Research Paper Physical Education

A Comparative Study on Physique and Motor Fitness Among Tribal Non-Tribal Football Players

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ABSTRACT

The purpose of the present study was to compare physique and motor fitness among players. The study was conducted on 50 male players in which 25 tribal and 25 non tribal football players. The age of player's ranged from 18 to 23 years. All the samples selected from random basis. To assess physique, Heath & Carter Method (1967) was used. Body Mass Index (BMI) was calculated by Siri Formulae (1962) and for Motor fitness JCR test prepared by Cooper (1963) was used.

KEYWORDS Physique, Motor Fitness, Football player

INTRODUCTION:

Physique is the basis of human existence; it is the plinth of personality. A good personality must have a good physique, good appearance, good bearing, and good health etc. A healthy body is a blessing while a week one a curse. The layman'a assessment of personality veers round the body structure, the physical appearance or have an individual looks like from outside. A sound mind exists only in sound body.

Sheldon specifies that all individual can be classified into three Endomorph, Mesomorph and Ectomorph; categories each have their respective traits. Endomorph is related to Vesceortonia i.e. love of comfort slow action, relaxation, sociability and love of eating etc. Mesomorph is related to Somatotonia i.e. assertiveness, love for physical adventure, need for exercise, love of dominance and need for action when in trouble etc. Ectomorph is related to Cerebrotonia i.e. rapid reaction, over tension, anxiety, inhibition of action and introvertedness in thought etc.

Sports scientists attempted to measure physique and motor fitness of players, i.e. they are Siddhu (1975), Sharma and Shukla (1981), Sodhi & Siddhu (1984), Sodhi (1987), Sharma et al (1990) but no study has been found regarding tribal and non-tribal male football players. Therefore attempt has been made to compare tribal and non-tribal male football players on physique and motor fitness.

METHODOLOGY:

The study was conducted on 50 male football players in which 25 tribal and 25 non tribal. The age of players ranged from 18 to 23 years. All the samples selected on randomly.

TOOLS:

To assess physique, Heath & Carter method (1967) was used. Body Mass Index (BMI) was calculated by Siri Formulae (1962).

For motor fitness, JCP test prepared by Cooper (1963) was used. This test consists of three items i.e. vertical jump, chinup and shuttle run.

PROCEDURES:

To find out morphological structure of tribal and non tribal male players ten measurements were taken i.e. weight, height, upper arm circumference, maximum calf circumference, Femur breadth humerous breadth, triceps skinfold, subscapular skinfold, supraspinale skinfold and calf skinfold etc. After 10-15 minutes break and then JCR motor fitness was administered to the entire subject i.e. vertical jump was measured in cm, Chin-cep was calculated in total number and Shuttle run was measured in seconds. To calculate endomorphy, mesomorphy, ectomorphy and BMI following formulae were used.

Endomorph = 0.7182 + 0.145 x -0.00068X2 + 0.0000014X3

Where X is the sum of triceps, subscapular and supraspinale skinfolds.

Mesomorph = 0.858HB + 0.601FB + 0.188CAC + 0.161CCC-0.131H+4.5

HB- Humerous biepicondylar diameter,

FB- Femur biepicondylar diameter,

CAC- Corrected Arm Circumference,

CCC- Corrected Calf Circumference

Ectomorph = HWR x 0.732-28.58

Where HWR denotes Height Weight Ratio

BMI = Weight (Kg)/ Height (m)2

ANALYSIS OF DATA:

The data were collected from the tribal and non tribal male football players were statistically examined with using 't' test, computed for all groups on selected criterion variables are shown on Table No. 1.

Comparison of Motor Fitness Components and Body Mass Index

Variables	Tribal Players (N=25)		Non-Tribal Players (N=25)		M.D.	't'
	Mean	S.D.	Mean	S.D.		
Chin-up	17.84	6.58	13.23	4.92	4.53	4.76
Vertical Jump	22.41	5.32	25.78	5.96	3.28	3.56
Shuttle Run	31.78	2.12	33.64	3.05	1.86	4.42
BMI	18.80	2.77	18.10	1.98	.70	1.12

't' value at .05=1.98
.01 = 2.61

When comparison made on chin-up dimension, tribal male football players having more arm strength (M=17.84) compared to non-tribal players (M=13.23), indicates that both the groups are differ at .01 level of significance.

When same groups again compared on vertical jump item i.e. explosive leg strength, result indicate that non tribal players

having better leg strength (M=25.78) compared to tribal players (M=22.41), 't' value is 3.56 shows that there is significant difference at .01 level. Again comparison made on shuttle run item which measure agility and speed, result found that tribal players having more agility and speed (M=31.78) compare to non tribal players (M=33.64), 't' ratio is 4.42 that shows both the group are differ at .01 level.

Last comparison made on the BMI (Body Mass Index) result indicate that tribal players (M = 18.80) and non-tribal (M=18.10) and the 't' value is 1.12 shows that there is no significant difference between both the groups that means both the groups are equal on BMI.

CONCLUSION

- Tribal male football players having more arm strength as compared to non-tribal male football players.
- Non-tribal players having more explosive leg strength compared to tribal players.
- Tribal players having more speed and agility compared to non tribal players.
- No significant difference has been found between tribal and non tribal male football players on body mass index.

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