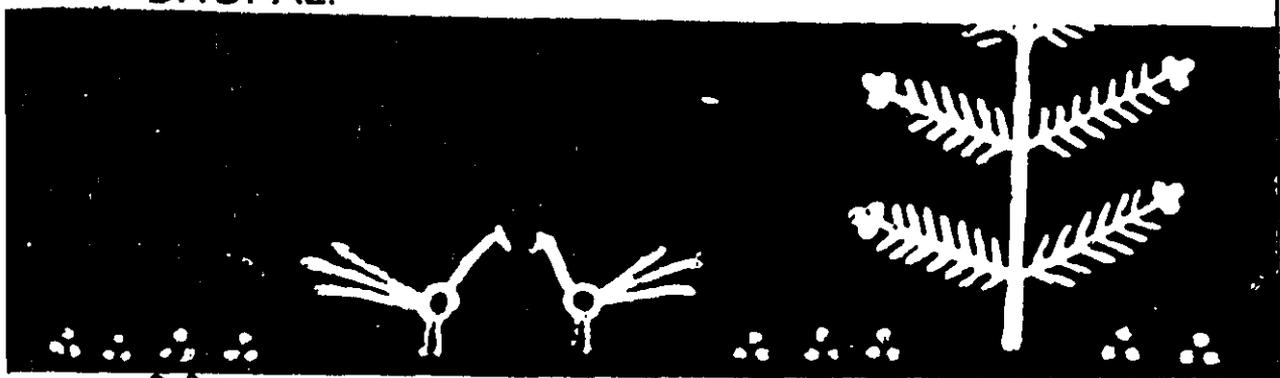

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हिन्दी अनुभाग

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मध्य प्रदेश (भोपाल) |

ANTHROPOMETRIC PROFILE OF THE HILL-KORWAS OF SARGUJA DISTRICT

•Dr. Aruna Palta

•Megha Aghantwashi

Nutritional Anthropometry pertains to the measurements of variations of the physical dimensions and the gross composition of the human body at different age levels and degree of nutrition (Jelliffe 1966). It appears to be a vital parameter in the assessment of undernutrition, especially in developing tropical countries.

The "Hill-Korwas" are an important Dravidian tribe of Madhya Pradesh. In the recent years there has been an increased emphasis on development of the tribal areas with a focus on upliftment of tribal communities. Though a broad understanding of the health and nutrition aspect of urban and rural communities has been achieved, any such information of the endemic tribal population is however lacking. Therefore, scientific investigation of their health and nutritional status must be undertaken on priority.

In this paper an attempt has been made to present the anthropometric profile of nutritional relevance of one of the important tribes of Madhya Pradesh – the "Hill-Korwas" of Sarguja district.

METHODOLOGY

560 adult subjects comprising of 294 males and 266 females were selected from 5 development blocks of Sarguja, namely "Lundra", "Batoli", "Rajpur", "Mainpath" and "Shankargam" on the basis of simple random sampling method. In all 266 Korwa families

from 13 villages were included in this study. The subjects studied were homogeneous in their character and way of living. Height, weight, midarm circumference of the subjects were taken using standard techniques. Body mass index and relative body weight were further calculated from the above measurements. Height was measured using anthropometer and reading to the nearest half cm was recorded. Platform beam balance was used for recording weight. The reading to the nearest half Kg was recorded. Mid arm circumference was measured to the nearest 0.1 cm halfway between the acromial process of the scapula and the olecranon process of the ulna of the left arm, keeping the arm loosely hung and relaxed. A non-stretchable fibre glass tape was used. Body mass index was determined using body weight (Kg) and height (meter) measurements using the relation suggested by Thunberg et al (1981).

$$\text{BMI (Kg/m}^2\text{)} = \text{Body weight/height}^2$$

Relative body weight percentage calculations were done using actual body weight and ideal body weight, in accordance to their height, age and sex. The formula used was –

$$\text{Relative body weight \%} = (\text{Actual body weight/Ideal body weight}) \times 100$$

RESULTS AND DISCUSSION

The different anthropometric measurements some of which were actually taken and the others calculated are shown in table 1, table 2 depicts the various anthropometric measurements of the Hill

Korwas in the relation to Kamars (Palta et al 1996) Rural M.P. population (NNMB Survey 1979) and Urban M.P. population (Palta, A. 1987).

(a) HEIGHT

It is the most commonly employed measurement to evaluate linear growth. The average height of the adult Korwa males was 151.37cm and that of the females was 143.73cm. These data are comparable to the Kamars a primitive tribe of Raipur district but lower than NNMB data(1979) for rural Madhya Pradesh and also slightly lower than those reported by Hanumantha Rao et al(1986) on tribals of Madhya Pradesh. The information on the height of the population throws light on their past nutritional status.

(b) WEIGHT

Body weight has long been used for the assessment of nutritional status and its validity has been well established in innumerable studies. The average weight of the Korwa males was 45.91 Kg. and that of the females was 40.61 Kg. Again, those data are comparable to Kamars but lower than NNMB data(1979) for rural Madhya Pradesh. The low body weight may be well correlated with the low calorie intake of Korwas.

(c) MID ARM CIRCUMFERENCE

Arm circumference measurements provide an overall information of the status of muscle development and extent of depot fat. The average arm circumference value of the males was 24.04cm.

While that of the females was 22.95cm, These values are quite closer to the Kamars of Raipur districts but none of the Korwas conferred to the standard values as described by Jelliffe(1968). Low arm circumference values may be well correlated with low calories and low fat intake of the Korwa population.

(d) BODY MASS INDEX (BMI)

It is a parameter independent of age and takes into consideration weight in relation to height and hence may be considered to have advantage over using either height or weight singly as an index of states of nutrition. The standard values as suggested by Thunberg et al for males and females are 20-25 Kg/m² and 19-24 kg/m² respectively. The average value for the adult Korwa males was 20.34 Kg/ m² while that for females was 19.30 Kg/ m². Thus both the sexes were within the normal range of BMI.

(e) RELATIVE BODY WEIGHT (%)

The parameter was calculated from the actual weight of the subjects and ideal body weight, in accordance with their height, age and sex thus providing a more realistic picture. The average value of adult Korwa males for this parameter was 76.05% while that of the females was slightly better i.e. 80.44%.

CONCLUSION

Thus all the above antropometric measurements indicate that status of nutrition of "Hill-Korwas" cannot be

termed as adequate. Their height, weight, mid arm circumference, BMI and relative body weight percentage values, though are comparable to the "Kamas" a primitive tribe of Raipur district but are much lower than their urban and rural counterparts. Measures on large scales are required to upgrade the nutritional status of this primitive tribe by encouraging the development of food resources as well as by providing them extensive nutrition education.

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Table-1

**Mean Anthropometric Measurements of the "Hill Korwa"
Population of Sarguja District**

Parameters	Males N = 294	Females N = 266
Height (cm.)	151.37	143.73
Weight (Kg.)	45.91	40.61
Midarm Circumference (cm)	24.04	22.95
Body mass Index(Kg/ m ²)	20.34	19.30
Relative body Weight (%)	76.05	80.44

Table-2

**Mean Anthropometric Measurements of the "Hill Korwas"
As compared to other studies**

Parameters	Hill Korwas (Present Study)		Kamars (1996)		Rural M.P (NNMB 1979)		Urban (M.P.) (1987)	
	Male	Female	Male	Female	Male	Female	Male	Female
	Male	Female	Male	Female	Male	Female	Male	Female
Height(Cm)	151.37	143.73	152.25	145.06	163.24	149.15	159.24	150.44
Weight(Kg)	45.91	40.61	45.73	40.25	49.72	43.23	50.08	45.02
Midarm Circumference(cm)	24.04	22.95	24.31	23.08	—	—	24.36	23.65
Body mass index (Kg/m ²)	20.34	19.30	20.02	19.22	—	—	19.56	19.89
Relative body wt. (%)	76.05	80.44	76.10	80.98	—	—	92.91	101.14

PRESENTED PAPER

विश्वविद्यालय अनुदान आयोग, नई दिल्ली द्वारा प्रायोजित
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स्मारिका

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HUMAN RIGHTS AND SCHEDULED TRIBES

A case study of Minimum Economic Condition of Hill Korwas

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"Hill Korwa" a primitive tribe of nearly 27,109 population size lives in the fastnesses of hills and forests of Surguja and Raigarh districts of Chhattisgarh the impact of civilization has thrown this tribe in a state of trauma due to disturbances caused in their natural habitat. In this paper an attempt has been made to collect all relevant information on social, economic and allied aspects which has bearing on the health and nutritional status of the Hill Korwas.

Information pertaining to the size and composition of the family, educational status, monthly income, percapita income and other income opportunities as farm cattle, poultry etc. was recorded. Some additional information on housing, lighting, water supply and transport facilities was also collected.

The results revealed that Hill Korwas has quite a low socioeconomic status. Their housing and sanitary conditions were not satisfactory water supply & sewage facilities were not adequate in Korwa settlements. The level of literacy was quite low. Their percapita income varied from 50-300 rupees per month.

The study suggests the need for effective planning and implementation of programmes which may help in promoting and upgrading the socioeconomic status of the tribes in general to improve their states of life.

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ABSTRACT



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11. Medical Geography & Nutrition

Out of the 2, 866 Kamar families residing in 249 villages, 10% Families were selected for the present study Diet survey was carried out using pretested schedule (ICMR 1987.) The food intake for 3 consecutive days was recorded by oral questionnaire using standard measures. The food consumption of the dietaries was computed from standard tables and comparison with recommended allowances was made.

The study revealed that the diet of the Kamars was inadequate in terms of milk, animal food, sugar, fats and oils, fruits and vegetables. The nutrient content when calculated, revealed a gross deficiency of vitamin A,B Complex, Vitamin C, calcium and fats, while a moderate deficiency of calories fats, proteins, carbohydrates and iron was noted.

The food consumption of the Kamars is affected by the season of the year as collection from the forest changes from season to season Cereals, pulses and other vegetable intake shows some variation being the highest in the winters and lowest in the rainy season. Green leafy vegetables, tuber and fish consumption was the highest in the rainy season and the least in the summer season No remarkable seasonal variation was observed in the consumption of fruits, milk fats & oils, sugar jaggery special requirement of vulnerable section (infants preschool children, pregnant women and lactating mothers) was not taken care of as no special or additional food were provided to them Consumption of home "Mahua" liquor and tobacco by almost all the adults and even some of the children above the age of 7 was a common practice. The for study suggests the need for nutrition education among the "Kamars" in order to improve their status of Nutrition and hence the quality of life .

11.3 SOCIO ECONOMIC PROFILE OF NUTRITIONAL RELEVANCE OF "HILL KORWASS" - A PRIMITIVE TRIBE OF MADHYA PRADESH

Megha Agnivanshi & Aruna Palta

Govt. D.B. Girls P.G. College Raipur (M.P.)

Hill Korwa is a kolarian tribe living in Ambikapur and Raigarh districts of Madhya Pradesh. It is one of the seven primitive tribes of Madhya Pradesh. The impact of civilization has thrown this tribe in a state of trauma due to disturbances caused in their natural habitat, in this paper an attempt has been made to collect all rel-

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evant information on social, economic and allied aspects which has bearing on the health and nutritional status of the Hill Korwas.

The total population covered under this survey is 1965 consisting of infants, children, adolescents, adults, and elderly people. The break up for the males and females was 1062 males and 903 females. Socio economic data was collected using a pretested schedule (ICMR 1987 Information pertaining to the size and composition of the family, educational status, monthly income, per capita income and other income opportunities as farm cattle, poultry etc. was recorded some additional information on housing, ventilation, lighting, water supply, and transport facilities was also collected.

The result revealed that Hill Korwas had quite a low socio economic status. Their housing and sanitary conditions were not satisfactory. Ventilation arrangements were unsatisfactory. 97.97% house holds had no windows, 1.52% house holds had one window while 0.51% household two windows. Ventilators were almost absent in all the houses. None of the houses had electricity. A Large number 75.13% had Kitchen in living room while only 24.87% had separate Kitchens.

As far as water supply is concerned 54.82% households used tank/river water, 14.38% households used well water while 30.79% households used hand pump water. There is no adequate sewage facilities in Korwa settlements. The average family size of the Korwa was found to be 3.72 Educational status of Korwas was found to be low. Out of 1742 subjects above the age of 4 years only 12.28% subjects were literate while 87.72% were found to be illiterate. Out of these 12.28% literate subjects 82.27% were males and only 17.73% were females.

The per capita income of Korwas varies from 50-300 rupees per months 99.15% families had their own land while 0.85% families were found to be landless. 19.46% families had cow, 24.20% had ox, 3.55 had buffalo and 2.20% had pigs 23.86% had cock, 49.58% had hen, while 42.47% had chicks. Recreational facilities are meagre in korwa settlements. Only 1.18% had radio/transistor 9.30% households had bicycle as their means of transportation.

The study suggested the need for effective planning and implementation of programmes which may help in promoting and up-status-grading the socio-economic status of korwas under the changed new economic and political system.

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PSCN26 A study of nutrient intake of hill korwas - a primitive tribe of Chhattishgarh. Aruna Palta and Megha Agniwanshi, Department of Food & Nutrition, Govt. D.B. Girls' P.G. College, Raipur, Chhattisgarh.

Hill Korwa is a Kolarian tribe living in Ambikapur and Raigarh districts of Chhattisgarh. The impact of civilization has thrown this tribe in a state of trauma due to disturbances caused in their natural habitat. In this paper an attempt has been made to collect all relevant information on the nutrient intake of hill Korwas. The study was conducted on 1249 adult Hill Korwas of Sarguja and Raigarh districts. Their dietaries were found to be moderately deficient in Calories, Protein, Carbohydrate and Niacin whereas a gross deficiency of Calcium, Vitamin A, Riboflavin and Fat was observed. This inadequacy of nutrients was because of low intake of pulses, milk and milk products, green leafy vegetables, fruits, fats & oils and sugar & jaggery etc. The study suggests the need to bring about changes in their food intake in order to improve their status of nutrition.

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प्रत्यकार Assessment of Nutritional

शीर्षक Tribe of Madhya Pradesh.

सदस्य	दिनांक	सदस्य	दिनांक

