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RURAL – URBAN DIFFERENCES IN REPRODUCTIVE HEALTH STATUS: AN ANTHROPOLOGICAL STUDY AMONG THE SANTAL FEMALE

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ABSTRACT:

The present study aimed at assessing the reproductive health status of Santal female of the Purulia and Nadia district in West Bengal. About 202 female (rural-100 & urban-102) in the age range of 15-59 years were interviewed regarding age at menarche, age at marriage, age at first conception, menstrual problems and female's perception towards health in a cross-sectional design. Non-literacy was documented to an extent of 70% in rural area among the Santal female where as only 30.39 % female were non-literate in urban area. Non-literate female were found mostly in rural area than urban area and they were at risk of developing menstrual irregularity than educated female. It was found from this present study that age at marriage of female in rural area (Mean- 17.10±1.74) is earlier than that of the santal female of the urban area (Mean-18.73±2.99). A significant difference is present between the BMI of Rural (Mean-18.96±2.28) and Urban (Mean-23.01±3.64) married female of Santal population. This is because of the lack of knowledge and they are not all are aware of the affect of the early marriage. In conclusion, it is inferred that Santal female are subjected to significant reproductive health risks mediated by socio-economic conditions.

Key Words: Santal Female, Reproductive Health, Menstrual Problems, Body Mass Index.

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INTRODUCTION:

India is one of the countries having the largest concentration of tribal population in the world. According to 2011 census, the Scheduled Tribe Population in the country is 8.43% constituting about 8.2 percent of the total population. Majority of the tribal population is concentrated in nine states of India, i.e. Andhra Pradesh, Madhya Pradesh, Bihar, Odisha, Gujarat, Rajasthan, Assam, Maharashtra and West Bengal (Ramana *et.al.*, 2014.).

West Bengal is fourth most populous state that is situated in eastern part of India. According to census 2011, there are 11,60,069 tribal households in the state. Total tribal population in the state is 52,96,953 including 26,49,974 males and 26,46,979 females. There are 38 scheduled tribes inhabiting the state. The Tribal Female in India are undisputedly considered as the weakest section of the population in view of common socio-economic and socio-demographic factors like poverty, illiteracy, lack of development facilities, and lack of adequate primary health facilities, guidance and direction.

The overall health condition of a population is represented by reproductive health status. The reproductive role of female insight from the most attaining menstruation to the post menopausal period all through the process of gestation, birth, breastfeeding, and child-rearing places her at the focal point of a population's reproductive health (Geetha *et.al.,* 2015). Moreover, female are central to various social and economic activities in tribal communities requiring reciprocal interactions with the contributing factors of reproductive health.

Female's access to 'power and resources' emerged as the important contributing factor to their reproductive health at the fourth world conference on female in 1995 held in Beijing which emphasizes increasing female's economic and educational status, and as a consequence, female's reproductive rights (Pillai *et. al.,* 1999). Thus, reproductive health indicates the level of self-determination, female's reproductive rights, and strength of tribal's socio-political power.

In India the health status of the tribal population is very poor, lack of knowledge in sanitary conditions, personal hygiene, and health education. High rates of anemia are found among tribal mothers, and girl children receive less than the desired nutritional intake. The extent of knowledge and practice of family planning was also found to be low among the Scheduled Tribes (Bhardwaj *et.al.,* 2010).

Among ST female age 20-49, the median age at first marriage was 16.5 yrs and among age 25-49 years, it was 16.3 yrs. The increase in the median age at first marriage was proceeding

at a very slow pace, and a considerable proportion of female still marry below the legal minimum age of 18. 61.8 percent of currently married ST female had demand for family planning, of which only 77.5 percent have a met need for contraception (Pandey *et.al.*, 2018). . Some literatures on demography reveal that, age at marriage has long been regarded as one of the proximate determinants of fertility (Davis & Blake, 1956).

Maxwell in 1987 conducted a study and observed that a positive relationship is present between education and age at first birth (Maxwell, 1987). In 2010, Heaton and Forest worked on effects of education on age at marriage, contraceptives use and fertility and reported that in all countries education influenced female's individual decisions about family formation (Heaton & Forste, 2010).

In India health condition of tribal female is very poor and this is reflected by their status of their reproductive health correlated with social and economic conditions. There is need for proper understanding of the different health aspects of tribal female and their specific health needs so that relevant health measures may be prepared and implemented (Salehin, 2012).

This study intends to find out the differences between the reproductive healths of same tribe Santal female in rural- urban context. This study intends to generate relevant information that helps to understand the reproductive health in poor area and as well as due to the standard of living in urban area the differences in reproductive health among the Santal female of urban area.

METHODOLOGY:

Area and People:

Santals are a settled agricultural tribal group. They are one of the largest tribes of India inhabiting a large tract of land spread over Bihar, Orissa and West Bengal with a total population around four million people. The sandals are believed to come from proto-australoid racial stock, their skin colour varies between dark to dark brown (Hasnain, 2001).

The present study has been carried out in the state purposively; present study was conducted in West Bengal. For the present study purpose two districts were selected randomly. According to Cencus 2011, Purulia is one of the twenty districts of West Bengal State in Eastern India; Muradi is a village in Saturi block in Purulia district of West Bengal, India. Bengali and Santhali are the common languages here. The Santals have been living in southern and western

part of the West Bengal for at least five hundred years. It was found that some of the Santal villages in Purulia district are over three hundred years old. In Nadia district, where the kalyani is a town and sub divisional head quarter.

Sampling:

The present study examines the differences between the rural and urban female on the basis of reproductive health. A cross sectional survey was conducted in 2015-16 on reproductively active married Santal female, aged between 15 to 59 years. Total 202 participants were selected, among which 100 rural participants were from village Muradi, block Saturi, District Purulia and 102 urban participants were from Kalyani city, District North 24 Parganas, West Bengal Area and samples both were selected by the random sampling technique, where random table were followed for reducing sampling error.

Data Collection: For collecting the data from the research participants, schedules were prepared which contains age, sex, religion, education, mother tongue, occupational activities, and anthropometric measurements. Data were collected after obtaining the oral consent and during the time of anthropometric measurements from the research partners, all the regulation of standard protocols were maintain for collecting anthropometric measurements (Stewart et al. 2011).

As the study mainly intends to find out the general health condition and reproductive health awareness, interview technique was used to gather information from selected ever married female concerning their reproductive health profile, consisting age at marriage, age at menarche, age at first conception, duration of menstruation.

Anthropometric measurements:

In the present studies, basic measurements were taken to assess the general health condition. Total four numbers of anthropometric measurements were collected from the research partners on the basis of ISAK (2011) international standards guideline for anthropometric assessment (Stewart et al. 2011). The measurements were body stature (in cm) measured by anthropometer (on nearest ±0.1 cm), body mass (in kg) were measured by a reliable weighing machine (on nearest ±0.1 kg). Body mass index (BMI) was calculated as weight in kilogram divided by height (stature) in meter square (kg/m^2).

Statistical Analysis: Mean and Standard deviation were estimated for Age at menarche, Age at marriage, age at first conception and Age at menopause, using computerized statistical software, SPSS and MS Excel.

The data were collected, complied and tabulated. There is much significance developed and utilized. Most common are student's t test, chi-square test (χ^2) etc. The data were also categorized for further clarity, understanding and interpretation. In the present study the following methods were used in analysis of the data using the standard formula.

ANALYSIS AND RESULTS:

Table-1: Percentage distribution of age group of Santal Married Female

Age (years)	Rural (N=100)		Urban (N=102)	
	Frequency	Percentage	Frequency	Percentage
15-19	1	1.00	4	3.92
20-24	23	23.00	19	18.62
25-29	25	25.00	26	25.50
30-34	12	12.00	14	13.72
35-39	11	11.00	12	11.76
40-44	5	5.00	9	8.82
45-49	5	5.00	7	6.87
50-54	7	7.00	8	7.84
55-59	11	11.00	3	2.94

Age being an important factor for studying fertility, the sample of female was classified into various age group , details of which is given in the above table-1. The table reveals that maximum number of female about 25% in rural area belong to the age group 25-29 years the least 1% come from the age group 15-19 years whereas in urban area maximum number of female belong to the age group 25-29 about 25.50% and least come from the 55-59 age group about 2.94%. Mean age of the santal female of rural area was calculated to be 34, in urban this was 33**.**

Table- 2: Differences of Educational Qualification between Rural and Urban Santal Female.

Education	Rural (N=100)		Urban (N=102)	
	Frequency	Percentage	Frequency	Percentage
Non literate	70	70.00	31	30.39
Can Sign	00	00	01	0.98
Primary	06	6.00	12	11.76
Upper Primary	14	14.00	24	23.52
Secondary	09	9.00	25	24.51
Higher Secondary	01	1.00	07	6.86
Graduate	00	00	02	1.96

Table-2 shows the percentage of literate, non literate, can sign, primary, upper primary, secondary, higher secondary, graduate female in urban and rural area. Overall 70 % are non literate in rural area but in urban area this percentage is decreases by 30.39 %. The % of can sign is present only in urban area this is only, 0.98 %. The primary education of female in rural area is only 6 % whereas in urban area this is 11.76 %. In rural area upper primary education of female is 14 % and in urban area this increases by the 23.52 %. The secondary education of the rural female is 9 % only whereas in urban female this percentage increases by 24.51 %. Higher secondary education of the rural female is only 1 % whereas in urban area 6.86 % are educated up-to higher secondary. Higher education is not found among rural female but it is found among urban female but only 1.96 %.

Table 3: Percentage Distribution of Age at Marriage

Age Group	Rural		Urban	
	Frequency	Percentage	Frequency	Percentage
Below 18	64	64	47	46.08
18-22	35	35	43	42.16
23-27	1	1	11	10.78
Above 28	0	0	1	0.98
Total No	100	100	102	100
	Mean 17.10(±1.74)		Mean: 18.73(±2.99)	
t- test			t=4.73*	

*Significant, p< 0.0001, df=200

Table 3 shows that 64 % of the females were married at below 18 years in rural area but in urban area this percentage is decreases, here 46.08% of the females were married at the age of below 18. In rural area 35% females were married at the age group between 18 to 22 years, whereas in urban area this percentage increases by 42.16%. In rural area only 1% females were married at the age group between 23 to 27 years and in urban area this percentage is increases by the 10.78%. In rural area no female were found to be married at age of 28 or above, in urban area 0.98% females were married by the age group above 28. As the two tailed p value is less than 0.0001, this difference is considered to be extremely statistically significant.

Table 4: Percentage distribution of Age at Menarche

Age at Menarche(in years)	Rural		Urban	
	Frequency	Percentage	Frequency	Percentage
11	12	12	11	0.98
12	39	39	12	29.42
13	29	29	13	49.01
14	16	16	14	20.59
15	4	4	15	0
Total	100	100	102	100
	Mean 12.62 (±1.04) years		Mean 12.89 (±0.73) years	
t test	t=2.15*			

* $p<0.05$

Table 4 shows, the age at menarche; about 39% of them shows that the starting age of menarche of them is at 12 years, 29% of them shows that their starting age of menarche is 13 years. Only 4% of them shows that their starting age of menarche is at 15 years, about 16% of them shows their age at menarche were at 14 years. About 12% of them show that their starting age at menarche is earlier that is at 11 years. In urban area most of them, about 49.01 % shows that their starting age at menarche is at 13 years. No one shows that their starting age at menarche is at 15 years. Only 0.98% their age at menarche was started in 11 years. As the two tailed p value equals 0.0325, this difference is considered to be statistically significant

Table-5: Percentage of female according to their duration of the menstruation cycle period*

Duration(in days)	Rural		Urban	
	Frequency	Percentage	Frequency	Percentage
2-3	50	64.93	25	29.07
4-5	25	32.47	55	63.95
6-7	2	2.60	6	6.98
Total	77	100	86	100
	Mean 3.43 (±0.956)days		Mean 4.13 (±1.01)days	
t-test	t =4.47**			

*only included the female of reproductive age group ** significant ,p value>0.0001, df=159

Table 5 shows the duration of the period during menstruation cycle. In rural area, the most of the female have scanty time of period. About 64.93% female have the 2-3days of period duration, because they have scanty period. About 32.47% have 4-5 days of period duration and only 2.60% have the period about 6-7 days. In urban area the female shows that the 63.95% percent of them have 4-5 days of period, whereas, few have scanty period duration about 29.07% and 6.98% have long time period duration. As the two tailed p value is less than 0.0001, this difference is considered to be extremely statistically significant.

Table- 6: Percentage of the female according to the condition during period*

Condition	Rural		Urban	
	Total No	Percentage	Total No.	Percentage
Painful	11	14.29	15	17.45
Irregular	8	10.39	7	8.14
Scanty	39	50.65	5	5.82
Excessive	19	24.67	17	19.76
Normal	0	0	42	48.83
Total	77	100	86	100

* only included the female of reproductive age group

Table 6 shows the condition during the time of period. About 50.65% of them have scanty type of period may be due to their low haemoglobin level. About 14.29% of them have pain full period during that time. 10.39% have irregular period, which is 1-2 month gap or may be twice in time in one month. 24.67% shows that they have excessive period condition during the time. In Urban area, there are 17.45% have pain full period, and 19.76% shows that they have excessive period condition. Few have scanty type of period only about 5.82%. Only 8.14%

shows that they have irregular period. 48. 83% of them show no abnormal condition during the time of period.

Table 7: Percentage distribution of Age at first conception**

Age at first conception(in years)	Rural (N=92)		Urban (N=94)	
	Frequency	Percentage	Frequency	Percentage
15	11	11.96	1	1.06
16	13	14.13	4	4.25
17	12	13.04	14	14.90
18	17	18.48	14	14.90
19	15	16.31	13	13.83
20	4	4.35	10	10.63
21	10	10.87	7	7.44
22	2	2.17	6	6.39
23	4	4.35	11	11.70
24	3	3.26	6	6.39
25	1	1.08	3	3.20
Above 25	0	0	5	5.31
	Mean 18.35 (±2.47)		Mean 20.35(±3.01)	
t- test	t=4.92*			

**only included the female who have child. *significant, p value<0.0001,df=184

It is evident from this table 7 that more than in rural area below 18 many of the female became pregnant as in 15 years there are about 11.96%, and in 16 years 14.13% and in 17 years 13.04% of them conceive for the first time. About 18.48% of the female first conceive at the age of 18 years, and few female at the age of 22 to 25 conceive for the first time respectively 2.17%, 4.35%, 3.26% and 1.08%. In urban area, below 18 the first conception of female is very rare only 1.06% at age 15, 4.25% at the age 16, 14.90% at the age 17 and 18 respectively. Here we can see that the age at first conception was also seen at the age 25 years about 3.20% and above 25 years is about 5.31%. However, the mean age at first conception among rural female is 18.35 and among urban female 20.35 years. As the two tailed p value is less than 0.0001, this difference is considered to be extremely statistically significant.

Table 8: Percentage distribution of Age at menopause*

Age at menopause (in years)	Rural		Urban	
	Frequency	Percentage	Frequency	Percentage
40	03	13.04	0	0
41	03	13.04	0	0
42	02	8.70	0	0
43	02	8.70	01	6.25
44	04	17.40	01	6.25
45	07	30.43	04	25
46	02	8.70	05	31.25
47	0	0	01	6.25
48	0	0	04	25
Total	23	100	16	100
	Mean 43.30(±2.0) years		Mean 46.00 (±1.5)	Years
t- test	t =4.57**			

*Only included the female who entered in menopause age. significant, p value<0.0001

In the table 8 shows that 23 females in rural area among 100 female and in urban area 16 females out of 102 females, shows their age at menopause. In rural area early time of menopause can be seen. At about 13.04% of them show early menopause at the age of 40 years only, 13.04% of them show that their age at menopause is in the 41 years. 30.43% of them show their menopause was occurred at the age of 45. In urban area, most of the female shows that their menopause were occurred at the age of 46; this is about 31.25%. Among them 25 % said that their age at menopause was 45 years. As the two tailed p value is less than 0.0001, this difference is considered to be extremely statistically significant.

Table-9: Differences between BMI of Rural and Urban Female

	Rural (n=100)	Urban (n=102)
Mean	18.96	23.01
SD	±2.28	±3.64
t-test	t = 9.45*	

* Significant, p <0.0001,df=200

Table 9 showing that a significant difference is present between the BMI of Rural and Urban married woman of Santal population. Here the t-value is 9.45 (p<0.0001) which is highly

significant because. By conventional criteria, this difference is considered to be extremely statistically significant.

Table- 10: Percentage distribution of BMI among the rural and urban Santal female

BMI category	Cut off Point	Rural (N=100)		Urban (N=102)	
		Frequency	Percentage	Frequency	Percentage
CED grade III	<16.00	10	10.00	1	0.98
CED grade II	16.00 to <17.00	12	12.00	1	0.98
CED grade I	17.00 to <18.50	20	20.00	8	7.85
Low Normal	18.50 to <20.00	26	26.00	12	11.77
Normal	20.00 to <25.00	31	31.00	52	50.98
1st Obese	25.00 to <30.00	1	1.00	25	24.50
2nd Obese	30.00 to <40.00	0	0.00	3	2.94
3rd Obese	>40.00	0	0.00	0	0
Total		100	100	102	100

Body Mass Index (BMI), generally depicts the general health condition of the individual. Here table shows that the overall general health condition among the Santal female of rural area is poor, where as in urban area the Santal female shows quite better health condition. Among the santal female of rural area, most are malnourished, and about 10% of them fall under the category of CED III, 12% of them fall under the category CED II, about 20% of them fall under the CED I category. Only 31% among them are normal in health condition, 26% are in touch of the cut-marks which are categorized as low normal. Only 1% among them shows 1st obese condition. In urban area health Status of the Santal female shows better than rural, only 0.98% among them are fall under CED III, 0.98% are belong to the CED II, 7.85% are fall under the CED I, 50.98% are Normal which is better than Rural , 11.77% are belong to the Low normal . We can see that in urban area 24. 50% are belongs to the 1st obese condition which is not seen among the rural female, and 2.94% are fall under the category of 2nd obese condition.

CONCLUSION:

In the present study it is concluded age at marriage and also age at first conception is indirectly influences by education. Here in the present study age at marriage below 18 years is mostly found in rural area among the non literate and primarily educated female. Here in the present study shows that age at first conception below 18 years is mostly found among the primarily educated female and non literate female and first conception at mature age increases as with the higher educational level of the female.

In this present study the nutritional status of the female of rural area is generally revealed by the Body Mass Index (BMI), it is observed from the study that among the female of that area, mean BMI is 18.95. They are mostly underweight. Only 31% female are regarded as normal resulted from BMI category. In urban area their mean BMI is 23.00. Half of them are considered as normal about 50.98%. But there are major changes in this area is that here 24.51% among them considered to be as 1st obese. Due to quite sedentary lifestyle, this is become different from the rural area, this was one of the result that there are many female who are considered as Obese, which is one of the risk factor for the hazards of different kind of diseases.

The menstruation duration that is period stayed from 2-3 days in most of the cases among the female of the rural area. From the information as given by them that scanty type of period is mostly exist and that is painful.

There is evidence to show poor maternal health status exemplified by low BMI is associated with poor lactation performances and poor growth in infants (Kusin et al. 1992). Therefore in rural area, most of the female are malnourished and week, so they must need the awareness of the proper foods for keeping healthy life of them. As the children are depending on their mother during breastfeeding, it is necessary to take care of the mothers.

REFERENCES:

- Bhardwaj, S. & Tungdim, M.G., 2010, Reproductive Health Profile of the Scheduled Caste and Scheduled Tribe Female of Rajasthan, India, *The Open Anthropology Journal*, 3, 181-187.
- Census of India, 2011. A- 11 state primary census abstract for individual scheduled tribe – 2011.
- Davis, K., & Blake, J. 1956. Social Structure and Fertility: An Analytic Framework. *Economic Development and Cultural Change , 4* (3), 211-235.
- Geetha, P., Chenchuprasad, C. & Sathyavathi, R.B. 2015, Reprouctive Health Status of Sugali Tribal Female: A Field Based Study, *Studies of Tribal and Tribals,* Vol. 13, Issues,1.
- Hasnain, N. 2001. *Tribal India Today* (6st Edition ed.). New Delhi: Palaka Prakashan.

- Heaton, T. B., & Forste, R. 2010. Education as policy: The impact of education on marriage,contraception, and fertility in Colombia, Peru, and Bolivia. *Social Biology , 45* (3-4), 194-213.
- Kusin J.A, Kardjati S.R.L. & Renqvist, U.H., 1992. Chronic undernutrition in pregnancy and lactation. *Proc Nutr Soc*, 52: 19-28.
- Maharana, R. & Khan, I., 2017, Household Economy Influences the Health Condition among the Tribe of Odisha: An Anthropological Study, *Intr. Jour. of Humanities and Social S. Research*, Vol, 3 (1): 01-06.
- Mukharji, D., & Bharati, P. (2009). *Laboratory Manual for Biological Anthropology.* New Delhi: Asian Books Private Limited.
- Nayak J.K., & Singh P., 2015. *Fundamental of Research Methodology: Problems and Prospects.* New Delhi: SSDN Publishers & Distributor.
- Pandey, V.V., Singh, S.K. & Kumar, A., 2018. Study on reproductive and maternal health care services among Tribal: Research for tribe development in Jharkhand, *Int. J. Ped. & Neo. Heal*. 2 (6): 69-80.
- Pillai, V. K., & Wang, G. Z., 1999. Female's reproductive health in developing countries. Surrey, United Kingdom: *Ash gate Publishing Ltd.*
- Ramana,D. & Usharani,D., 2014. Reproductive Health Status: Issues and Concerns of Tribal Female, *Journal of International Academic Research for Multidisciplinary*, Vol. 2; 1.
- Salehin, A.M., 2012, Reproductive Health of Tribal Population in India: A Sustainability Approach, Ph.D. thesis, The University of Texas At Arlington.
- Stewart, A., Jones, M., Olds, T., & Ridder, H. D., 2011. *International standards for anthropometric assessment.* New Zealand: The International Society for the Advancement of Kinanthropometry (ISAK).

Reports & websites

- Indian Ministry of Tribal Affairs (2010)
- International Institute for Population Sciences (IIPS). (2007). National family health survey
- Indian National Family Health Survey-3 (NFHS, 2005-06)
- www.tribal.nic.in