

Study on the Effect of Socio-economic Parameters on Health Status of the Toto, Santal, Sabar and Lodha Tribes of West Bengal, India

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KEYWORDS Socio-economic Factors. Health Status. Tribe. Education. Occupation. Income

ABSTRACT Study was conducted comprising the socio-economic variables like, age, sex, education, family education status etc having importance in maintaining the health status, on 320 Toto, Santal, Sabar and Lodha respondents of Jalpaiguri and Purulia District of West Bengal using a pre-tested structured interview schedule for data collection. The practice of education was found common in Santal, Lodha, Toto than Sabar. Cultivation was the main occupation on maximum respondents of all selected tribes. Majority of the Sabar respondents were under low-income group. Family size was large in Santal; than other three tribes. Education, occupation, income, house types were highly significant in relation to health status among the Santals. Family education status, land type, land holding, family size, family type and personal cosmopolite were highly significant to health status amongst the Lodhas.

INTRODUCTION

A tribe is an independent political division of a population with a common culture. Tribal people are primitive residents of our country. But, it is a glooming fact that even after six decades of independence, the tribes of our country are drowned in several problems. In those problems, the poor health status of tribals is now a burning issue. The target tribal communities of the present study are Toto from Jalpaiguri district and Santal, Sabar, Lodha from Purulia ditrict in West Bengal.

The Toto is a primitive Indo-Bhutanese tribe residing in a small enclave called Totopara in the Jalpaiguri district of West Bengal, India. Geographically the location is 89° 20'E 26° 50'N. Totos were nearly becoming extinct in the 1950s, but recent measures to safeguard their areas from being swamped with outsiders have helped preserved their unique heritage and also helped the population grow. In the 2001 census, they numbered about 1184 - all living in Totopara (Mitra 1951).

The santal tribe is the third largest tribal community in India after the Gond and the Bhil tribes (Basu et al. 2004). This community extends through the states of Bihar, West-Bengal, and Northern Orissa. In West Bengal, districts of Bankura, Birbhum, Midnapore and Purulia; have major number of tribal population. In the past, santlal tribe was nomadic and travelled from place to place in quest of agricultural land.

The sabars are one of the principal Munda-speaking tribes widely spread over hill regions within Orissa, Madhya Pradesh, Andhra Pradesh, Bihar, and West Bengal. Sabars seem healthy, the men slim and wiry, the women quietly confident. Communities inhabiting rugged hill regions practice mainly slash-and burn cultivation, using hoes as their main agricultural implements. Their material standards are lower. Their ritual and religious life, on the other hand, is extraordinarily complex, and they are very much superstitious (Basu et al. 2004; Elwin 1956). Twenty villages in Purulia district of the West Bengal dominated by the sub-tribes of India i.e., "Kheria Sabars".

The Lodha of West Bengal are scattered in the jungle tracts of Midnapore and have spread out in small numbers in some of the contiguous districts like Hooghly, Purulia etc. They also spread in Mayurbhanj (Orissa) and Singhbhum (Bihar) (Basu et al. 2004). This poor tribe ekes out their existence by collection of forest procedures and fuel wood that they sell in the local market. Selling skins of snakes and snake charming are their good business.

It was observed that the health status of the tribes was comprehensive area-specific and health related studies were limited. Most of the available studies were isolated, fragmentary and did not cover the various dimensions of health affecting the status of tribes like- i) Sex ratio, ii) Literacy, iii) Marriage practices, iv) Age of marriage, v) Age of mother at first conception, vi) Life expectancy at birth, etc. Carloyn and Harphan (1992) observed that health status of a population is influenced by the environmental conditions, health services, characteristics of the population and socio-economic conditions. Grady et al. (1993) observed that studies of the determinants of health outcomes have long focused on individual risk factors, neglecting the socio-economic environment in which the outcomes occur. He also found that community has influence on health outcomes, so as to put health in its socio-economic environment. Diez (2001) related individual health outcomes to socio-economic characteristics of the community (e.g., levels of economic development) and the community health infrastructure. However, such works on our native tribes are scanty in reality. In this context, the present comparative study was carried on different socio-economic parameters, which were used to measure the health status of the four selected tribes of West Bengal, India.

METHODOLOGY

Name of the Districts

Totopara of the Madarihat block of Jalpaiguri district of West Bengal, India and Bandawan, Purulia-I, Baghmundi, Kashipur, Neturia, Para, Barabazar and Manbazar-II blocks of Purulia district of West Bengal, India.

Number of Samples

In Jalpaiguri, Toto and in Purulia Santal, Lodha

and Sabar were considered for sample population. Total numbers of selected tribal communities were four under study. Each community was classified into two age groups and 40 samples were randomly selected from each age group of each community. In this way, total numbers of 320 (N=320) samples were considered to form the sample population under study.

A pre-tested structured interview schedule was used for data collection in the present study.

Socio-economic Variables and Their Empirical Measurements Used

Age (X_1): Age refers to the number of years the respondent lived since birth at the time of interview and was rounded to the nearest whole number. In the present study, the number of years rounded to the nearest whole number the respondent lived since birth at the time of interview was taken as a measure of age. The community was classified into two age groups and 40 samples were randomly selected from each age group of each community. Age group of the respondents in the present study were: (1) 20Years to 40 Years, (2) 40Years+ to 60Years.

Sex (X_2): The members of many species of living things are divided into two or more categories called sexes (or loosely speaking, genders). These refer to complementary groups that combine genetic material in order to reproduce. This process is called sexual reproduction. Typically, a species will have two sexes: male and female.

Education (X_3): Health status of an individual is influenced by his or her education level. The world map of illiteracy closely coincides with the maps of poverty, malnutrition, ill health, high infant and child mortality rates. Studies indicate that education, to some extent, compensates the effects of poverty on health, irrespective of the availability of health facilities.

To quantify the educational status of the respondents, the scoring system followed by (Pareek and Trivedi, 1964) in their Socio-economic Status Scale Rural was used. The scoring was as follows: Illiterate:0, Can read only: 1, Can read and write: 2, Primary: 3, Middle school: 4, High school: 5, Graduate: 6.

Family Educational Status (X_4): The method followed by Ray (1967) in computing the family educational status was followed in the present one. In this method, the educational achievement

of each member of the family was noted and scored as suggested by Pareek and Trivedi (1964) in the item education of the Socio-Economic Status Scale-Rural. The total score of a family on education was then divided by the “effective family size” to get the educational status of the family. The “effective family size” was obtained by subtracting the numbers up to 4 years of age from the total number of members in the family. The procedure adopted with an actual computation.

Occupation (X_5): The occupation of a person is an important indicator to determine the economic status of that person in a society. The scores for different categories of occupation were as follows:

Labour: 1, Caste occupation: 2, Business: 3, Independent occupation: 4, Cultivation: 5 Service: 6.

Land holding (X_6): The amount of land is an important economic parameter to assess the economic standing of that person in the society. The procedure for scoring was as follows: No land: 0, Up to one hectare: 1, Up to two hectares: 2, Above two hectares: 3.

Income (X_7): Income strongly correlated to health status and access to health care. Greater wealth allows a household to maintain its standard of living when income falls due to job loss or health problems (Council of Economic Advisers for the President’s Initiative on Race 1998). The ability to obtain health insurance coverage is directly related to income and wealth. Income is also related to the amount of preventive care received, which is associated with health out-comes.

In the present study, the procedure of collecting information on income of the respondent or respondent’s family in per month was followed: High Income: (More than 2000/-), Middle income:(Rs: 1001/- - 2000/-), Low Income:(Upto Rs. 1000/-).

House type (X_8): The possession of a house and the nature of the house are important indicators of socio-economic status. These were measured as per Pareek and Trivedi (1964). The scores were for No house: 0, Hut: 1, Katcha house: 2, Mixed house: 3, Pucca house: 4, Mansion: 6.

Family size (X_9): It refers to the members present in individual respondent’s family. Generally, families consisting of one to five members are being regarded as small size families while large size families consist of more than five members. Large size family, which requires proper

distribution of foods within all members, is very essential to maintain the proper nutritional status in all. Here also the scoring system followed by Pareek and Trivedi (1964) in their Socio-Economic Status Scale-Rural was followed- Up to five members: 1, Above five members: 2.

Family type (X_{10}): It refers to whether there is single or joint family system in the respondent’s family. A family was considered as single when it consisted of husband, wife, and unmarried children. A joint family consisted of other blood relations also.

The scoring system developed by Pareek and Trivedi (1964) in their Socio-Economic Status Scale Rural was followed to quantify the family type of the respondents. The scores were for Single family: 1, Joint family: 2.

Marital Status (X_{11}): The concept of marital status applies to the conjugal arrangements of a person. It includes persons who are living together as husband and wife, regardless of whether they are legally married or in a common-law relationship. Persons living in a conjugal relationship are identified as spouses. Spouses may be legally married spouses or common-law partners.

In the present study, the procedure of collecting information on marital status of the respondent or respondent’s family was followed:

Married :
Unmarried :
Widow/widower :
No of children : a) Male b) Female

Statistical Analysis: Mean and Standard Error of all these socio-economic variables were calculated. These calculated means were further tested by Chi-square and Test of significance respectively.

RESULTS AND DISCUSSION

It was clear from Table 1 that maximum Sabar respondents were landless and they did not have any extra land for extra income like cultivation etc. That is why Sabar respondents were mainly involved in labour class, and due to their occupation, their income was very low (upto Rs.1000/month). The data also showed that maximum Sabar respondents were illiterate which may be due to poor economic condition and large family size. Nagda (2004) stated that the literacy among the tribal of Rajasthan was extremely low which affect the health status. Joung et al. (1995)

Table 1: Contd....

Items/Variables	Divisions	Toto Tribe		Santal Tribe		Sabar Tribe		Lodha Tribe	
		Frequency (N=80)	Percentage	Frequency (N=80)	Percentage	Frequency (N=80)	Percentage	Frequency (N=80)	Percentage
Occupation	Not applicable	11	13.8	9	11.3	6	7.5	16	20
	Labour	43	53.8	21	26.3	54	67.5	16	20
	Caste occupation			10	12.5	1	1.3	6	7.5
	Business	3	3.8	3	3.8			5	6.3
	Independent occupation			1	1.3				
Land Type	Cultivation	20	25	29	36.3	19	23.8	36	45
	Service			4	5			1	1.3
	Cultivation and Caste occupation			2	2.5				
	Cultivation and Business			1	1.3				
	No land	43	53.8	38	47.5	68	85	37	46.3
Income	Wet land	7	8.8	6	7.5	12	15	43	53.8
	Dry land	30	37.5	36	45	78	97.5	37	46.3
	Low income	60	75	42	52.5	2	2.5	39	48.8
	Middle income	19	23.8	24	30			4	5
	High Income	1	1.3	14	17.5				
House Type	No house	16	20	23	28.8	75	93.8	42	52.5
	Hut	41	51.3	33	41.3	5	6.3	34	42.5
	Kutchha house	23	28.8	16	20				
	Mixed house			8	10			4	5
	Pucca house								
Family Size	Up to 5	62	77.5	52	65	30	37.5	37	46.3
	More than 5	18	22.5	28	35	50	62.5	43	53.8
	Effective	1	1.3						
	Family Size	15	18.8	11	13.8	6	7.5	2	2.5
		18	22.5	17	21.3	2	2.5	4	5
Family Type	4	28	35	24	30	22	27.5	27	33.8
	5			8	10	6	7.5	16	20
	6	11	13.8	9	11.3	17	21.3	16	20
	7	1	1.3	4	5	22	27.5	4	5
	8	2	2.5	7	8.8	1	1.3	4	5
Family Type	9	4	5					3	3.8
	10							4	5
	11					4	5		
	Single family	51	63.8	63	78.8	24	30	16	20
	Joint family	29	36.3	17	21.3	56	70	64	80

also observed the positive relation between education and health. According to the measure of SES (Socio-Economic Status) by Liao et al. (2004), it was found that education level and household income was substantially lower among minority communities. The result showed that Santal tribe was having sufficient quantity of land for staying but Lodha had maximum dry land (above 2 hectare) for cultivation. Due to this reason maximum Lodhas were involved in cultivation. Santals were involved in various types of jobs like service, caste occupation, and cultivation etc. Moitra and Choudhuri (1991) found that agriculture and forest products were the principal sources of income in Santals of Rajmahal Hills, Bihar. The data showed that few Santal respondents were also involved in multiple occupations, which helped them to be in high-income group (More than Rs.2000 month) than Lodha who were under middle-income group (Rs.1001 to 2000/month). Even though the Santal respondents were in the higher income group than Lodhas but still the education level was high in Lodha and number of graduate respondents were also maximum in Lodha. This may be for the more involvement of Santal's in earning more money from different sources. But, Maitil et al. (2005) found that the non-tribal were better off than the tribal in terms of standard of living, education and other socio-demographic indicators. Lantz et al. (1998) also suggested that income is perhaps the strongest and most robust predictor of health because to some degree the impacts of other socio economic status (SES) variables are mediated through it. The result showed that, like Sabar, the maximum number of Toto respondents were involved in labour class and that may be for their atmosphere and zone. Because Toto tribes were staying in the hilly place of Jalpaiguri near Bhutan border and cultivation was slight difficult over there but still few people were involved in this and maximum Toto females were working as a porter. They used to carry wood, oranges, and apples from hill to plain. Some Toto respondents had wet land for fishery. Mitra (1954) also observed the same feature. The result showed that the Toto tribes had also low income and low education level same as Sabar. But it was noticed that the Christian community had initiated the development of the education level among Toto in free of cost because, the data of the Christian Toto respondents showed that few of them were studying in primary school, middle school, and high school also. Mahapatra

(1997) observed that Christianized tribal people have been given facilities for education, health and co-operative services, so that they become healthier, more educated and economically more prosperous than others. The main arising problem in the primitive Toto tribe was that they are diminishing due to lack of population. The present study also showed that the effective family size was minimum in Toto and maximum in Sabar. The numbers of child in the family were minimum in Toto and maximum in Santal. Rodgers et al. (1989) showed a 'U' shaped relationship with the landless and highest land owning groups displaying a higher number of live births than other groups in the plains of rural Bihar, a region. The result indicated that the Toto tribes liked to stay as a joint family might be for lack of population or for low income. Sabar also preferred to stay as a joint family because in Purulia district, the area of Sabar tribe were far from general locality and that is why the tribe Sabar made a separate locality or para for their own and that was known as Sabar Para. Both Toto and Sabar were staying in a *kutca* house made up of straw, bamboo, stone, and mud according to economic status. Major number of Santal and few number of Lodha liked to stay as a single family. They generally lived in hut or mixed house but few Santal respondents were staying in pucca house who were doing service or business and who were economically sound.

It displayed the mean values of different independent variables under the study with standard error for different communities of tribe. The mean scores obtained by the respondents of Toto, Sabar, and Lodha in house type, family education status, effective family size, category, land holding, family size, land type, and occupation were varying significantly at 1% level of significance (Table 2). But child number was significant at 5% level of significance for the four selected tribes. The result showed that religion, age and sex had no significant difference for their mean scores among the four tribes. Education, Occupation, Income, House type, were highly significant in Santal. The mean value of Child number was higher in Sabar, which was responsible for their poor health status. The mean value of Family education status, Land type, Land holding, Family size, Family type were higher in Lodha.

CONCLUSION

Different tribes had different magnitude of

Table 2: Between tribes mean comparisons for all variables under study with standard error values

Variables	Toto Tribe		Santal Tribe		Sabar Tribe		Lodha Tribe		Chi Square	Sig.
	Mean	SE	Mean	SE	Mean	SE	Mean	SE		
Category	0.51	0.07	0.79	0.08	0.18	0.05	0.77	0.1	40.02**	0
Religion	1.05	0.04	1.05	0.04	1	0	1	0	4.04 ^{NS}	0.26
Age	1.5	0.06	1.5	0.06	1.47	0.06	1.49	0.06	0.14 ^{NS}	0.99
Sex	1.45	0.06	1.59	0.06	1.56	0.06	1.55	0.06	3.51 ^{NS}	0.32
Marital status	1.09	0.06	1.14	0.06	1.14	0.05	1.09	0.04	0.98 ^{NS}	0.81
Child number	1.46	0.14	1.46	0.2	1.76	0.17	1.04	0.12	10.93*	0.01
Education	0.65	0.15	1.86	0.22	0.08	0.05	1.34	0.2	55.71**	0
Family education status	0.49	0.12	0.97	0.13	0.1	0.05	1.29	0.17	56.11**	0
Occupation	1.97	0.21	3.06	0.25	1.89	0.2	2.86	0.24	17.49**	0
Land type	0.84	0.11	0.98	0.11	0.3	0.08	1.07	0.11	31.0**	0
Land hold	0.6	0.08	0.7	0.08	0.18	0.05	0.84	0.1	39.94**	0
Income	1.26	0.05	1.65	0.09	1.02	0.02	1.59	0.07	60.23**	0
House type	2.09	0.08	2.11	0.11	1.06	0.03	1.58	0.08	104.50**	0
Family size	1.23	0.05	1.35	0.05	1.62	0.05	1.54	0.06	31.79**	0
Effective family size	4.03	0.21	4.34	0.2	5.55	0.22	5.34	0.21	42.03**	0
Family type	1.36	0.05	1.21	0.05	1.7	0.5	1.8	0.05	73.52**	0

Note: ** P<0.01, * P<0.05 and NS: Not Significant (P>0.05).

socio-economic status. It can be immense that the practice of education is common in Santal, Lodha, Toto than Sabar. Cultivation was the main occupation on maximum respondents of all selected tribes. Toto respondents were involved in labour class and that may be for their atmosphere and zone. The main problem in the primitive Toto tribe was that they are diminishing due to lack of population. The present study also showed that the effective family size was minimum in Toto and maximum in Sabar. The numbers of child in the family were minimum in Toto and maximum in Santal. Sabar respondents were landless and they did not have any extra land for extra income like cultivation etc. Along this, maximum of them were illiterate. That is why Sabar respondents were mainly involved in labour class, and due to their occupation, their income was very low. But Santal tribe was having sufficient quantity of land for staying and Lodha had maximum dry land for cultivation. Due to this reason, maximum Lodha were involved in cultivation. Santals were involved in various types of jobs like service, caste occupation, and cultivation etc. Due to this the economic condition of Santal tribes were much better than other three tribes, but still the education level was high in Lodha and number of graduate respondents were also maximum in Lodha. This may be for the more involvement of Santal's in earning more money from different sources.

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