

Relation of Age and Body Weight with Blood Pressure: Study Among Bhoksa Tribals

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INTRODUCTION

Several studies have been conducted in different population of world to assess the relation of blood pressure to age, sex, weight etc. but no such study has been reported from Bhoksas of Dehradun district. In present study, such an attempt has been made to fill the gap.

The Bhoksas, a numerically small indigenous group resides on the hilly tract of Uttaranchal. They believe that their ancestors were the Rajput who ruled Delhi and its surrounding area before their defeat from Mugals when they came to Dehradun. The tribe inhabits the rural village. The environment is free from industrial pollution and the tribes lead relatively tense free life.

MATERIAL AND METHODS

The present study was conducted on the Bhoksas tribe of Vikasnagar block of Dehradun district, Uttaranchal. This block Vikasnagar lies between 29°58' and 30°15' northwest latitude and 77°48' to 78°01' eastern longitude. The sample was collected from three villages Sherpur, Tipparpur And Sabawala, constituting 286

individuals (151 males and 135 females) belonging to various age groups ranging from 6 years to 68 years. The present study is conducted by semiparticipant method and every possible care was taken to avoid close relative. Blood pressure was taken by the method described by Rose et al. (1982) using the sphygmomanometer with standard cuff and the stethoscope.

RESULTS AND DISCUSSION

Table 1 shows a positive correlation between age and systolic and diastolic blood pressure. It is evident from the table that the mean value of sys-tolic pressure in male increase from 6-11 to 19-30 age groups but drops slightly in 31-45 age group and again continues with its increasing trend from 46-60 to 61-68 age groups whereas in females the mean value systolic pressure increases from 6-11 to 12-18 age groups and drops slightly in 19-31 & 31-45 age group than it again continues with its increasing trend from 46-60 to 61-68 age. Table 2 reveals that with increase in weight, systolic and diastolic blood pressure of Bhoksas increase gradually except for 61-75 Kgs body weight groups. This may due to very small

Table 1: Age, weight, systolic and diastolic values among Bhoksas population in different age groups

Age Group (in years)	Sample (N)	Weight		S.B.P.		D.B.P.	
		Mean	S. D.	Mean	S. D.	Mean	S. D.
<i>Males</i>							
6-11	31	20.24	± 3.49	87.02	± 8.11	55.90	± 9.61
12-18	28	35.58	± 7.92	103.71	± 11.24	70.10	± 8.05
19-30	25	51.54	± 7.95	116.80	± 10.21	72.68	± 10.42
31-45	24	47.89	± 3.98	114.33	± 8.63	73.75	± 6.56
46-60	26	45.55	± 2.62	118.76	± 9.87	77.38	± 6.53
61-68	17	38.05	± 3.44	126.11	± 8.10	83.29	± 9.44
<i>Females</i>							
6-11	28	19.91	± 4.52	82.71	± 7.39	53.25	± 10.51
12-18	25	35.24	± 5.73	112.00	± 7.97	69.44	± 9.16
19-30	25	42.60	± 6.54	111.64	± 9.71	70.32	± 7.66
31-45	22	41.20	± 4.89	110.72	± 7.85	72.50	± 9.24
46-60	21	37.07	± 3.69	121.42	± 10.74	75.90	± 6.66
61-68	14	37.78	± 5.53	130.14	± 7.87	79.14	± 6.53

Table 2: Mean and standard deviation of systolic and diastolic blood pressure with body weight among Bhokshas population (including male and female).

Body Weight (kgs)	Sample (N)	S.B.P.		D.B.P.	
		Mean	S. D.	Mean	S. D.
0-15	12	77.00 ± 6.45	46.75 ± 9.72		
16-30	62	91.45 ± 12.03	60.19 ± 12.05		
31-45	134	115.84 ± 12.04	73.35 ± 8.78		
46-60	76	116.76 ± 9.67	75.61 ± 8.55		
61-75	4	114.5 ± 5.54	73.00 ± 7.81		

sample size as compared to other groups. (In all, it indicates positive correlation with blood pressure.)

It is observed that when the present study is compared with other population of India i.e., Urban and rural groups of Delhi reported by Padmarvathi and Gupta (1959); Rural population of coastal, Andhra Pradesh reported by Reddy et al. (1990); Madiga (Scheduled caste) boys of Andhra Pradesh and Bando tribal boys of Orissa, reported by Rao et al. (1997, 2000), respectively. There is a positive correlation between blood pressure with advance in age, sex and weight. The mean systolic and diastolic blood pressure values for Bhokshas are found higher than rural population of Visakhapatnam reported by Rao (1979) but lower than rural population of coastal Andhra Pradesh reported by Reddy et al. (1990).

KEY WORDS Bhokshas. Uttaranchal. Blood Pressure.

ABSTRACT A blood pressure survey has been conducted

on 286 Bhokshas individuals (151 males and 135 females) aged between 6 to 68 selected by purposive sampling from three village of Dehradun district. In both sexes, mean blood pressure level shows a gradual rise with advance in age and weight. In all, the blood pressure of Bhokshas (both male and female) is within normal range indicating their good health.

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