

Reproductive Health Profile of the Scheduled Caste and Scheduled Tribe Women of Rajasthan, India

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Abstract: A cross sectional study was conducted among the scheduled caste (SC) and scheduled tribe (ST) women of Rajasthan to understand the reproductive health profile. A total of 600 subjects were collected. The age at marriage, age at gauna (second marriage) and age at 1st conception was found to be relatively higher among SC women as compared to ST women. It was also found that the SC women had relatively better educational status than the ST women and better reproductive health profile as adjudged by contraceptive used, place of child deliveries, antenatal care and consumption of vitamin/iron pills during pregnancy.

Keywords: Reproductive health, scheduled caste, scheduled tribe, child deliveries.

INTRODUCTION

Reproductive health is an indispensable ingredient of health and a major determinant of human development. Reproductive health forms a major part of the health needs of a population. The concept of reproductive health recognizes the diversity of the special health needs of women before, during and beyond child bearing age, as well as the needs of men.

In India, reproductive health status of man and woman is inextricably bound up with social, cultural, and economic factors that influence all aspects of lives. It has consequences not only for women themselves but also on the well-being of their children including the functioning of households, and the distribution of resources. The tribal women fulfill multiple productive functions in addition to bearing children and performing household chores. Ironically, despite the agricultural innovations, it has not benefited rural women, who still have to perform the conventional household work and at the same time be engaged in agricultural and construction works. Women are obliged to resume work even before they have fully recovered from the process of childbirth.

Lactation or breast feeding has a significant positive impact on the health of infants and is the best nutrition source. The importance of breast-feeding for healthy child growth and development is widely recognized [1]. Differences in opinion exist concerning the time during which exclusive breast feeding is sufficient to maintain adequate growth during infancy. It varies from 6 months to 3 years [1-4], to less than four months [5-8]. There is ample evidence of the short and long term health benefits of breastfeeding for mothers and babies [9-11]. Globally the World Health Organization [12] recommends exclusive breastfeeding for the first six months to achieve optimal growth, development and health. Breastfeeding also has a vital contribution to make to

reducing inequalities in health as identified in the Acheson Report [13].

In the last decade maternal nutrition during pregnancy and lactation received increasing attention [14]. Obviously, it is essential for good reproductive performance and maintenance of her own health [15] that a mother's diet should be with adequate protein and calories.

In many tribal communities, majority of births occur without the help of a skilled assistant (defined as a mid wife, nurse trained as mid wife, or a doctor) at some or in other non-hospital settings [16]. Home deliveries in the absence of skilled professionals/attendants have been associated with adverse infant and maternal outcome [17, 18]. In an attempt to improve care during home deliveries and reduce maternal mortality, traditional birth attendants have been trained in modern delivery care, with varying reports of success [19, 20]. Presence of a professional attendant at each birth can lead to a marked reduction in maternal mortality and morbidity [17, 18]. Professional health care during child birth is one of the process indicators to assess progress towards the Millennium Development Goal (MDG) of improving maternal health [21].

Little work has been done on reproductive health of women, although a lot of work has been done on physiological changes during pregnancy and lactation. Reproductive health problems of different tribal and scheduled caste communities located at various stages of development are full of obscurities and very little scientific information is available due to lack of systematic and comprehensive research investigations. The present investigation was undertaken to study the reproductive health profile of the scheduled tribe and scheduled caste women of Rajasthan.

MATERIALS AND METHODOLOGY

The Indian society is highly stratified and is divided into scheduled castes, scheduled tribes, general castes and other backward castes.

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Scheduled Tribes

The word 'tribe' is generally used for a "socially cohesive unit, associated with a territory, the members of which regard themselves as politically autonomous" [22]. The ideal type of tribe can be characterized as a socially homogenous unit having its own dialect, political and cultural institutions and territory, which isolate them from the outside influences. Scheduled tribes are spread across the country mainly in forest and hilly regions. The essential characteristics of these communities are:-

- Primitive traits
- Geographical isolation
- Distinct culture
- Shyness of contact with other community at large
- Economically backwardness

There is no agreed definition of a tribe. The word, as such, has dictionary meaning of "a race or family descended from the same ancestor: an aggregate of families forming a community usually under the government of a chief." The Hindi equivalent 'Adivasi' has a clearer connotation. It means those who are the earliest inhabitants of the country.

The objective of the public policy in India since independence has been the promotion of rapid and balance economic development with equity and justice. This is necessitated because India has large traditionally disadvantaged groups of scheduled caste (SCs) and scheduled tribes (STs) as well as large backward areas. The gap between traditionally disadvantaged groups of SCs/ STs and rest of the population was very large [23]. Therefore, the need was to reduce this gap and enable them to contribute to the country's development. The Constitution of India provides for protective discrimination in favour of STs and SCs for removing the age-old social disparities from which these classes suffer. This is the most important instrument for upliftment of SCs/ STs in India. The Constitution of India provides in Article 15(4) that the state can make special provision for advancement of any socially and educationally backward classes of citizens or for the scheduled caste and scheduled tribe. The Directive Principles of State Policy also lay down in Article 46 the need for "promotion of educational and economic interest of scheduled castes, scheduled tribes and other weaker sections". The Indian Constitution also makes special mention in Article 244 with regard to administration of scheduled areas and tribal areas. In addition, there are Special Component Plan and Tribal Sub Plan for SCs and STs, respectively. The objective of these instruments has been to improve the standard of living of these traditionally disadvantaged groups of SCs/ STs thus reducing the gap between them and the rest of the populations.

Scheduled Castes

According to Berreman [24], 'Caste systems are living environments to those who comprise them. Yet there is a tendency among those who study and analyze them to idealize or intellectualize caste, and in the process to squeeze the life out of it. Caste is people, and especially people interacting in characteristic ways and thinking in characteristic ways. Thus, in addition to being a structure, a caste system is a pattern of human relationships and it is a state of mind.'

The Indian caste system is a highly complex institution, though social institution resembling caste in one respect or another are not difficult to find elsewhere, but caste as we know it, is an exclusively Indian phenomenon. The word caste comes from the Portuguese word '*casta*' signifying breed, race or kind. Risley [25] defined it as 'a collection of families or groups of families bearing a common name, claiming a common descent from a mythical ancestor, human divine; professing to follow the same hereditary calling and regarded by those who are competent to give an opinion as forming a single homogenous community' is generally associated with a specific occupation and that a caste is invariably endogamous, but is further divided as a rule, into a smaller of smaller circles each of which is endogamous (*Jati*). The internal exogamous division of the endogamous caste is *gotra*. The main features of caste are hierarchy, endogamy and hypergamy, occupational association, consciousness of caste membership and restriction on food, drink and smoking, distinction in dress and speech and confirmation to peculiar customs of particular caste, ritual and other privileges and disability, caste organisation and caste mobility.

The essence of caste is the arrangement of socio-economic hereditary group than hierarchy. Each caste is associated with hereditary occupation and had a limited monopoly over it. However generally speaking most practised agriculture along with their traditional occupation. Even agriculture as a single occupation cannot be associated with castes, as agriculture also means number of things: land ownership, tenancy and labour. Often the artisan and serving castes do not earn enough from traditional occupation, so they augment their income by working as casual labourers or tenants on land.

A cross sectional study was conducted to study the reproductive health profile of scheduled caste and scheduled tribe women of Rajasthan. The data for the present study was collected from Alwar district of Rajasthan. The data included 300 subjects each of the scheduled caste and scheduled tribe ever married women.

A well-informed written consent from the subjects for their willingness to participate in the present study was taken before starting the study.

All data was analyzed using SPSS 13.0 version.

RESULTS

Table 1A displays the percentage distribution of subjects according to educational level. Maximum number of scheduled caste women were observed to study upto the primary level (52.3%) of education followed by 22.3% who were literate, 17.6% upto middle level, 4.3% illiterate and 3.5% who studied upto higher secondary level. Among the scheduled tribe women maximum were illiterates (71.4%) followed by 18.2% literates, 9% upto the primary level and 1.4% upto the middle level. None of the scheduled tribe women reached upto the higher secondary level of education. There was significant difference between the SC and ST women in the educational level ($p < 0.001$).

Table 1B displays the percentage distribution of subjects according to occupation. Among SC women 82.7% helped in

the family business and 17.3% were involved in household work only. None of the scheduled caste women were engaged as agricultural or construction labourers. Among the ST women, 76.8% were engaged in agricultural activity, 14.1% in construction work and 9.1% in household work only. None of the scheduled tribe women were involved in family business as there was no family business among them. It was found that there was significant difference between the SC and ST women with respect to occupation ($p < 0.001$).

Table 2 displays the mean ages at menarche, marriage, gauna and 1st conception. It has been observed that the mean age at menarche among the SC women was 11.7 ± 2.4 years and among the ST women it was 11.8 ± 2.3 years. The mean age at marriage was 14.3 ± 2.5 years in the SC women and 12.9 ± 1.4 years among the ST women. The mean age at gauna (second marriage) among SC women was 17.4 ± 2.3 years and that among the ST women was 15.2 ± 1.8 years respectively. It has been observed that the mean age at first conception in SC women was 18.7 ± 2.8 years but among ST women it was found to be 17.3 ± 1.6 years.

Table 3A shows the percentage distribution of subjects according to antenatal care. Among SC women it was observed that 70.3% made 8-9 visits for antenatal check up, 25.4% made 1-2 visits for antenatal checkup and 4.3% did not have even a single antenatal check up during pregnancy. Among ST women 3.6% made 8-9 visits for antenatal check up, 11.2% made 1-2 visits for antenatal checkup and 85.2% did not have even a single antenatal check up during pregnancy. It was observed that there was significant difference between the SC and ST women in terms of antenatal care ($p < 0.001$).

Table 3B illustrates the percentage distribution of SC and ST women according to the place of child deliveries. Among the SC women 79.3 percent of the child deliveries were conducted at health centres or hospitals and 20.7% of the child deliveries were conducted at home. Among the ST women 3.8 % of the child deliveries were conducted at health centres or hospitals and 96.2% of the child deliveries were conducted at home. Significant difference was observed between the SC and ST women in the location of child deliveries ($p < 0.001$).

Table 1. Distribution of Subjects According to

A. Educational Level

Category	SC n(%)	ST n(%)	χ^2
Illiterate	13(4.3)	214(71.4)	323.12***
Literate	67(22.3)	55(18.2)	
Upto Primary	157(52.3)	27(9.0)	
Upto Middle	53(17.6)	4(1.4)	
Upto Higher Secondary	10(3.5)	0	

*** $p < 0.001$.

B. Occupation

Category	SC n(%)	ST n(%)	χ^2
Agricultural labourers	0	231(76.8)	528.96***
Construction workers	0	42(14.1)	
Household work only	52(17.3)	27(9.1)	
Help in the family business	248(82.7)	0	

*** $p < 0.001$.

Table 2. Mean Ages at Menarche, Marriage, Gauna and 1st Conception of the Subjects

Category	SC Mean \pm SD (yrs)	ST Mean \pm SD (yrs)
Age at menarche	11.7 ± 2.4	11.8 ± 2.3
Age at marriage	14.3 ± 2.5	12.9 ± 1.4
Age at gauna (second marriage)	17.4 ± 2.3	15.2 ± 1.8
Age at 1 st conception	18.7 ± 2.8	17.3 ± 1.6

Table 3C displays the percentage distribution of subjects according to consumption of vitamin/iron supplement during pregnancy. It was found that among the SC women 52.7% consumed vitamin/iron pills during pregnancy and 47.3% did not consume any vitamin/iron pills during pregnancy. Among the ST women during pregnancy only 4.2% consumed vitamin/iron pills whereas 95.8% did not consume any vitamin/iron pills. The number of SC women who consumed vitamin/iron pills was significantly higher as compared to the ST women ($p < 0.001$).

Table 4 displays the percentage distribution of subjects according to family planning methods. Among SC women 83% used contraceptives as a method of planning whereas among ST women only 24.67% used contraceptives as a means of family planning. Among SC women 17% did not use any contraceptive device whereas 75.33% of the ST women did not use any contraceptive device. It was observed that there was significant difference between the SC and ST women in terms of use of contraceptive devices ($p < 0.001$).

Table 5 illustrates the percentage distribution of subjects according to first feed to newborn. Among the SC women 73.1% fed their first newborn with colostrums, 4.9% with sugar water and 22% with water. Among the ST women 78.9% fed their first newborn with colostrums, 1.2% with sugar water and 19.9% with honey. It was observed that there was significant difference between the SC and ST women with respect to first feed to new born ($p < 0.001$).

DISCUSSION

For women to achieve control over their reproductive destiny, substantial improvements will be necessary not just in their access to contraceptives, but also in their personal, legal, economic and social conditions, besides awareness level. Having a baby always carries the potential health risk. While the picture with regard to women's reproductive health is indeed grim, poor health gets perpetuated from mother to daughter over generations as part of a continuous process. It therefore becomes crucial to break this vicious

Table 3. Distribution of Subjects According to:

A. Antenatal Care

Category	SC n(%)	ST n(%)	χ^2
Women who did not have even a single antenatal check up during pregnancy	13(4.3)	255(85.2)	385.06***
Women who made 1-2 visits for antenatal check up	76(25.4)	34(11.2)	
Women who made 8-9 visits for antenatal check up	211(70.3)	11(3.6)	

*** $p < 0.001$

B. Place of Child Deliveries

Category	SC n(%)	ST n(%)	χ^2
Child deliveries at home	62(20.7)	289(96.2)	360.88***
Child deliveries at health centres or hospitals	238(79.3)	11(3.8)	

*** $p < 0.001$

C. Consumption of Vitamin/Iron Supplement During Pregnancy

Category	SC n(%)	ST n(%)	χ^2
Did not consume vitamin/iron supplement during pregnancy	142(47.3)	287(95.8)	171.96***
Consumed vitamin/iron supplement during pregnancy	158(52.7)	13(4.2)	

*** $p < 0.001$

Table 4. Distribution of Subjects According to the Use of Contraceptives

Category	SC n(%)	ST n(%)	χ^2
Used contraceptive	249(83.0)	74(24.67)	205.38***
No device used	51(17.0)	226(75.33)	

*** $p < 0.001$

Table 5. Distribution of Subjects according to First Feed to Newborn

Category	SC n(%)	ST n(%)	χ^2
Colostrums	219(73.1)	237(78.9)	8.98***
Sugar water	15(4.9)	3(1.2)	
Honey	66(22.0)	60(19.9)	

***p<0.001

cycle and formulate policies and programmes that are sensitive to women's health needs.

Despite the strides made on several fronts, India continues to face a situation of considerable reproductive ill health. It is a recognized fact that in patriarchal settings such as India, hierarchical gender relations and unequal gender norms impact women's and men's sexual and reproductive health and act as significant obstacles to access services and facilities.

Majority of the young mothers in the developing countries are poor and undernourished. They are lacking in their basic education, access to employment, proper health-care and other such basic amenities to lead a happy and healthy life. Improving the reproductive health of women in developing countries requires access to safe and effective methods of fertility control [26].

Education plays an important role for the development of society. Education is considered as a development indicator which also affects the demographic behaviours of any particular population group. The present study supports the earlier studies of non availability of schools and lack of basic infrastructure, which is a common phenomenon in tribal areas. Education brings about awareness which in turn makes a woman conscious of her own as well as her child's health and well being. The woman is able to understand the significance of antenatal care, small family size, etc.

Menarche is considered as an important physiological episode. It indicates the specific stage of first periodical regular flow of blood from womb in all the healthy normal females. The first menstruation start is taken into account at the age of puberty and maturity and from this stage females are biologically capable to conceive. Various researchers have reported that the average age at menarche of Indian girls varies from 12 to 14 years. Onset of menarche is not only governed by the physiological changes in the body but various socio-economic factors also influence it.

The age at menarche is influenced by environmental factors and biological factors. Singhal *et al.* [27] conducted their studies on non vegetarian and vegetarian female among and inferred that 14.08 years and 13.67 years were the average age at menarche of vegetarian females and non vegetarian females respectively.

Kapoor and Kapoor [28] studied the age at menarche and menopause of the three groups of Bhotia female living at high altitude, Himalayan region- Uttaranchal. It has been reported that the mean age at menarche was 15.4 years for the Johari Bhotias women, Rang Bhotias(settled) 15.6 years and Rang Bhotias(migratory) 16.0 years. A trend towards

increase in age at menarche with an increase in altitude has been observed.

In the present study the average age at menarche among the SC (11.7 years) and ST(11.8 years) women were found to be low as compared to the earlier studies [29, 30]. However, the average age at menarche for the SC & ST women were close to that of the Punjabi Aroras (12 years) residing in Delhi [31].

Age at marriage is a very important demographic and health characteristics. It indicates average time of family formation. Age at marriage is important factor for influencing population growth and it helps in determining the reproductive span of women. Though, the legal provision for the age at marriage in India, for girls is 18 years it was reported in the present study that the average age at marriage among SC women (14.3 years) and ST women (12.9 years) respectively. The age at marriage is also lower than the age at marriage of the Gaddis, Kinnauras and Bhots of Himachal Pradesh who marries mostly between the age of 19-21 years [32], but comes close to the tribals of Andhra Pradesh whose age at marriage is between 13-15 years [33].

The SC and ST women of Rajasthan were found to practice early marriage. However, even after marriage the married woman stays back at her parents house till a favourable age, this age is called *gauna* (second marriage). *Gauna* is a ceremony where a woman goes to her in-laws after marriage and starts living with her husband. It is also considered as second marriage after which a woman is legally authorized to have physical relations with her husband. The mean age at *gauna* among SC women (17.4 years) was also higher than that of the ST women (15.2 years). The reasons for early age at marriage are associated with their traditional socio-cultural practices and the belief that late age at marriage is concerned with evil and a curse for the family.

The mean age at first conception indicates the average age of child bearing. A population having a high mean age of child bearing has a large fraction of total fertility relating to the later years of child bearing, whereas a population with a low mean age at child bearing has a small fraction of total fertility in the latter age of children bearing. It has been observed that, age at first conception in SC women (18.7 years) was higher than the ST women (17.3 years).

The reproductive health-care received during pregnancy is an important factor, which determines the health of mother during pregnancy, complications if any at birth and to some extent the lactation process. In developing countries, the antenatal and post natal care is limited to major towns and cities. The better the socio economic status, better the care and

hence better reproductive health. Even in cities the women from the lower strata of the society are deprived of necessary health-care during pregnancy resulting in much complication and compromising the health of both mother and her new born. The situation is quite grim in rural tribal and scheduled caste population [34, 35].

Antenatal care refers to pregnancy related health care provided by doctors or a health worker in a medical set up or at home. The safe motherhood initiative proclaims that all pregnant women must receive basic antenatal care. At the same time safe motherhood requires a multifaceted strategy of improving women's education and employment opportunities.

Nanda & Niranjana [36] reported that antenatal care of a particular community is dependent on their place of residence, occupational status, educational level, medical services, etc. among various scheduled tribes of India. They also found that the antenatal care was found to be higher in educated families than non educated families. In the present study, it has been observed that maximum ST women (85.2 %) did not have even a single antenatal check up during pregnancy while only 4.3 % of SC women falls in this category. Most of the ST women thought that pregnancy is a natural phenomenon and did not require any special care. The SC women have relatively higher education level and awareness as compared to the ST women, resulting in more number of them visiting health centres for antenatal care. Aggarwal *et al.*, [37] also suggested that women should be educated about the importance of antenatal registration and regular check ups during pregnancy in order to avoid complications.

Majority of the child deliveries among the ST women (96.2 %) were conducted at home with the help of *aaya/dais* (traditional birth attendants) whereas among the SC women (79.3 %) majority of the child deliveries were performed at hospitals or health care centre. Similarly, Nayak & Babu [38] reported that among the scheduled castes and scheduled tribes of Orissa maximum number of child deliveries were performed at home assisted by traditional birth attendants and relatives. As suggested by Aggarwal *et al.*, [37] untrained *dais* should be trained to recognize the obstetric complications at an early stage of pregnancy.

In the present study the number of SC women who consumed vitamin/iron pills during pregnancy was significantly higher than ST women, which has direct association with education level and occupation.

Family planning can favourably influence the health development and well-being of family and has striking impact on the health of mother and children. The health benefits of family planning results from avoidance of unwanted pregnancy, a change in total number of children borne to mother, achievement of an optimum interval between pregnancies.

In the present study the number of women who used contraceptive devices was found to be significantly higher among the SC women as compared to the ST women. One of the reasons for less number of ST women using contraceptive devices was due to the tribal belief that birth of children was considered as the gift of God. Similarly, Sharma & Sharma [39] reported that due to religious belief, Gond tribe of Maharashtra do not have any desire to avoid conception

and reproduction because it is considered as sin and against behaviour of God. Since most of the Gond people are agriculturist and production of agricultural crops, thus require more manpower. Therefore, the reproduction of many offspring is not considered as bad. High mortality rate among the tribal is also considered as an important factor which influences (them) not to adopt family planning devices.

Mishra [40] reported that educational level of mothers influence the frequency of breast feeding to the children. Most of the rural mothers practiced breast-feeding till above 24 months whereas very less percentage of mothers breastfed their babies below 6 months of age. After birth, sweet water was initiated as first food by highest percentage of mothers whereas only 5.5 percent mothers fed breast milk directly (colostrum). Conversely, in the present study the SC (73.1 %) and ST (78.9 %) women fed breast milk (colostrum) directly after birth. Only few of the SC and ST women gave sugar water and honey to their new born.

In India, about one third of all pregnancies occur while the women are still breast feeding their babies. This dual stress of pregnancy and lactation has been shown to have an adverse effect on maternal and infant health. In the present study the ST women breastfed their babies (4-5 years) for a relatively longer period as compared to the SC women (3-4 years).

CONCLUSION

From the present study it can be concluded that the educational status of the SC women were higher than the ST women and so also the SC women were found to have better reproductive health profile. The present study conducted among SC & ST women of Rajasthan clarifies the role of education in determining not only occupation but also reproductive health of women.

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