



Study on Socio-Personal, Socio-Economic and Infrastructural Demography of Tribal and Non-Tribal respondents in Jalpaiguri and Hooghly District of the State West Bengal, India

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Abstract

The study was conducted in purposively selected sample population taken from the Toto tribe of Jalpaiguri district and in non-tribal rural people of Hooghly district in the state of West Bengal, India. The study covered randomly selected a total of 100 tribal and 100 non-tribal people as key informants including locally well-known traditional healers and mid-wives in the study area. The findings revealed the difference among age group, religion, caste, education level, occupation, marital status, type, size and income of family in both tribal and non-tribal villages are highly significant ($p < 0.01$) while in case of gender, it is non-significant ($p > 0.01$). The Housing & living condition under infrastructural demography, found that majority of the people are used to either Mud or Bricks in rural non-tribal village, while reverse result i.e. majority of the rural tribal people are using other materials i.e. Bamboos, Thatches & Jungle woods for wall of the House, while majority of the people uses Tiles, Straws or Concrete in rural non-tribal village. The study signifies the dependency of the rural Tribal and non-tribal peoples on traditional medicines, considering their socio-economic, socio-personal and demographic status in the functional area of Jalpaiguri & Hooghly district of the State West Bengal, India.

Keywords: Demography, Infrastructure, Non-Tribal, Socio-Economic, Socio-personal, Tribal.

Introduction

India has been fostering rich traditional heritage of health care system which is etched in India's history that have been instrumental for improving the health and diseases of the people since time immemorial. Since ancient times, humans have been practicing indigenous medicine such as Ayurveda, Siddha, Unani, Amchi, etc. There is another branch of the age-old treatment process practiced by the rural people known as Traditional Medicine, which is not documented and it has been transmitted verbally from generation to generation.

Indigenous traditional medicines are mostly folk based as well as have magico-religious and socio-cultural aspects among the smaller groups of people. The tribal races of our country are practicing this Traditional Medicine for their day-to-day life ailments. As per available records, in India, approximately 4,57,000 people are engaged in the indigenous system of medical practice. There are number of advantages of ITK system over modern management practices, still there are lacunae in the development of this ancient traditional knowledge system. National Rural Health Mission proposed by Govt. of India suggested the inclusion of Ayush system in the health care delivery system. Health status of several communities particularly the tribes are influenced by their way of life including their social and economic conditions, living conditions, housing, nutrition & dietary habits, education, child caring practices, socio-religious believes, taboos & superstitions etc. Traditional medicines are the products of indigenous cultural development refer to those beliefs and practices relating to diseases which are not unequivocal derived from the conceptual framework of modern medicine. On the above perspectives, the present studies are carried out with the objectives to reveal the Socio-Economic, Communication & Socio-Psychological characteristics of Tribal & Non-Tribal respondents in Jalpaiguri & Hooghly district of the State West Bengal, India.

Materials and Methods

The study was conducted in purposively selected sample population taken from the Toto tribe of Jalpaiguri district and in non-tribal rural people of Hooghly district in the state of West Bengal, India. The study was categorized in two different zones like Terai Zone of Jalpaiguri (presently Alipurduar) district and Gangetic Alluvial Plain Zone of Hooghly district of West Bengal. In this study, total samples were 200 nos', in which 100 samples were randomly selected from each place. Study of folk medicinal plants in traditional management of human ailments was conducted in Totopara, Jalpaiguri and rural area of Hooghly district in the State West Bengal, India. The study covered randomly selected a total of 100 tribal and 100 non-tribal populous as key informants including locally well-known traditional healers and mid-wives in the study area. The data was accumulated with the help of fore-tested designed schedule of interview during the period from March 2013 to November 2015. All the respondents were personally interviewed. After that, those accumulated data were compiled to analyze and encapsulate the data for better interpretive study. The data was collected, compiled, tabulated and arranged for more transparency and elucidation also. In this work, the subsequent formulae were applied in the data review as Percentage Analysis, Mean \pm SEM and Chi-Square test using the standard formula and by the help of SPSS 20.0 windows software to derive conclusive study.

Results and Discussion

The Socio-personal and demographic indicators of the selected rural Tribal and Non-Tribal population in terms of percentage distribution are depicted in Table No-1 as follows: -

The observation under present study in the rural tribal village Totopara of Alipurduar District and rural non-tribal village Ausbally of Hooghly District under different age groups revealed that highest (36%) in the age group of 20-30 and only 5% are above 60 years of age group in tribal village while, lowest (05%) in the age group of 20-30, and highest (35%) are above 60 years of age group in the non-tribal village (Table-1). Chi-square test reveals that the difference among the age group in both the tribal and non-tribal villages are highly significant ($p < 0.01$). It has been observed that, majority of the people in rural tribal village were below 40 years, while the reverse result i.e., majority of the rural non-tribal people under the present study were above the age group of 50 year. This finding is in the line with the result of *Sripal (1983)*, while the contrast result found by *Thiagarajan (1989)*, *Manjula (1991)*, *Jamatia (1999)*, *Ramu (1997)* and *Marimuthu (2001)*, though they had done their work in different places. *Bhargava (2003)* concluded that high percentage of age group belongs to old age group and *Dhar Gupta (2008)* found that the number of children in the family were minimum in Totopara.

The respondents in the tribal village have different Gender revealed that 71% are Male and 29% are Female, while in case of non-tribal village 59% were Male and 41% were Female (Table -1). Chi-square test revealed that difference among the Gender in both the tribal and non-tribal village are non-significant ($p>0.01$). It has been observed that, majority of people in both the rural tribal and non-tribal people were Male which is similar of *Marimuthu (2001)* supported by *Rawat (2007)*, though they had done their work in different places.

The present study under different Religion revealed that 59% are Hindu, 5% are of Christian in the tribal village, while 82% are Hindu, 18% are Muslim in the non-tribal village (Table - 1). Chi-square test revealed that difference among the Religion in both the tribal and non-tribal village are highly significant ($p<0.01$). It has been detected that, most of people in both the rural tribal and non-tribal people were Hindu. *Mahapatra (1997)* observed that Christianized tribal people have given facilities for education, health and co-operative services, so that they become healthier, more educated and economically more prosperous than others, though he had done his work in different place. *Dhar Gupta (2008)* from her data found that few Christian Toto respondents were studying in primary school, middle school and high school accordingly.

The respondents in the tribal village have different Caste revealed that 100% are “Schedule Tribe” (ST), while in the non-tribal village 31% are General, 18%, 51% are “Schedule Caste” (SC) and None are “Schedule Tribe” (ST) (Table. 1). Chi-square test is not applicable in rural tribal group since they all (100%) comes under Schedule Tribe (ST). However, Chi-square test revealed that the Caste in non-tribal village is highly significant ($p<0.01$). It has been noted that, maximum number of people in both rural tribal and non-tribal people were Schedule Tribe (ST), while majority of the rural non-tribal people were Schedule Caste (SC). This finding is in contrast with *Masudkar (2014)* though he had done his work in different place.

The respondents in the tribal village have different Educational Level revealed that majority (30%) are Non-literate, and only, 4% can read & write only, while, in the non-tribal village majority(56%) are also Non-literate and 1% can read only followed by No one is Graduate & above (Table. 1). Chi-square test reveals that the difference among the Educational Level in both the tribal and non-tribal villages are highly significant ($p<0.01$). It has been revealed that, most of people in both the rural tribal and non-tribal people were non-literate. This findings is in accordance with *Ratnakar (1990)*, *Manjula (1991)*, *Sraswati (1993)*, *Rao (1996)*, *Ramu (1997)*, *Jamatia (1999)*, *Selvarani (2000)*, *Marimuthu (2001)* and *Deshmukh et.al. (2011)* and *Bhoite et.al. (1984)* observed that most of farmers under tribes had level of education up to standard 7th, though they had done their work in different place. *Joung et. al. (1995)* observed the positive relation between education and health and *Nagda (2004)* also stated that the literacy among the tribal of Rajasthan was extremely low which affect the health status. *Dhar Gupta (2008)* observed that literacy is directly related to economic condition and health.

The respondents in the tribal village have different Occupation revealed that highest category(64%) are Labour, and only 3% are working as Local Healer while, in the non-tribal village 40% are Labour, 38% and None are in the Occupation of Local Healer (Table. 1). Chi-square test reveals that the difference among the Occupation in both tribal and non-tribal villages are highly significant ($p<0.01$). It has been revealed that, maximum people in both rural tribal and non-tribal people were Labour, which was in accordance with findings of *Marimuthu (2001)* though he had done his work in different place. *Dhar Gupta (2008)* who has noted that, most of people in both the rural tribal and non-tribal people with occupation are as Labourer while *Sraswati (1993)*, *Jeyamissie (1999)*, *Pandey (1999)* and *Selvarani (2000)* found agricultural farmers were high in ratio. Most of the researchers have found maximum numbers of Toto respondents were involved in labour and that may be for their atmosphere and zone. In this study, it is observed that the Toto's were staying in hilly areas of Alipurduar district near Bhutan border and cultivation was slight difficult over there but still there were few people were involved in this and maximum Toto females were working as a porter in the functional area.

The respondents in tribal village have different Marital status revealed that 97% are Married, while 2% Unmarried, but only 1% were Divorcee. In the case of village of non-tribal, majority of the people were married (75%) and only 1% are widower (Table - 1).

Chi-square test reveals that the difference among the Marital status in both tribal and non-tribal villages are highly significant ($p<0.01$). It has been found that, most of people in both rural tribal and non-tribal people were married, which is in accordance with the findings of *Marimuthu (2001)* and *Masudkar (2014)* though they had done work in different place.

The respondents in tribal village have different Family type revealed that 86% are Nuclear Family and 14% are Joint Family, while in non-tribal village 95% are Nuclear Family and 41% are Joint Family (Table. 1). Chi-square test revealed that difference among the Family type in both tribal and non-tribal village are highly significant ($p < 0.01$). It has been detected that, most of people in both rural tribal and rural non-tribal people were Nuclear Family which is in accordance with *Samanta et. al. (1985)*, *Ratnakar (1990)*, *Ramu (1997)* and *Jeyamissie (1999)* while *Manjula (1991)* *Marimuthu (2001)*, though they had done their work in different place and *Dhar Gupta (2008)* observed that the Toto tribe liked to stay as a joint family that may be for lack of population or for low income, which is reversely found in this study.

The respondents in tribal village have different Family size revealed that 82% are up to 5 and 18% are More than 5, while in the non-tribal village 67% are up to 5 and 33% are More than 5 (Table. 1). Chi-square test revealed that difference among the Family Size in both tribal and non-tribal village are highly significant ($p < 0.01$). It has been noted that, most of people in both rural tribal and non-tribal people were up to 5 which is in accordance with the out-come of *Jamatia (1999)* and *Marimuthu (2001)* though they had done their work in different place and *Dhar Gupta (2008)* observed that the effective family size was minimum. They find that, the main problem in Toto tribe is diminishing due to lack of population.

The respondents in tribal village have different Family income per month revealed that 76% are up to Rs.5000/-, and only 1% are Rs.10,001 -15,000/- while in non-tribal village 42% are up to Rs.5000/-, and only 11% are Rs.15001/- & above (Table - 1). Chi-square test reveals that the difference among the Family income per month in both tribal and non-tribal villages are highly significant ($p < 0.01$). It has been noted that, maximum people in both rural tribes and non-tribal people were earning Rs.5000/- Family income/month which is in accordance with *Marimuthu (2001)* and *Masudkar (2010)* and *Liao et. al. (2004)* found that education level and household income was subsequently lower among minority community.

The respondents in tribal village have different economy revealed that 21% are House Type, 16% are Land Holding, 32% are Material Possession, 15% are Farm Power and 16% are having Milch cattle while, in the non-tribal village 22% are House Type, 7% are Land Holding, 52% are Material Possession, 10% are Farm Power and 9% are having Milch cattle (Table. 1). Chi-square test reveals that the difference among the Total Economy in both the tribal and non-tribal villages are highly significant ($p < 0.01$). It has been detected that, most of people in both the rural tribes and the rural non-tribal people were Material Possession which are in accordance with *Marimuthu (2001)*. *Moitra et. al. (1991)* found that agriculture and forest products were the principal sources of income among the tribal population and *Rawat (2007)* revealed that respondent's category of low socio-economic status may be done to small-scale size of lands holding, monoculture system & low rainfall farming and based on low productivity though they had done their work in different places.

The respondents in tribal village have different House Type revealed that majority (74%) are having Mixed House and only 7% are possessing Pucca House while, in the non-tribal village 75% are having Kutcha House, and only 9% are having Mixed House (Table. 1). Chi-square test reveals that the difference among the House Type in both tribal and non-tribal villages are highly significant ($p < 0.01$). It has been observed that, majority of the people are living in rural tribal village were Mixed House which is in accordance with *Dhar Gupta (2008)*, while the reverse result i.e. majority of the rural non-tribal people were living in Kutcha House.

The respondents in tribal village have different Land Holding revealed that majority (55%) have up to 1 acre land and only 3% have No Land, while in non-tribal village 74% have No Land and none have more than 2 acres (Table. 1). Chi-square test reveals that the difference among the Land Holding in both tribal and non-tribal villages are highly significant ($p < 0.01$). It has been observed that, majority of the people are having Land up to 1 acre in rural tribal village, while the reverse result i.e. majority of the rural non-tribal people under the present study are having No Land, which is in accordance with *Marimuthu (2001)*. *Rodgers et. al. (1989)* showed relationship with the landless and highest land-owning groups live higher in rural areas.

The respondents in tribal village have different Material possession revealed that, majority (27%) have 4 no's and only 2% have no materials while in non-tribal village, majority (25%) have 5 no's of materials and none have 0 materials (Table. 1). Chi-square test reveals that the difference among the Material possession in both tribal and non-tribal villages are highly significant ($p < 0.01$). It has been observed that, majority of the people are having Material possession of 4 in rural tribal village, while the reverse result i.e., majority of the rural non-tribal people

were having Material possession of 2 which is in accordance with *Marimuthu (2001) and Maiti et. al. (2005)* shows that non-tribal were better than the tribal in terms of standard of living and contrast with the results of *Sripal (1983)*, though they had done their work in different places.

The respondents in tribal village have different Farm Power revealed that majority (43%) have 2-4 drought animals and only 5% have More than 4 drought animals, while in non-tribal village majority(62%) have No drought animal, and None have More than 4 drought animals (Table. 1). Chi-square test reveals that the difference among the Farm Power in both tribal and non-tribal villages are highly significant ($p < 0.01$). It has been observed that, in rural tribal village, majority of the people were having Farm Power of 2-4 drought animals, while reverse result i.e., majority of the rural non-tribal people are having Farm Power of No drought animals, which is in accordance with *Marimuthu (2001) and Masudkar (2014)*.

The respondents in tribal village have different Milch cattle revealed that majority (43%) have 2-4 animals and only 3% have More than 4 animals in tribal village, while in non-tribal village majority(51%) have No drought animal and 1% have More than 4 drought animals (Table. 1). Chi-square test reveals that the difference among the Milch cattle in both tribal and non-tribal villages are highly significant ($p < 0.01$). It has been observed that, majority of the people were having 2-4 animals in rural tribal village, while reverse result i.e., majority of the rural non-tribal people under the present study were having No animal.

The respondents in tribal village have different total Livestock revealed that majority (46%) have Poultry animals and only 16% have Small animals, while in non-tribal village majority (59%) have Poultry animals and only 20% have Small animals (Table. 1). Chi-square test reveals that the difference among the total Livestock in both tribal and non-tribal villages are non-significant ($p > 0.01$). It has been observed that, majority of people in both rural tribal and non-tribal people were having Poultry animals. *Thiagarajan (1989) and Marimuthu (2001)* found majority of the tribal respondents had low level livestock possession, though they had done their work in different places.

The respondents in tribal village have different Live Stock Holding of Large Animals revealed that 27% have 2 animals and None have 1 animal, while in non-tribal village 40% have no animal and none have 5 to 14 animals categories (Table.1). Chi-square test reveals that the difference among the Live Stock Holding: Large Animals in both the tribal and non-tribal villages are highly significant ($p < 0.01$). It has been observed that, majority of the people were holding 2 Large Animals in rural tribal village, while reverse result i.e., majority of the rural non-tribal people were holding no large Animal.

The respondents in tribal village have different Live Stock Holding of Small Animals revealed that 21% have 2 animals and only 1% have 9 animals while in non-tribal village 79% have No animal, and None have 6 to 10 and more categories (Table. 1). Chi-square test reveals that the difference among the Live Stock Holding of Small Animals in both tribal and non-tribal villages are highly significant ($p < 0.01$). It has been observed that, majority of the people were holding 2 Small Animals in rural tribal village, while reverse result i.e. majority of the rural non-tribal people were holding no small Animal. *Dhara et al., (2016)* observed that women were engaged in small animal farming for upliftment of their socio-economic status, though they had done their work in different places.

The respondents in tribal village have different Live Stock Holding of Poultry Animals revealed that 18% have No animal, and only 1% have 3 animals, & 9 animals, while in the non-tribal village 73% have No animal and none have 1 to 9 animals (Table. 1). Chi-square test reveals that difference among the Live Stock Holding: Poultry Animals in both tribal and non-tribal villages are highly significant ($p < 0.01$). It has been observed that, majority of the people are holding 10 and more Poultry Animals in rural tribal village, while the reverse result i.e., majority of the rural non-tribal people are holding no Poultry Animal.

From the above observation of the study in rural tribal village Totopara of Jalpaiguri District and non-tribal village Aushbally of Hooghly District in various socio-personal characteristics, Chi-square test revealed that, the difference among age group, types of religion, caste, categories, level of education, occupation types, status of marital conditions, types of family, sizes of family and income of family per month in both tribal and non-tribal villages are highly significant ($p < 0.01$) while in case of gender, it is non-significant ($p > 0.01$) and in various socio-economic characteristics, Chi-square test have revealed that the difference among the Total Economy, House Types, Land Holding, Material possession, Farm Power, Milch Cattle, Total Livestock, No. of Large animals, Small animals and Poultry birds in both tribal and non-tribal villages are highly significant ($p < 0.01$).

Table 1: Characteristics of Socio-personal and demographic indicators of the selected rural Tribal and Non-Tribal population in terms of percentage distribution

Characters	Category	Tribal (N=100)		Non-Tribal (N=100)		Overall		Chi-square Value
		F	%	F	%	F	%	
Age (in Years)	20-30	36	36	5	5	41	20.5	6.900**
	31-40	26	26	9	9	35	17.5	
	41-50	20	20	11	11	31	15.5	
	51-60	13	13	40	40	53	26.5	
	60+	5	5	35	35	40	20	
Gender	Male	71	71	59	59	130	65	18.000**
	Female	29	29	41	41	70	35	
Religion	Hindu	95	95	82	82	177	88.5	275.170**
	Muslim	-	-	18	18	18	9	
	Christian	5	5	-	-	5	2.5	
	Others	-	-	-	-	-	-	
Caste	General	-	-	31	31	31	15.5	77.720**
	OBC	-	-	18	18	18	9	
	SC	-	-	51	51	51	25.5	
	ST	100	100	-	-	100	50	
Education level	Non-literate	30	30	56	56	86	43	162.530**
	Can read only	22	22	1	1	23	11.5	
	Can read & write only	4	4	3	3	7	3.5	
	Primary	12	12	31	31	43	41.5	
	Middle	11	11	3	3	14	7	
	High School	14	14	6	6	20	10	
	Graduate & above	7	7	0	0	7	3.5	
Occupation	Labour	64	64	40	40	104	52	202.540**
	Caste Occupation	-	-	38	38	38	19	
	Business	8	8	6	6	14	7	
	Cultivation	19	19	9	9	28	14	
	Service	6	6	7	7	13	12.5	
	Local Healer	3	3	-	-	3	1.5	
Marital status	Married	97	97	75	75	172	86	548.850**
	Unmarried	2	2	4	4	6	3	
	Widow	-	-	18	18	18	9	
	Divorced	1	1	2	2	3	1.5	
	Widower	-	-	1	1	1	.5	
Family type	Nuclear family	86	86	95	95			131.220**
	Joint family	14	14	5	5	19		
Family Size	Up to 5	82	82	67	67	149	74.5	48.020**
	More than 5	18	18	33	33	51	25.5	
Family income/month	Up to Rs.5000/-	76	76	42	42	118	59	148.000**
	Rs.5001-10000/-	20	20	36	36	56	28	
	Rs.10001- 15000/-	1	1	11	11	12	6	
	Rs. 15001/- &Above	3	3	11	11	14	7	
House Type	Kutch House	19	19	75	75	94	47	43.810**
	Mixed House	74	74	9	9	83	41.5	
	Pucca House	7	7	16	16	23	11.5	
Land	No Land	3	3	74	74	77	38.5	62.200**

Holding	Up to 1 acre	55	55	11	11	66	33	
	1-2 acre	38	38	15	15	53	26.5	
	2> acre	4	4	-	-	4	2	
Material Possession	0	2	2	-	-	2	1	61.780**
	1	20	20	-	-	20	10	
	2	18	18	40	40	58	29	
	3	25	25	12	12	37	18.5	
	4	27	27	23	23	50	25	
	5	8	8	25	25	33	16.5	
Farm Power	No drought animal	18	18	62	62	80	40	64.360**
	1 drought animal	34	34	14	14	48	24	
	2-4 drought animals	43	43	24	24	67	33.5	
	More than 4 drought animals	5	5	-	-	5	2.5	
Milch cattle	No animal	22	22	51	51	73	36.5	64.440**
	1 MA	32	32	42	42	74	37	
	2-4 MA	43	43	6	6	49	24.5	
	More than 4 MA	3	3	1	1	4	2	
Total Livestock	No of Large animals	350	28	119	21	469	26	323.320**
	No of Small animals	324	26	110	20	434	24	
	No of Poultry animals	580	46	323	59	903	50	

Rural Tribal (N=100), Rural Non-Tribal (N=100) ** $p < 0.01$ * $P < 0.05$

The Infrastructural Demography as House & Living Conditions of selected rural tribal and non-tribal populations is discussed in Table No.-2 as follows:

The respondents in present study under different materials used for wall of the house or hut revealed that 11% are made up of bricks and 89% are made up of other materials in rural tribal village, while 22% are made up of bricks and 78% are made up of mud in non-tribal village respectively (Table 2). Chi-square test revealed that difference among the materials used for wall of the house or hut in both tribal and non-tribal village are highly significant ($p < 0.01$). It has been observed that, majority of the people are used either Mud or Bricks in rural non-tribal village, while reverse result i.e., majority of the rural tribal people are used other materials i.e. Bamboos, Thatches & Jungle woods for their wall of the House.

The respondents in non-tribal village have different materials used for roof of the house or hut revealed that 16% are made up of concrete, 55% are tiles, 17% are straw and 12% are other materials whereas in rural tribal village 100% roofs of the houses or huts are made up with other material (Table 2). Chi-square test revealed that difference among the materials used for the roofs of the house or hut in both tribal and non-tribal village are highly significant ($p < 0.01$). It has been observed that, majority of the people are used Tiles, Straws or Concrete in rural non-tribal village, while reverse result i.e. total rural tribal people is non-significantly ($p > 0.01$) used other materials i.e. Bamboos, Thatches & Jungle grasses for their roof of the House. The respondents in tribal village have different materials used for floor of the house or hut revealed that 37% are cemented, 10% are mud and 53% are made up of other materials, while in non-tribal village 22% are cemented and 78% are mud (Table 2). Chi-square test revealed that difference among the materials used in the floor of the house or hut in both tribal and non-tribal village are highly significant ($p < 0.01$). It has been observed that, majority of the people are used Mud or Cemented floor in rural non-tribal village, while reverse result i.e., majority of the rural tribal people are used other materials i.e., Bamboos & Jungle woods for their floor of the House.

The respondents in tribal village have different number of rooms in the house or hut revealed that majority (36%) of two rooms and only 3% of five rooms, while in rural non-tribal village majority (33%) of three rooms and only 8% of one room, (Table 2). Chi-square test revealed that difference among the numbers of the rooms in the house or hut

in both tribal and non-tribal village are highly significant ($p < 0.01$). It has been observed that, majority of the people in rural non-tribal village have 3 rooms, while reverse result i.e. majority of the rural tribal people have only 2 rooms in the study. The respondents in tribal village have different ventilation system of the house revealed that 36% are well and 16% are poorly ventilated, while in non-tribal village 84% are well and 16% are poorly ventilated (Table 2). Chi-square test revealed that differences among the ventilation system in both tribal and non-tribal village are highly significant ($p < 0.01$). It has been observed that, majority of the people stays well-ventilated house in rural non-tribal village, while reverse result i.e., majority of the rural tribal people are stays in poorly ventilated condition.

The respondents in tribal village have different position of the kitchen in the house revealed that 14% are inside the room and 86% are separated, while in the non-tribal village 49% are inside the room and 51% are separated (Table 2). Chi-square test revealed that majority of the people in both position of kitchen, non-tribal people is non-significant ($p > 0.01$). It has been observed that, majority of the people in the rural tribal were highly significant ($p < 0.01$) and have separate kitchen. The respondents in tribal village have different presence of chimney in the kitchen revealed that 43% are having and 57% does not having, while in the non-tribal village 8% are having and 92% doesn't (Table 2). Chi-square test revealed that majority of the people in non-tribal people has no Chimney, that is highly significant ($p < 0.01$) while people of the rural tribal people find both present & absent of Chimney in the kitchen, which is non-significant ($p > 0.01$).

The respondents in rural non-tribal village have different types of fuel used revealed that 26% uses LPG, 20% uses Kerosene and 54% uses wood for fuel, while 100% rural tribal uses jungle wood (Table 2). Chi-square test revealed that majority of the people among rural non-tribal people used several types of Fuel regularly, that is highly significant ($p < 0.01$) while entire tribal people uses wood, which is non-significant ($p > 0.01$). The observation in the rural non-tribal village under different drainage system revealed that 83% is open pit and 17% hasn't any drainage system, while in the rural tribal village there is no drainage system at all (Table 2). Chi-square test revealed that, majority of the non-tribal people has open pit drainage system, that is highly significant ($p < 0.01$) while, entire rural tribe has non-significantly ($p > 0.01$) used open pit drainage system.

The respondents in tribal village have different source of drinking water revealed that 100% drink spring water, while entire rural non-tribal drink tube-well water only (Table 2). Chi-square test reveals that, the differences among the source of drinking water in both non-tribal and tribal villages are non-significantly ($p > 0.01$) use Tube-well and spring water as their water source respectively. The observation of the average distance to drinking water source from the house or hut revealed that 2067.17 meter in the rural tribal village at Totopara of Alipurduar District, while 1101.82 meter in the rural non-tribal village at Aushbally of Hooghly District.

The respondents in tribal village have the availability of drinking water revealed that 37% is adequate and 63% is inadequate and are 100% seasonal, while in the non-tribal village is 100% perennial and adequate (Table 2). Chi-square test reveals that, all the people in the non-tribal village get perennial and all rural tribal people get seasonal availability of drinking water, that is non-significant ($p > 0.01$). Further, revealed that all the people get adequate drinking water in non-tribal people, which is non-significant ($p > 0.01$) and majority of the rural tribal people have inadequate drinking water were highly significant ($p < 0.01$). The respondents in tribal village have different types of toilet revealed that 51% are septic and 49% are composite pit, while in non-tribal village 43% are septic, 40% are service latrine and 17% use open field only (Table 2). Chi-square test revealed that majority of the non-tribal people has Septic type of toilet, that is highly significant ($p < 0.01$). It has been also observed that both Septic & Composite-pit toilet are used by the rural tribal people, which is non-significant ($p > 0.01$).

The respondents in tribal village regarding availability of electrification facility at home revealed that 13% have facility and 87% not having any facility, while 84% have electrification facility and only 16% have no electrification facility in non-tribal village (Table 2). Chi-square test reveals that, the differences of availability of electrification at his or her home in both tribal and non-tribal villages are highly significant ($p < 0.01$). It has been observed that, majority of the rural non-tribal village have Electric facility, while reverse result i.e., majority of the rural tribal people have no Electric facility in their house.

The respondents in tribal village have different domestication of farm animals or poultry birds are kept along with the house or hut or in separate place revealed that 92% have separate place and 8% have no farm animals or poultry birds, while in the rural non-tribal village 30% kept along with the house or hut, 39% are domesticated separately and 39% having no farm animals or poultry birds (Table 2). Chi-square test reveals that the different systems of

domestication of farm animals or poultry birds in both tribal and non-tribal villages are highly significant ($p < 0.01$). It has been observed that, majority of the rural non-tribal village have no domesticate animals, while reverse result i.e. majority of the rural tribal people have domestic animals which were staying along with their huts.

Table 2: Infrastructural Demography as House & Living Conditions of selected rural tribal and non-tribal populations in Jalpaiguri & Hooghly district of West Bengal.

Characters	Category	Tribal (N=100)		Non-Tribal (N=100)		Overall		Chi square Value
		F	%	F	%	F	%	
Wall of the house/hut	Bricked	11	11	22	22	33	16.5	26.410**
	Mud	-	-	78	78	78	39	
	Other materials	89	89	-	-	89	44.5	
Roof of the house/hut	Concrete	-	-	16	59	75	37.5	122.280**
	Tiles	-	-	55	41	96	48	
	Straws	-	-	17	17	17	8.5	
	Other materials	100	100	12	12	112	56	
Floor of the house/hut	Cemented	37	37	22	22	59	29.5	10.510**
	Mud	10	10	78	78	88	44	
	Others	53	53	-	-	-	26.5	
No. of Rooms	1	10	10	8	8	18	9	70.150**
	2	36	36	31	31	67	33.5	
	3	35	35	33	33	68	34	
	4	16	16	19	16	35	17.5	
	5	3	3	9	9	12	6	
Ventilation system	Well Ventilated	36	36	84	84	120	60	8.000**
	Poorly Ventilated	64	64	16	16	80	40	
Position of Kitchen	Inside the room	14	14	49	49	63	31.5	27.380**
	Separate	86	86	51	51	137	68.5	
Presence of chimney in the Kitchen	Present	43	43	8	8	51	25.5	64.980**
	Absent	57	57	92	92	149	74.5	
Types of Fuel used	LPG	-	-	26	26	26	13	171.880**
	Kerosene Oil	-	-	20	20	20	10	
	Solar Stove	-	-	-	-	-	-	
	Wood	100	100	54	54	154	77	
	Others	-	-	-	-	-	-	
Drainage system	Open pit	100	100	83	83	183	91.5	137.780**
	Covered	-	-	-	-	-	-	
	Absent	-	-	17	17	17	8.5	
Source of drinking water	Dug-well	-	-	-	-	-	-	NS
	Tube-well	-	-	100	100	100	50	
	River	-	-	-	-	-	-	
	Spring	100	100	-	-	100	50	
	Pond	-	-	-	-	-	-	
	Supply water	-	-	-	-	-	-	
	Others	-	-	-	-	-	-	
Availability of drinking water	Adequate	37	37	100	100	137	68.5	135.550**
	Inadequate	63	63	-	-	63	31.5	
Type of toilet	Septic	51	51	43	43	94	47	27.380**
	Composite-pit	49	49	-	-	49	24.5	
	Service latrine	-	-	40	40	40	20	
	Open field	-	-	17	17	17	8.5	

Characters	Category	Tribal (N=100)		Non-Tribal (N=100)		Overall		Chi square Value
		F	%	F	%	F	%	
	Others	-	-	-	-	-	-	
Electrification facility	Yes	13	13	84	84	97	48.5	62.520**
	No	87	87	16	16	103	51.5	
Domesticate/farm animal or poultry birds keeping place	Along with the house/hut	92	92	30	30	122	61	54.760**
	Separate place	-	-	31	31	31	15.5	
	No domesticate/farm animal or poultry birds	8	8	39	39	47	23.5	

Rural Tribal (N=100), Rural Non-Tribal (N=100) ** $p < 0.01$ * $P < 0.05$

Conclusion

The analytical study on Socio-Personal, Socio-Economic characteristics & Infrastructural demography revealed the difference among age group, religion, caste, education level, occupation, marital status, type, size and income of family in both tribal and non-tribal villages are highly significant ($p < 0.01$) while in case of gender, it is non-significant ($p > 0.01$) in Jalpaiguri & Hooghly district of the State West Bengal, India. In Socio-Economic and Socio-Psychological Characteristics, the findings revealed the difference among total economy, house types, land holding, material possession, farm Power, milch Cattle, total livestock, in both tribal and non-tribal villages are highly significant ($p < 0.01$). The Socio-demographical profiles in both the areas are having different level of correlation which is either positive or negative. It appeared clearly that education, family type, farm income is negatively correlated with age, ($p < 0.01$) while total income is positively correlated with education and occupation ($p < 0.01$) which is considered to be an obvious phenomenon. Person having higher land holding has more income ($p < 0.01$) as both the areas are considered to be agricultural dependent. The Housing & living condition under infrastructural demography, found that majority of the people are used to either Mud or Bricks in rural non-tribal village, while reverse result i.e., majority of the rural tribal people are using other materials i.e., Bamboos, Thatches & Jungle woods for the wall of the House while majority of the people uses Tiles, Straws or Concrete in rural non-tribal village. The analysis has revealed that, difference among the materials used for Wall, the materials used in the Floor, the numbers of the Rooms of the house or hut, the Ventilation system, separate Kitchen, Position of kitchen, presence or absence of Chimney in the kitchen, types of Fuel, Electrification and domestication of farm Animals or Poultry birds in both the tribal and non-tribal village are highly significant ($p < 0.01$). Avg. distances to drinking water source from the house or hut are far away in the rural tribal village and Seasonal availability of drinking water and septic type of toilet in rural tribal and non-tribal village are non-significant ($p > 0.01$) under present study. The study justifies the dependency of the rural Tribal and non-tribal peoples on traditional medicines, considering their socio-economic, socio-personal and demographic status in the functional area of Jalpaiguri & Hooghly district of the State West Bengal, India.

Contribution by Authors

Equal contribution

Conflict of Interests

There is no conflict of interest.

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