International Journal of Multidisciplinary Research and Growth Evaluation.

Status of Reproductive and Child Health among Birhor Women of Raigarh District, Chhattisgarh, India

Damini Swarnkar [1*], KKN Sharma [2]
[1] Doctoral Scholar, Department of Anthropology, Doctor Harisingh Gour Vishwavidyalaya, Sagar, Madhya Pradesh, India
[2] Professor, Department of Anthropology, Doctor Harisingh Gour Vishwavidyalaya, Sagar, Madhya Pradesh, India

* Corresponding Author: **Damini Swarnkar**

Article Info

ISSN (online): 2582-7138
Volume: 05
Issue: 05
September-October 2024
Received: 02-07-2024
Accepted: 03-08-2024
Page No: 113-118

Abstract
Reproductive health is the key factor for the human development. The idea of reproductive health acknowledges the variety of unique health requirements that women have before, during, and after childbearing age. A dynamic of human life is having a healthy body. Birhor are one of the particularly vulnerable tribal groups of Raigarh district of Chhattisgarh, India who are living in the remote areas of the state with the lack of adequate amount of health facilities and poor sanitation. The present study aims to study the present reproductive health profile of the Birhor women who are in their reproductive age group (15-49 years). Study involves 140 women of reproductive age group. For this study area sampling method is acquired. The study resulted that the reproductive health status of studied Birhor women is not satisfactory. They live in poor sanitation and vulnerable to many diseases and they don't have proper awareness regarding modern medical system because of their poor educational status.

Keywords: Reproductive health, PVTG, Birhor

1. Introduction

Fertility as a biological reproduction notion is frequently coupled with the objective of human motivation and the individual's reproductive history. Social scientists have employed reproductive histories, including birth, pregnancy, and marriage, to analyze fertility patterns. A deeper comprehension of fertility behaviour results in more insightful understandings of a variety of social and economic behaviours of groups, including differences in marital patterns, childbearing habits, wealth distribution, and employment and educational status [1].

Reproductive health is a vital aspect of human development and a necessary component of overall health. Population health requires particular focus in large part on reproductive health. The concept of reproductive health recognizes the range of health needs that women have before to, during, and following childbearing age [2]. Being in good physical health is essential to human life. The state of health of any people has a big influence on how successfully a nation develops. A child's general health has a big impact on when they are born healthy. Concerns regarding tribal populations' reproductive health have been voiced by many experts.

The most of births in many tribal societies take place without the assistance of a competent assistant (defined as a midwife, nurse trained as a midwife, or a doctor) at some point outside of hospitals [3]. Negative outcomes for both the mother and the baby have been linked to home deliveries in the absence of trained personnel or attendants [4, 5]. Traditional birth attendants have received modern delivery care training in an effort to enhance care during home deliveries and lower maternal mortality, with differing degrees of effectiveness reported [6, 7]. Maternal mortality and morbidity can be significantly reduced when a professional attendant is present at every birth. One process indicator used to evaluate progress towards the Millennium Development Goals is the provision of professional healthcare during childbirth [4].

Rural India, especially the tribal population, bears the greatest burden on women's health because of limited access to medical facilities and services, poor infrastructure, a shortage of medical professionals with the necessary training [8, 9].

One of the states where tribes predominate is Chhattisgarh, where a sizable section of the Indian populace is tribal and lives in remote areas with inadequate medical care and sanitary conditions. Previous researches indicates that the indigenous population in this area lacks access to relevant and practical health care facilities. For indigenous women to be empowered, they must have a basic understanding of the condition of their reproductive health.

Tribal women perform several useful tasks in addition to childbearing and domestic duties. Ironically, rural women did not benefit from the breakthroughs in agriculture, even though they had to continue traditional housework while working in agriculture and construction. Even before they fully recover from childbirth, women are required to return to work.

There are very less studies who address the major reproductive health problems of the one of the vulnerable primitive tribal groups like Birhor who are very far from the adequate health facilities. Although, there are many studies on physiological changes of body during pregnancy and lactation. Due to a lack of systematic and thorough study studies, the reproductive health issues that diverse tribal communities located at various stages of development face are full of ambiguities. The goal of the current analysis was to examine the reproductive health profile of Birhor women in the reproductive age group.

1.1. The Birhor tribe

Birhors are one of the five Particularly Vulnerable Tribal Group of Chhattisgarh, India. There overall population is very less as compared to the other tribal groups. The total population of Birhor in India is 17044, in Chhattisgarh it is 3104 [10]. In Raigarh district of Chhattisgarh the population is 1005 [12]. In Raigarh district Birhors are distributed in four blocks namely Dharamjaigarh, Tamnar, Gharghoda and Lailunga. Birhors are classified into two major groups first is '*uthlus*' who are nomadic and '*janghis*' who are settled population. They are forest dwellers living in interior areas of state far from the civilization. They belong to Austro-Asiatic linguistic group who speak Mundari language. Their primary occupation is to make ropes from vine of different species of plants, but nowadays they are using the cement sack threads to make ropes and, they used to make baskets and other materials from bamboo sticks. They are living very close to nature so they are having great knowledge of indigenous ethno-medicines which they use for different diseases. Their staple food is rice and most of the families are getting benefits by the BPL Rashan card provided by the government. Most of the families are living in the nuclear manner. The most of their settlements *(Tanda)* are distant from other caste groups within the same village.

2. Aims and objective

1. To study the socio-economic status of Birhor women of reproductive age group (15-49 years).
2. To know the reproductive health status of Birhor women of reproductive age group (15-49 years).
3. To know the use of family planning methods by the Birhor women of reproductive age group (15-49 years).

3. Research Methodology

This present study is a cross-sectional study. The present study is carried out in the homogenous population of Birhor who are scattered in four blocks of Raigarh District of Chhattisgarh namely Dharamjaigarh, Tamnar, Gharghoda and Lailunga. The data was collected during the month of February and October, 2023. A total of 140 Birhor women who are in their reproductive age (15-49 years) are studied to know their socio-economic status and reproductive health status.

3.1. Ethical approval

The required permission was taken from the district magistrate, block officer and sarpanch of the concerned villages. To conduct this study which is a part of Ph.D. thesis, permission was taken from the Institutional Ethical Committee (IEC), Doctor Harisingh Gour Vishwavidyalaya, Sagar (M.P.) with registration no.- DHSGV/IEC/2022/11.

3.2. Material and Methods

- A required set of questionnaires, participatory and non-participatory observation method was used for the collection of socio-economic data as well as reproductive health data from the respondents. The anthropometric measurements will be noted.
- Reproductive profile was personally collected by interviewing the Birhor women and the anthropometric measurement (height and weight) was measured by using standard procedures.
- Data like age, age at menarche, age at marriage, age at first conception, antenatal care, place of delivery, consumption of iron and vitamin tablets during pregnancy, use of contraceptive methods and colostrum feeding to new born baby are included in the study. The age is estimated through available school register and method of recall of past events in the concerned area. While analysing the age the researcher has kept the age above five months in the succeeding whole number and the same for the age of below five months in the proceeding age group.
- The height and weight of the respondents were measured to the nearest 0.1 cm and 100 grams respectively.
- Body Mass Index (BMI) is calculated and correlate it with the age at marriage, age at menarche and age at first conception.

3.3. Analysis

Collected data of the study was coded and entered MS-excel and analysed by using Statistical Package For the Social Sciences (SPSS), MS-excel, and MS-word. The analysed data are presented in the form of table and graphs. Correlation was used to co-relate the reproductive parameters with the Body Mass Index (BMI).

4. Result and Discussion

4.1. Socio-Demographic profile of the studied population

Table 1: Age structure of studied Birhor women

Age group (Yrs.)	Frequency (n)	Percent (%)
15-20 Y	9	6.43
21-25 Y	38	27.14
26-30 Y	38	27.14
31-35 Y	26	18.57
36-40 Y	14	10.00
41-45 Y	6	4.29
46-49 Y	9	6.43
Total	**140**	**100**

Table no.1: The age structure of studied Birhor women constitute that 9(6.43%) of women are of 15-20 years, 38(27.14%) are of both 21-25 year and 26-30 years, 26(18.57%) women are of 31-35 years, 14(10%) are of 36-40 years, 6(4.29%) are of 41-45 years and remaining 9(6.43%) of women belongs to 46-49 years.

Table 2: Demographic profile of studied Birhor women (n=140)

S. No.	Variables	Frequency	Percentage (%)
1.	**Family size**		
	a) 1-3	48	34.28
	b) 4-7	52	37.14
	c) 7-10	25	17.86
	d) More than 10	15	10.72
2.	**Family type**		
	a) Nuclear	125	89.28
	b) Joint	15	10.72
3.	**Educational status**		
	a) Illiterate	54	38.6
	b) Primary	35	25.0
	c) Secondary	24	17.1
	d) High-school	22	15.7
	e) Intermediate	05	03.6
4.	**Occupation**		
	a) Housewife	97	69.3
	b) Ropemaking	19	13.6
	c) Unskilled labour	18	12.8
	d) ASHA	5	3.6
	e) Clerical job	1	0.7
5.	**Economic status**		
	a) <3,000	18	12.86
	b) 3,000-5,000	41	29.29
	c) 5,000-10,000	58	41.42
	d) >10,000	23	16.43

Table no. 2 shows that the studied Birhor families are living with different family sizes, 48(34.28%) households have 1-3 family members, 52(37.14%) have 4-7 family members, 25(17.86%) have 7-10 family members and 15(10.72%) are having more than 10 family members, the structure of family is demonstrated in the table that the 125(89.28%) are having nuclear manner and remaining 15(10.72%) are living with joint families. Educational status of studied Birhor women shows in the table that 54(38.6%) of women are illiterate, 35(25%) of women have primary level of education, 24(17.1%) of women have high-school level of education, 22(15.7%) of women have secondary level of education and only 5(3.6%) are having intermediate level of education. The occupational status of the studied Birhor women shows that most of women i.e. 97(69.3%) are housewives, 18(12.8%) of women are unskilled labour in different places, 19(13.6%) of women are having rope making as an occupation, only 1(0.7%) of women are engaged in clerical job and other 5(3.6%) of women are ASHA (Accredited Social Health Activist) workers in their respective villages. The economic status shows that the 18(12.86%) are having annual income less than Rs. 3000, 41(29.29%) are having income from Rs. 3000-5000, 58(41.42%) are having income from Rs. 5000-10000 and 23(16.43%) are having monthly income more than Rs. 10,000.

4.2. Reproductive Health Status

Table 3: Mean age and standard deviation of different variables (n=140)

S. No.	Variables	Mean	Standard Deviation
1.	Age at puberty	12.69	±1.04
2.	Age at marriage	19.11	±2.60
3.	Age at Gauna	19.69	±2.50
4.	Age at first child	19.79	±2.82
5.	Total children	2.15	±1.31
6.	Body Mass Index	20.06	±2.24

Table no. 3 describes about the mean age of different variables. The mean age at puberty is 12.69(±1.04) years, mean age at marriage is 19.11(±2.60) years, mean age at gauna is 19.69(±2.50) years, mean age at first child is 19.79(±2.82) years, mean of total children 2.15(±1.31) and mean of Body Mass Index is calculated as 20.06(±2.24).

Table 4: Reproductive wastage of Birhor women (n=140)

S. No.	No. of pregnancy	Abortion	Still birth	Live birth
1.	413	14(3.38%)	8(1.94%)	391(94.67%)

***The numbers may be approximate

Reproductive wastage is considered as the total number of loss of children to the total number of pregnancies of women of age group 15-49 years (Reproductive age group). As the table no. 4 shows that there were 413 pregnancies in which abortion is 14(3.38%) and still births are calculated 8(1.94%) and remaining 391(94.67%) are born live. These numbers are approximate because respondents may or may not told the exact numbers because of the social stigma.

Table 5: Anti-natal care among studied Birhor women (n=140)

S. No.	Variables	Frequency	Percentage (%)
1.	**Anti-natal care**		
	a) Yes	66	47.14
	1. One time	36	25.71
	2. Two times	20	14.28
	3. More than two	10	7.14
	b) No	74	52.85
2.	**Folic acid tablet**		
	a) Received	89	63.57
	1. Taken regularly	35	25.00
	2. Not taken regularly	54	38.57
	b) Not received	51	36.72
3.	**Tetanus injection**		
	a) Yes	88	62.85
	b) No	52	37.14

Birhor women considered the pregnancy as the natural phenomenon so, they do not feel any special attention for that. Table no. 5 shows the anti-natal care practices among the Birhor women. 66(47.14%) women go for anti-natal checkups in which 36(25.71%) women go one time, 20 (14.28%) go two times and 10(7.14%) women go more than two times for anti-natal checkups at near PHCs. Folic acid tablets are given to the women for maintain their good health during pregnancy so, in Birhors 89(63.57%) women received folic acid tablets in which only 35(25%) women taken it regularly, 54(38.57%) women do not take it regularly and 51(36.72%). 88(62.85%) of women taken tetanus injection and 52(37.14%) of women do not take single dose of the injection.

Table 6: Delivery practices and addictive behaviour among studied Birhor women (n=140)

S. No.	Variables	Frequency	Percentage (%)
1.	**Place of delivery**		
	a) Home	105	75.00
	b) Institutional	09	6.42
	c) On road	26	18.58
2.	**Pregnancy services given by**		
	a) Doctor	07	5.00
	b) Nurse	02	1.42
	c) Old lady	46	32.85
	d) Trained midwife	87	62.15
3.	**Addictive behaviour**		
	a) None	57	40.71
	b) Drink alcohol	78	55.71
	c) Chew tobacco	2	1.42
	d) Gudakhu	3	2.14
4.	**Indigenous practices**		
	a) Yes	140	100
	b) No	0	0
5.	**Type of delivery**		
	a) Vaginal (Normal)	138	98.57
	b) Caesarean	2	1.43
6.	**Colostrum feeding to newborn**		
	a) Yes	22	15.72
	b) No	118	84.28

Birhors are very indigenous in nature, they relate all their important events of life to the nature. They feel it to be natural so it maintaining should be in natural environment. They prefer home deliveries; they made special hut for the pregnant ladies where the pregnant lady go for two to three days before the delivery and live there after the delivery till the navel of newborn removes naturally. Table no. 6 depicted the delivery practices and addictive behaviours during pregnancies. 105(75%) of Birhor women had home deliveries than only 9(6.42%) women had institutional deliveries and 26(18.58%) women had deliveries on the road while going to the forest or during mountain climbing. Whereas 32.85% of childbirths are conducted by the untrained *Dais* (Traditional birth attendants') compared to the 62.15% of the childbirths are conducted by the trained *Dais* (Traditional birth attendants'), only 6.42% by doctors respectively. 98.57% of deliveries are normal (vaginal deliveries) compared to the 1.43% of deliveries are caesarean. During the pregnancy 55.71% of Birhor women drink alcohol, 2.14% use tobacco and jaggery paste (*Gudakhu),* 1.42% chew tobacco and other 40.71% of Birhor women do not take any type of addictive during pregnancy respectively. All the Birhor women use indigenous medicinal practices during the pregnancy for any kind of problem like taking medicinal decoction (*kadha)* made up of decoction of various medicines, use amulets *(Tabeej)* and do sacrifices. 84.28% women do not feed colostrum to the newborn immediate after the delivery because they believe it is heavy for the new born baby to digest the colostrum whereas 15.72% women feed colostrum as they believe it is good for the immunity of the newborn.

4.3. Practice of Family Planning

Table 7: Family planning methods among studied Birhor women (n=140)

S. No.	Family Planning Methods	Frequency	Percentage (%)
1.	**Permanent sterilization**		
	a) Tubectomy	01	0.71
	b) Vasectomy	00	00
2.	**Temporary methods**		
	a) IUD	00	00
	b) Pills	13	9.28
	c) Condom	16	11.42
3.	**Indigenous method**		
	a) Kadha	32	22.85
	b) Tablets	6	4.28
	c) Amulets *(Tabeej)*	4	2.85
4.	**Never used**	68	48.57

Table no. 7 shows the practice of modern methods of family planning among Birhor couples.it is observed from the table that 48.57% of couples never used any kind of modern family planning methods compared to the 51.43% used the performed methods. From 48.57% of women used performed family planning methods 29.98% women used indigenous method like medicinal decoction (22.85%), tablets (4.28%) and *tabeej* (2.85%), 9.8% used contraceptive pills, 11.42% used condoms and only 0.71% used tubectomy (permanent female sterilization) respectively.

4.4. Nutritional Status

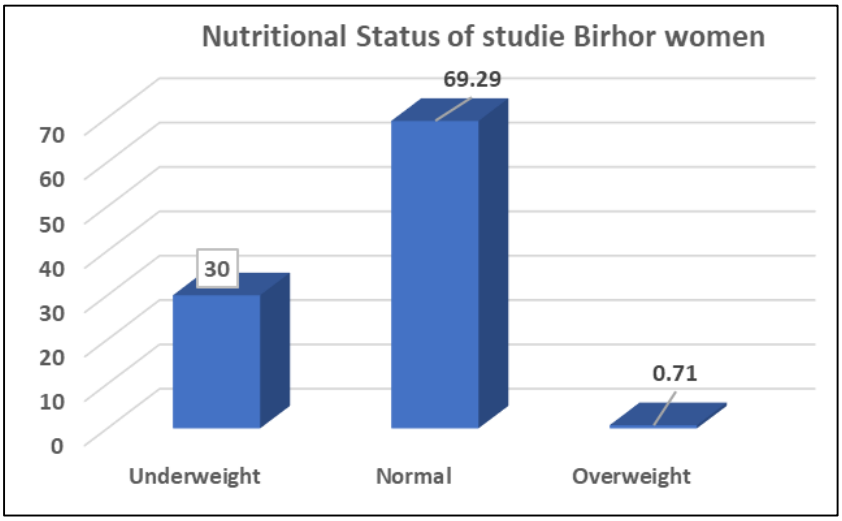

Fig 1: Nutritional status of the studied Birhor women

Given graph: 1 shows the nutritional status of the studied Birhor women. 69.29% of women are having normal nutritional status, 30% of women are underweight and only 0.71% of women are overweight.

4.5. Correlation of Reproductive characteristics with BMI

Table 8: Correlation between different reproductive health characteristics

Correlation	Body Mass Index (BMI)	Age at marriage	Pubertal age	Age at first birth	Total No. of children
Body Mass Index (BMI)	1.00	0.07	0.04	0.05	-0.01
Age at marriage		1.00	0.03	0.79**	-0.16
Pubertal age			1.00	0.05	0.09
Age at first birth				1.00	-0.29
Total No. of children					1.00

** Correlation is significant at the 0.01 level (2-tailed)

The table 8 shows the correlation between different reproductive health characteristics like age at marriage, age at menarche and age at first child birth with the Body Mass Index (BMI). The correlation value is significant at the 0.01 level. The data shows that there is no significant difference between the reproductive health characteristics and Body Mass Index (BMI). The table shows that there is strong co-relation between age at marriage and age at first birth with the significance level of 0.01 level.

5. Discussion

According to Davis and Blake (1956) conceptualization, a variety of cultural elements that are functioning in the society influence fertility behaviour and their different variables that affect it [12]. The present study carried out to know the reproductive health status and prevalent practices their factors influencing it. The mean age at menarche is higher (13.84 years) in Dhur Gond than present study [13], the mean age at first marriage is higher in present study (19.11 years) than the women of Chhattisgarh 15.4 years and in Dhur Gond of Chhattisgarh it is 16.31 years. The mean age at first child is calculated as 19.79 years in present study which is higher than the study of Juang Tribe of Odisha, India [14].

6. Conclusion

The present study concludes that the reproductive health status of studied Birhor women is not up to the expectations. Total fertility rate of the studied population is 2.82 which is higher than the fertility rate of India 2.05 as well as that of Chhattisgarh state 2.20 [10].

They prefer indigenous health care delivery model for maintaining the reproductive health. They are living in the remote areas of the settlement and they used to live with the nature and uses natural indigenous medicines for the treatment of various diseases including reproductive health problems. As Birhors are particularly vulnerable tribal group of the Chhattisgarh as well as the India. They are prohibited to utilize the permanent sterilization methods for family planning as their overall population in the state as well as in the country is decreasing. They are provided temporary methods of sterilization like Copper T, Intra-uterine- devices, contraceptive pills, and other contraceptive devices.

They are not having proper awareness regarding modern medical system because of their poor educational status.

7. References

1. Kshatriya GK, Kumari S. Determinants of first birth interval among the Santhal women of Purbi Singhbhum district, Jharkhand, India. Journal of Research in Anthropology; 2016:2(2):101.
2. Bhardwaj S, Tungdim MG. Reproductive health profile of the Scheduled Caste and Scheduled Tribe women of Rajasthan, India. The Open Anthropology Journal. 2020;3:181-7.
3. Technical Working Group on Essential Newborn Care, World Health Organization. Essential Newborn Care: Report of a Technical Working Group (Trieste, 25-29 April 1994). Geneva: World Health Organization; c1996. Available from: https://iris.who.int/handle/10665/63076
4. Browvere V, Tonglet R, Van Lerberghe W. Strategies for reducing maternal mortality in developing countries: what can we learn from the history of the industrialized West? Tropical Medicine & International Health. 1998;3:771-82.
5. Koblinsky MA, Campbell O, Heichelheim J. Organizing delivery care: what works for safe motherhood? Bulletin of the World Health Organization. 1999;77:399-406.
6. Smith JB, Coleman NA, Fortney JA, Johnson JD, Blumhagen DW, Grey TW. The impact of traditional birth attendant training on delivery complications in Ghana. Health Policy and Planning. 2000;15:326-31.
7. Sibley LM, Sipe TA, Koblinsky MA. Birth attendant training increases use of antenatal care: a review of the evidence. Journal of Midwifery & Women's Health. 2004;49:298-305.
8. National Rural Health Mission Report. Meeting People's Health Needs in Rural Areas: Framework for Implementation. New Delhi: Ministry of Health and Family Welfare, Government of India; c2005-2012.
9. Chandana KR, Kumar R. Health status of tribal women of Bhadradri Kothagudem district in Telangana State. International Journal of Health Sciences and Research; 2020:10(1). ISSN: 2249-9571.
10. Office of the Registrar General and Census Commissioner, Government of India, Ministry of Home Affairs. Census Provisional Population Totals; c2011.
11. Ekikrit Adivasi Vikas Pariyojana. Total population of Birhor tribe in Raigarh district of Chhattisgarh, India. Dharamjaigarh, Chhattisgarh; c2020.
12. Davis K, Blake J. Social structure and fertility: an analytic framework. Economic Development and Cultural Change. 1956;4(3):211-35.
13. Chandraker R, Chakraborthy S, Mitra M, Bharati P. A study of reproductive and child health among the Dhur Gond tribal community of Mahasamund district, Chhattisgarh, India. Studies of Tribes and Tribals. 2009;7(2):97-103.
14. Kanrar P, Goswami M. Sociodemographic profile of reproductive health and nutritional status among the Juang-particularly vulnerable tribal group of Odisha, India. The Oriental Anthropologist. 2020;20(1):135-49.