

Factors Influencing the Utilization of Maternal Healthcare Services; a Study among Gond Community of Gadchiroli (Maharashtra)

Rakhi M.Shende¹, Bal Rakshase²

¹MPH (Student), School of Health System Studies. Tata Institute of Social Sciences, (Mumbai)

²Ph.D., Associate Professor, School of Health System Studies. Tata Institute of Social Sciences, (Mumbai)

Received: 03-04-2023 / Revised: 30-04-2023 / Accepted: 20-05-2023

DOI: <https://doi.org/10.32553/ijmbs.v7i5.2710>

Corresponding author: Rakhi M Shende

Conflict of interest: No conflict of interest.

Abstract

Background: Due to difficulties during pregnancy, childbirth, or post-partum, millions of women in the reproductive age group die or suffer severe morbidity.

Objectives; to study the pattern and factors associated with the utilization of maternal healthcare services among Gond community women of Gadchiroli

Method; this is a cross-sectional study of 104 Gondi females from Gadchiroli selected by purposive sampling method, whose ages ranged from 15 to 49 years and who had given birth in the previous year. A semi-structured interview schedule was used for data collection and analyzed by descriptive statistics and chi-square test

Results: In this study, 96.15 percent of the women interviewed had used the ANC facility to its full capacity. Despite the fact that 94.23 percent of respondents gave birth in a hospital and just 5.8% at home, the study found that 61.5 percent of respondents used PNC services at once. According to bi-variate analysis, numerous socioeconomic and demographic characteristics are linked to the maternity healthcare services among Gadchiroli's Gondi women, like visits of health workers during pregnancy, husband education, exposure to mass media, and a number of pregnancies problem faced during ANC are the important factors.

Conclusion: Overall socioeconomic development, with a focus on women's empowerment and education, can promote better utilization of maternal health services.

Keywords: Antenatal Care, Delivery Care, Postnatal Care, Gondi women.

Introduction

Pregnancy and childbirth are two of the most crucial times in a woman's life, but they also come with a period of high health risk if proper precautions are not followed. Maternal mortality and morbidity were addressed in Millennium Development Goal (MDG) 5, which aimed to improve maternal health by reducing the Maternal Mortality Rate by three quarters between 1990 and 2015. However, within a year of its implementation, the MDGs

failed to fulfill their target of lowering maternal mortality.

The World Health Organization has reported maternal deaths have reduced from an estimated 523,000 in 1990 to 289,000 in 2013¹⁷, and approximately 295 000 women died in 2017. The vast majority (94 percent) of these deaths occurred in low-resource areas, which could have been avoided¹⁶

In India, as per the Registrar General of India's (RGI) Sample Registration System (SRS) statement. Over the past three years, India's maternal mortality ratio declined from 130 to 113 per 100,000 live births from SRS 2014-16 to 2016 -18. Over the previous sixty-five years, India has devised and executed several mother and child health programs. However, despite these national programs aimed at improving mother and child health, maternal mortality and morbidity remain high.

Involvement and utilization of maternal health care services can result in considerable changes in women's maternal health. To reduce maternal deaths, women need good quality reproductive health care, effective interventions and skilled birth attendants – and the autonomy and resources to demand and secure access to these⁶. Nevertheless, various factors contribute to poor maternal healthcare service use. Understanding the barriers that limit maternal health services is essential to improving maternal health.

Gond is an indigenous tribe of Gadchiroli. Because the researcher could not discover any data on the Gond tribe of Gadchiroli's use of maternal and child healthcare services, she chose this topic for his study to explore and understand the pattern and factors that influence the Gond community's use of maternal healthcare services.

Materials and Methods

Gadchiroli district is located in Maharashtra's eastern region; Gadchiroli is the least developed district in the state; Gond, Madia, Pardhan, and Kolam are the major tribal communities in the district. This is a cross-sectional study conducted among the - Gondi women between 15 and 49 years who delivered a child within the last year, duration of study collection was from September 2021 to January 2022. Gadchiroli district comprises 12 blocks from these researchers selected "Kurkheda"

and "Armori" blocks randomly for the study. The first contact person to reach the respondent is ASHA and Aganwadi workers of the villages. The sample size was calculated on the basis of 90.2% of pregnant women having received any ANC in Gadchiroli, district as per District level household and facility survey (2007-08) data, with an allowable error (d) as 5 using the formula, $N = Z^2 \alpha^2 p \times q / d^2$, sample size comes to 136. Due to covid -19 restrictions full sample size were not attended.

Researchers used Face to face interview method for data collection by using the semi-structured interview schedule. The schedule records the socio-demographic and economic details, with information about the utilization of maternal healthcare services and reasons for not utilizing services. A total of 104 women were selected by purposive sampling technique with their consent. The data were analyzed using SPSS 20.0. Basic percentages, Frequency, cross-tabulation. And chi-square test was also used to see whether there was a significant association between the variables. A "p" value of less than 0.05 for the chi-square test was considered statistically significant for the purposes of the analysis. Bi-variate analysis were based on the 95% confidence interval.

Result:

I interviewed 104 women of which two respondents reported the recent death of their husbands due to the COVID-19 Pandemic. The mean age of the participants in the sample was 26.02 years with a standard deviation of 3.82. The women's lowest age was 20 years and their maximum age was 35 years in the sampled population. A considerable proportion of women in their 20s and 30s (86.53%) are now in this age bracket. Only 13.5 percent of the women examined were between the age of 31 and 35 years and 56.7 percent (59) of the study's respondents were between the ages of 20 and 25, followed by those between the ages of 26 to 30 years. (29 percent, 31 respondents).

The mean age at marriage in the sampled population was 22 years, with a maximum age of 29 years and the minimum age is 17 years.

The mean Age of Respondents at first pregnancy was 23.19 years, with standard deviation 3.445.

Table 1: Distribution of Selected background Characteristics of participant Gondi women (aged between 15 to 49 years) in Gadchiroli.

Variables	number of participants	percentages
Woman's age		
20-25	59	56.7
26-30	31	29.8
31-35	14	13.5
Participant Education		
Up-to 4 th class	4	3.8
5 th to 10 th class	45	43.5
11 th to 12 class	44	42.3
Graduate	11	10.6
Husband Education		
Illiterate	2	1.9
5 th to 10 th class	60	57.69
11 th to 12 th class	24	23.1
Graduate	14	13.5
Post-graduate	4	3.8
Family Type		
Nuclear	36	34.6
Joint family	68	65.4
Exposure to mass media		
Yes	89	85.6
No	13	12.5
Occasionally	2	1.9
Information through mass media About MCH services		
Yes	28	28.9
No	76	71.42
Un-availability of transport affect The utilization of MCH services		
Yes	73	70.19
No	31	29.80
Number of pregnancies		
1	49	47.1
2	41	39.4
3	10	9.6
4	2	1.9
5	2	1.9
Number of ANC visits		

0	2	1.9
1-2	2	1.9
3	98	94.2
9	2	1.9
TT Injection Received		
Yes	102	98.07
No	2	1.9
Number of TT injections		
1	5	4.80
2	97	93.26
Not taken	2	1.9
Number of IFA tablets taken		
Less than 90 tablets	16	15.4
More than 90 tablets	86	82.7
Not taken	2	1.9
Level of ANC utilization		
Full ANC	100	96.15
Partial ANC	2	1.9
No ANC	2	1.9
Place of delivery		
Institutional	98	94.23
Home	6	5.8
PNC taken		
Yes	64	61.5
No	40	38.5
Number of PNC visits		
1	38	57
2	19	29.68
3	7	10.93
Visit of health-workers		
During pregnancy		
Yes	102	98.1
No	2	1.9
Health worker visited home		
ASHA	2	1.9
ASHA/AWW	56	53.8
AWW	4	3.8
ASHA/AWW/ANM	40	38.5
No one	2	1.9

Ante-natal care

For the purposes of this study, a full ANC has been defined as individuals who have had at least three ANC visits and had received two Tetanus Toxoid (TT) injections, and taken 100 Iron Folic Acid (IFA) tablets. Complete ANC was defined as a woman who received the above-mentioned complete package rest were either partial or no ANC was defined as a woman who did not receive the above-mentioned complete package

The majority of the females (96.2 percent) attended a health facility for complete utilization of ANC. Only two responders did not use any of the ANC services. Two women attended less than three ANCs

The TT vaccine is an essential part of prenatal maternal care. The majority of respondents (93.26 percent) had two TT vaccine doses. Around 4.80 percent of responders received only one dose of TT vaccination, those who did not use the ANC program did not receive the TT vaccine. 82.7 percent of respondents (86 respondents) received complete dose of IFA during their pregnancy. The remaining respondents either did not consume all of the pills that they were given or did not consume all of the IFA that they were given. However, there is no way to confirm that these women who claimed to have consumed the IFA actually did so [Table 1].

To increase the utilization of maternal healthcare services, the Indian government advises pregnant women to register their pregnancy during the first trimester. The Pradhan Mantri Matru Vandana Yojana (PMMVY) seeks to do this by offering a monetary incentive of Rs. 5000 in three instalments. Women should register as soon as possible to take advantage of the scheme. In given study participants reported, they registered earlier to take advantage of

PMMVY. In given study the vast majority of women (96.2 percent) in the study area appear to have enrolled in ANC during their first trimester. Only a small (1 percent) percentage of women use ANC services in the third trimester

It is determined that the husband education, Family type, Problem faced during ANC visit exposure to mass media, from number of pregnancies Visit of Health workers and visit of ASHA/ANM/AWW show significant association with utilization of ANC ($p < 0.05$). The evidence is provided by their lower p -values [Table 2].

Delivery Care

Delivery care shows whether the delivery is institutional (coded as 1). If not coded as zero, (0), an institutional delivery (Delivery care) is described as one in which the mother is delivered in a hospital or at home with the assistance of a doctor, auxiliary nurse midwife, nurse, midwife, lady health visitor, or other medical staff⁴

From data 94.23 percent of respondents (N=98) gave birth in a hospital, whereas only 5.8 percent (N=6) gave birth at home

When we look at how delivery services are used, we find that 5.8 percent of those who were interviewed delivered at home; all are done by untrained *dais*. From bi-variate analysis, researcher concludes following factors are associated with utilization of Delivery care among The Gondi Women's of Gadchiroli are; - Age & education of participant, husband education, problems faced during ANC, Un-availability of transport, exposure to mass-media, number of pregnancies, visit of health-workers, type of health workers visited at home as all are having ($p < 0.05$) in chi – sq. bivariate analysis.

Table 2: Distribution of women aged 15–49 by background variables related to maternal services (based on p-values and Chi-square)

Variables	ANC		Delivery Care		PNC	
	p-value	X ²	p-value	X ²	p-value	X ²
Participant age	-	-	0.000	30.735	-	-
Participant education	-	-	0.009	32.322	-	-
Husband education	0.000	117.164	0.000	48.019	-	-
Family type	0.043	8.150	-	-	-	-
Problem faced during ANC visits	0.000	104.513	0.000	85.612	0.004	13.585
Availability of transport for MCH services	-	-	-	-	0.010	6.604
Un-availability of transport affect utilization of MCH services	-	-	0.024	11.217	-	-
Exposure to mass-media	0.022	14.824	0.000	38.037	-	-
Number of pregnancies	0.000	106.550	0.000	72.811	0.015	12.296
Visit of health workers in house during pregnancies	0.000	104.00	0.000	33.307	0.021	3.263

Note – significance level p<0.05

Post- natal care

It is critical for both the mother and the baby to remain at the facility for a sufficient amount of time following the delivery. PNC is essential for the newborn's health, since studies show that when facility delivery is along with postnatal check-ups, neonatal mortality is considerably reduced.

The term "postnatal care" refers to whether or not a woman has her health checked within 42 days of giving delivery (If yes coded as 1, if not coded as 0)⁴.

PNC is a crucial part of mother and child health. Data shows that 61.5 percent of

respondents used PNC services at least once. Nearly 38.5 percent of respondents did not have even a single PNC checkup. Number of visits to the PNC only a 10.93 percent of the respondents said they had gotten three PNC visits. Only 29.68 percent had received two postnatal checkups. Problem faced during ANC visit, Number of pregnancies, availability of transport for Maternal healthcare services Visit of Health workers ASHA/ANM/AWW show significant association with utilization of PNC (p<0.05).[Table 2]

Table 3: Percentage of women (aged 15-49) by use of maternal healthcare services according to various background

Variables	Antenatal Care			Delivery Care		Post-natal care	
	All visits	partial visits	No visit	institutional	Home	Yes	No
Age of participant							
20-25	54.80	1.92	0	52.88	3.84	33.65	23.67
26-30	27.88	0	1.92	27.88	1.92	16.34	13.46
31-35	13.46	0	0	13.46	0	1153	1.92
Participant education							
Up-to 4th class	2.88	0	0.96	2.88	0.96	2.88	0.96
5th to 10th class	41.34	1.92	0.96	39.42	4.80	27.88	16.34
11th to 12 class	42.30	0	0	42.30	0	25.00	17.30
Graduate	9.61	0	9.61	0	5.76	3.84	
Husband education							
Illiterate	0	0	1.92	0	1.92	0	1.92
5 th to 10 th class			55.76	1.92	0	56.00	3.84
36.53	21.15						
11 th to 12 th class			23.07	0	0	23.07	0
15.38	7.69						
Graduate			13.46	0	0	13.46	0
7.69	5.76						
Post-graduate			3.84	0	0	3.84	0
1.92	1.92						
Family type							
Nuclear			30.76	1.92	1.92	32.69	1.92
19.23	15.38						
Joint family			65.38	0	0	61.53	3.84
42.30	23.07						
Problem faced during ANC visits							
No Problem			94.23	1.92	0	85.57	1.92
57.69	29.80						
Long Waiting Time			3.84	0	0	1.92	1.92
0	3.84						
Long Waiting Time +Un-Availability of Staff			1.92	0	0	1.92	0
1.92	0						
Un-Availability of Staff			2.88	0	0	0.96	0
0.96	1.92						
Drug Un-Availability			1.92	0	0	0	0
0.96	1.92						
Availability of transport for MCH services							
Yes			58.65	1.92	1.92	58.65	1.92
43.26	17.30						
No			37.5	0	0	35.57	3.85
18.26	21.15						
Un-availability of transport affect utilization of MCH services							
Yes			66.34	1.92	1.92	64.42	5.76
41.34	28.84						

No		29.80	0	0	29.80	0
20.19	9.61					
Exposure to mass-media						
Yes		83.65	0	1.92	81.73	3.84
50.96	34.61					
No		10.57	1.92	0	12.5	0
10.57	1.92					
Occasionally		0	0	1.92	0	1.92
0	1.92					
Number of pregnancies						
1		45.19	1.92	0	47.11	0
35.57	11.53					
2		39.42	0	0	39.42	3.84
20.19	19.23					
3		1.61	0	0	9.61	0
3.84	3.76					
4		1.92	0	0	1.92	0
1.92	0					
5		0	0	1.92	0	1.92
0	1.92					
Visit of health workers in house during pregnancies						
Yes		94.23	1.92	0	94.23	3.84
61.53	36.53					
No		0	0	1.92	0	1.92
0	1.92					

Discussion

This is the only study that studies the utilization of the Gond tribe’s maternal healthcare services.

The given study has attempted to explore the characteristics that influence the utilization of maternal healthcare services among Gondi Tribal women of Gadchiroli. From various literature reviews, these factors can be social, and economic. demographic, cultural, etc., our findings are the same as those of other literature. The significant finding of our research determines. The husband's education, number of pregnancies, visit of health workers, and exposure to mass media was all influencing the use of maternal health care services (statistically significant $p \leq 0.05$).

The ANC services have been also coined as an important strategy for reducing maternal mortality⁷. One of the most important functions

of ANC is to offer health information and services that can significantly improve the health of women and their infants¹⁶. ANC has a positive impact on the utilization of post-natal healthcare services²

Use of maternal healthcare services ANC & Delivery care in Gadchiroli is adequate but not hundred percent. While the utilization of PNC is poor. only 61.5 percent of respondents had used PNC care.

From the data it is concluded, younger women more actively utilized the MCH services. the husband education in the given study shows a significant association with Maternal healthcare service utilization, it came to know as the education level of women & their husbands increase the utilization rate. [Table 2] Educated husbands have a greater awareness about maternal health and related complications, including that education, fosters

better communication within the family and healthcare facility along with educated partners, giving women the self-assurance for better ability to use health-related inputs to enhance their health¹⁴. Table 2. Problems faced during ANC visits showed a significant association with maternal healthcare service utilization¹⁴, in the given study 98 respondents reported, they faced no problems during ANC visits, and respondents who reported long waiting time (n=4) out of only two had used partial ANC whereas they did not use delivery care. Long waiting times constrained their service utilization. If respondents did not find any problems in their initial ANC visits, they continue their further visits with trust. Else they discontinue. Table 3

Given study demonstrated the importance of social media, and its shows a significant association between ANC & delivery care, it provides information and health education¹⁰, from data the people who do not report exposure to mass media from them (two respondents had not used ANC other two used ANC but partially. People who expose to mass media showed 100 percent utilization of ANC. the people who do not report their exposure to mass media had not used delivery care (n= 6). People who expose to mass media showed 100 percent utilization of delivery care. The number of pregnancies shows a significant association with ANC, delivery care, and PNC service Utilization¹⁰, as the birth order increases the utilization of services decreases. as she feels more confident from her previous experience & starts neglecting maternal healthcare services. The visit of ASHA/ANM/AWW show significant association with utilization of maternal healthcare services. as ASHA/AWW/ANM live in nearby places and provides door to door facility respondents easily trust them and follow their instructions, even ASHA/AWW/ANM visit pregnant women's home time to time to check her health status

respondent reported 100 percent utilization of ANC with visits of ASHA/AWW/ANM in the home during pregnancy. Limitations, it was a small sample study where other variables which could have potentially influenced the pattern of maternal health care utilization were not taken into account as the cultural factors, Service quality, Income, etc.,

Conclusion

The rate of use of maternity and child health care by rural women in Gadchiroli District is adequate but not 100 percent. Following the adoption of the NRHM, the use of ANC, institutional deliveries, has continued to rise. Whereas PNC utilization is still poor. Maternal age, education, family type, husband education, visit of health-workers, problems faced during ANC visits, Availability of transport for MCH services, un- Availability of transport all are individual determinants of health service utilization. The outcomes of the study reveal that in the socio & demographic factors are strongly associated with the maternal health care usage, The study revealed that there is a critical need to improve maternal healthcare services awareness for women in Gadchiroli, and that providing comprehensive maternal health care services would necessitate the recruitment of specialists and other required staff in health facilities.

References:

1. Bloom, Shelah S., Theo Lippeveld, and David Wypij. Does antenatal care make a difference to safe delivery? A study in urban Uttar Pradesh, India. *Health policy and planning* 14, no. 1 (1999): 38-48.
2. Chakraborty, Nitai, M. Ataharul Islam, Rafiqul Islam Chowdhury, and Wasimul Bari. Utilisation of postnatal care in Bangladesh: evidence from a longitudinal study. *Health & social care in the community* 10, no. 6 (2002): 492-502.

3. Chandramouli, C., and Registrar General. Census of india 2011. Provisional Population Totals. New Delhi: Government of India (2011): 409-413.
4. Chimankar, Digambar A., and Harihar Sahoo. Factors influencing the utilization of maternal health care services in Uttarakhand. *Studies on Ethno-Medicine* 5, no. 3 (2011): 209-216.
5. Dahiru, Tukur, and Oche Mansur Oche. "Determinants of antenatal care, institutional delivery and postnatal care services utilization in Nigeria." *Pan African medical journal* 22, no. 1 (2015).
6. Nepal, Adweeti, Santa Kumar Dangol, and Anke van der Kwaak. Improving maternal health services through social accountability interventions in Nepal: an analytical review of existing literature. *Public health reviews* 41, no. 1 (2020): 1-24.
7. Nuraini, Erna, and Elizabeth Parker. Improving knowledge of antenatal care (ANC) among pregnant women: a field trial in central Java, Indonesia. *Asia pacific journal of public health* 17, no. 1 (2005): 3-8.
8. Sample Registration System. Special Bulletin on Maternal Mortality in India 2016–18. (2020).
9. Srivastava, Anurag, Syed Esam Mahmood, Payal Mishra, and Ved Prakash Shrotriya. "Correlates of maternal health care utilization in Rohilkhand Region, India." *Annals of medical and health sciences research* 4, no. 3 (2014): 417-425.
10. Tsawe, Mluleki, Amos Moto, Thendo Netshivhera, Lesego Ralesego, Cassandra Nyathi, and A. Sathiya Susuman. "Factors influencing the use of maternal healthcare services and childhood immunization in Swaziland." *International journal for equity in health* 14, no. 1 (2015): 1-11.
11. UN Women, SDG 3: Ensure healthy lives and promote well-being for all at all ages, <https://www.unwomen.org/en/news/in-focus/women-and-the-sdgs/sdg-3-good-health-well-being>
12. UNICEF, Maternal mortality ,September 2019, Maternal mortality declined by 38 per cent between 2000 and 2017, <https://data.unicef.org/topic/maternal-health/maternal-mortality/>
13. United Nations 2015. India and the MDGs. Towards a sustainable future for all. United Nations Country Team – India. Available from: http://www.unic.org.in/items/India_and_the_MDGs_small_web.pdf
14. Wassif, Osama M., Raneyah H. Afifi, Eman M. Araby, Hala A. Abed, and Mai M. Anwar. "Pattern of Utilization of Maternal Health Care Services in Qalyubia Governorate." *Egyptian Journal of Community Medicine* 37, no. 3 (2019).
15. WHO, UNICEF, UNFPA and the World Bank, Trends in Maternal Mortality: 1990 to 2013, Geneva: WHO; 2014. Available from: <http://data.unicef.org/maternal-health/antenatal-care#sthash.W01W4q5P.dpuf>, accessed on April 17, 2015
16. WHO, 2019, Maternal mortality, 19 September 2019, <https://www.who.int/news-room/fact-sheets/detail/maternal-mortality> World Health Organization. Trends in maternal mortality: 1990 to 2013: estimates by WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division: executive summary. No. WHO/RHR/14.13. World Health Organization, 2014. also need a good road connectivity and availability of transport system