CASE REPORT

Home deliveries in Chandigarh, the beautiful city of India: a tug of war between culture and science

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SUMMARY

There have been various commitments made in the international front to reduce maternal mortality ratio, and India has set its target at <100 maternal deaths/100 000 live-births. One of the strategies is to have 80% of the deliveries take place at healthcare institutions. However, health-related behaviour and decision-making is affected by many factors beyond the availability of health services. We report the case of a fourth gravida, belonging to the *Sansi* tribe, with son-preference in urban northern India, who delivered her fourth female child at home. We attempt to understand beliefs, norms and practices involved in deciding place of delivery in the context of theory of reasoned action and health belief model so that cultural appropriateness can be ensured in healthcare delivery. The study emphasises that there is need for improvement in cultural appropriateness of healthcare services delivered to the community.

BACKGROUND

Cultural appropriateness is an indispensable quality of effective healthcare services. In a country like India, replete with diversities, a deeper understanding of the community is vital for effective healthcare service delivery.

CASE PRESENTATION

The authors work in a civil dispensary with a catchment population of 22 000, a quarter of which belong to the lower socioeconomic group. Primary investigation of this case was conducted by the resident doctor of community medicine who was then posted in the dispensary. A case of home delivery was brought to her notice in the first week of June 2010 by the female health worker of the area. The health worker did not have much information except that a female child was delivered at home by a 25-year-old multigravida (pregnant for the fourth time) with three living girl children and still persevering for a male child. The mother and baby could not be contacted for postnatal check-up as they had left to Jammu (another north Indian state, with adverse weather conditions and hilly terrain, about 350 km away from the study area) for some emergency. We were awestruck by the fact that someone could carry a newborn to travel such a distance. We decided that we would visit the lady to obtain further details.

Case history

First encounter: a brief interaction

Six days later, the health worker, who was to pay routine home visits to all postnatal mothers, and

the authors of this report, visited the house of the lady on receiving the information that she had returned. Initially, the well-being of both the mother and child was enquired about and assessed. The examination revealed that the 1-week-old child weighed 2.8 kg and was doing well with no complaints. She was on exclusive breast feeding. The postnatal mother also had no complaints and was fine and comfortable feeding the child. When asked as to why she had given birth to her child at home, her husband replied that they did not have the time to go to hospital. When asked about carrying the child to Jammu immediately after birth, she replied that there was nothing to bother about since the child is doing well now.

The father of the child was interested in knowing about the monetary benefits he might receive from the Government after the birth of a girl child but was disappointed to know that he was not eligible to receive it after two children. The health worker administered polio drops to the child and counselled the mother to bring the child to the immunisation clinic for BCG.

The health worker had already mentioned that the locality had a cluster of people belonging to the *Sansi* tribe. There were closely packed houses with very little free space and litter was found in front of the houses. Her house was a *pucca* house—under government scheme which required them to pay Rs 30 (US\$0.6) rent per month. The house had safe-water supply and a sanitary latrine. There was obvious overcrowding where five members were sleeping in a room with inadequate lighting and ventilation.

Second encounter: the first hint

The next encounter with the patient was at the immunisation clinic (3 days after the first visit). The authors were able to find some time alone with the patient in the clinic. This time, again, the woman was in a hurry, but she did share some information. She had planned for a home delivery because a *sadhu* (holy man) who visited her house had told her that she was carrying a male fetus so, if everything should work out in her favour, she should deliver at home. The baby weighed a healthy 2.6 kg and received BCG vaccination.

Third encounter: the story at length

The authors made a follow-up visit to the home of the child. This time, she was in the house with her children. We had some time for a closer look and a detailed case history. She was an illiterate housewife, belonging to the *Sansi* tribe/caste. She was

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married at 13 years of age and is married since 12 years. The legal limit for marriage in India for girls is 18 years. However, National Family Health Survey 3 estimates that 44.5% of the 20–24-year-old Indian women studied were married before they were 18-years old.¹ The practice is especially more common in some of the Northern states like Rajasthan, Bihar, Jharkhand, etc. For the initial 2 years, she was with her parents and once she had attained menarche, she was sent to live with her husband. This custom is termed *gauna*² where the young bride lives with her parents until she attains puberty and is considered sexually mature for consummation of marriage.

All her four pregnancies were registered and followed up in the nearest civil dispensary with proper antenatal care including her tetanus injections and iron-folic acid tablets. The average interval between two births was 2.6 years. The first three deliveries were institutional and delivered at full term in a secondary level hospital in Chandigarh.

TREATMENT

For her recent pregnancy, she had received four antenatal care check-ups in the civil dispensary, and the health worker had made four house visits. The health worker had motivated her for institutional delivery (as written on the antenatal care card). She developed labour pain 42 days before her expected date of delivery (EDD), but there was no bleeding/discharge per vaginam. They immediately sent for a *dai* (traditional birth attendant) who conducted the delivery at home. She delivered a preterm female baby by normal vaginal delivery. The baby cried soon after birth but the birth weight was not measured. The placenta was delivered within 10 min of delivery of baby and there was no undue haemorrhage. The baby was given prelacteal feeds in the form of sugar water, denied colostrum and breast fed on the fourth day after birth.

OUTCOME AND FOLLOW-UP

When asked the reason for her grandmultiparity and her refusal to undertake permanent contraception, she gave the following reason. The *Sansis* believe in *sheetalamatha* (a goddess) and according to them having a male child is deemed necessary to worship the goddess. Unless they had a male child, they were not allowed to enter any of their holy shrines. So, that they did not have a male child and hence being unable to enter the *mandir* (temple) was considered as a thing to be ashamed of. So she had and was still planning to go on with the quest for a male offspring. On enquiry about the reason for the home delivery, she said that a *sadhu* had visited her house a few days before the EDD. He had prophesied that it was a male fetus that she was carrying. He also went on to add that if everything had to go on fine she had to deliver at home. No wonder he was received very well by her at home and was also given Rs500 as *dakshana* (offering).

DISCUSSION

India had committed itself to reduce the maternal mortality ratio to less than 100/100 000 live-births by 2010, but is still experiencing 212 maternal deaths per 100 000 live-births as of 2011.³ The Government has rolled out several strategies like promotion of institutional deliveries through monetary incentives and health system strengthening to improve maternal and child-health indicators. The index case of this report resides in Chandigarh which is a union territory situated in Northern India with demographic and health indicators better than the national average.⁴ There are many issues striking on the face of discussion of this case. The first issue that bothers us as public

health experts working as medical officers in a civil dispensary is that of home delivery. This further leads to many subissues:

1. Cultural beliefs and norms that affect health-related behaviour—why people behave the way they do? The impenetrability of core values of people by mighty forces such as globalisation.
2. The influence that the so-called godmen or traditional healers or faith healers exert on these people which we have hitherto been unsuccessful in establishing.
3. The preference for a male child despite having four children (unfortunately/fortunately girls)—gender preference.

The first and foremost issue that we will discuss is that of home delivery in an urban area of Chandigarh. There have been various studies that have been done to analyse the factors affecting choice of place of delivery.^{5–7} We tried to explain her behaviour by using the transtheoretical model.⁸ This theory is built on one's decision being the product of his/her beliefs, attitudes and intentions strongly influenced by community norms and significant others. In this case, the community norm demanding the presence of a male heir as eligibility to enter holy shrines and the *sadhu*'s verdict that, if she delivers at home, the child will be male led the mother to desire and believe that home delivery will result in a male child.

Next, we applied the health-belief model which is based on perceptions of the individual about health concerns and the available remedy for the same as a determinant of health-related decision-making.⁹ The model also considers barriers, if any, to favourable decision-making. In this case, considering institutional delivery as the offered intervention to prevent complications in delivery, neither did the woman perceive that her delivery could be complicated nor did she see any benefit of having a male baby if she opts for institutional delivery. There could also have been some previous experiences, not very good, of the individual or the tribe as a whole which turned her away from the option. However, this might not have been a major contributory factor in our case considering that she had had previous three deliveries in an institution.

We also tried to analyse it in the context of the health-field concept.¹⁰

1. Genetics: some of the attitudes and behaviour of individuals are attributed to genes. Compliance to health-related advice is also a behaviour which might have genetic determinants.
2. Environment: belonging to a closely knit tribal community and living in a neighbourhood of members of the same tribe helps in promoting the continuation of their previously learnt cultural beliefs and customs. The significant others who might influence her health-related behaviour are living close to her thus having a greater chance to influence her decisions. There was a constant pressure for the need for a male baby since not being allowed to enter a temple is an issue of one's prestige and self-esteem as well as image in the community.
3. Lifestyle: the offshoot of her tribal customs. The belief in a *sadhu*, opting for home delivery, the strong preference for a male child and travel with a newborn to Jammu in a state transport bus are reflections of one's lifestyle. On later enquiry, it was revealed that the emergency was her nephew's marriage which warranted the transport of the day-old baby to Jammu.
4. Healthcare services: these were very much accessible and affordable to her in the sense that the dispensary is situated at walking distance from her house and the next referral health facility is around 3–4 km from her house.

The healthcare providers (health worker) have been regular in their home visits and the antenatal care provided to her was satisfactory. Moreover, she had delivered her previous three children at a health facility and has had good obstetric outcomes.

An analysis on the basis of health-field concept reveals that in her case, except the healthcare services, all the other factors (contribution of genetic factors unsure) were unfavourable for an institutional delivery. As for cultural norms and beliefs, our index case had typically followed various beliefs and practices of *sansi* tribes related to maternal and child health.¹¹

A thorough understanding of the deep rooted cultural beliefs and practices of any community is essential to negotiate and promote various healthcare services among them.¹² If their practices are found to be beneficial, they can be promoted. If neutral, they can be ignored. But, if harmful, the need to discontinue them has to be emphasised.

The third issue of belief in godmen and traditional healers is quite a widely prevalent practice not only in India but in many other countries as well. Table 1 reveals a brief analysis of where the *sadhu* had outperformed the health worker (auxiliary nurse midwife).

The last, but no less important, of the three issues is gender preference which in India takes various forms across different states.^{13–15} In high-fertility societies, son preference may not have a great influence on fertility levels because most couples will choose to have large numbers of children whether they have sons or daughters. Similarly, in low-fertility societies, couples will choose to have only one or two children regardless of their children's sex.¹⁶ Theoretically, the impact of son preference should be greatest in societies where the transition to low fertility has started but is not yet complete. Women in every state wanted more sons, but the preference for sons was particularly strong in Punjab, Rajasthan, Uttar Pradesh, Bihar, and Gujarat. It was weakest in Kerala, Delhi, Assam, Goa, Karnataka and Tamil Nadu. Son preference is widespread; one in five women and men say that they would like more sons than daughters and only 2–3% say that they would like more daughters than sons.^{17–19}

While an epidemiological perspective tells us that if gender preferences could be eliminated entirely, the fertility level in

India would decline by about 8% and there is a need to look beyond the numbers regarding reduction in parity progression ratios required to achieve total fertility rate goals. The socio-logical perspective analyses the reasons for son preference namely perceived economic, social and religious utility of sons compared with daughters. A boy is looked upon as the perpetuator of the family line. He also brings a daughter-in-law who helps in household work and carries economic rewards (dowry) with her when she comes.^{14–20} A girl is 'a bird of passage' and is seen to provide important religious, social or emotional value. Women's reproductive behaviour is strongly influenced by their normative environment. In India, a strong preference for sons is one such norm. Son preference interacts with family size and a desired ratio of sons to daughters. This influences what is considered an 'ideal' family, and thus, plays an important role in shaping reproductive behaviours. Thus it is vital for healthcare professionals to understand the cultural beliefs and practices that influence health related decisions of the community they serve. This shall equip them to promote a desired health related behavior among the community and also enable effective healthcare service delivery.

Learning point

- The study emphasises that there is a need for improvement in cultural appropriateness of healthcare services delivered to the community. How much do the Indian healthcare professionals know their own people—their beliefs, norms and practices? This is a very important question to answer in a country like India, replete with diversities. A deeper understanding of the community is vital for effective healthcare service delivery.

Competing interests None.

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Table 1 What did the *sadhu* do better than the healthcare staff?

	Healthcare staff	Traditional/faith healer
History	Routine elaborate antenatal history and investigations	Indirect/by observation
Concern for the felt need for the mother	Did not care to find what they were	Met only the felt need, and other needs for safety of mother and baby ignored
Predictions	Nil	The need for a male heir at home
Diagnosis	Uncomplicated pregnancy	Diagnosis that she carried a male fetus
Advice	Institutional delivery and sterilisation	Home delivery if she wanted a male fetus
Compliance with advice	Non-compliance with advice	Perfect positive compliance with advice
Incentive for the provider	Nothing even if prediction had worked out	Rs500 even when prediction went wrong

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