International Journal of Advanced Research and Development
ISSN: 2455-4030
Impact Factor: RJIF 5.24
www.advancedjournal.com
Volume 3; Issue 1; January 2018; Page No. 933-935

Selected anthropometric variables and their relation to speed ability with intercollegiate football men players

Dr. Sudhakara G
Physical Education Teacher, Sri Prabulingaswamy High School, Hiremagalore, Chikkamagalore, Karnataka, India

Abstract
The purpose of the present study to find out the relationship of speed ability with selected anthropometric variables of football men players. For this purpose the researcher selected 30 football ball men players from Shri Devi group of educational institutions. Tumkur (Karnataka) and those players who represented this institution at inter-collegiate tournament and age ranged from 18-25 years. The data was collected through applying the tests: 50 meters dash run test for speed ability And selected anthropometric variables: Body weight was measured by weighing machine and the score was measured in kilograms. Standing Height was measured by stadiometer and the score was measured in cm. Leg length, thigh girth and calf girth were measured by gullick tape and scores was recorded in cm. For the relationship of agility ability with selected anthropometric variables. Pearson Product Moment coefficient test were applied at 0.05 level of significant. All statistical analysis was done using MS Excel and SPSS version 16.0.The result of the present study showed that there was significant relationship found in selected anthropometric variables such as Height(r=.363), weight(r=.368), and leg length(r=.372), and thigh girth (r=364) insignificant relationship found in calf girth (r=.232) of Shri Devi group of educational institutions. Tumkur (Karnataka) inter collegiate football men players in relation to agility ability.

Keywords: speed ability, anthropometric. football

1. Introduction
The drive to excel in sport and to achieve national or international status is the desire of many youth the world over. The increased competitiveness in sport demands that players achieve their optimum performance levels in a methodical manner with clearly defined performance objectives and training programmes. This has motivated sports administrators, coaches, managers and players to spend time and resources evaluating their sports more scientifically. This requires that certain objective parameters be used to determine current performance and to monitor changes in performance. These parameters include anthropometric characteristics, physiological variables, and sports specific skills.

Anthropometric and physical qualities have the potential situation and best essentials in the execution perfection in numerous games and sports. Anthropometric variables are one of those factors which is influence the sports and physical activity of an individuals. These Anthropometric dimensions and morphological characteristics play an important role in determining the success of an athlete. (Reco-Sanz, 1998; Wilmore & Costill, 1999) [11, 14].

Anthropometrics measurements were central concerns of the period of the experimental time of estimation, which started in the 1860 concerned on three regions development measure body type and body composition. All the movements are based upon the basic forms of running, jumping and throwing. These movements require well proportionate physique and all types of physical fitness qualities on the part of every player. (Nagar, L., Meena, D. S., & Singh, B., 2012) [10]

Anthropometric assessment comprises of target estimations of structure and capacities of the body. The assessment of the structure incorporates things, for example, weight, all out stature and width, the profundity and circumferences of the chest etc. After an intensive study of anthropometric measures of Olympic athletes, Garay, Levine and Lindsay Carter concluded that level of performance in a particular event demand a particular type of body size and shape, other aspect being similar, they established high relationship between structure of an athlete and the specific task (event) in which he excelled. (Garay & Carter, 1974) [6].

The word physical fitness and motor fitness are often used interchangeably. The term motor fitness was developed to describe a broad concept than physical fitness. This extensive term means the ability to perform basic motor skills efficiently and effectively. Motor fitness is an important component for an athlete in order to obtain optimal performance in sports. The level of motor abilities components is of prime ' importance for learning of various activities and perfection of different skills. Traditionally motor abilities have been viewed as a combination of factors that are basic to all moments. All the factors of motor ability are chiefly concerned with the ability of the player and his capacity of action. The level of motor ability is the prime importance for learning various general activities and perfection of different skills in various sports and physical activities. Motor ability is sometimes used to mean achievement of basic motor skills. It also indicates present athletic ability.

General motor ability may be defined as, motor fitness including neuromuscular coordination abilities or motor control by eye hand coordination, eye foot coordination and

whole body movement coordination. Sometimes general motor fitness is also defines as one's inherent potential to perform vigorous motor activities with best speed, strength, endurance, flexibility, agility and quick reaction time. Thus, when we use the term general motor ability, we are talking about basic motor fitness and general body coordination skill needed in various sports, athletics and gymnastics activities. Sports Specific motor ability may be defined as, general motor ability plus excellence in specific sports skills in the game of one's specialization. Thus sports specific motor ability is the culmination of all fitness components i.e. skill ability, motor control and motor educability testing. If a sports person has good specific and general motor ability then he can perform better at higher level. In order to improve performance in sports.

Football is probably the world's most popular sport, played in practically every nation at varying levels of competence. Football may be played competitively or for fun, as a career, a means of keeping fit or simply a recreational pursuit (Reilly, 1996). Modem football is very fast in its nature, the spectators and the players enjoy the game of football with a great amount of merriment. It is a game of constant action and requires continuous adaptation to changing situation by the team as a whole as well as by the individual players. Although it is a team game, there is an ample room for players to display their brilliance through team play involving improvisation and tactical knowledge.

Speed - Speed is the ability to cover maximum distance in a shortest possible time. According to Dick (1980) [4] "speed is the capacity of moving a limb or part of the body's level system or the whole body with the greatest possible velocity".

Meyers (1974) [9] elucidated speed as the capacity of an individual in the rate of making successive movements of the same kind.

The main purpose of the present study to examine the relationship of speed ability with selected anthropometric variables of football men players.

2. Methodology

2.1. Selection of subjects

To achieve the purpose 30 football ball men players from Shri Devi group of educational institutions. Tumkur (Karnataka) and those players who represented this institution at inter-collegiate tournament and age ranged from 18-25 years.

2.2. Administration of Tests

The data was collected through applying the tests: 50 meters dash run test for speed ability And selected anthropometric variables such as Body weight was measured by weighing machine and the score was measured in kilograms. Standing Height was measured by stadiometer and the score was measured in cm. leg length, thigh girth and calf girth were measured by gullick tape and scores was recorded in cm.For the relationship of speed ability with selected anthropometric variables

2.3. Statistical Analysis

To determine whether relationship among the research variables exists or not, Pearson Product Moment coefficient test were applied at 0.05 level of significant. All statistical analysis was done using MS Excel and SPSS version 16.0.

3. Results

To establish the Correlation of selected anthropometric variables with speed ability of inter-collegiate football men players, Pearson moment correlation (r) was computed and data pertaining to this, has been presented in table-1.

Table 1: Correlation of Selected Anthropometric Variables with Speed Ability of Inter-Collegiate Men Football Male Players

S. No	Variables	r -value
1	Speed Ability And Height	.363*
2	Speed Ability And Weight	.368*
3	Speed Ability And Leg Length	.372*
4	Speed Ability And Thigh Girth	.364*
5	Speed Ability And Calf Girth	.232

*Level of confidence significant at r 0.05

The table 1 indicates that the calculated 'r' value of selected anthropometric variables such as height (cm) (r=.363), weight (kg) (r=.368) and leg length (cm) (r=.372) and thigh girth (r=364) were found significant relationship with Speed ability and Calf Girth (cm) (r=.232) were found insignificant relationship with the agility ability at 0.05 level of significance. Therefore the above finding shows that the height, weight, leg length and thigh girth are correlated with the Speed ability except than calf girth were found insignificant.

4. Conclusions

On the basis of findings following conclusions have been drawn

Significant relationship found in selected anthropometric variables such as height(r=.363) weight(r=.368), leg length(r=.372) and thigh girth (r=364) Insignificant relationship found in calf girth (r=.232) of ShriDevi group of educational institutions. Tumkur (Karnataka) inter collegiate football men players in relation to speed ability.

5. References

1. Bagchi A, Raizada S. Anthropometric and physical variables as predictors of off-spin performance in cricket: A multiple regression study. International Journal of Sports Sciences and Fitness. 2015; 5(2):314-322.
2. Barrow Harold M. Man and Movement, Principles of Physical Education. Henry Kimpton Publishers, London. 2nd edition. 1977, 53.
3. Barrow Horold M, McGee Rosemary. A Practical Approach to Measurement in Physical Education. Philadelphia: Lea Febiger, 1979.
4. Dick Frank W. Sports Training Principles. Lepus Books, London. 1980, 193.
5. Gangey O, Kerketta I. Relationship between selected motor fitness and playing ability of volleyball players. International Journal of Academic Research and Development. 2016; 1(6):25-26.
6. Garay A, Levine L, Carter YE. Genetic and anthropological studies of Olympic athletes. New York: Academic Press, 1974.
7. Harish PM. Relationship of anthropometric variables with

basketball playing ability. Academic Sports Scholar. 2015; 4(4):1-4.
8. Kumar BTN, Urs SR. Relationship of selected physical and anthropometric variables with the game performance of college men volleyball players. International Journal of Health, Physical and Computer Science in Sports. 2012; 7(1):106-110.
9. Meyers Carlton. Measurement in Physical Education. Ronald Press Company, New York. 1974, 257.
10. Nagar L, Meena DS, Singh B. Correlation of Selected Anthropometric and Physical Fitness Variables to Basketball Proformance, International Scientific Journal of Sport Sciences. 2012; 1(2):91-95.
11. Rico-Sanz J. Body composition and nutritional assessments in soccer. International Journal of Sport Nutrition. 1998; 8:113-123.
12. Singh TN, Nain B, Reeta Salam C, Singh S. A comparative study of anthropometric variables between residential and non-residential school students of Chandigarh. International Journal of Health, Physical Education and Computer Science in Sports. 2012; 6(1):41-44.
13. Srinet MS. Anthropometrical profile of cricket players: A descriptive study. Academic Sports Scholar. 2015; 4(4):1-4.
14. Wilmore JJ, Costill D. Physiology of Sports and Exercise. Champaign: Human Kinetics, 1999.