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Does the National Rural Health Mission improve the health of tribal women? Perspectives of husbands in Maharashtra, India

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ABSTRACT

Objectives: This study examined the health status of tribal women and, in particular, their maternal health. This study also explored the utilization of the Janani Suraksha Yojana (JSY) scheme, the tribal motherhood scheme and the human development scheme among pregnant women. The performance of accredited social health activist (ASHA) workers was also investigated. To fulfil the study objectives, husbands and key informants were interviewed.
Study design: This was a cross-sectional, community-based study.
Methods: Both qualitative and quantitative methods were used for data collection. For the quantitative analysis, 385 men, aged 15–49 years, whose wives had given birth in the last 2 years, were recruited using multistage sampling. To study the qualitative aspects of the maternal health situation, 15 interviews were conducted with key informants, and four focus group discussions were conducted with a mixed-age group of men. The key informants included the dais (midwives/traditional birth attendants) and ASHAs in the villages studied.
Results: The results revealed that less than half of women delivered in health facilities, but nearly 60% of births were attended by skilled medical personnel. The utilization rates for full antenatal care (ANC) and postnatal care were 70% and 50%, respectively. Nearly 60% of men had heard about the JSY scheme; however, only 57% reported that their wives had benefited from the JSY scheme. The mean amount of money received was ₹700 ($US 11) for the most recent birth. For men whose wives did not receive the benefits of JSY, 24% reported that their wives were not eligible for the scheme, and the majority (75%) reported that they were not aware of the JSY scheme.
Conclusions: The basic community-level issues of limited medical workforce and medical equipment should be urgently addressed. Moreover, full ANC and institutional health facilities for delivery should be provided to tribal women. When implementing National Rural Health Mission strategies, understanding the local community-driven traditional and cultural factors is important.

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Introduction

Maternal mortality remains a public health challenge worldwide. A disproportionately high number of maternal deaths are seen in developing countries, which account for nearly 99% of all maternal deaths globally. Between 1990 and 2015, worldwide maternal mortality decreased by approximately 44%, and the greatest rates of decline in maternal mortality were observed from 2000 onwards. In some countries, the annual decline in maternal mortality during 2000–2010 was above 5.5%.[1] In India, maternal mortality declined from 240 maternal deaths per 100,000 live births in 2004 to 176 maternal deaths per 100,000 live births in 2016. However, the desired level of decline has not yet been achieved, and the decline is not uniform across states and social groups. Scheduled caste (SC) and scheduled tribal (ST) communities have higher maternal mortality and morbidity than other social groups in India.[2–6] The factors contributing to higher maternal mortality and morbidity in the tribal population are complex.

The Government of India recognises the role of health in socio-economic development and in improving the quality of life of citizens of India. The National Rural Health Mission (NRHM), a flagship programme of the Government of India, was introduced in April 2005; one goal of the programme is to improve the availability of and access to quality health care, particularly for those residing in rural areas, the poor, tribal communities, women and children. Another important goal of the NRHM is to reduce neonatal and maternal mortality rates and thus help India achieve the Millennium Development Goals and subsequently the Sustainable Developmental Goals related to the improvement of maternal and child health. To promote institutional deliveries, the Government of India introduced the Janani Suraksha Yojana (JSY) scheme, which is a 100% centrally sponsored scheme. The main beneficiaries of the scheme are pregnant women who are living in poverty. Under the NRHM, the JSY scheme integrates cash assistance with quality care at a health centre during pregnancy, at the time of delivery and during the immediate postpartum period, by establishing a system of coordinated care provided by field-level health workers (auxiliary nurse midwives [ANMs] and accredited social health activists [ASHAs]).

Health status of tribal women

In India, 100 million people have been classified as belonging to STs. STs, which constitute 8.6% of the total population in India, comprise approximately 461 groups distributed over 29 states and union territories. STs include 74 tribes that have been identified as Primitive Tribal Groups (now known as Particularly Vulnerable Groups); these tribes are characterized by a pre-agricultural level of technology, a very low level of literacy and extreme poverty. Various studies have shown that even today, despite rapid advances in diagnostics and therapeutics, adequate health care is not yet within the reach of tribal communities.[7,8] Various governmental programmes have been introduced for the marginalized ST population. However, the actual state of health and health care in tribal areas has not been adequately documented. A study conducted by the Centre for Operations Research and Training (CORT) in 2007 found that more women opted for institutional deliveries after the introduction of JSY.[41] Moreover, it was found that women with no education or those with only primary education and those belonging to SC and ST still prefer home deliveries.

The Government of India constituted a committee on tribal issues that reported that a 'near-complete absence of participation of people from the STs or their representatives in shaping policies, making plans or implementing services in the health sector' (Government of India, 2014).[42] The STs are one of the poorest and most deprived population groups, and they experience extreme levels of health deprivation.[6,9,10] The health status of the tribal population and health inequalities between the tribal and non-tribal populations reflect the failure of government strategies to ensure the health rights of tribal communities in India and fulfil their specific needs. Tribal women and children are at a higher risk of death than women and children from other population groups.[11–14] A study conducted in Kerala found a higher prevalence of poor health outcomes in women from SCs, STs and other deprived groups than in women from other population subgroups. Poor health is also related to lower education levels and fewer landholding and assets; caste and socio-economic position are interrelated factors that contribute to inequality and can lead to poor health among women from a lower caste.[15–17] A recent National Family Health Survey (NFHS) also confirmed the poor utilization of maternal and health services, high infant mortality and low body mass index among the tribal population.[18]

Despite international and national efforts, the prevalence of malnutrition among children and anaemia among tribal women remain high. The number of stunted, underweight and wasted children younger than 5 years is higher in the tribal population than in any other population subgroup in India. During pregnancy, tribal women are more likely to be anaemic than women from other population subgroups.[19–24] The Maternal Health India project conducted in Madhya Pradesh, India, showed that there are fewer private and public doctors and obstetricians and gynaecologists in tribal areas than in other non-tribal districts.[25] A serious shortage of medical manpower exists in tribal areas across the country.[26,27] Medical professionals' unwillingness to stay in remote and forest areas due to lack of facilities is cited as a major reason for the shortage of essential healthcare manpower. Many studies have also demonstrated the inadequate health infrastructure of rural and remote areas of tribal districts.[28,29] Most studies on the NRHM and JSY have focused on the opinions of women.

The present study

The NRHM programme was introduced more than 10 years ago, and its many positive health outcomes have been reported after evaluation by the government and other agencies. The most important outcome of the programme is the reduction of infant and maternal mortality, increased institutional deliveries and the increased utilization of antenatal care (ANC) services. However, few studies have been conducted to determine the impact of the programme on the tribal population, particularly on the maternal health of tribal women. Whether the NRHM and ASHAs are instrumental in achieving the same positive health outcomes among tribal

women remains unknown. There have been no studies conducted with the Gond and Madiya tribal communities to examine the success and failure of the NRHM. To fill this gap, the present study investigated whether the utilization of facilities provided as a part of JSY under the NRHM results in the higher health status of tribal women. This study investigated the availability and accessibility of maternal health services and the role of ASHAs in tribal communities. The unique contribution of this study is that it uses both qualitative and quantitative methods to examine the NRHM and other district-level maternal health schemes and the role of ASHAs. The study also explores the views of men, women and healthcare providers to examine the success of the schemes among tribal communities in India.

Methods

This study used both quantitative and qualitative methods for data collection. Qualitative and quantitative studies were conducted concurrently but independently. This study was conducted in the Gadchiroli district of Maharashtra, India.

Study area

Gadchiroli district was purposively selected as the study area because it has the second highest tribal population among all districts in Maharashtra. The tribal population in the district is 38% of the total population. Gadchiroli district is situated on the northeastern side of Maharashtra and shares a border with the states of Telangana and Chattisgarh. The district is categorized as a tribal and underdeveloped district. Most of the land is covered with forests and hills; forests cover more than 75% of the geographical area. According to the 2011 census, the total population of the district was 1,072,942 and most of the people living in the district belong to the tribal community. The major tribal communities are Gond, Madiya, Pardhan, Kolam and Rajgond.

Sample size determination

The sample size was calculated based on the estimated percentage of men who accompanied women for any ANC visit in the NFHS-3 and who belong to the tribes of Maharashtra state. Based on the percentage of men who visited the health facility (33%), with a confidence interval (CI) of 95% and absolute precision of 0.05, the following formula was used to determine the sample size:

$$n = \frac{Z^2PQ}{(e^2)}$$

where n = sample size; Z = Z-value (1.96 for 95% CI); P = husband present for ANC in tribal of the NFHS-3 is 33%, the 'p' value is 0.33; e = confidence interval, is 0.05.

$$n = \frac{3.8416*0.33*(1-0.33)}{(0.05)^2}$$

$$n = \frac{3.8416*0.33*0.67}{0.0025}$$

Assuming a non-response error of 10%, n = 339.7*1.1, which is n = 373.7. Then, assuming a design effect of 1.1, we get n = 373.7*1.1; thus, n = 411 is the sample size.

Sampling design

Multistage sampling was applied to reach the estimated sample respondents. Gadchiroli district was purposively selected for this study. Gadchiroli district has 12 tahsils (blocks), of which, the tahasil of Etapalli was selected because it has the highest tribal population (82%) within a tahasil. Within the tahasil, to obtain appropriate representation, 19 villages were selected for the study by using the probability proportional to size approach because these villages have a high tribal population. From each selected village, a list of women who had given birth in the last 2 years was obtained from the ANMs and ASHAs working at the health subcentres. The 2011 census was used as a sampling frame for selecting the primary sampling unit (PSU) village. Currently married men aged 15–49 years whose wives had given birth in the last 2 years were selected as respondents. In total, 385 men were interviewed.

Selection of respondents

In this study, information on the utilization and availability of maternal health services was obtained from the men in the community. We assumed that the husband plays a critical role in accessing maternal health services for the woman. Furthermore, husbands play a critical role when applying for the cash assistance provided under the JSY scheme because of the substantial documentation and administrative work involved. Men also know more about the availability and accessibility of maternal health services within their communities. Additional reasons for selecting men to examine the maternal health services of the Gond and Madiya tribes included the following: (i) the response rates for women were significantly lower; (ii) tribal women were less expressive on the issues of the maternal health, whereas men were more open to share the issues related to maternal health; and (iii) men were more familiar with the language than women. However, the study also considered the views of ASHA workers, trained and untrained dai (midwives/traditional birth attendants) and other key informants from tribal communities.

Data collection and statistical analysis

Both quantitative and qualitative data were collected from October 2014 to March 2015.

Quantitative data

Quantitative data were collected using structured questionnaires. After data collection, all questionnaires were scrutinized and data entry was performed using CSPro 6.0 software. Statistical analysis was conducted using SPSS, version 20. Data are expressed in frequency distribution and mean and standard deviation.

Qualitative data

Qualitative data were collected to address the study objectives. Semistructured in-depth interviews (IDIs) and focus group discussions (FGDs) were conducted using pretested guidelines. Through IDIs and FGDs, the opinions of tribal men were gained on (i) the availability, affordability and accessibility of maternal healthcare services; (ii) the role of ASHA workers; and (iii) the implementation of the JSY scheme. In addition to these interviews with tribal men, interviews were also conducted with women, ASHAs and other key informants. IDIs and FGDs enabled in-depth, one-to-one and more private communication and lively group dynamics and discussion, which benefitted data collection. Four FGDs were conducted; three were conducted with groups of men whose wives had given birth in the last 2 years and one with a mixed-age group of men.

Fifteen IDIs were conducted; three with women who recently gave birth; eight with healthcare providers such as ANMs, ASHAs, multipurpose health workers and Anganwadi (rural childcare centre) workers; one with the Sarpanch (head of the village) and two with trained/untrained dais.

IDIs and FGDs were conducted in the local languages, namely Marathi and Hindi. To conduct interviews with women, two female investigators were employed from the same village; this ensured that women felt free to express their opinions. All study participants were encouraged to discuss their opinions openly. All discussions and interviews were recorded and transcribed verbatim in Marathi and Hindi. After the validation of the transcription, the typed narratives were translated into English and verified for accuracy. Direct quotations from IDIs and FGDs are presented in italics to highlight the key findings of the study.

Ethical approval

This study explored the cultural aspects of tribal communities; therefore, we obtained appropriate consent from the Gond and Madiya tribal community heads and heads of the villages before the survey. Consent was also obtained from individual respondents before the interview. Participants were informed that they were free to withdraw from the study at any stage. The purpose of the study was explained to the community and individuals before the administration of the survey, and they were assured that the collected data would be used only for academic research purposes.

Results

Respondent characteristics

The study response rate was 95%; thus, the sample size for the current analysis was 385. As shown in Table 1, 41% of respondents belonged to the age group of 18–25 years and nearly 44% belonged to the age group of 26–30 years. The mean age and median age of study respondents were 27.04 and 27 years, respectively. More than one-quarter of men (28%) were illiterate, 18% completed primary education and 38% completed secondary education. The mean and median years of schooling were 5.89 and 7, respectively, among male respondents. Regarding occupation, agriculture (57%) was the dominant occupation, followed by agricultural labourers (24%) and government and private employees (14%), and the remaining 4% of the sample stated 'other' as their occupation. In total, 60% of men were from nuclear families and 40% were from joint families. Results show that 36% and 67% of respondents belonged to the Gond and Madiya tribes, respectively. The mean age and median age at marriage were 21.17 and 20 years, respectively.

Table 1 – Sociodemographic characteristics of male respondents.

Characteristics	n	%
Age (years)		
18–25	158	41.0
26–30	169	43.9
31–35	47	12.2
36–40	11	2.9
Mean age = 27.04 years		
Median age = 27 years		
Education		
Illiterate	108	28.1
Primary	70	18.2
Secondary	147	38.2
Higher secondary	50	13.0
Graduate and above	10	2.6
Mean years of schooling = 5.89		
Median years of schooling = 7		
Type of family		
Nuclear family	234	60.8
Joint family	151	39.2
Type of marriage		
Arranged marriage	295	76.6
Love marriage	90	23.4
Mean age at marriage = 21.17 years		
Median age at marriage = 20 years		
Type of tribes		
Gond	142	36.9
Madiya	242	62.9
Rajgond	1	0.3
Current occupation		
Agriculture	213	57.0
Agricultural labourers	91	24.3
Govt./private employees	55	14.7
Other	15	4.0
Media exposure		
No exposure	152	65.5
Any exposure	133	34.5
Total	385	100.0

Availability and accessibility of maternal health services

As shown in Table 2, 41.8% of the surveyed villages had health subcentres. More than half of the surveyed villages (59%) had Anganwadi centres. More than one-third of villages (35%) had ASHA workers, and 28% had ANM workers. The availability of maternal health services within a village is important for the local population to be able to access these essential facilities.

As shown in Table 3, maternal health services were available in 63% of the surveyed villages. More than half of the respondents (57%) reported that ANC services were available within 3 km, 28% stated that they had to travel 3–6 km to access ANC and 14% had to travel more than 6 km for ANC.

Table 2 – Reported availability of basic health facilities in villages.[a]

Health facilitates available in village	%
Subcentre	41.8
Anganwadi centre	59.1
ASHA worker	35.6
ANM	28.5
Private hospital	0.3
Charity Hospital	0.5

Anganwadi centre, rural childcare centre; ANM, auxiliary nurse midwife; ASHA, accredited social health activist.
[a] Respondents could select multiple facilities.

However, the distance to health facilities is less of a problem if communities have convenient means of transportation. In the present study, approximately 60% of women could walk to ANC services, whereas 25% used bullock carts and 12% used rickshaws. Sonography facilities within 5 km of the village were only available for 15% of women; 84% of women had to travel more than 5 km for this service. More than half of the men (65%) reported that a primary healthcare ambulance was available, but 63% reported that basic drugs were not available in the village subcentres. Furthermore, 37% of men reported the absence or lack of skilled medical manpower in the subcentres.

Table 3 – Availability and accessibility of health facilities in surveyed villages.

Covariates	n	%
Availability of antenatal services in the village		
Yes	242	62.9
No	143	37.1
Distance to ANC health services		
0–3 km	221	57.4
4–6 km	110	28.6
>6 km	54	14.0
Transportation used to visit ANC		
Walking	231	60.0
Bullocks cart	97	25.2
Rickshaw	49	12.7
Bus	8	2.1
Availability of sonography facility within 5 km		
Yes	58	15.1
No	326	84.7
Mobile health services available		
Yes	39	10.1
No	346	89.9
Health or family planning camps took place		
One	47	12.2
Two	105	27.3
Three	51	13.2
Never	181	47.0
Availability of ambulance in nearby primary health centre		
Yes	247	65.0
No	133	35.0
Availability of drugs in village		
Yes	139	36.1
No	246	63.9
Skilled medical manpower available in the village		
Yes	145	37.7
No	240	62.3

ANC, antenatal care.

The qualitative study revealed that poor road connectivity and poor frequency of government buses to the village were the major obstacles that prevented women and their husbands from reaching healthcare centres. The lack of availability of health workers in the study area was also a big problem. In many instances, ANMs were not available in the subcentres because they went to the block headquarters and were absent for several days. ASHAs were solely responsible for the functioning of the subcentre. In a discussion with a key informant in a village, the following comments were made:

> *She (ANM) is new to the village, and she doesn't like to stay here in our village. She comes once or twice a week to the hospital (subcentre), and all other works are done by the ASHA. We sometimes have to travel a long distance for minor health problems, or we have to depend on local healers.* (Male, 41 years old).

> *I am always ready to organize health camps and family planning camps in our village, but our people do not respond positively, and they never visit the doctor until they feel that the problem is severe. In the past, I also have organized several health camps in the village, but we need to have a good hospital; that is more important.* (Sarpanch [village head], 45 years old).

Quality of health services and role of ASHAs

As shown in Table 4, the majority of men (49%) reported that their wives were unsatisfied with the services provided in the village. Furthermore, 49% reported that they were not satisfied with the response they received from healthcare providers. However, 64% of men reported that healthcare providers respected the privacy of women.

ASHAs have been playing a major role in providing essential ANC services, particularly to marginalized communities. ASHA workers serve as a bridge between the healthcare system and communities. The ASHA worker is recruited from the same community so that they are aware of the community problems, perception and situation. The ASHA worker is one of the important pillars of the grassroots health system. In this study, as shown in Table 5, 42% of men reported that the ASHA

Table 4 – Quality of health services available within villages.

Service	n	%
Satisfaction with quality of services		
Satisfied	177	46.0
Unsatisfied	189	49.1
Do not know	14	3.6
Health personnels' response		
Satisfied	177	46.0
Unsatisfied	189	49.1
Do not know	14	3.6
Respect for privacy		
Yes	250	64.9
No	114	29.6
Say privacy not needed	21	5.5

worker visited their homes when their wives were pregnant. Furthermore, when they were asked about the recommendations that the ASHA worker gave to their wives, 41% men reported that the ASHA worker suggested that their wives should consume a nutritious diet during pregnancy, in addition to underlining the importance of rest during pregnancy (34%), ANC (44%), an institutional delivery (42%) and postnatal care (32%). Finally, when they were asked about their overall satisfaction with the ASHA worker's role, 42% of men described that they and their wives were satisfied with the ASHA worker's role in the community.

Some ASHA workers performed their duties very effectively. They were always interested in visiting pregnant women, providing recommendations and motivating the women to opt for institutional deliveries and use family planning methods. An IDI with an ASHA worker revealed

> *I am the one who goes one corner to another corner of the village to tell the pregnant women about ANC and other important related matters, I am very much happy with my work. I received a best ASHA worker award in my block (tahasil) last year (she looked happy and smiled). I will make every effort to ensure good health among pregnant women.* (ASHA worker, 28 years old, Pandewai village).

> *I have not got my salary and delivery incentives from the last 6 months. I am living in the village, so I am surviving, but I need my salary so that my children can go to a good school. My madam and other officers are saying that you will get your salary; however, I still am doing my duty.* (ASHA worker, 28 years old, Tumargunda village)

JSY scheme utilization

JSY, which was launched in April 2005, is a safe motherhood intervention under the NRHM. It aims to reduce maternal and neonatal mortality by promoting institutional deliveries among pregnant women who are living in poverty. Awareness about various schemes, particularly JSY, is a crucial factor that promotes institutional deliveries among women from rural and tribal populations. JSY has been shown to have positive outcomes for both maternal and child health across different regions of the country. As shown in Table 6, nearly 60% of men had heard about the JSY scheme; however, only 57% reported that their wives had benefited from the JSY scheme. The mean amount of money received was ₹700 ($US 11) for the most recent birth. For men whose wives did not receive the benefits of JSY, 24% reported that their wives were not eligible for the scheme and the majority (75%) reported that they were not aware of the JSY scheme.

In addition, as the tribal population constitutes 38% of the total studied district population, a tribal motherhood scheme has also been implemented, which provides financial support to pregnant women. In this study, 44% of men reported that their wives utilised this tribal motherhood scheme. Financial assistance to pregnant women in the Gadchiroli district was also provided via the human development scheme; 44% of men reported that their wives received the benefits of this scheme.

During an informal discussion with self-help group (SHG) members, one member said

> *Our SHG has always motivated pregnant women to register and take benefits of all of the schemes available for pregnant women. Many women do it, but some of the women are not able to take benefits of these schemes because the required documents, such as ration card and election ID, are not available with them.*

> *There are always problems from all officers. They ask for ration card, bank account, and Adhaar card. Sometimes, it becomes difficult to provide all documents. I don't know and don't understand why they do not give money when they confirm that the women have given birth.* (FGD, male, 26 years old).

Table 5 – Percentage of ASHA worker visits to pregnant women at home, ASHA worker's suggestions and satisfaction level with the ASHA worker's performance.

ASHA involvement	n	%
ASHA worker visited home		
Yes	160	42.8
No	214	57.2
Suggestions are given by an ASHA worker[a]		
Importance of nutrition during pregnancy	160	41.6
Importance of rest during pregnancy	119	34.9
Importance of ANC	151	44.3
Importance of institutional delivery	146	42.8
Importance of postnatal care	124	32.7
Satisfied with ASHA workers' role		
Yes	146	42.8
No	195	57.0

ASHA, accredited social health activist.
[a] The ASHA worker may give multiple suggestions in the same visit.

Table 6 – Awareness and utilization of Janani Suraksha Yojana (JSY).

Awareness/utilisation	n	%
Heard about JSY		
Yes	230	59.7
No	156	40.3
Benefited from JSY		
Yes	220	57.1
No	146	42.9
Mean amount received from JSY	₹700 ($US 11 USD)	
Use of JSY		
Yes	220	57.1
No	165	42.9
Reasons for not receiving JSY		
Not eligible for JSY	44	24.9
Do not know of JSY	129	72.9
Benefited from the tribal motherhood scheme		
Yes	171	44.4
No	214	55.6
Benefited from the human development scheme		
Yes	169	44.0
No	215	56.0

Utilization of maternal health services

As shown in Table 7, nearly 95% of men reported that their wives received antenatal services. However, nearly half (49%) of deliveries took place at home, and only 50% of women received postnatal care. The large number of home births and the low utilization of postnatal care are a concern. Furthermore, when asked about the reasons for home deliveries, nearly 40% of respondents reported the lack of a healthcare facility within their village or nearby as the major reason for home delivery, followed by traditional and cultural practice in 30% of men and the home being a safe place for delivery in 25%.

Qualitative results also revealed that various reasons, such as the lack of healthcare facilities and the traditional practices of the community, were responsible for the low utilization of maternal health services.

> *We are giving applications to higher authorities for building a hospital in our Tola (a small village), but we failed to get that ANM hospital in our Tola. Many times, we don't have any other option but to give birth at home even if it is dangerous*. (FGD, Tola village head).

> *From many years, I am attending the deliveries in my Tola (small village), we don't look for someone to come and do the delivery. I know the techniques of how to conduct a delivery*. (IDI, untrained birth attendant, 51 years old).

Discussion

This study clearly provides evidence of the lack of availability, affordability and accessibility of maternal health services among tribal communities in Gadchiroli, Maharashtra. Our study also revealed that the utilization of the JSY scheme was low; only 57% of women received the cash benefits of JSY. The reasons for the low utilization of JSY were the lack of awareness of the scheme and ineligibility for the scheme. The qualitative study showed the rigid documentation process and the lack of bank accounts were barriers for JSY. Often, tribal communities do not fulfil the procedures and hence do not receive the benefits. Other studies have also highlighted rigid documentation and lack of awareness,[30–33] in addition to other reasons such as corruption[30,31] and exploitation of beneficiaries.[31,32] Previous studies have also shown that ASHA workers and the JSY scheme succeeded in increasing the utilization of antenatal services but were not instrumental in promoting institutional deliveries.[34–36] The present study demonstrated the unsatisfactory state of the healthcare system in villages. This study also highlighted the lack of grassroot health workers in subcentres, high absenteeism of these workers and inadequate infrastructures. Previous studies have also showed that maternal healthcare services are underutilized among tribal communities.[9,37,38]

Table 7 – Utilization of maternal health services and reasons for home deliveries.

Maternal health services/ home delivery	%
Utilization of maternal health services	
Use of antenatal care	95
Institutional delivery	49
Use of postnatal care	50
Reasons for home delivery	
Lack of health facility	40
Traditional and cultural practice	30
Home is safe for delivery	25
Other	5

The high rate of home births and the poor utilization of postnatal care services were evident from this study. Possible reasons for the high rate of home births are the lack of health centre availability, absence of healthcare workers, long distances to facilities, lack of transport, cultural and traditional practices of tribal communities that promote home delivery and lack of counselling from healthcare workers on the importance of institutional births.

The core objective of the NRHM has not been achieved for tribal communities. However, in other parts of the country, the NRHM has achieved great success in reducing the number of home births and increasing institutional deliveries and utilization of postnatal care services.[39,40] The utilization of schemes such as the tribal motherhood scheme and human development scheme in tribal communities was found to be minimal, which is a concern. The increased use of community-specific schemes may contribute to positive health outcomes in tribal communities.

Conclusions

Many studies conducted in the various states of India have provided evidence of change and progress as a result of the NRHM programme. However, our study clearly demonstrated that the objectives of the NRHM programme, namely increasing institutional deliveries and the utilization of full ANC and postnatal care, have not been achieved in tribal communities. The NRHM programme should focus on the basic community-level issues of shortage of medical workforce, equipment and facilities, which should be urgently addressed. Full ANC and institutional health facilities for delivery should be provided to tribal women. When implementing NRHM strategies, it is very important that healthcare providers understand local community-driven traditional and cultural factors. To achieve the objectives of the NRHM in rural and tribal communities, there should be strong political commitment to the recruitment and retention of skilled medical manpower in tribal areas. Furthermore, educating and empowering tribal communities about institutional deliveries will help India achieve the Sustainable Developmental Goals. Until health equality is achieved between tribal and non-tribal populations, India will not be able to achieve the Sustainable Developmental Goals.

Study limitations

This study has two main limitations that should be noted. In this study, information was obtained from the men in the community because they are considered the primary decision-makers in accessing maternal health services and

they are also facilitators in obtaining the benefits of the JSY scheme; therefore, the actual utilization of health services and the reported utilization may differ. Moreover, this study was conducted among the Gond and Madiya tribal communities; hence, the results may not be generalisable to other tribal communities.

Author statements

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Ethical approval

Before commencing the study, consent was received from the heads of the tribal communities, the heads of the villages head and all individual respondents.

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Competing interests

None declared.

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