

Height and Weight: A Cross-sectional Study Based on Yadava Girls of Visakhapatnam, Andhra Pradesh, India

B. Dharma Rao and B.R. Busi

Department of Anthropology, Andhra University, Waltair 530 003, Andhra Pradesh, India

KEY WORDS Growth. Yadava. Anthropometry. Andhra Pradesh.

ABSTRACT A cross-sectional purposive random sample of 632 Yadava girls ranging in age from 1 through 20 years were selected to study the growth patterns on the basis of height and weight. These physical traits increase with increase in age.

In the present study, an attempt has been made to study the effect of age from 1 through 20 years on two anthropometric measurements of rural Yadava girls.

MATERIAL AND METHODS

The Yadavas (Gollas) of North Coastal Andhra region are traditionally a pastoral community. But in this field area many of the Yadavas have now acquired lands and are engaged in farming. Data were collected, cross-sectionally, on 632 Yadava girls from 15 villages of Bheemunipatnam and Anandapuram *Mandals* of Visakhapatnam District of Andhra Pradesh State during the months of January, 1986 to June, 1987. The ages of the subjects range from 1 through 20 years.

The age of each individual was calculated to three decimal places after Tanner et al. (1966). The measurements of the present study include height and weight taken after Martin and Saller (1957).

RESULTS AND DISCUSSION

In has been observed that the mean values for physical traits increase with advancement of age. Rate of growth however is not uniform. The mean height of infant at 1 year was about 58 cm.

The height doubled by 8 years, became two and half times by 14 years. An increment of 3 cm. was noticed from 14 to 20 years. The mean weight of infant at 1 year was 5 kg., it was doubled by 3 years, thrice by 6 years, about 5 times by 11 years, and about 8 times by 20 years. The height and weight showed maximum growth rate between 1 and 2 years, as from 3 years of age the rate of growth declined and minimum value observed in the age group of 18 to 19 years. The height vertex and weight represent the maximum growth gradient 100.00 cm and 100.00 kg in the age group of 19 years and 20 years respectively a minimum of 38.90 cm. and 11.36 kg. in the age group of 1 year respectively.

Rohrer's index a constant mean value from 7 to 20 years indicating an increase in weight with increase in height vertex. It is noted that from 1 to 6 years the value of weight doubles in comparison to adult height. It is obvious that the weight increases at faster rate as compared to height vertex.

It will be apparent from the foregoing results that the Yadava girls show almost similarity in height and weight to that of Maharashtra girls (Sharma, 1970), Gaddi Rajput girls (Singh, 1980). The mean values of height or weight of Yadava girls are however, distinctly less than the National Standards (ICMR, 1984).

Table 1: Height vertex, body weight and Rohrer's index among Yadava girls of Visakhapatnam

Age (in years)	N	Height Vertex (cm.)			Body Weight (kg.)			Rohrer's Index	
		X	S.D.	Growth Gradients	X	S.D.	Growth Gradients	X	S.D.
1	50	58.27	6.55	38.90	4.76	1.61	11.36	2.33	0.45
2	40	71.03	2.67	47.41	7.71	0.78	18.40	2.16	0.29
3	36	78.98	4.04	52.73	9.61	1.12	22.95	1.96	0.25
4	40	88.81	3.08	59.29	11.30	0.97	26.98	1.62	0.18
5	60	97.43	3.19	65.04	13.39	1.03	31.97	1.46	0.17
6	47	105.70	3.69	70.56	15.56	0.90	37.15	1.32	0.12
7	47	111.98	3.09	74.76	16.80	1.33	40.11	1.20	0.11
8	44	118.62	4.12	79.19	19.34	1.70	46.18	1.16	0.11
9	34	122.03	3.63	81.47	21.15	1.60	50.50	1.16	0.10
10	27	125.98	3.52	84.10	23.00	1.86	54.91	1.15	0.12
11	27	132.57	3.64	88.50	25.26	1.33	60.31	1.08	0.09
12	21	139.19	3.94	92.92	28.98	1.47	69.20	1.08	0.09
13	35	141.09	3.78	94.19	30.78	1.97	73.49	1.09	0.07
14	18	147.72	2.78	98.61	35.50	1.90	84.76	1.11	0.09
15	28	149.01	3.64	99.48	37.41	3.22	89.33	1.13	0.06
16	20	149.40	5.02	99.74	40.70	3.91	97.18	1.22	0.13
17	21	149.76	3.09	99.98	40.98	4.14	97.85	1.22	0.13
18	11	149.78	6.05	99.99	41.23	3.99	98.45	1.23	0.15
19	13	149.79	4.99	100.00	41.38	4.42	98.80	1.24	0.16
20	13	149.79	4.58		41.88	3.15	100.00	1.25	0.10

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