



# IJSRM

INTERNATIONAL JOURNAL OF SCIENCE AND RESEARCH METHODOLOGY

An Official Publication of Human Journals




Human Journals

**Research Article**


May 2018 Vol.:9, Issue:3

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## Understanding Menstrual Hygiene Practices and Reproductive Health Attributes Among Santhal Tribes in India



**IJSRM**  
INTERNATIONAL JOURNAL OF SCIENCE AND RESEARCH METHODOLOGY  
An Official Publication of Human Journals



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**Submission:** 19 April 2018  
**Accepted:** 25 April 2018  
**Published:** 31 May 2018

**Keywords:** Menstrual Hygiene Practices, Reproductive Health, Attributes, Santhal Tribes, India

### ABSTRACT

Menstruation is a normal biological process and a key sign of reproductive health, even though in many tribal cultures it is treated as something negative, shameful or dirty. The research is based on a cross sectional design, to produce primary data to examine multiple dimensions of gender role attitude and GBV from the perspective of male as well as female population. There is paucity of studies in tribal population on violence against women, sexual behavior and practices, and their possible impact on reproductive health. This study also deals with the reproductive morbidities of the Santhal women.



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## INTRODUCTION

Menstruation is the monthly vaginal bleeding at an interval of about 28 days from the uterine endometrium. The menarche or time of onset of menstruation varies with race and family, but the mean age of menarche is typically between 12 and 13 years across well-nourished populations in developed countries (Koff. et al. 1995). Menstruation stops occurring after menopause which usually occurs between 45 and 55 years of age.

Menstruation is a normal biological process and a key sign of reproductive health, even though in many tribal cultures it is treated as something negative, shameful or dirty. The continued silence around menstruation combined with limited access to information at home and in schools results in millions of women and girls having very little knowledge about what is happening to their bodies when they menstruate and how to deal with it. (WHO 2002, Menstrual Hygiene Matters).

Menstruation and menstrual practices are still clouded by many socio-cultural restrictions. It is noted that many adolescent girls and women are unaware of the scientific facts and hygienic health practices, which sometimes result into adverse health outcomes. The hygiene-related practices of women during menstruation are considerable importance, as it has a health impact in terms of increased vulnerability to reproductive tract infections (RTI) and especially the infections of urinary tract and perineum (Rani S. 2007). Today, millions of women suffer from RTI and its complications and often the infections are transmitted to the offspring of the pregnant mother (Dasgupta et al. 2008).

The women who use cloth are twice as likely to have bacterial vaginosis compared to the women who use nothing during menstruation (Dhingra et al. 2007). The impact in view of reports of high levels of sexual activity, often at very young ages, and without protection, and the high risk for acquiring sexually transmitted diseases, the failure to adequately educate girls about their own anatomy and physiology has serious implications (Koff et al. 1995).

Today, the number of women who have regular menstruation periods is increasing in developing countries including India due to the later childbearing and the fewer children. But in many societies due to lack of information, awareness and poor economic and social conditions to manage menstruation sanitation is satisfactory. A particularly vulnerable group in this aspect is the young women in poor families. Furthermore, understanding young

women's knowledge and practices related to menstruation is the central element for designing appropriate education programs.

In Central India, Santhals (also spelled as Santal (formerly also spelt as Sontal), are the largest tribal community (Guha, 2015). They found mainly in the state of Jharkhand. The Santhals are relatively a progressive tribe and practice patriarchy (Pandey V.V, 2018). They live in close knit communities and maintain traditional leadership pattern (Mohanthly, 1997). The continuous socio-economic transition of Santhal tribe from primitive to modern society has brought much adverse behavioral change regarding their gender role attitude, which may perpetuates to GBV (Majumdar, 1988). While there is a massive ethnographical and anthropological literature on Santhal tribes, relatively little attention has been paid to their gender role attitude especially in perspective of their socio-cultural differences. Systematic studies of key constructs of gender role attitude and behaviour of Santhals can, however, provide important insights into GBV. Studying GBV among Santhal tribes may also be useful for a better understanding of contemporary status of Santhals.

Building on these studies, the current study tries to identify the nature and extent of gender based violence among Santhal tribes. It also attempts to understand "gender transformative" approach in addressing social norms that sustain and encourage the use of physical, psychological and sexual violence. The study is based on evidence collected from a cross-sectional survey on the extent of gender based violence and the factors associated with partner violence and mental health status among married tribal women. The findings of the study are intended to inform the development of policies and programs that address the Mensural hygiene practices and Menstrual related problems of most deprived section of population. The present objective is laid to analyze sexual violence and its consequences on reproductive health. Matter of reproductive health was measured by prevalence of RTI/STI. The prevalence of any incidences of *genital sore, ulcer, abnormal/bad smelling genital discharge* in past 12 months were used to compute RTI/STI. Knowledge about menstrual hygiene and practices and prevalence of menstrual related problem were also analyzed in this context.

Bi-variate and multivariate techniques have been used to ascertain the relationship between Sexual violence and reproductive health of women.

## MATERIALS AND METHODS

The research is based on a cross sectional design, to produce primary data to examine multiple dimensions of gender role attitude and GBV from the perspective of male as well as female population. Our research method has involved the use of mixed-methodology (qualitative and quantitative). Household survey has been administered among respondent age 15-49 years,

### Sampling Design

In any analytical study, sampling design primarily focuses at determination of sample size and allocation of sample. Given below is the brief description of determination of sample size, required for this study though it has been primarily exploratory in nature. Our study has adopted coefficient of variation approach for determining expected sample size to conduct a scientific study on GBV among Tribal women in Jharkhand, where  $n$  is derived as

$n$	$=1/\alpha^2 * q/p * d$
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Where,

$p$ = prevalence of domestic violence among tribal women in Jharkhand (50% according to NFHS-3)

$q$ =  $1-p$

$\alpha$ = coefficient of variation of  $p$ , which is also called as the maximum permissible error in  $p$  (considered 5% for this study), and

$d$ = design effect, which is assumed to be 1.25.

For the purpose of data collection we use two stage, non-probability sampling where at first stage, all the 10 blocks were divided into three groups on the basis of proportion of ST population (<40%, 40-60% and >60%) and from each group, one block was selected, hence 3 blocks namely Dumka, Jama and Jarmundi were selected. At the second stage, in each of the selected block, all the villages were arranged into three groups again by proportion of ST population, which was derived from Census 2011 village file. It is worth mentioning that villages in tribal areas are smaller in size and hence all such villages having less than 50 HHs as per 2011 census were from the list. Hence a total of nine villages namely Nakti,

Kushumdih, Hate murga danga, Harkund, Dumaria, Amba, Barapalsai, Lowadih, and Kathnara were taken for community based research. In this study, the inclusion criteria for the survey involved currently married men and women who are the usual resident of the household; age 15-49 and 15-45 giving consent to participate in the study. Therefore, as per the plan to interview women and men in alternate household, we surveyed about 247 women and 278 men by canvassing women and men questionnaire in separate households.

## **RESULTS AND DISCUSSION**

### **Menstrual Hygiene Practices**

There is very limited social and health related research on menstruation issues in the low and the middle income countries including India particularly in tribal societies. There is also limited research on menstruation as a social and cultural phenomenon or on the technical and the hygienic aspects of sanitary protection in various social contexts. Considering the above points the information about menstrual hygiene and practices has been collected.

**Table-1: Percentage of women (15-49 years) who suffered any menstrual problem and have knowledge of menstrual problems by some selected background characteristics in Santhal, Jharkhand, India, 2014-15**

<b>Characteristics</b>	<b>Knowledge about menstrual problems</b>	<b>Suffer any menstrual related problem</b>
<b>Age (years)</b>		
15 to 24	93.0	36.9
25-34	79.3	39.7
35 and Above	72.1	37.0
<b>Education</b>		
No education	65.6	19.4
Below primary	85.4	42.9
Middle school	93.7	41.5
High School and Above	88.5	68.2
<b>Religion</b>		
Hindu	82.4	39.4
Christian	84.1	34.7
No religion/Sarna	73.3	36.6
<b>Clan</b>		
Hansda	81.2	36.0
Marndi	79.3	31.8
Soren	71.0	27.3
Hembrom	91.1	28.0
Tudu	78.3	68.8
Kisku	80.0	56.2
Murmu	77.3	40.6
Baske	0.0	NA
Besra	100.0	0.0
<b>Wealth Index</b>		
Poor	84.0	50.8
Middle	78.0	31.7
Non Poor	79.7	29.5
<b>Number of children</b>		
No child	83.0	71.1
1 Child	90.9	28.3
2 Child	77.1	20.4
3 or More	71.2	43.8
<b>Exposure to Mass Media</b>		
No exposure	77.0	13.0
Partial exposure	79.3	2.2
Full exposure	82.9	66.7
<b>Total</b>	<b>80.8</b>	<b>37.9</b>

Table 1 is a study of the menstrual hygiene among women based on their Knowledge on menstrual problems and with regard to them suffering from any menstrual related problems. The total number of them that had knowledge about menstrual cycle was 81 percent and the

total number of women who affirms that they have menstrual related problem was 38 percent. This study is categorised based on the various characteristics. The first characteristic considered is age. Where 93 percent of those between 15 to 24 years said that they have knowledge of menstruation, while those among 25- 34 had 79 percent who gave the same answer and the age group from 35 and above years had 72 percent of them given the same answer. When it was asked whether they suffer from any menstrual problem around 40 percent in the youngest and middle age group, and 37 percent of those in the age group 35 and above affirmed the same answer. When an attempt was made to categorise these responses based on the education levels of the respondents, it was seen that the percentage share of those who had the higher education had more knowledge than those with lesser education, but the highest percentage share among those who did their middle school they held 94 percent, a little higher than those who did the 'high school and above' which came to 89 percent, followed by those 'below the primary education' 85 percent and 61 percent are the share among those who had knowledge of menstruation when they had 'No education'. While those who had accepted that they had menstruation related problems increased with education levels. Following education the category selected was religion and the maximum percent share of those who had knowledge of menstruation were among the Christian women who had 84 percent, followed by the Hindus of whom 82 percent responded in similar accord, it was the least among those who had no religion/ Sarna which came to 73 percent. While those who had some menstrual related problems, the highest share was among the Hindus which came to 39 percent, followed by those who had no religion/ sarna which came to 37 percent, and finally the Christians 35 percent. When categorised based on the wealth index, it the poor category had 84 percent who had knowledge about the menstruation and only 51 percent reported menstrual related problems, while the middle category wealth index had 78 percent in the former and 32 percent in the latter and Non poor had 80 percent and 30 percent in the respective categories. When attempted to study based on the number of children, it was found that 83 percent of those who had no child had knowledge of menstruation and 71 percent among them had menstrual related problems, the percentage of those who had 1 child had 91 percent of who had knowledge of menstruation and had only 28 percent of those who had menstrual related problems, 77 percent of those who had 2 children had knowledge of menstruation, while 20 percent had menstrual related problems, and 71 percent of those who had three or more children had knowledge, while 44 percent had problems. When categorised based on exposure to mass media it was seen that those who had no exposure to media were knowledgeable by 77 percent and 13 percent had menstrual

problems among them, while it was seen that 79 percent of those who were knowledgeable and only 2.2 percent had menstrual problems, while 67 percent of those who had full exposure had menstrual problems, while 83 percent had knowledge about the menstruation.

**Table-2: Percentage of women age 15-49 years who discussed about menstrual problems with their husbands in Santhal, Jharkhand, India,2014-15**

Characteristics	Percent
Ever discuss with your Husband	66.7
Think that husband should know menstrual related problems	58.2
Husband or other family member should accompany the wife in treatment seeking	
Only Husband	27.0
Other family member	41.8
Anyone	31.1
Husband not accompany his wife in treatment seeking from menstrual related problem	
Woman business	98.5
Not customary	1.5

The above table helps to understand the women’s attitude with regard to their menstrual problems based on some questions. 67 percent have discussed it with their husbands, while only 58 percent believe that husband should know menstrual related problems. To understand their take on whether husband or family member should accompany the wife in treatment seeking. Only 27 percent said only husband, while around 42 percent said other family members and 31 percent said anyone would be fine. While 99 percent said that it is women’s business while 1.5 percent responded that it was not customary.

### ***Contraceptive use Dynamics***

Since, past researches have proved that the fertility behavior changes with different socioeconomic, cultural, attitudinal and behavioral settings, the family planning program should have group specific and area specific interventions (Kumar, 2011, Munde, 2011). According to the National Family Health Survey (2005-06), scheduled tribes in India have



very high total fertility rate (3.12) than other social groups & the National Health Policy of India prioritizes Scheduled Tribe population as special needs group for extending the health care services. Unfortunately, there have been very few studies carried out among santhal tribes & little data exist on the contraceptive use dynamics of these tribal women in underserved communities. With this background, this section explores the nature and the contraceptive behavior of Santhal women and also tries to find out the socio demographic factors influencing the contraceptive behavior of the Santhal women.

The results show that among all the sampled women, 62 percent of the women have ever used the family planning methods to delay or avoid pregnancy. Further, 39 percent of women confirmed that they are currently pregnant at the time of interview. However, just 36 percent of the women reported that they are currently using family planning methods. Among all the methods self-reported methods it was found that Pill and Tablets (32) are the most popular form of contraceptive among these tribal women followed by calendar/mucus method, i.e. 26 percent. The cervical mucus method also called the ovulation method or popularly referred to the literature as the calendar method, is a type of natural family planning among these tribal groups based on careful observation of mucus patterns during the course of menstrual cycle. Before ovulation, cervical secretions change - creating an environment that helps sperm travel through the cervix, uterus and fallopian tubes to the egg. By recognizing the changing characteristics of cervical mucus, the women predict when she will ovulate. In turn, this may help them to determine when they most likely to conceive.

This is one of the traditional methods simply based on fertility awareness which the Santhal women follow and transfer from generation to generation. Quarrying about why this calendar/mucus method is so frequent in these tribal settings one of the tribal women in her in-depth interview narrated that “Santhal women around us don’t get contraception easily and regularly if any women are hoping to get pregnant she mostly uses the mucus method to decide the safe days to have sex. Likewise, if she is hoping to delay pregnancy, she uses this method to determine which days to avoid unprotected sex. Using the mucus method for birth control requires carefulness and diligence. If you don't want to conceive, you and your partner must avoid having sex or use an available method of contraception during your fertile days each month.” (—Women age 28, Jama).

The data also shows that the condom is the third most used method of family planning (16 percent) followed by herbs (14 percent) and female sterilization (12%) is a least popular

limiting method. One reason may be that female sterilization services may not be available due to lack of hospital facilities and common awareness among women to limit the family. To the purpose of an understanding of the males' influence and the role, they play in decision-making on contraceptive use can throw better light on mechanisms through which spousal communication in effect can accomplish to opportunely the women autonomy. The data shows that half of the women reported that their husband doesn't know that they are using any family planning methods. And 14 percent of the women candidly admitted that their husband has stopped them to use contraceptives. This establishes the fact that women are by and large stay on themselves on the use of family planning methods without and right support of their husbands.

**Table 3: Percentage of women ( 15-49 years) according to characteristic related to use of family planning in Santhal, Jharkhand, India, 2014-15**

Characteristics	Percent	Number of Women
Ever used anything to delay or avoid getting pregnant	61.5	152
Currently pregnancy	38.7	89
Currently using any method to avoid getting pregnant	35.5	75
Currently using method		
Pill/Tablets	32.2	29
Calendar/Mucus method	25.6	23
Female sterilization	12.2	11
Condoms	15.6	14
Herbs	14.4	13
Current Husband/Partner know you are using any method of family planning	50.5	46
Partner ever refused to use a method	14.3	35

Table 3 shows the contraceptive usages among women age 15-49 across background characteristics, results show that pills and tablets are of highly used among the woman in the age group 15-24 and 25-34. The data source that amounts 50 percent of woman use pills and tablets for the above-said age group. However uses of pills or tablets for the age group 35 and

above are 23percent. Similarly, the use of calendar method is 20 percent for the age group 15-24 and 25 and 26 percent for the age group 25 to 34. However, in the age group, 25 and above use of the calendar method is 28 percent, female sterilization is a point to be over among the younger woman in the age group 15-24. The female sterilization is just 6.7 percent and for the age group 25-34 is 6 percent but superbly it is the higher for the age group 35 and above (20%). The use of condom for the age group 15-24, 25-34, 35 and above is 13 percent and 11 percent & 20 percent respectively likewise for the same age group category the percent of the use of herbs 20 percent, 17 percent and 10 percent respectively.

In regards to education category 8 percent of women having “No Education” use pills as a contraceptive choice, whereas 52 percent of the Santhal women having no education use calendar method. It was also found that women 32 percent of women with “No education” use an obsolete traditional method of form of some herbs. Also, 4 percent of women with no education category are sterilized or use a condom each. It is encouraging that none of the women having an education with the high school and above were inclined towards usage of herbs. It is interesting that 71 percent of children with no children are using pills as their preferred contraceptive choices. It has also been found that more than one-third women with 3 or more children were sterilized. Therefore, limiting method was found to be higher as the number of children increases. The data also shows that none of the women with one or two children were sterilized which demonstrated and preference towards large family size. Around 47 percent of women with full exposure to mass media have reported use of pills and tablets and 46 percent of women with low exposure to mass media have reported the use of herbs, this analysis establishes the fact that the mass media has a significant relationship with contraceptive choices.

**Table 4: Percentage of women (15-49 years) using different methods of contraception by background characteristics in Santhal, Jharkhand, India,2014-15**

Characteristics	Pill/Tablets	Calendar /Mucus method	Female sterilization	Condoms	Herbs
Age (Years)					
15 to 24	40.0	20.0	6.7	13.3	20.0
25-34	40.0	25.7	5.7	11.4	17.1
35 and Above	22.5	27.5	20.0	20.0	10.0
Education					
No education	8.0	52.0	4.0	4.0	32.0
Below primary	42.1	5.3	0.0	31.6	21.1
Middle school	43.2	13.5	24.3	16.2	16.2
High School and Above	33.3	44.4	11.1	11.1	0.0
Religion					
Hindu	31.1	31.1	8.9	13.3	15.6
Christian	39.1	17.4	17.4	13.0	13.0
No religion/Sarna	27.3	22.7	13.6	22.7	13.6
Clan					
Hansda	33.3	8.3	8.3	33.3	16.7
Marndi	50.0	30.0	10.0	0.0	10.0
Soren	10.0	50.0	0.0	20.0	20.0
Hembrom	42.1	10.5	5.3	21.1	21.1
Tudu	15.4	38.5	15.4	15.4	15.4
Kisku	16.7	25.0	33.3	16.7	8.3
Murmu	53.8	23.1	15.4	0.0	7.7
Baske	0.0	100.0	0.0	0.0	0.0
Besra					
Wealth Index					
Poor	43.3	13.3	16.7	20.0	6.7
Middle	25.0	28.1	12.5	18.8	15.6
Non Poor	28.6	35.7	7.1	7.1	21.4
Number of children					
No child	71.4	14.3	4.8	4.8	4.8
1 Child	33.3	40.0	0.0	20.0	6.7
2 Child	36.0	16.0	0.0	16.0	32.0
3 or More	0.0	34.5	34.5	20.7	10.3
Exposure to Mass Media					
Low exposure	3.6	35.7	3.6	10.7	46.4
Partial exposure	0.0	50.0	50.0	0.0	0.0
Full exposure	46.7	20.0	15.0	18.3	0.0
Total	32.2	25.6	12.2	15.6	14.4

**Reproductive tract infections/sexually transmitted infections (RTI/STI)**

The tribal women were asked if they ever heard of sexually transmitted infection (STI). Table 5.1 shows the differentials of awareness of STI. Around three-fifths of women reported to be aware of STI.

<b>Table-5: Percentage of women age 15-49 years who heard of STI, and awareness about transmission in Santhal, Jharkhand, India, 2014-15</b>	
<b>Characteristics</b>	<b>Percent</b>
Ever heard of an RTI/STI	27.1 (N=65)
How is RTI/STI transmitted	
Unsafe delivery	6.6
Unsafe abortion	4.5
Unsafe IUD insertion	2.1
Unsafe sex with homosexual	6.3
Unsafe sex with persons who have many partners	10.0
Unsafe sex with sex works	10.8
Others	0.8

The above table describes the respondent’s knowledge regarding the sexually transmitted diseases. The number of women who said they had knowledge were 65, which came to around 27 percent of the respondents. When asked about how RTI/STI is transmitted, to understand their knowledge on this matter, 6.6 percent said unsafe delivery, 4.5 percent said unsafe abortion, 2.1 percent responded said it's due to unsafe IUD insertion, while 6.3 percent said that it was due to unsafe sex with homosexuals, 10 percent of the respondents believed that it was due to having sex with persons who have multiple sex partners, while 11 percent said that it was due to unsafe sex with sex workers, and the other reasons comprised of 0.8 percent.

**Table 6: Prevalence of some specific problems of RTI and STI among women age 15-49 years in Santhal, Jharkhand, India, 2014-15**

Characteristics	RTI/STI	N
<b>RTI</b>		
Pain in lower abdomen not related to menses	38.6	83
Pain during urination or defecation	46.9	128
Low backache	61.4	132
Vaginal Discharge	63.8	141
<b>STI</b>		
Itching or irritation over vulva	60.8	130
Boils/ulcers/warts around vulva	58.8	165
Swelling in the groin	20.0	85
Painful blister like lesions in and around vagina	19.0	79
Pain during sexual intercourse	61.4	132
Spotting after sexual intercourse	15.2	79

Table 6: The prevalence of some Reproductive tract infections (RTI) and Sexual tract infections (STI) are reported by women, pain in lower abdomen, pain during urination and defecation and vaginal discharge are considered as RTI and itching or irritation over vulva, Boils/ulcers/warts around vulva, swelling in the groin, painful blister like lesions in and around vagina, pain during sexual intercourse and spotting after sexual intercourse are considered as STI. More than 60 percent of women reported experiencing vaginal discharge followed by 47 percent of women who reported pain during urination and defecation. Further, around 39 percent of women reported experiencing pain in lower abdomen which is not related to menses. When symptoms of STIs are concerned, around 61 percent of women reported experiencing pain during sexual intercourse and itching or irritation over vulva. A little less than 60 percent of women reported boils, ulcers, warts around the vulva followed by 20 percent of women who reported swelling in the groin. Some symptoms of STIs like painful blister like lesions in and around vagina and spotting after sexual intercourse are found reported by very less proportion (19% and 15%) of women.

**Table-7: Percentage of women age 15-49 years who discussed any seek treatment for any RTI/STI problems in Santhal, Jharkhand, India, 2014-15**

Characteristics	Percent
Any problem (STI)	62.9
Any Problem of (RTI)	64.8
Problem discussed with	
Husband	28.7
Mother-In-law	54.9
Mother	8.9
Relatives/Friend	27.6
Others	3.4
Sought Treatment	39.3
Accompanied you to seek care	
Husband	48.8
Mother-In-law	40.8
Mother	0.0
Relatives/Friend	3.2
Alone	7.2
Other	0.0

The above table (7) briefs on the various actions taken after understanding the prevalence of RTI/STI and about the family member who accompany them while seeking care. To the question to whom they discussed this problem with, 29 percent responded husband, around 55 percent discussed it with their mother in law. It was seen that only 8.9 percent of the respondents shared it with their mothers, while 28 percent of the share discussed it with their relatives or friends, and 3.4 percent discussed it with others. Further, to understand who accompanied with the respondents to seek care, it was seen that those in mothers category and others category never accompanied them. While a major share of around 49 percent of the respondents were accompanied by their husbands and the second most common response was found to be with mother in law which came around 41 percent, while 3.2 percent responded that they were accompanied by relatives/friends and 7.2 percent said that they went alone.

**Table 8: Prevalence and odds ratio of any STI symptoms in the last 12 months among Santhal Women according to selected background characteristics**

Characteristics	OR				
	Prevalence	Model 1	CI (95%)	Model 2	CI (95%)
Age (years)					
15 to 24	62.5				
25-34	57.1	0.5	0.23-1.25	0.5	0.21-1.20
35 and Above	67.4	1.03	0.38-2.76	0.9	0.34-2.59
Education					
No education	77.3				
Below primary	43.9	0.2***	0.08-0.56	0.2***	0.07-0.54
Middle school	63	0.7	0.29-1.65	0.7	0.29-1.668
High School and Above	38.5	0.3**	0.08-6.37	0.3*	0.08-1.10
Number of children					
No child	36.2				
1 Child	72.1	2.1	0.81-5.23	1.6	0.62-4.35
2 Child	64.3	1.2	0.44-3.29	1.0	0.36-2.86
3 or More	71.7	2.2	0.73-6.37	2.0	0.66-6.33
Exposure to Mass Media					
No exposure	66.1				
Partial exposure	98.3	46.7***	5.62-388.15	63.2***	7.05-566.8
Full exposure	44.4	0.7	0.32-1.57	0.7	0.29-1.58
Religion					
Hindu	61.2				
Christian	61.9			0.9	0.43-2.06
No religion/Sarna	67.2			1.8	0.78-3.95
Wealth Index					
Poor	56.8				
Middle	67.9			1.4	0.62-3.08
Non Poor	63.8			1.6	0.71-3.57
Sexual violence					
No	70.1				
Yes	61.3			1.5	0.70-3.38
Total	62.9				
- 2log likelihood		236.694		227.623	

Table 8 shows the prevalence and determinants of any STI symptoms in the past 12 months among the Santhal women by selected background characteristics. Overall 63 percent of women have reported any STI symptoms in the last 12 months. The result portrays that the prevalence of any STI in last 12 months is found to be low among the Santhal women of age group 25-34 years (57%) than other counterparts. The prevalence of any STI in last 12



months is found high among the Santhal women who have no education (77%) whereas it is very low among who have the high school and above education (39%). It is observed that there is a significant impact of full media exposure (44%). Religion was the next characteristic based on which the next category was created understand the status of STI, for which 61 percent of Hindus, around 62 percent of Christians and 67 percent of those who had No religion/ Sarna said that STI was prevalent in them. The next categorization is based on the clan of the respondent. The respondents belonged to 9 clans of which none of the respondents in Baske clan had any STI, while the only respondent from Besra clan had STI, as reported, which made it 100 percent followed by 73 percent of the Soren clan had STI the same response was given by 68 percent in the Murmu clan, 66 percent in the Hebrom clan, 63 percent in the Hansda clan, 62 percent in the Marndi clan, 56 percent in the Kisku clan and around 42 percent in the Tudu clan. When the prevalence of STI among women was studied based on the wealth index of the respondent it was understood that around 68 percent of the women in the middle category, around 64 percent in the non-poor category and 57 percent in the poor category accepted that they had STI's. This study seeks to see if there was any relation to the number of children with regard to the prevalence of STI. It was seen that only 36 percent of women who had no child had STI which was lesser when compared to 72 percent who had 1 child, 64 percent who had 2 children and 73 percent of respondents who had 3 or more children. The next category was based on the exposure of the respondents to media. It was learned that a whopping 98 percent of the respondents were affected by STI's among those who had partial exposure to media, while 66 percent and only around 44 percent gave the same answer among those who had no exposure and full exposure respectively. It was noticed that 70 percent of women suffered from STI problems who have experienced sexual violence in the last 12 months.

The results of logistic regression models is showing the association of any STI symptoms among the Santhal women by background characteristics in last 12 months; Model 1 includes age, education, number of children, and exposure to mass media. The results of logistic regression model 1 shows that the Santhal women having below the primary and the high school and above education are significantly 80 percent and 70 percent less likely to have any STI in last 12 months as compared to having no education respectively. It is also found that the Santhal women having partial media exposure are 46.7 times ( $p < 0.01$ ) more likely to have any STI in last 12 months as compared to having no media exposure. When we added some others factors like religion, wealth index and sexual violence in model 2, the results show that

the Santhal women having below the primary and the high school and above education are significantly 80 percent and 70 percent less likely to have any STI in last 12 months as compared to the Santhal women having no education respectively. The Santhal women having partial media exposure are 63 times ( $p < 0.01$ ) more likely to have any STI in last 12 months as compared to having no media exposure.

## CONCLUSION AND RECOMMENDATIONS

There is paucity of studies in tribal population on violence against women, sexual behavior and practices, and their possible impact on reproductive health. This study also deals with the reproductive morbidities of the Santhal women. Further, linkages of violence along with other socio-economic predictors are examined. It was found that around one-third of women had heard about sexually transmitted infections (STI) and two-thirds of women were suffered from any STI problem in last 12 months prior to the survey. The study also shows that the prevalence of any STI symptom in last 12 months is found high among the Santhal women who have no education whereas. It is found that there is a significant impact of full mass media exposure on reproductive morbidities. While observing the association between sexual violence and any STI, it was observed that among women who had experienced sexual violence, a substantial proportion had been suffering from any STI problems in past 12 months. There is also limited research on menstruation as a social and cultural phenomenon or on the technical and the hygienic aspects of sanitary protection in various social contexts. Considering the above points knowledge and practices of the menstrual hygiene has been consider for the analysis in the study. It was found that a considerable proportion of women have knowledge about menstrual related problems and among them, just two-fifths of women had been suffering with menstrual problem in last 12 months preceding the survey.

Although there are many stereotypes about mensuration in reality half of the world population menstruates. Mensural related problem may happen to any women irrespective of the settings she belongs and up to extent to any subpopulation infiltrating to tribal society as well. The Government of India has launched the sanitation drive to provide access to sanitation facilities to everyone with an objective of improving public health. Sanitation facilities per se are not sufficient for improving overall health. This is because it is more important for people to make use of those available sanitation facilities. People in rural areas are still not able to accept that defecation facilities is a part of their own house. Use of community toilets is also not that effective for the cleanliness reasons and availability of

water supply for flushing. Moreover, separate community toilets for women are preventing them from using it. Women have specific needs that requires to be addressed while providing for sanitation facilities. The cultural taboos associated with menstrual cycles and their seclusion during these days deprive them of making use of common bathing facilities and community toilets. Moreover, they use pieces of cloths to soak menstrual blood, instead of using other alternatives because of financial constraints, issues in procurement of fresh napkins, disposal of used napkins and lack of awareness of alternative materials. Moreover, each of the sanitary material requires to be used with caution and care, which in turn, requires awareness and training the tribal women for its use. Sanitary napkins are the only feasible alternatives because the Government of India has launched a scheme to provide the same through ASHA workers at an affordable price. However, this addresses only the needs of adolescent girls. Women who cross their adolescence and in the workforce (most of them are casual agricultural labourers and some of them work on MNREGA projects) continue to face the same problem. However, the penetration and effectiveness of providing affordable sanitary napkins requires to be examined. Thus, one can say that providing sanitation facilities is a necessary condition but nor a sufficient Cultural taboos, beliefs and inhibitions requires to be addressed along with sensitizing the women on alternative and affordable sanitary products to help improve menstrual hygiene and thereby, women's overall health. Till now menstrual hygiene management was viewed as a individual matter. However, there has been a transition in responding menstrual hygiene practices and its consequences on reproductive health outcomes in the last few years. The government of Jharkhand has implemented menstrual hygiene program in mission mode approach with an idea to improve (National Iron Plus Initiative) NIPI program in State.

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