcohol taken during pregnancy	23	82.1	0	0	0	0

Table 7: Place of delivery.

Place of delivery	Before31st March 2015		After 31st April 2015		Adolescent girls school going		Married Men	
	Births	91	Births	11	Nos	20	Nos	16
	Nos	%	Nos	%	Nos	%	Nos	%
Home delivery	89	97.8	3	27.27	0	0.0	10	62.5
Institutional delivery	2	2.2	8	72.73	20	100.0	6	37.5

Practice of not applying goat dropping or burnt cloth or soot on the umbilical stump increased from2% to 18%. Still the practice of burnt cloth to stop bleeding or giving hot fomentation on the stump was present in 82% of the babies (Table 9).100% of the ladies and their husbands wanted a male child in their family. Only 5% of the adolescent girls said it was okay to have only girls in the family.

Table 8: Practice of giving prelacteal to new-born.

Practice of giving prelacteal just after birth of baby	Before 31st March 2015		After 31st March 2015		Adolescent girls school going		Married Men	
	Births	91	Births	11	Nos	20	Nos	16
	Nos	%	Nos	%	Nos	%	Nos	%
Prelacteal given	24	26.4	2	18.2	0	0.0	1	6.3
Colostrum given	67	73.6	9	81.8	7	35.0	15	93.8
Do not know	0	0.0	0	0.0	14	70.0	0	0.0

Table 9: Practice of applying foreign material on umbilical stump.

Applying goat dropping or cow dung on umbilical cord	Before31st March 2015		After 31st March 2015		Adolescent girls school going		Married Men	
	Births	91	Births	11	Nos	20	Nos	16
	Nos	%	Nos	%	Nos	%	Nos	%
Applied	89	97.8	9	81.8	9	45.0	6	37.5
Not applied	2	2.2	2	18.2	5	25.0	0	0.0
Do not know	0	0.0	0	0.0	6	30.0	10	62.5

Myths

During the study period, we documented the age-old practises followed by the Birhor tribe. Some of them are mentioned below. If a pregnant woman was given iron tablets, she was discouraged to consume it by the elders of the family or the Traditional birth attendant, citing that it may increase the size & weight of the baby resulting in difficult labour. Some even believed that dark hue of the tablet may affect the complexion of the baby and baby will be born dark complexioned.

Just before delivery, the traditional birth attendant, poured oil on the abdomen, with the pregnant mother in a semi prone position. If the oil fell in a straight-line, her time of delivery is very near, if the oil flowed sideways there was still time left for the baby to be born. Food is restricted, in the belief that the food will press on the baby and suffocate it. There were cases when the mother showed white specks on the hair of the new-born and claimed that it is the rice which she had consumed just before delivery.

There is a definite gap in knowledge, that the stomach and uterus are separate organs. Certain food like fish which swim upstream is not consumed by the pregnant mother, in the belief that, there will be difficulty during child birth. Eggs are not broken, or chicken is not cut by the pregnant mother, in the belief that it will lead to abortion.

No animals are hurt or killed by the mother as it will have a negative consequence for the unborn child. Just before delivery of the baby, the floor was plastered with mud and cow dung. Delivery at home is assisted by the traditional birth attendant (Dai Ma). After the baby is delivered the baby is put on the floor, she waits for the placenta to be delivered. The traditional practice of separating the placenta from the cord is done just after the pulsation stops.

The placenta is separated from the baby by using any blade or anything to cut- it could be the roof tile. Earlier the thread to be tied to the umbilical cord used to be any thread removed from bed sheets or the end of any cloth. A small coin is placed below the cord as a support to cut it. The cord was also tied at one end.

The placenta is buried in the main entrance of the house. The myth is that it brings luck and fertility to the family. Also, if the placenta is thrown outside it might be used for evil practice. After delivery, the mother is prevented from using the main door. A small door is temporally made beside the place of delivery (Figure 1 and 2).

She crawls out of the room for her biological needs. Nobody is allowed to touch them. The used utensils are picked up by family members. She is not allowed to bathe herself till the umbilical cord sheds off.

The baby is bathed after about twelve hours after the delivery and kept with the mother in a closed room.

Figure 1: Small opening in the wall for mother to use.

After this, the baby is not given a bath till the umbilical cord sheds off. As the baby is not exposed outside cases of hypothermia were not reported. Oil is applied to the baby and the cord. The umbilical cord is twirled in her fingers to make it shed fast. Once the cord breaks off it is buried at the entrance of the small opening.

Figure 2: Temporary door bricked up after use.

Manual removal of umbilical cord is discouraged as it can cause injury, bleeding or infection. The babies are kept naked (Figure 3) till the umbilical cord is shed. The babies are covered by the mother's shawl or sari. Traditionally no clothes are put on the new-born. The family is scared that it might injure the umbilical cord.

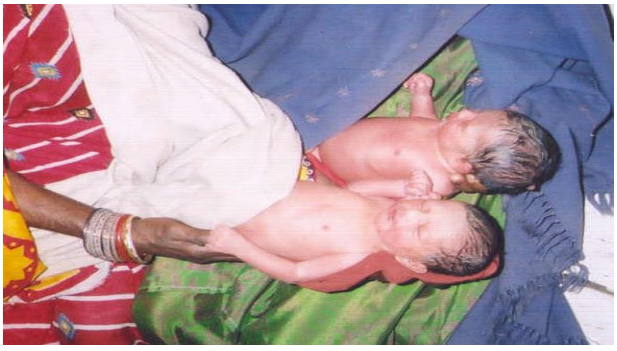

Figure 3: New-born babies left uncovered just after birth.

When the baby is born, sickle is heated and the skin around the umbilical cord is tattooed (CHIRI Daag) within 21 days of the birth (Figure 4 and 5). A yearly procedure of tattooing is done on the next day of Tusu festival (i.e.15th January), by an elderly person from the village. He applies mustard oil on the abdomen and uses a red-hot sickle to tattoo. In the earlier days, the tooth of the wild pig-boar was heated and used for tattooing.

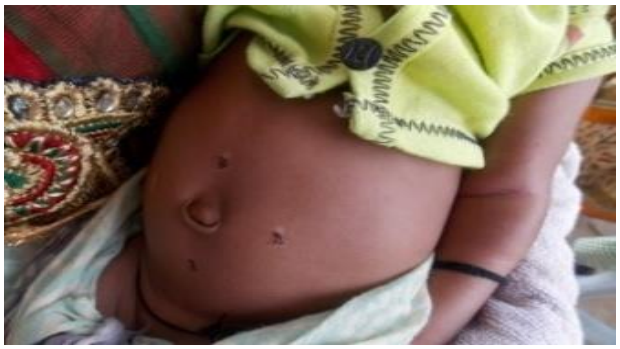

Figure 4: Tattooing around the umbilical cord.

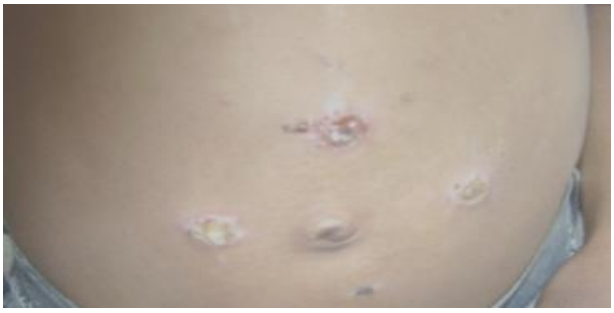

Figure 5: Infected tattooed marks.

The belief was that the baby would never suffer pain abdomen throughout life as the food ingested by the baby gets digested. Second belief is that it prevents the enlargement of the spleen. All home deliveries were given hot fomentation and once the stump breaks away, the mahua leaf or cloth is burnt and the ash is put on the cord. They believe that this stops the oozing and prevents the flies (Figure 6).

Figure 6: Application of foreign mateial on umblical stump.

Some herbs are applied to the fontanel to facilitate the bones to close (Figure 7). These herbs contain grass-dhub grass (white variety), horn of deer, kaccha (raw) haldi, tortoise back, crab shell and some herbs which were not disclosed by the village doctor (Ojha). Some babies have been observed with paste on the cranial sutures rather than the fontanels. The application of paste hides the visibility of fontanel, which is a common site for detection of dehydration or pulsating fontanel, otherwise, as the paste is not absorbed in the body there seems no harm in continuing this ritual.

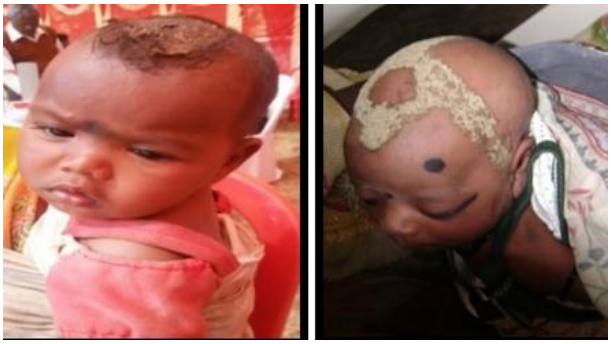

Figure 7: Application of herbs on fontenels and sutures.

All children were breast fed as long as possible. None of the children was given goat milk or any milk other than mother's milk. The belief is that the goat milk is for the consumption of the goat's baby. If humans consume it than goat's baby will be deprived of it. Food is restricted to the mother, she fasts for two days, on the third day she is given rice, lentils and garlic once a day. Sometimes instead of rice, potatoes are given. It was observed that a fruit looking like a scrotum was hung with a string around the waist with a belief that the scrotal swelling would subside (Figure 8) No harm comes in wearing the fruit, externally, but parents were advised to seek medical help to rule out infection.

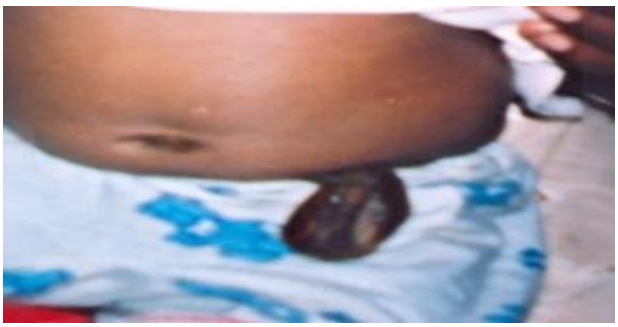

Figure 8: Fruit hung on waist in scrotal swelling.

DISCUSSION

Why should we try to change the beliefs and traditions of the tribes, which they have preserved and survived for so long? But we can sensitize them of the harmful practices which might threaten their wellbeing. Most of the cultural beliefs are usually handed down from generations from mother to daughter and mother in law to daughter in law,

without knowing the real implication of the culture. Some of the cultural practices which could be continued would be to cut the cord after pulsation stops so that the 60 ml of iron rich blood gets transferred to the baby, isolation of mother and her new born is a good practice which is now scientifically proven to create a strong bond between mother and her new born.[6,7] Colostrums feeding are an age old practice among the tribal's. Culture of applying herbal paste externally does not harm the newborn so this culture might be respected. It is surprising, that the birth attendant never performs an episiotomy, on the primigravida, and on examining the mother no cuts or lacerations are found. In modern medicine all primigravida, are given episiotomy for smooth delivery and prevention of lacerations on the vulva.

This again could be a reason for home deliveries as they are apprehensive about caesarean sections or episiotomy. In spite, of all facilities provided by the government for Institutional deliveries, they still prefer to have deliveries at home among their family members. Still, a little more stress should be given for institutional deliveries. It was important to make them aware that the uterus and stomach were separate organs and therefore the food does not press the foetus. It was important that there should be increase in food intake during pregnancy. The practice of CHIRI dag is still very prevalent in some segments of the tribe. This age-old practice is very difficult to break; problem comes when these burnt marks become infected (Figure 5). A behavior change was observed in the community, as the family members said that they would give boiled eggs during pregnancy, instead of breaking eggs, any other fish from the nearby pond could be consumed and if any poisonous snakes or insects came near the house, someone could kill it so that no harm comes to the lady. For optimum use of medical skills, it is important for us to know, the cultural practice of the people who come to us for advice and treatment. It is important to pay close attention to the body language, lack of response or expressions of anxiety of the patients which may warn us that the patients or their family members are in conflicting situation and are hesitant to open up to you. Efforts must be taken by us to make them understand the hazards of harmful practices and make them realise that it is possible to give up harmful practice and change their behaviour without giving up meaningful aspects of their culture.[8,9]

CONCLUSION

It has also been observed that the Birhors are not averse to accepting modern medical practices and are willing to join the main stream of the society preserving their cultural believes and practices. The birhors, as per the census are nearing extinction; therefore, it was important that certain strong measures are taken for their survival preserving their cultural heritage.

ACKNOWLEDGMENTS

Author would like to thank Mr. Niloy Mitter, Head-Health and TQM, Corporate Social Responsibly Division of Tata Steel, for his support during study.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Primitive tribes groups (PTGS) in District Giridih-Jharkand. Available at: http://birhore.nic.in/primitive.htm.
2. Endangered Jharkhand tribes battle for survival. Available at: http://www.unesco.org/new/fileadmin/MULTIMEDIA/FIELD/New_Delhi/images/thehindustantimes_01.pdf.
3. Demography of tribal population in Jharkhand 1951-1991. Available at: https://www.jstor.org/stable/4415810.
4. Jharkhand-data highlights: the scheduled tribes, Census of India, 2001. Available at: http://censusindia.gov.in/Tables_Published/SCST/dh_st_jharkhand.pdf.
5. National Health Mission (NHM) Tribal health. Available at: http://jrhms.jharkhand.gov.in/Tribal_Health.aspx.
6. Delayed cord clamping. ICEA position paper. Available at: https://icea.org/wp-content/uploads/2016/01/Delayed_Cord_Clamping_PP.pdf.
7. Council LI, Jeannette C, Klaus PH, Klaus MH. No separation of mother and baby with unlimited opportunity for breastfeeding. J Perinat Educat. 2004;13(2):35.
8. Begum S, Sebastian A, Kulkarni R, Singh S, Donta B. Traditional practices during pregnancy and childbirth among tribal women from Maharashtra: a review. Int J Comm Med Public Health. 2017;4(4):882-5.
9. Giridhar L, Lakshmi G. Practices regarding colostrums and pre-lacteals among Gadaba and Konda Dora tribes of Vizianagaram district. IOSR J Pharm. 2012;2(5):8-12.

Cite this article as: Kaur TP. Integrating age old cultural reproductive health practices with modern medicine to bring down morbidity and mortality among Birhor tribes of Jharkhand, India. Int J Reprod Contracept Obstet Gynecol 2019;8:24-30.