

# A STUDY OF THE PSYCHOLOGICAL FACTORS, ANTHROPOMETRIC MEASUREMENT AND PHYSICAL FITNESS OF SELECTED UNIVERSITY PLAYERS IN GUJARAT

\*Dr. Arvind C. Rami \*\*Sh. Neeraj Silawat

The players are creating and breaking new records in today's competitive sports. Traditionally the motto of Olympic festival is faster, higher and stronger is still alive in the field of physical education and sports. The aim of games and sports is fastly suited with every field. The old records are not remaining on boards they are establishing time to time. The level of physical fitness and motor ability is increasing day to day because of development of science and technology. Today's Athletes are trained scientifically the equipments of training are also developed scientifically the 'dand-bethak' and 'akhadas' activities become out dated and hi-tech gymnasium and health centers takes its place. Now a day in training the physiotherapist entered with traditional 'gurus'. With the help of physiotherapist and psychologist fitness of individual players is modified increase. The modern coaching methods are prepared for the development of physical fitness, psychological ability and anthropometry.

**METHODOLOGY**-The thirty individual and team sports players were selected randomly for this study from Athletics, Kabaddi, Kho-Kho, Basketball, Volleyball and Handball games. The cattle's 16 P.F. test was used for psychological factor, Norjan and Johnson test was used for anthropometry and A.A.H.P.E.R.D. youth fitness test was used for physical fitness components.

**STATISTICAL PROCEDURE**-Analysis for data mean and standard deviation was applied. Graph and figure were drawn using Excel software.

TABLE -1  
MEAN AND STANDARD DEVIATION OF DIFFERENT GROUPS IN 16 P.F.

groups	A	B	C	E	F	G	H	I	L	M	N	O	Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>	Q <sub>4</sub>	mean
Athletics	3.56	1.96	2.60	3.40	2.40	3.16	3.76	4.73	4.20	2.83	4.90	4.73	3.33	3.83	2.53	3.36	3.44
Kabaddi	3.47	2.23	2.50	3.03	2.19	3.20	3.83	4.83	4.56	2.73	4.57	4.86	3.50	3.63	3.90	3.63	3.51
Kho-Kho	3.53	2.20	3.75	3.37	3.20	3.46	3.86	4.53	4.34	3.60	4.53	4.76	3.53	3.60	3.17	3.67	3.51
Basketball	3.36	2.10	3.00	3.84	2.50	3.46	4.10	4.60	4.30	2.56	4.63	4.90	3.46	3.90	3.60	3.67	3.53
Volleyball	3.30	2.13	3.53	3.06	1.86	3.30	4.03	4.53	4.33	2.16	4.10	4.83	3.26	3.20	2.70	3.36	3.38
Handball	3.63	1.77	2.50	2.83	2.56	3.33	3.90	4.43	4.46	2.70	4.23	4.83	3.26	3.43	2.70	3.43	3.36

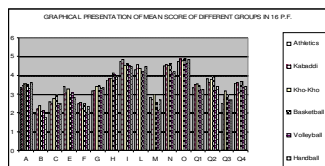
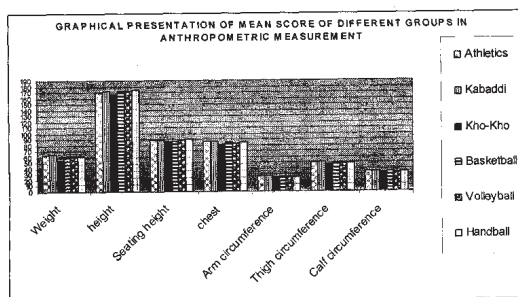


TABLE -2  
MEAN AND STANDARD DEVIATION OF DIFFERENT GROUPS IN ANTHROPOMETRIC MEASUREMENT

Groups	Weight		height		Seating height		chest		Arm circumference		Thigh circumference		Calf circumference	
	mean	SD	mean	SD	mean	SD	mean	SD	mean	SD	mean	SD	mean	SD
Athletics	62.63	12.33	169.37	8.32	97.60	4.53	86.47	8.32	27.17	3.06	50.83	5.51	34.33	3.11
Kabaddi	69.66	5.51	171.07	5.11	95.07	3.07	86.73	4.63	26.90	2.34	51.17	4.59	34.90	2.89
Kho-Kho	54.22	5.88	167.33	5.89	96.07	3.14	81.72	4.50	24.97	1.47	46.60	2.36	31.97	1.51
Basketball	61.86	4.76	171.00	4.77	87.71	3.72	85.17	3.12	25.97	1.72	48.23	4.48	34.33	1.86
Volleyball	67.13	4.76	172.73	4.73	88.07	2.68	84.07	3.72	25.80	1.53	48.17	3.02	33.00	2.92
Handball	62.38	4.82	173.83	4.81	89.60	3.12	84.33	3.43	25.90	1.73	48.87	3.73	33.50	1.60

GRAPH -2



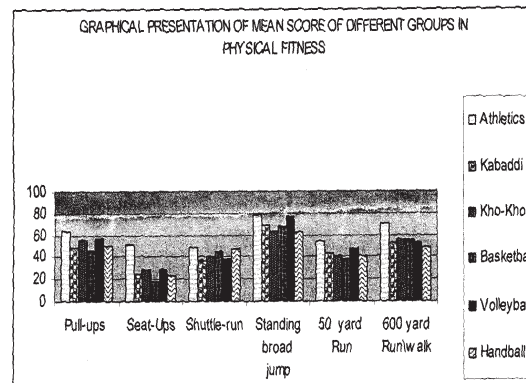
**RESULT OF THE STUDY**-Results of the study revealed that the players of Athletics were proved better level of physical fitness they showed score in Anthropometry measurements than other team games. The players of Kabaddi were significantly better in psychological factor, where in Anthropometry measurements showed reliable and have shown lower level in physical fitness than compare to others factors, where in Anthropometry measurements showed reliable and have shown lower level in physical fitness than compare to others factors. In the game of Kho-Kho players were better in physical fitness and psychological factors where as in the Anthropometry measurement they were lower. The score of basketball players were average Psychological factors and Anthropometry measurements but they were lower in physical fitness. In compare to other games the players of volleyball were shown better in physical fitness and were not shown up to mark in

TABLE-3

GRAPH-3

MEAN AND STANDARD DEVIATION OF DIFFERENT GROUPS IN PHYSICAL FITNESS

GROUPS	PULL-UPS		SEAT-UPS		SHUTTLE-RUN		STANDING BROAD JUMP		50 YARD RUN		600 YARD RUNWALK		MEAN SCORE
	mean	SD	mean	SD	mean	SD	mean	SD	mean	SD	mean	SD	
Athletics	63.10	22.85	57.00	27.57	49.27	26.04	78.47	21.05	54.73	26.38	70.30	15.89	61.08
Kabaddi	48.97	24.73	24.26	22.82	36.53	17.85	68.27	25.43	43.57	26.91	52.17	23.94	45.63
Kho-Kho	55.37	23.89	28.37	25.58	40.33	17.70	63.13	23.71	40.30	18.05	55.57	19.83	47.18
Basketball	45.87	21.85	17.23	13.08	45.23	18.98	61.13	23.23	37.60	21.30	54.77	25.57	44.68
Volleyball	56.80	24.46	28.67	24.15	38.17	21.91	71.50	18.92	47.43	19.02	52.10	25.46	50.08
Handball	49.73	20.42	23.59	20.25	46.90	21.79	62.17	18.54	40.23	22.13	48.07	11.62	45.10



psychological factors and Anthropometry measurements, and in last the players of Handball were shown medium score in Anthropometry measurements and psychological factors and the level of physical fitness was not shown as mark able than compare to other games.

**CONCLUSION OF THE STUDY-1-**From the study of Psychological Parameters revealed that, the players of all games were seen reserved, critical, cool, emotional, mild, easily upset, conforming, accommodating, sober, prudent, serious, shy, timid, trusting, tough minded, confident serene, self-reliant,

affected by feeling.2-In parameters if psychological factors kabaddi's players were shown more significant as compared to other games, while volleyball players were far away from these factors.3-The results from the analysis of anthropometry measurement the players of Kabaddi's highest in Height, Weight and circumference of chest, upper arm, thigh and calf, were as players of kho-kho's has shown lower in above sighted variables.4-The results revealed from analysis of physical fitness Athletics players were superior as compared to other games, where as basketball players were lowest.

**References**

Asnare . M.S., **Measurement and evaluation in physical education** ( Amaravati : C. Rama Asnare publication) 1987  
 Kansal, Devinder K. , **Test and Measurement in Sports and Physical Education**( New Delhi: D.V.S. Publication) 1996  
 Kamlesh , M.N. **Psychology of Physical Education and Sports**( New Delhi: Metropolitan Book Company)1983  
 Clark , H.Harison and Clark David H. , **Application of Measurement to Physical Education** ( NewJercy : Prantis Hall Ink) 1987  
 Mcgee , Rose Marry, Barov Harold M., **A Practical Approach to Measurement in Physical Education**( Philadelphia : Lee and Febiger ) 1979  
 Scafems , Fance , **Basketball for Women** ( Iyova: W.M.C. Brawn Company) 1996  
 Gelove, R.W., **Anatomy and Physiological Aspects of Sports Training** (Delhi : Sports Publication) 1999  
 Patel, Kantibhai R., **Ramat Talimna Vagyanik Sidhanto** ( Gandhinagar : Rama Prakashan) 2001