Irular Tribe of Tamil Nadu: An Anthropo-Nutritional Status Evaluation

[1]AJEET JAISWAL[†] & [2]J RAJAN[‡]

[1]*Department of Epidemiology and Public Health, Central University of Tamil Nadu, Tamil Nadu, India.*
[2]*Department of Anthropology, Pondicherry University, Pondicherry-605014, India.*
E-mail: rajan.sj007@gmail.com

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ABSTRACT: Malnutrition among children and women has serious long-term consequences in our India especially the deprived section of the people. In this case, tribal are the most vulnerable section of people compared with other population. According to NFHS IV report (2015-16), the percentage of under the weight of STs is 42 Percent The prevalence of underweight is almost one and half times higher in tribal children than other population tribal children continue to be the most malnourished. Stunting among children and low BMI among adults in tribal people is more than among the non-tribal population. Due to this concern researcher made to study the anthropo-nutritional status among the Irular tribe of Villupuram District of Tamil Nadu. A community-based cross-sectional study was undertaken to assess the anthropo-nutritional status of children below 5 years and their mother of Irular Tribe by using inexpensive anthropometry method. Such as Weight for age, height for age and weight for height, BMI & Waist hip ratio for an adult was calculated by using WHO growth standards. The prevalence of underweight (weight for age), stunting (Height for Age) and wasting (Weight for Height) in the study population is 58.43 Percent 64.04 Percent and 51.69 Percent respectively. The proportion of moderate and severely underweight, stunting and wasting were highest in the age group of 36-59 months. Malnutrition is a major public health problem among children and women especially in the most vulnerable segment of people.

INTRODUCTION

Man needs a wide range of nutrients to lead a healthy and active life and these are derived through the diet they consume daily. Good nutrition is a basic component of health. Malnutrition among children and women has serious long-term consequences in our India especially deprived section of the people According to FAO (2017), 155million children under five years of age across the world suffer from stunted growth, wasting affected 51.7million and 41 million were considered overweight in the children under five worldwide. The prevalence of stunting is currently highest in Africa continent where as in Southern Asia and Oceania where more than 30 percent of under-five children are too short for their age. The vast majority of stunted and wasted children live in Asia

[†] Associate Professor
[‡] Research Scholar (Corresponding author)

and South Eastern Asia. According to the Report of Abhay Bang committee (2018), the percentage of STs Children underweight 42 percent as per the NFHS IV (2015-16) compared to other population tribal children continue to be the most malnourished.

Anthropo-Nutritional status refers to the health of an individual as it is affected by the intake and utilization of nutrients. Nutritional health can be described at several levels. Normal nutrition implies a sufficiency of nutrients and energy intake, neither deficiency nor excess, that affords the highest level of well-being. The prevalence of underweight is almost one and a half times in tribal children than in the other castes. Stunting among children and low BMI among adults in tribal people is more than among the non-tribal population and is unacceptably high (Ghosh, 2020; Jaiswal, 2011, 2012) using the data on women from National Family Health Survey 3 and 4 in which they found that overweight and obesity among the women has been increasing past 10 years quite sharply. The percentage of overweight increased from 9.7 percentages NFHS-3 to 15.4 percentages in NFHS-4. In this case, tribal are the most vulnerable section of people compared with other population. Basu ('93) and Jaiswal (2011, 2013) addressed on some of the major health issues of the tribe in India through a thematic collection of various research papers in that author says health status of tribal population is very poor in India.

Dash (2013) and Jaiswal, (2015), reveals that education and health are the important indexes for the economic developments in any community. Education plays a significant role in every human being specifically for the marginalize people whom they have fallen victims the exploitation from the middleman on account of their illiteracy and ignorance. As compared to the other populations, STs are the most vulnerable group, though the government of India provide a numerous of the developmental programme. For the upliftment of their life from the basic grass root levels, still now most of the health and educational service have inaccessible in their area Sinu (2013). According to him, Irular has the one among the largest scheduled tribe of Tamil Nadu. The author article result shows the major significance factor indicating their poor socio-economic and occupational living condition and backwardness of the Irular tribe with this concern researcher made to study the Anthropo-Nutritional status among the Irular tribe of Villupuram District of Tamil Nadu especially among women and child.

MATERIALS AND METHOD

The study was conducted in the three-selected blocks. i.e. Marakkanam, Vanur, Tindivanam in the Villupuram District of Tamil Nadu. The data was collected among the Irular tribe of under five-year children and their mother who inhabit in the three-selected blocks. Data were collected by using two segments of Interview Schedules. One was a semi-structure interview scheduled and another one-standardized interview scheduled. Part I consist of Socio-Economic condition, like age of the respondents, family size, family type, occupation of the respondents, toilet facility, bathroom facility and types of house Part II consists of Assessment of nutritional status of respondents like Anthropometric measurements, height, weight, waist and Hip. Anthropometric measurements are the most important part of the assessment of the nutritional status of individual or group of people which is being universally applicable. Inexpensive, and non-invasive for assessing, under and over nutrition of the individuals or groups. All the measurement has been done by WHO guidelines. The total sample size is 198 in which half of under five-year children and their mother; some of the secondary data is collected through various official reports. The objective of the study is, to assess the Socio-Economic conditions of Irular tribe. Another one is, to Asses the Nutritional status of women and children among the Irular tribe in Villupuram District of Tamil Nadu

STATISTICAL ANALYSIS

Data was entered in MS Excel and analyzed using the SPSS software v18. The z scores for the different nutritional indices –weight for age, height for age, weight for height BMI & Waist Hip Ratio were calculated by using WHO Anthropo Software.

RESULTS

Socio-Economic Profile

TABLE 1

Socio- Economic Profile of the Respondents

Socio-Economic Particulars	Variables	(N=89)	%
Type of House	Kucha	55	61.8
	Semi Pucca	30	33.7
	Pucca	4	4.5
Type of Family	Nuclear	83	93.3
	Extended	6	6.7
Size of Family	1 to 2	2	2.2
	3 to 4	71	79.8
	5 to 6	16	18
Literacy Rate of the Respondents	Illiterate	52	58.4
	Primary School	8	9.0
	Middle School	5	5.6
	High School	5	5.6
	Higher Sec School	9	10.1
	UG	3	3.4
	PG	2	2.2
	Diploma	1	1.1
Bathing Facility	Open Bathing	17	19.1
	Thatched Rice Bag	44	49.4
	Bricks Hollow Block	1	1.1
	Attached Bathroom	27	30.3
Toilet Facility	Open Defecation	68	76.4
	Separate Toilet	21	23.6
Drinking Water	Individual Tap	3	3.4
	Common Tap	86	96.6
Electricity	Present	84	94.4
	Absent	5	5.6
Income of the Family	Rs.3000-3999	4	4.5
	Rs.4000-4999	11	12.4
	Rs.5000-5999	21	23.6
	Rs.6000-6999	53	59.6
Occupational Status of the Respondents	Agriculture Labour	4	4.5
	Unemployed	1	1.1
	House Wife	81	91.0
	Home Maid	2	2.2
	Coolie	1	1.1

From Table 1 it is observed that majority of the respondent houses (61.8 Percent) are belongs to kacha type, in that (68.2 percent) houses have constructed in porampokku land and (31.8 percent) houses have constructed in government allotted land. Majority of the respondents (54.2 percent) are belongs to age group of 20 – 29 years. 93.3 percent of the respondents belong to nuclear family so nuclear family was more prevalent among the study area. 79.8 percent of the family consists of had 3 to 4 members and 18 percent of the family had 5 to 6 members. The literacy rates of the respondents are 41.6 are literate, 58.4 percent were found to be illiterate. 19.1 percent of the houses do not have bathing facility, where as 80.8 percent of the houses have bathing facility which have been made thatched with rice bag, 49.4 percent of the houses have been constructed, by bricks hollow block and 1.1 percent of the houses have been constructed with attached bathroom facility. 76.4 percent of the respondent households does not have toilet facility, 23.6 percent of the respondent's households have separate toilet facility in their home. 96.6 percent of the houses are depended upon the common tap water and 3.4 percent of the houses have using individual tap for drinking water. 94.4 percent of the houses have electricity facility and 5.6 percent

of the houses do not have electricity facility. Majority of 56.9 percent of the houses were earned Rs. 6000-6999, 50 (91.0 percent) of the respondents were housewife whereas 4 (4.5 percent) of the respondents were agricultural laborer,

Nutritional Status of Women and Children

TABLE 2
Distribution of Respondents Of 0-60 Month's Children according To Their Nutritional Status by SD Classification

Age Group (Months)	Number	Underweight (Weight for Age) (≥Median-2SD)	(<Median-3SDto ≥Median-2SD)	(<Median-3SD)
>12	14 (15.73)	4 (4.49)	3 (3.37)	7 (7.87)
12-35	20 (22.47)	9 (10.11)	8 (8.99)	3 (3.37)
36-60	55 (61.80)	24 (26.97)	20 (22.47)	11 (12.36)
×2= 6.659;p<0.155				
Stunting (Height for Age)				
>12	14 (15.73)	8 (8.99)	1(1.12)	5 (5.62)
12-35	20 (22.47)	11 (12.36)	0	9 (10.11)
36-60	55 (61.80)	13 (14.61)	36 (40.45)	6 (6.74)
×2=15.18;p<0.004				
Wasting (Weight for Height)				
>12	14 (15.73)	5 (5.62)	1 (1.12)	8 (8.99)
12-35	20 (22.47)	10 (11.24)	6(6.74)	4 (4.49)
36-60	55 (61.80)	28 (31.46)	12 (13.48)	15 (16.85)
		×2=6.769;p<0.149		

(≥Median-2SD = Normal <Median -3SD to ≥ Median-2SD = Moderate <Median-3SD = Severe)

The above table shows that the distribution of respondents according to their weight for age, height for age, and weight for height. Out of the total respondents 89, 49 (55.1 percent) of the respondents have belong to male children and 40 (44.9 percent) of the respondents have belongs to female children.

Underweight: The prevalence of underweight (Weight for Age) among the under five-year children was 58.43 percent in which 34.83 Percent was moderate and 23.60 percent was severe condition, statistically non- significant difference was observed among the study group.

Stunting: The prevalence of stunting (Height for Age) among the under five-year children was 64.04 percent in which 41.57 percent was moderate and 22.47 percent was severe condition. Statistically significant difference was observed among the study group.

Wasting: The prevalence of wasting (Weight for Height) among the under five year children was 51.69 percent in which 21.35 percent was moderate and 30.34 percent was severe condition. Statistically non-significant difference was observed among the study group.

BMI and Waist Hip Ratio of adult women

Table 3 explains about the distribution of respondents according to their waist hip ratio. Out of the total respondents, (28.1 percent) of the respondents have low risk grade, (22.5 percent) of the respondents have moderate risk condition similarly (49.4 percent) of the respondents have sever risk conditions

TABLE 3
BMI and Waist Hip Ratio of Adult Women

Waist Hip Ratio	Health Risk	%
<0.80	Low risk	28.1
0.81 – 0.85	Moderate risk	22.5
>0.85	Severe risk	49.4
BMI	Classification	%
<16	III Degree	16.9
16 – 16.99	II Degree	7.9
17 – 18.49	I Degree	10.1
18.5 – 19.99	Low Normal	15.7
20 – 24.99	Normal	30.3
25 – 29.99	Obesity	19.1

The above Table 3 depict about, the distribution of respondents according to their Body Mass Index. Out of the total respondents, (34.9 percent) of the respondents have come under the CED Chronic Energy Deficiencies in which (16.9 percent) of the respondents have come under the III Degree, (7.9 percent) of the respondents have come under the II Degree and (10.1 percent) of the respondents have come under the I Degree. Also (46 percent) of the respondents have come under the normal BMI, in which (15.7 percent) of the respondents have come under the low normal and (30.3 percent) of the respondents have come under the normal BMI. Out of the total respondents, (19.1 percent) of the respondents have come under the obesity.

DISCUSSION

Nutrition is a universally cherished goal. Health and Nutrition cannot be forced upon the people. It is a positive attribute be forced upon the people. It is a positive attribute of life and the organization of health services to all people is considered to be the key step towards development (Srinivasan, '87). Health and Nutrition care is one of the most important of all human endeavors to improve the quality of life especially of the tribal people (Balgir, 2007, Jaiswal, 2018). It implies the provision of conditions for normal, physical and mental development and functioning of human being individually as well as in a group. Nutritional problems and health practices of tribal communities have been profoundly influenced by the inter-play of complex social, cultural, educational, economic and political practices (Balgir, 2005). The common beliefs, customs, traditions, values and practices connected with Nutrition and disease have been closely associated with the treatment of diseases. In most tribal communities, there is a wealth of folklore associated with health and nutritional belief (Jaiswal, 2013, 2015). Tribal populations are particularly vulnerable to malnutrition due to their traditional socio-cultural practices and low literacy level. Several studies on growth and nutritional status were done in rural or urban India (Reddy, 2000). Studies on tribes are very few and there is very limited report on the nutritional status of Irular Tribe.

The finding in the present study opens a debatable point about the role of different indices of nutritional status assessment. The above finding reveals the women and children have been facing nutritional problems. Hence, the Government should implement the awareness and rehabilitation programmes. To know about the identification of the problem in early childhood to know about the identification of the problem in early childhood and adulthood and to improve the nutritional status of Irular Tribe along with socio-economic development.

CONCLUSIONS

From the above discussion, it can be attributed that the poor growth pattern of the Irular may be due to the poor socio-economic condition. Most of the Irular populations of Tamil Nadu live without modern health care and transport facilities. Hence, the Irular of the study area face many health and nutritional hazards due to poverty, illiteracy and ignorance. The health and nutrition status of the Irular tribes requires an immediate attention in the implementation of short-term supplementary feeding programmes, general medical, and awareness and health care facilities, improvement of food security are needed to overcome the nutrient deficits.

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