

## Socio-Demographic Profile Of The Selected Scheduled Tribe Adolescent Girls In Kodaikanal-Tamil Nadu

Geethanjali Santhanam and Kavitha Maheswari

Kavitha Maheswari, Assistant Professor, Department of Home Science, Government Arts College for Women, Nillakottai, Mobile: 9003857752, email: kavithasenthil05@gmail.com

### Corresponding author

Geethanjali Santhanam, Assistant Professor, Department of Home Science, Mother Teresa Women's University, Research and Extension Centre-Madurai-19, Mobile: 9788494229, email: [rsgeethanjali@gmail.com](mailto:rsgeethanjali@gmail.com)

**Background of the study:** The *Paliyars* tribes are socially backward people with different culture and the present study conducted among the ST adolescent girls in Kodaikanal region to find out the nutritional status of them. Adolescent girls are more vulnerable to nutritional deficiencies especially anemia and under nutrition. The socio demographic characteristics essential to determine the health status of adolescent girls especially tribal adolescent girls. **Objectives:** To study the socio demographic characteristics of scheduled tribe adolescent girls in Kodaikanal. **Methodology:** The structured questionnaire was used to collect the socio demographic factors **Results and Conclusion:** The results concluded that, majority of the 38% of girls belonged to high income (above Rs.14500/month) and only 16% of the adolescent girls belonged to a low-income group (Rs.3300/month). About 41% belonged to the extended nuclear family and 25% were from nuclear family system. The higher percent (51%) were from medium-sized family (5-7 members) and 19% were from the small family (2-4 members) system.

**Key words:** Socio demographic factors, scheduled tribes, adolescent girls

### Introduction

The Tribal community of Tamil Nadu classified into two geographical divisions: Eastern coastline and Western coastline. Majority of the Scheduled Tribes lives in the Western coastline. On the south, another arm of the Western Ghats stretches from the Anamalais on the border of Kerala upon the Palani hills in Dindigul district.

Dindigul district is one of the main districts in the south Indian state of Tamil Nadu. It comprises of 3 revenue divisions, 9 Taluks, and 14 Panchayat Unions. It has 4 municipal divisions such as Dindigul, Palani, Odanchathram, and Kodaikanal. Kodaikanal municipality is one of the major municipalities under Dindigul administration. It has a 14 village Panchayat and

1 town Panchayat. The tribal community found in Kodaikanal is known as *Palliyan or Paliyars*, Pullayan and Muduvan tribes. The majority of the tribal community lives in Kodaikanal is known as *Paliyars*.

They are traditionally nomadic people and lived in the hilly region of Dindigul, Madurai, Theni, Tirunelveli and Virudhunagar District. *Paliyars* are the indigenous people of Palani hills, Kodaikanal. They are found at an altitude of up to 2200m.

According to Tamil mythology, the term *Paliyan* has derived from the word Palaniyan; it means a man from Palani. It was also stated in Sangam literature. *Paliyars* people lives in the following areas of Kodaikanal region such as Thandikudi, Kaduguthadiur, Mullaiyarr, Pannaikadu, Mannavanur, Poomparai, Vilpati, Savari kadu, Komabi, Rasi malai, Kombai kadu, Kadaisi kadu, Koran Kombu, Manathevu, Kuthiraiaru anai, Pala malai, Poolur, and Valagiri.

### Materials and methods

The socio demographic data were collected from the scheduled tribe adolescent girls using a pre-tested questionnaire specially designed for the purpose. The details collected involves information on the socio-demographic background including age, education and occupational status of the parents, monthly income, type of family, size of family and facilities available in the residential area.

### Results and Discussion

The *Paliyars* tribes are socially backward people with different culture and the present study conducted among the ST adolescent girls in Kodaikanal region to find out the nutritional status of them. The socio-demographic profile of the study area was collected from the elder population, and the Government reports. The socio-demographic profile of the Kodaikanal tribal area is presented in the table-1.

**Table-1**

**Population of the study area**

<b>Population data</b>	<b>Total persons</b>	<b>Males</b>	<b>Females</b>	<b>Scheduled Caste (SC) %</b>	<b>Scheduled Tribes (ST) %</b>
Tamil Nadu	72147030	36137975	36009055	22.00	22
Dindigul	2159775	1080938	1078837	20.95	24
Kodaikanal	115250	57884	57366	10	3

**Ref: District statistical hand book-2016-17**

According to the above data, It reveals that SC and ST people compress around 22% in Tamil Nadu. 20.95% of SC and 24% of ST population present in Dindigul District. Based on the Kodaikanal data, around 10 percent were SC, and 3 percent were ST people.

**Table-2**  
**Geographical location of the study area**

S.No	Components	Details
1	Total area	18.36 ha
2	Cultivation area	14.50 ha
3	Latitude	10.20 N
4	Longitude	77.50E
5	Altitude	2300m above MSL
6	Soil type	Peaty and Lateritic
7	Ph	5.5to 6.5
8	Average rainfall	1700mm
9	Relative humidity	40-100%
10	Maximum temperature	28 <sup>0</sup> C
11	Minimum temperature	-2.5 <sup>0</sup> C
12	Forest area	9697 ha
13	Cultivable area	6495 ha
14	Uncultivable area	560 ha
15	Land and buildings	10586 ha
16	Others	51895 ha

**Ref: Horticulture Research station, Kodaikanal-2017**

The report of Horticulture Research Station, Kodaikanal (2017), reveals the geographical profile of Kodaikanal Municipality. The total area of Kodaikanal is around 18.36 hectare with 9697 hectare forest area, followed by 6495 hectare cultivable area, 560 hectare uncultivable with an altitude of 2300m above MSL. The average rainfall is 1700mm, the maximum temperature is

28°C, and the lowest temperature is -2.5°C. Over 10586 hectare lands occupied by land and buildings.

**Table-3**

**Agriculture production of the study area**

<b>S.No</b>	<b>Name of the crop</b>	<b>Area of cultivation (in hectares)</b>
<b>II</b>	<b>Fruits</b>	
1	Apple	13.38
2	Orange	1782
3	Pear	1404
4	Banana	1272
5	Plum	547
6	Lime	512
7	Pineapple	178
8	Others	5867.38
<b>II</b>	<b>Vegetables</b>	
1	Carrot	783
2	Beans	567
3	Chow-chow	284.2
4	Peas	168.2
5	Potato	2408
6	Others	118
<b>III</b>	<b>Spices</b>	
1	Cardamom	203
2	Pepper	424
3	Coffee	7178
4	Tea	21.18
5	Garlic	603

6	Cocoa	16
7	Others	8461.19

**Ref: Horticulture research station-2017**

The above data was gathered from Horticulture Research Station, Kodaikanal. The data explains major crop cultivation in Kodaikanal. Fruits, vegetables, spices are cultivated in this study area. The highest percent of orange is cultivated in around 1782 hectares. Potato is the main vegetable cultivated in about 2408 hectares. The coffee bean is grown in approximately 7178 hectares.

**Table-4**

**Basic infrastructure of the study area**

<b>S.NO</b>	<b>Details</b>	<b>Number</b>
<b>I</b>	<b>Education</b>	
1	Primary schools (Government)	36
2	Primary schools (Government aided)	15
3	Middle schools (Government)	11
4	Middle schools (Government aided)	3
5	Higher schools (Government)	6
6	Higher schools (Government aided)	2
7	Higher secondary schools (Government)	4
8	Higher secondary schools (Government aided)	4
9	Colleges (self-finance-arts)	2
10	Colleges (self finance-engineering)	1
11	Government University (Mother Teresa Women's University)	1
<b>II</b>	<b>Civil supplies</b>	
1	Full time	44
2	Part time	13
<b>III</b>	<b>Health facilities</b>	
1	Primary health centres	5
2	Sub-centres	23

3	Government hospital	1
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**Ref: Census-2011 and Department of School education-2017**

The above data was gathered from Census book and Department of School Education, Dindigul (2017). It denotes that Kodaikanal municipality consists of around 36 government primary schools, 15 Government-aided primary schools, 6 Government middle schools, 4 high schools, and 4 higher secondary schools residing in the study area. It also consist of some Government aided schools such as 2 high schools and 4 higher secondary schools running in the hilly region of Kodaikanal Municipality.

In higher education division, Kodaikanal has Government, private colleges and State Universities functioning to enrich the academic status of the study population. Two arts colleges and one engineering college are functioning in Kodaikanal as a self finance type. The state government University namely Mother Teresa Women’s University was also functioning in the study area.

According to the civil supplies data, 44 number of civil supply units run as a full time and 13 numbers act as a part-time mode. The hospital-related data revealed that the main Government general hospital is situated in Kodaikanal town. Around 23 sub-centres and 5 primary health centres running in and around Kodaikanal region.

**Scheduled tribe Adolescent girls from Kodaikanal region**

The various welfare programs on tribal development improve their living standards. The education enhances the quality of life and migration from remote areas and facilitates to access modern technologies.

Education is a fundamental criterion to enhance the Human Development Index to assess the development of the community. Accordingly, it recognizes education as the foundational capability to develop healthy life and standard living. Tribals in India are enormously backward in terms of education. The education overcomes the backwardness of the tribal community. Education is an investment not only for economic growth and also a viable medium to open and accessible mind to actively participate in their self-development. Based on the census 2011 the literacy rate of STs is 63.1 %, it is still far behind the match up the general literacy rate which is 74.04%. Again very few of this literacy percentage take up higher education. Alarmingly low, the ST enrolment in higher education is 11.02% (Pattnaik, 2018).

Adolescent girls from the tribal community are very prone to malnutrition due to their poor living environment and poverty. Ignorance of adolescent nutrition leads to severe complications such as maternal and other nutritional problems in the future. Tribal adolescent girls were selected from the various schools of Kodaikanal. They are decidedly less in number, but their school enrolment is increased on account of various Government awareness programs.

Hence the present studies focus on the nutritional status of adolescent girls of STs in Kodaikanal region. Teenage period is known as from the age group of 11-19 years.

School going adolescent population is very less in number and around 8 schools were selected for this study. The schools such as Middle schools, High schools and higher secondary schools from tribal regions of Kodaikanal were chosen for this research. Hence the details are presented in the below table 4.1.7 and figure 4.1.

Among the middle schools (4 Nos) 12 percent were from Thandikudi followed by Pambarpuram school (11%). Nine percent of the study population studying in Perumal malai and Pannaikadu middle school. Vilpati (16%) and Pannaikadu (18%) high school represent the study population. About 12 percent were from Pannaikadu Higher secondary school, and 5 percent were from Poomparai. From the table. It is clear that the majority of the respondents from middle school level followed by high school and higher secondary level.

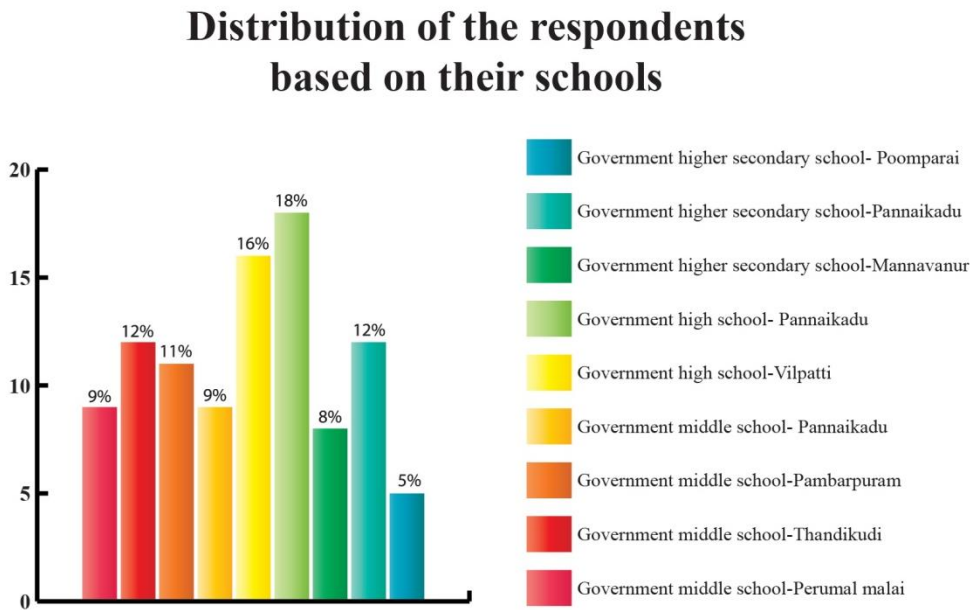
**Table-5**

**Distribution of the respondents based on their schools**

<b>Name of the school</b>	<b>Number of respondents</b>	<b>Percent (N=180)</b>
Government middle school-Perumal Malai	16	9
Government middle school-Thandikudi	21	12
Government middle school-Pambarpuram	20	11
Government middle school- Pannaikadu	17	9
Government high school-Vilpatti	28	16
Government high school- Pannaikadu	33	18
Government higher secondary school-Mannavanur	14	8
Government higher secondary school-Pannaikadu	22	12
Government higher secondary school- Poomparai	9	5
<b>Total</b>	<b>180</b>	<b>100</b>

**Figure-1**

**Distribution of the respondents based on their schools**



**Socio-economic profile of the selected respondents**

The inhabitant *Paliyars* tribes live in a narrow strip of Western Ghats constitutes in the regions of Dindigul, Theni, Madurai, Tirunelveli, and Virudhunagar hilly regions. The Western Ghats also continues to Idukki district Kerala. *Paliyars* are divided into three types nomadic, semi-nomadic and settlers.

**Table-6**

**Socio economic background of the respondents**

Socio economic factors	Categories	Number	Percent (N=180)
Age in years	12-14 years	75	42
	14-16 years	61	34
	16-18 years	44	24



<b>Educational status</b>	Middle school (6 <sup>th</sup> -8 <sup>th</sup> Standard)	91	51
	High school (9 <sup>th</sup> -10 <sup>th</sup> Standard)	84	47
	Higher secondary (10-12 <sup>th</sup> Standard)	5	3
<b>Income /month (HUDCO,2007)</b>	Lower income (less than Rs. 3300)	28	16
	Lower middle income ( Rs.3301 to 7300)	39	22
	Middle income (Rs 7301 to 14500)	43	24
	High income (Above Rs.14500)	70	38
<b>Type of family</b>	Nuclear family	46	25
	Joint family	61	34
	Extended nuclear	73	41
<b>Size of the family</b>	Small size (2-4 members)	35	19
	Medium size (5-7 members)	92	51
	Large size (above 7 members)	53	29

The nomadic community didn't build houses and lived in rocks and caves. For hunting purpose, they are migrated from one place to other places. Semi-nomadic people built small temporary houses with locally available materials. Settled *Paliyars* built permanent homes and mainly involved in forest-based works and agricultural labourers. Present days *Paliyars* are called as settlers with access to the better socio-economic background (Inacimuthu and Ayyanar, 2006).

In developing countries, socio-economic factors are often the main determinants of nutritional status and growth from childhood to adulthood, throughout adolescence. An adolescent from a high socio-economic environment will usually be taller and more substantial.

Also, height can be considered and used as an indicator of socio-economic background and health status (Garnier *et al.*, 2003). The socioeconomic status is a dominant role in determining the health status of every individual. The socio-economic conditions, Parents educational and occupational conditions are dominant determiners of children health status. The information such as age, type of house, common facilities, type of family, size of family, family monthly income was studied. Hence the information pertaining to the general profile of the respondents were calculated and presented in the table and figure 2

### **Age**

From the above table, results revealed the socio-demographic profile of the study population. Scheduled Tribal adolescent girls from the age group of 12-19 years were selected for this study. According to the age of the respondents, the highest percentages (42%) were from 12-14 years age group, followed by 34% from 14-16 years age group. The rest of them were from the age group of 16-18 years.

### **Educational status**

From the table, the result shows that half of the selected respondents (51%) were studying middle school. Forty-seven percent were studying in high school, and rest of them are only studying in more upper secondary school.

### **Income**

Based on the HUDCO classification (2007), the monthly income level of the respondents revealed that the 38 percent of the girls belonged to high income (above Rs.14500), followed by 24 percent of the families with an income of Rs. Rs 7301 to 14500 (middle income). Nearly 22 percent of the adolescent girls belonged to the family having a monthly income of Rs. Rs.3301 to 7300 (lower middle income) and only 16 percent of the subjects belonged to the families having an income less than Rs. 3300 (low income) per month.

### **Type of family**

Type of family results denoted that 41% were belonged to the extended nuclear family, followed by 34% from the joint family and the rest of them were from the nuclear family system.

### **Size of the family**

The above table shows the number of members in the family, the higher percent (51%) were from medium-sized family (5-7 members), 29% were from a large family (above 7 members) and remaining from the small family (2-4 members) system.

Joshi *et al* (2014) conducted a study among adolescent girls at Bhopal. The results concluded that 61% of the teenage girls from poor socio-economic background suffered from under nutrition. There was a significant association between the nutritional status of adolescent

girls and socioeconomic status. De (2017) conducted a study to find out the relationship between socioeconomic status and nutritional condition. The study results highlighted that 69 girls suffered from CED I under nutrition, 37 girls suffered from CED III and 33 girls affected by CED II. The income of the study population strongly associated with nutritional status of the adolescent girls.

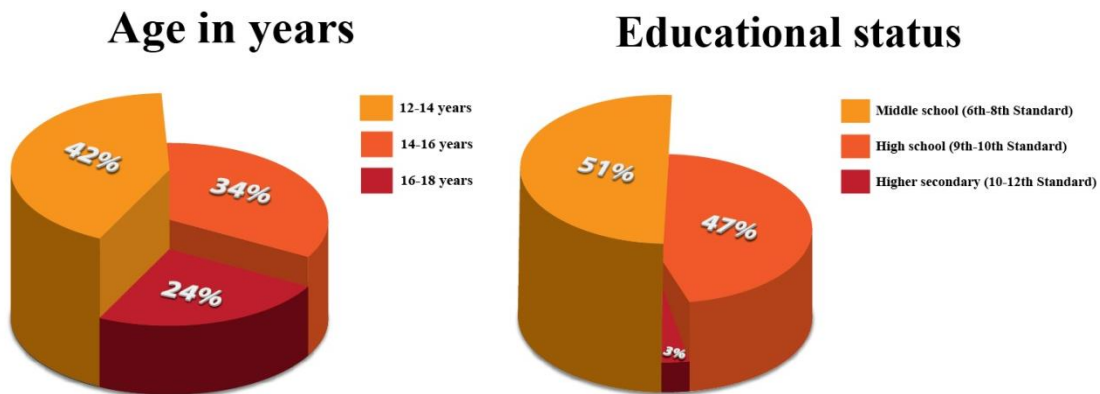
The under nutrition is highly prevalent among people from the low socioeconomic background. The poor socioeconomic background affects living standard and nutrient intake.

The socio-economic conditions like the agricultural pattern and occupation profile differed among the tribal community. The tribal populations are at risk of under nutrition because of their dependence on primitive agricultural practices and uncertainty of food supply situation (NNMB, 2003).

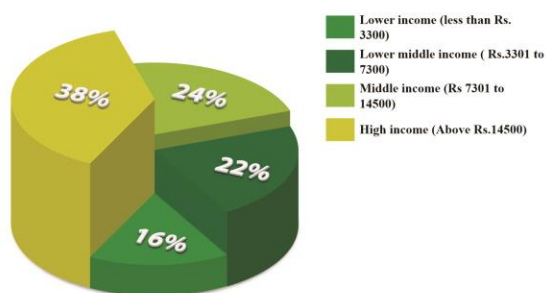
Nanda and Dhar (2017) conducted a study, which revealed that the nutritional status of adolescent girls is different from younger children and older adults. In the tribal population, they are more neglected in comparison to boys because of limited resources and health care facilities. The widespread problem of poverty, illiteracy, malnutrition, the absence of a sanitary living condition, ignorance of the cause of disease still are the contributing factors for the deplorable situation prevailing amongst the adolescent girls of the tribal group.

**Figure-2**

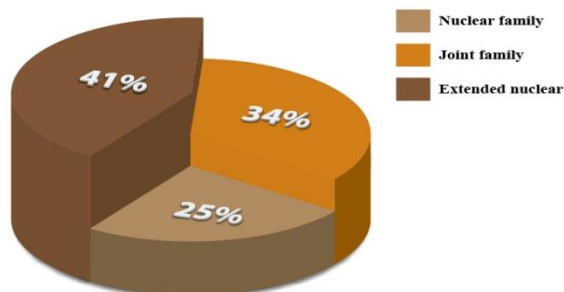
**Socio demographic profile of the respondents**



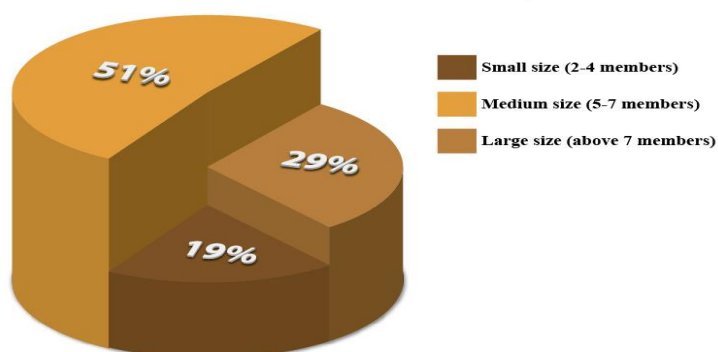
### Income /month



### Type of family



### Size of the family



The 42 % of the respondents belonged to 12-14 years, about 51% studying in middle schools, around 38% from the family income of Rs. 14500 per month, 41% belonged to extended nuclear family type, 51% from medium sized family with 5-7 members.

### Socio-demographic profile of the respondents

Among the middle schools, 12% of the respondents were from Thandikudi followed by Pambarpura school (11%). Nine percent of the study population were studying in Perumal Malai and Pannaikadu middle school. Vilpati (16%) and Pannaikadu (18%) high school also represent the study population. About 12% were from Pannaikadu Higher secondary school, and 5% were from Poomparai. The highest (42%) number of respondents were from 12-14 years of age group followed by other groups. About half of the selected respondents (51%) were studying in middle school and 47% were studying in high school. The 38% of girls belonged to high income (above Rs.14500/month) and only 16% of the adolescent girls belonged to a low-income group (Rs.3300/month). About 41% belonged to the extended nuclear family and 25% were from nuclear family system. The higher percent (51%) were from medium-sized family (5-7 members) and 19% were from the small family (2-4 members) system. Majority (59% of fathers

and 62% of mothers) of parents of adolescent girls completed only primary education. Only a few percentage of parents had a higher secondary level education. The socio demographic characteristics could be a primary factor to determine the nutritional status of the scheduled tribe adolescent community.

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