ORIGINAL ARTICLE

Perceptions and practices of traditional birth attendants in a tribal area of Maharashtra: A qualitative study

Authors: Yogesh A Bahurupi, Shrikala Acharya and Ratnendra Shinde

Corresponding author: Dr. Yogesh A Bahurupi
Asst. Professor, Dept. of Community Medicine
Mahatma Gandhi Medical College and Research Institute
Pillayarkuppam, Pondicherry - 607402
Mail ID: yogesh_bahurupi@rediffmail.com

ABSTRACT

Background: Even with enhanced efforts to increase institutional births in India, an alarming number of deliveries are still being carried out at homes. Most of these home deliveries are carried out by traditional birth attendants (TBAs). In such situations, practices and perceptions of the TBAs are utmost important to identify possible harmful practices. **Objective**: To explore the perceptions and practices of traditional birth attendants in tribal area regarding care during pregnancy and childbirth. **Methodology**: Qualitative research, in-depth interviews were conducted with traditional birth attendants at their houses during June to August 2010 in Sakwar, tribal part of Thane district, Maharashtra. TBAs who had conducted at least one delivery in last one year were included in the study. The data was analysed manually using thematic analysis framework. **Results:** All the participants were women above 45 years belonging to warli community. Antenatal care registration was rarely advised due to lack of contact with the expectant mothers before nine months. Identifying danger signs during pregnancy and intrapartum period was uncertain among the TBAs. Almost all TBAs had clean delivery practices except lack of knowledge of timing for hand wash. TBAs had no knowledge about need for arrangement for transport and importance of prompt referral. Intrapartum danger signs known to TBAs were hemorrhage and prolonged labor. The duration of prolonged labor and quantity of blood loss was not standardized among the TBAs. Bathing the newborn immediately after birth followed by initiation of breast feeding was a common practice. **Conclusion:** The practices and perceptions of TBAs in identifying antenatal and intrapartum danger signs remain uncertain. Practices such as clean delivery practices, early initiation of breast feeding need to be further strengthened with emphasis on education, information, behaviour change about clean hands during delivery and exclusive breastfeeding.

Key words: *Delivery practices, In-depth interview, Traditional birth attendant, Tribal area*

INTRODUCTION

Worldwide there are about 130 million births every year, nearly half of these occur at home.[1] Outcomes of these births, including maternal, foetal and neonatal mortality are reported to be considerably worse than those occurring in a hospital.[1,2] Attendants at these births may be physicians, trained nurses or midwives, other trained professionals, family members, friends or traditional birth attendants.

Pregnancy, child birth and their consequences are still the leading causes of mortality and morbidity among women of reproductive age in India. In 2005-2011, 58% of the deliveries were conducted by skilled health personnel highlighting a large proportion of deliveries still being performed by non-skilled birth attendants.[3] Three consequent national family health surveys; depict that about 60% of deliveries take place at home. Although, there has been an increase of about 13% in the institutional deliveries in India, two-third of this increase has gone to the private health facilities.[4,5,6]

Traditional birth attendants (TBAs) have traditionally been assisting the women during childbirth for centuries in India. TBAs provide community members with not only delivery services, but with emotional support and

practical assistance both before and after the birth. TBAs are valued members of the community and can be more influential than outside medical personnel in encouraging community members to modify and improve existing practices surrounding pregnancy and childbirth.[7] Currently, UN and government policies exclude TBAs from officially providing maternal or newborn care in the community.

The Cochrane review (2007) titled "Traditional birth attendant training for improving health behaviours and pregnancy outcomes" included four studies, involving over 2000 TBAs and nearly 27,000 women. The authors found "The potential of TBA training to reduce peri-neonatal mortality is promising when combined with improved health services". [8]

In tribal areas, the health care delivery system has been largely insensitive to the needs of women and the constraints they face in expressing their needs, let alone the obstacles they face in obtaining services. The problems of access to health facilities and utilization of health services get further compounded in tribal areas due to ignorance, illiteracy and difficult terrain. In such tribal areas, large proportion of the births are being assisted by the TBAs possibly due to higher order health care is not accessible and the fact that the TBAs are culturally acceptable. TBAs not only provide technical assistance, but also attend to and support the mother during the whole process of childbirth and thereafter. The work of TBAs is adapted and strictly bound to the social and cultural matrix to which they belong; their practices and beliefs are in accordance with the needs of the local community. [9,10]

OBJECTIVE

To explore the perceptions and practices of traditional birth attendants in tribal area regarding care during pregnancy and childbirth

METHODOLOGY

Study setting

The current study was conducted from June to August 2010 in Sakwar, tribal part of Thane district in Maharashtra; with approximate population of ten thousand, consisting of 13 padas (tribal settlements). The area of Sakwar with its remoteness has shown a low percentage of institutional delivery in the recent past. The curative services in the area are primarily provided by private practitioners or traditional healers, while preventive services, such as immunization and antenatal care, are provided by peripheral health workers (ANM) in the community.

Study design

The present study is a cross-sectional study. The information was gathered by qualitative methods using in-depth interview technique.[11] All the women with deliveries at home in the previous year were met to identify their birth attendants. All these birth attendants were visited. In-depth interviews were used to gain a deeper understanding of their perceptions and practices regarding care during pregnancy and childbirth. Nine in depth interviews were conducted

Data collection and analysis

Interviews of TBAs were conducted with their consent, at their houses to encourage open discussions. The investigators were trained for qualitative research and in-depth interview techniques. Approximately 45-50 minutes were spent to conduct an interview. An interview guide was prepared to acquire an insight into perceptions and practices of TBAs. Interviews were focussed on training of TBAs regarding, necessity and time of antenatal registration, essentiality of Iron tablets and injection TT, safe delivery practices, referral services, danger signs during pregnancy and delivery.

Data was analysed manually using thematic analysis framework. [12] All the information from interviews was transcribed in English language. The transcriptions were cross-checked with the recordings by the research team. For each transcription, issues relating to the study aims were identified and coded without predefined categories.

Table 1: Perceptions and practices of TBAs in relation to pregnancy and child birth

CATEGORY	FINDINGS	REMARKS
Necessity and time of antenatal registration	TBAs don't know importance of antenatal registration. TBAs' perception is based upon financial constraints of the community they serve. They believe that antenatal registration is necessary when doctor's intervention is required.	Reflects limited insight regarding the importance of antenatal registration.
Iron folic acid and Inj. TT essentiality	A finding of this study was that the majority of the TBAs were ignorant of the purposes of Iron Folic acid and Inj. TT administration. Moreover, one of the perception was that intake of medicine will swell up the baby in uterus which in turn will be difficult to deliver at home.	This perception seems to be governed by belief that women did not need to receive any medications since they do not have any problems in early pregnancy
Danger signs in antenatal period	Swelling over the legs and pain in abdomen before nine months was known to TBAs as danger signs during pregnancy. Rest of the TBAs were clueless about these danger signs during antenatal period.	TBAs had lack of knowledge about the danger signs of pregnancy.
Delivery practices	The key findings were use of clean new sheet for delivery, a new thread for cord tie, new blade for cord cutting. The deliveries were conducted in separate rooms, if available. The practice of hand washing was common but the appropriate timing of hand wash was not known.	The delivery practices of TBAs were satisfactory except appropriate timing of hand washing. This provides an opportunity to educate TBAs about skilled delivery process.
Intra-partum danger signs	Prolonged labour and blood loss during delivery were the most common known danger signs to TBAs. But the duration of intra-partum period and quantity of blood loss to be identified as post-partum haemorrhage and prolonged labour respectively was not known. Arrangement for referral, if needed is not done in advance.	Recognition of danger signs during delivery and identification of need of referral was unsatisfactory among the TBAs.
Breastfeeding	Pre-lacteal feeds were rarely given. Initiation of breast feeding was done immediately after bathing the newborn. Exclusive breast feeding till six months was not practiced.	Practices like early initiation of breast feeding, avoiding pre-lacteal feed were beneficial to the newborn. Lack of awareness about exclusive breast feeding was identified.
Advice to mother after delivery	TBAs usually advice mothers to remain half stomach if a boy is delivered. At least three baths were advised to new born every day.	The perceived rationale for this practice was related to the colostrum and its digestibility for a baby boy.
Gender preference	Higher rewards were provided to TBAs by the family member of new born if baby boy is delivered. TBAs don't have any preference for the gender of newborn.	Reflects the gender bias of community where TBAs serve. However, there were no gender preferences among the TBAs.

RESULTS

Profile of the TBAs

All the TBAs were women above 45 years of age, belonging to warli caste, a scheduled tribe community in Maharashtra. Most of them (88%) were illiterate and all had 3 or more children. The TBAs had an experience of this profession ranging from 3 to 20 years. Four birth attendants (44.4%) had inherited the profession from their older relatives. None of them had their daughter or daughter-in-law practising the same profession. Only two TBAs had received training on safe delivery practices at a sub-centre, 4-8 years ago.

Necessity and time of antenatal registration

Three (33.3%) TBAs mentioned that ANC registration needs to be done in second month whereas two (22.2%) mentioned it as third month. Four TBAs were unaware about the month of registration.

Few categorical statements in this regard were as follows; *'A woman should see a doctor when it is absolutely important for medical care otherwise no need to see a healthcare provider.' 'Our people don't even afford food, how can they pay for medicine if advised, not to talk about travel expenses?'* All the TBAs mentioned that none of the expectant mother meets them before completion of nine months of pregnancy; hence they are unable to advice about ANC registration.

Essentiality of Iron Folic acid and Inj. TT during pregnancy

One of the TBA mentioned categorically that '*advising drugs and injection during antenatal period is not our job. According to me there is absolutely no need of any medication. Additionally the medications will swell up the baby in the womb, which then becomes difficult to deliver at home. Our people are unable to afford medical expenses in these situations.'* One TBA pointed out that medicine can be given, but injections must be avoided. On enquiring about the possible reason for this, she was unable to give any explanation. Similar perceptions were also echoed from other TBAs regarding essentiality of medication during pregnancy.

Danger signs in antenatal period

Our findings suggest that traditional birth attendants lack knowledge about the danger signs of pregnancy. One of the TBA who received some training said that swelling over the legs during antenatal period, pain in abdomen before 9 months is a danger sign during pregnancy. Rest of TBAs said that they don't know of any danger signs of pregnancy. The TBAs who received training said that if they found any danger signs, they refer the woman to nearest PHC.

Delivery practices

Mostly TBAs were contacted by the pregnant women during the end months of pregnancy. All TBAs conduct deliveries on a new bed sheet. The habit was common among all TBAs to ensure the availability of a new and clean bed sheet during delivery by advising the relatives of expecting mothers to make this arrangement. Four TBAs reported coating the floor and walls of the room with mud instead of cow dung to clean and warm the room in preparation for delivery. One TBA mentioned that previously deliveries were conducted in cowshed but now she prefers a separate room for delivery, if available. *'When there is only one room in the hutment, one corner is used for the delivery. In the houses where there are two or four rooms, a separate room is used for delivery'*

All the TBAs had the knowledge of hand washing before delivery, but the practice and timing in relation to delivery varied. The reason for not washing hands before delivery, reported by three TBAs was having no time for hand washing and being simultaneously occupied in different tasks during delivery. One TBA reported hand washing with soap only after delivery. All of them were using soap with water for hand washing. All TBAs reported that immediately after birth, the newborn baby was placed on a new clean cloth; the umbilical cord was tied and then cut. All TBAs were using a new blade for cord cutting and new thread as a cord tie. All TBAs recommended bathing the newborn after the placenta was delivered and the cord was cut. For easy expulsion of placenta, massaging the abdomen with common salt was practiced by the TBAs. In case of retained placenta, applying

pressure over abdomen was practised for manual removal of placenta. All TBAs used to bury the placenta in the courtyard of the same house as a custom without any known reason.

Intra-partum danger signs

One TBA mentioned that blood loss, unconsciousness, *mirgi* (epileptic fits) are the danger signs during delivery. Three TBAs were not aware about any complications during delivery. Blood loss and prolonged labour was mentioned as complications by the rest of TBAs. The concept of prolonged labour was familiar to them but the exact duration for prolonged labour was not specific, ranging from 2 hours to 24 hours. There was no standard measurement of postpartum haemorrhage and all TBAs used visual observation to identify excessive bleeding. Usually pregnant women with unmanageable complications were referred to nearest health facility. TBAs, in general, did not feel the need about planning for transportation in cases of emergency, in advance.

Breastfeeding

Breast feeding was initiated immediately after first bath of new born. One TBA said, *"Mother will produce milk after three days of delivery. Till that time, whatever milk is produced is enough for the baby."* Pre-lacteal feed were rarely given. Exclusive breast feeding for six months was not often advised. TBAs advised exclusive breast feeding for period ranging from 3-5 months.

Advice to mother after delivery

The common perception among TBAs was that 'A *mother should not eat too much after delivering a baby boy.'* On probing the reasons for this advice, they mentioned that *'a baby boy will not easily digest ras (colostrum) whereas a girl child can easily digest it. If mother eats more, she will produce more colostrum hence it is always better to have stomach half-empty, if someone has delivered a baby boy*.' TBAs mentioned that they never advice anyone for registration of birth. Occasionally the information about new birth was given to anganwadi attendant. All TBAs advice at least three bath to newborn babies per day till first two to three months.

Gender preference

All the TBAs mentioned that it doesn't make a difference to them whether a newborn is a boy or girl. But the incentives they received from family members differed according to sex of the newborn. For a girl child, they received money whereas for a boy child, higher amount of money and clothes were offered to them.

DISCUSSION

Although research on home births and their challenges has recently proliferated, [13] the perception and practices of TBAs remain fairly unexplained in some areas in context to mother and child health. According to most of the TBAs, the obstacle for antenatal registration is the cost of seeking medical services. The traditional birth attendants didn't know about importance of antenatal registration and they were unable to advice the same. They seemed to have a limited knowledge about possible danger signs of pregnancy, but few of them found it important enough to refer such cases to hospital.

The practice of hand washing was known, but apt timing and the use of soap was inconsistent. This indeed is a modifiable behaviour. Educational interventions about hygiene, and hand washing could prove to be an important intervention in this regard. Coating the room with mud to warm the room before delivery is common and has replaced an older practice of using cow dung. [14] The positive findings were conducting the delivery in separate room, if available, on a clean new bed sheet, using new thread and a new blade for the cord.

Recognition of an obstetric complication among pregnant women is still the first step towards risk approach in maternal and child health. Also judicious referral reduces the mortality and morbidity to both mother and newborn. The commonest danger signs during delivery known to TBAs were blood loss and prolonged labour. It has been already documented that improved recognition of danger signs ultimately helps in enhanced mother and child survival. [13] TBAs can be made aware about quantification of blood loss using a blood collection drape to measure excessive blood loss. This has been suggested as a useful measure in low resource settings.[15]

Obstetrical haemorrhage and sepsis are the leading causes of maternal mortality in India. [16] These causes can be readily addressed if skilled health personnel and key drugs, equipment and referral facilities are available. The present study found that TBAs were unaware of need for referral, time of referral and advice regarding arrangement for early referral in case of any emergency. Early initiation of breast feeding itself is an indicator of child survival. The TBAs usually advise the mother to initiate breast feeding immediately after the first bath of the child. Practices related to initiation of breast feeding and pre-lacteal feeds were satisfactory. The TBAs had strong belief about the colostrum is hard to digest for baby boys. To avoid this, they were advising not to have full meals to mothers. Education and training programs should stress immediate and exclusive breast feeding including colostrum.

In the present study, The TBAs reported higher rewards when they delivered a male child. Gender-based differences may have serious implications for the quality of care provided by TBAs after delivery and/or subsequent treatment of the child by the family and should be explored in depth with further studies. Government of India has made extensive efforts in increasing rural healthcare infrastructure through implementation of National Rural Health Mission. One of the perceived objectives is to enhance access to skilled birth attendants in rural areas. Different studies in India have already demonstrated that training TBAs can improve maternal and newborn care [16] and reduce neonatal mortality.[17] Imparting training to the TBAs, adhering to the local cultural background and relevant to their needs, is necessary to reach the vastly inaccessible rural and tribal areas with safe maternal and newborn care.

Limitation

A small number of TBAs from a selected geographical area were interviewed in this study. Hence, generalization of the perceptions and practices remains a limitation.

CONCLUSION

The understanding of TBAs in identifying antenatal and intrapartum danger signs remain uncertain. Practices such as clean surface for delivery, clean tie, clean cord needs to be improved with education, information, behaviour change on clean hands, immediate and exclusive breastfeeding. Improved delivery practices and suitable advice during pregnancy and after delivery may improve outcome of pregnancy and ultimately neonatal health. This study provides important details about the practices and perceptions of TBAs in the study area. Further research should explore integrating services of TBAs, through skill based training, acknowledging their role in the tribal area.

Few verbatim of TBAs

- *'A woman should see a doctor when it is absolutely important for medical care, otherwise no need to see a healthcare provider.'*
- *'…… no need of any medication. Additionally the medications will swell up the baby in the womb, which then becomes difficult to deliver at home. Our people are unable to afford medical expenses in these situations.'*
- *'A baby boy will not easily digest ras (colostrum) whereas a girl child can easily digest it. If mother will eat more, she will produce more colostrum hence it is always better to have half empty stomach, if someone has delivered a baby boy*.'

REFERENCES

1. Darmstadt GL, Lee AC, Cousens S, Sibley L, Bhutta ZA, Donnay F, Osrin D, Bang A, Kumar V, Wall SN, Baqui A, Lawn JE. 60 Million non-facility births: who can deliver in community settings to reduce intrapartum-related deaths? Int J Gynaecol Obstet. 2009;107(supl 1):S89–112.
2. Lawn JE, Haws RA, Darmstadt GL, Yakoob MY, Menezes EV, Soomro T, Bhutta ZA. 3.2 million still births: Epidemiology and framework for evaluation of interventions to prevent stillbirths in low and middle income settings. BMC Pregnancy and Childbirth. 2009;9(Supl 1):S1-2.
3. World Health Organization. World health report 2012.WHO; Geveva. p. 102.
4. National Family Health Survey (NFHS-3), India, 2005-06. [online] [accessed on 2nd June, 2013] Available from: http://www.rchiips.org/nfhs/pdf/India.pdf
5. National family health survey (NFHS-2), India, 1998-99. [online] [accessed on 2nd June, 2013] Available from: http:// www .rchiips.org/nfhs/data/india/keyfact.pdf
6. National family health survey (NFHS-1), India, 1992-93. [online] [accessed on 2nd June, 2013] Available from: http://www.rchiips.org/nfhs/data/india1/statfind.pdf
7. Ebrahim GJ. Cross-cultural aspects of pregnancy and breast feeding. Proc Nutr Soc. 1980;39: 13-15.
8. Sibley LM, Sipe TA, Brown CM, Diallo MM, McNatt K,Habarta N. Traditional birth attendant training for improving health behaviours and pregnancy outcomes. Cochrane Database Syst Rev 2007; 18:CD005460.
9. Thomas B. The Effectiveness of the TBA programme in reducing maternal mortality and morbidity in Malawi. East African Journal of Public Health. 2008;5(2): 103-110.
10. Lartson LI, Sodipe OA, Ebrahim GJ, Abel R. The trained traditional birth attendant: a study of her role in two cultures. J Trop Pediatr. 1987;33(1):29-34.
11. Britten N. Qualitative interviews in medical research. BMJ 1995;311:251–3
12. Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Research in Psychology 2006;12:77-101.
13. Sibley L, Sipe TA, Koblinsky M. Does traditional birth attendant training improve referral of women with obstetric complications: a review of the evidence. Social Science and Medicine 2004; 59: 1757-68.
14. Costello A. Improving Newborn Health in Developing Countries. London UK: Imperial College Press; 2000.
15. Patel A, Goudar SS, Geller SE, Kodkany BS, Edlavitch SA, Wagh K, Patted SS, Naik VA, Moss N, Derman RJ. Drape estimation vs. visual assessment for estimating postpartum haemorrhage. International Journal of Gynaecology and Obstetrics 2006;93(3):220-224.
16. Kausar R: Maternal Mortality in India-Magnitude, Causes and Concerns. Indian Journal for the Practising Doctor 2005, 2(2). [accessed on 3rd June, 2013] Available from:http://www.indmedica.com/journals.php/mailt?journalid=3&issueid=58&articleid=722&action=article
17. Satishchandra DM, Naik VA, Wantamutte AS, Mallapur MD. Impact of training of traditional birth attendants on the newborn care. Indian J Pediatr 2009, 76(1):33-36.
18. Bang AT, Bang RA, Baitule SB, Reddy MH, Deshmukh MD. Effect of home based neonatal care and management of sepsis on neonatal mortality: field trial in rural India. Lancet 1999, 354(9194):1955-1961.

Strength and opportunity of this study

- The use of qualitative in-depth interviews has generated understanding of practices of TBAs and their perceptions related to pregnancy and its outcome in study area.
- Few practices of TBAs like timing of hand washing, exclusive breast feeding were modifiable and provide an opportunity to strengthen them.

Particulars of Contributors:

1. Dr. Yogesh A Bahurupi
   Asst. Professor, Dept. of Community Medicine
   Mahatma Gandhi Medical College and Research Institute
   Pondicherry
2. Dr. Shrikala Acharya
   Associate Professor, Dept. of Community Medicine
   Seth G S Medical College and K E M Hospital
   Mumbai
3. Dr. Ratnendra Shinde
   Professor and Head, Dept. of Community Medicine
   Seth G S Medical College and K E M Hospital
   Mumbai

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