

Nutritional Status of the Murias of Bastar Madhya Pradesh, India

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KEY WORDS Muria Tribe, Nutritional Status, Anthropometry.

ABSTRACT The present study is an attempt to assess nutritional status of the Muria population, study is based on 100 unrelated individuals (50 adult males and 50 adult females) from Karli village of Dante-wada Tehsil, The Pignet index shows that 70% of Muria males are weak to poor state of physique. Brokas index value indicates that 50% of males and 30% of females are undernourished. Body mass index indicates 48% of males and 48% of females are in chronic energy deficiency.

INTRODUCTION

Tribals are inhabited in divergent physical, biological socio-cultural and economic environments, often lacking modern health care facilities. Health is an important aspect of development. The nutritional status is considered to be the measure of health. Malnutrition has emerged as a major health problem of many tribal groups (Rao et al., 1986; Basu et al., 1989) In view of this and the National Health Care Policy (NHP) studies on nutritional status have assumed extreme importance. It is customary for the planners and policy makers to understand the food and nutritional status of tribal population in order to evaluate effective measures for the well being of these primitive populations. Informations on these line among Bastar tribals are lacking, therefore the present study is aimed to assess the nutritional status of Muria tribals of Bastar.

MATERIAL AND METHODS

The word "Muria" means aboriginal (Elwin, 1991) and they are subgroup of Gond and may have been derived from the word "Mur" meaning "root". Murias are well built. Coarse black hair and belong to Proto-Austroloid group.

A total of 50 Muria adult males and 50 females aged 20-45 years were randomly selected

from Karli village. Weight (in kg), height, arm circumference and chest girth (in cm) were recorded after Singh and Bhasin (1989). From these measurements Weight/Height index (Roy et al., 1982) Pignet index (Ivanovsky, 1923) and Brokas index (Visweswara Rao, 1995) were calculated.

RESULTS AND DISCUSSION

The average (Table 1) height of the Murias male and female are 158.8 cm and 150.6 cm and Body weight are 47 kg and 41.96 kg, respectively. The upper arm circumference is found to be 22.31 cm in males and 22.38 cm in females. The mean chest girth among males is 76.38 cm only. The mean Pignet index value of adult males is found to be 32.48. The mean weight/height (W/H) index of males and females are found to be

Table 1 : Mean anthropometric measurements among the Murias

Measurements	Males		Females	
	Mean	SD	Mean	SD
Height (cm)	158.86	53.83	150.68	49.02
Weight (kg)	47.00	4.58	41.96	3.88
Arm circumference (cm)	22.31	4.61	22.38	13.00
Chest Girth (cm)	76.38	26.85		
Pignet Index	32.48	5.51		
Weight/Height index	29.51	2.48	27.07	2.59

Table 2 : Distribution of Weight/Height index in adult male and female Murias

Index	Males		Females	
	No.	%	No.	%
X - 22.0	0	0	0	0
22.1 - 25.0	2	4	10	20
25.1 - 28.0	11	22	18	36
28.1 - 31.0	25	50	18	36
31.9 - 34.0	9	18	3	6
34.1 - X	3	6	1	2

28.3 and 26.1, respectively. Roy et al. (1982) are of the opinion, that W/H index values below 30 is an indication of undernutrition. It is evident from the present study that 76% of males and 92% of females are found to be undernourished. Ivanovsky (1923) opined that Pigment index value above 30 is an indication of weak physique. It is evident from (Table 3) that 70% of Muria, males shows very weak to poor state of physique. According to Brokas index value (Table 4) about 50% of Muria males and 30% of females are under nourished. Body mass index (Table 5) in-

Table 3 : Distribution of Pigment index value among the adult Muria males

Class	No.	Per cent
Very sturdy (X-10)	-	-
Sturdy (10 to 15)	-	-
Good (16 to 20)	-	-
Average (21 to 25)	5	10
Weak (26 to 30)	10	20
Very weak (31 to 35)	18	36
Poor (36-X)	17	34

Table 4 : Distribution of Brokas index values among the adult male and female Murias

Class	Males	%	Females	%
10-20% above ideal weight-midely over weight	-	-	-	-
20-30% above ideal weight-over weight	-	-	2	4
30-40% Above ideal weight-obese	-	-	-	-
40-96% Above ideal weight-severely obese	-	-	-	-
80-120% of the ideal weight-normal	25	50	33	66
20-30% Lower than ideal weight-undernourished	20	40	12	24
30-40% Lower than ideal weight-severely under-nourished	5	10	3	6

dicates that 48% of males and 48% of females are in chronic energy deficiency grades.

The present findings indicate that majority

Table 5 : Distribution of body mass index in adult male and female Murias

Class	Males		Females	
	No.	%	No.	%
<16 CED III	2	4	4	8
16-17 CED II	7	14	10	20
17-18.5 CED I	15	30	10	20
18.5-20 Normal	26	52	26	52
20-25	-	-	-	-
25-30 Obesity I	-	-	-	-
>-30 Obesity II	-	-	-	-

of Muria tribals are found to be malnourished and effective nutritional trials or programme may be advocated for well being of these primitive tribals.

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REFERENCES

- Basu, S., Jindal, A. Kshatriya, G. Singh, Paramjit, Roy, P. and Sharma K.K.N. : *Genetic and Sociocultural Determinants of Tribal Health. Bastar Tribal groups of Madhya Pradesh* (Research Report) NIHFW, New Delhi (1989).
- Elwin, Verrier : *The Muria and Their Ghoutul*. Oxford University Press, Delhi (Reprint) (1991).
- Ivanovsky, A. : Physical modification of the Population of Russia. *Am. J. Phys. Anthropol.*, 6: 331-353 (1923).
- Rao, H.D., Mathur, Y.N., Radhaiah, G. and Rao P.N. : *Health and Nutrition Status of Tribals of Madhya Pradesh*, (Research Report) NIN, Hyderabad (1986).
- Roy, J.K., Bhattacharya, K.K. et al. : Diet and Nutritional Anthropometry of Santhals of Purlia Distt. *W.B. Bull. Anth. Surv. India*, 31 : 45-71 (1982).
- Singh, I.P. and Bhasin, M.K. : *Anthropometry*. Kamla-Raj Enterprises, Delhi (1989).
- Visweswara Rao, K. : Anthropometry for the assessment of various forms of malnutrition-available approaches and their relatives merits. *Man in India*, 75: 195-207 (1995).