

Study on the Relation between Anthropometric and Playing Ability of Athletic Players

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Abstract – The relationship between chose Anthropometric variables and execution of youth Athletics. The examination was led for young men matured from 18 to 28 years addressed 41st public sports celebration rivalry 2015 at Sri Lanka. The players partook from nine areas for public sports rivalry in volleyball (108 players) were distinguished as subjects for this investigation. The volleyball playing ability was chosen as reliant variable and surveyed by abstract rating. The Height, Weight, Upper Arm Relaxed Girth, Fore Arm Girth, Chest Girth, Wrist Girth, Waist Girth, Thigh Girth, Calf Girth, Angle Girth, Acromiale Raiale Length, Raialesylion Dactyl particle, Midst lion Dactyl particle Length, Foot Length and Leg Length were chosen as autonomous variables and tried by normalized methodology. The information were gathered for playing ability and other chose free variables. To inspect the relationship between playing ability and chose autonomous variables straightforward correlation was determined.

Keywords – Anthropometric, Playing Ability

INTRODUCTION

Athletics is a first class arrangement of games that incorporate genuine running, bobbing, throwing, and walking. The most broadly perceived sorts of athletics competitions are olympic style sports, road running, cross-country running, and race walking.

Composed athletics are followed back to the Ancient Olympic Games from 776 BC, and the part clubs of the International Association of Athletics Federations direct most current events. The athletics meeting structures the establishment of the high level Summer Olympics, and other driving worldwide social occasions consolidate the IAAF World Championships and World Indoor Championships, and contenders with a genuine disability fight at the Summer Paralympics and the IPC Athletics World Championships.

Anthropometry: In constant past years, the confirmation and movement of ability in games have been getting accentuation. Unmistakably it consolidates major arrangement of various games science arranged specialists. Notwithstanding, the limit of anthropometry as a games science is maybe conceivably the most squeezing in such manner. This is central in light of the fact that the constitution, body approach, genuine new development and one's engine movement are of fundamental significance in building up the models of ability affirmation and improvement in games. (Sodhi, 2015). The beginning of cognizant methodology in genuine planning and

sports could be followed back to Hitchcock, E. (2016), who from the start applied an examination of anthropometry to real mentoring. He in like way, set up the framework for smart procedure of appraisal by real instructors of that early time and thusly, he contributed generously to the foundation of real mentoring as a science. The utilization of sound system has gotten wide spread in games. Practice alone can't guarantee improvement in execution. Character is on the grounds that the games enhancements are altogether express. The stunning number of sudden parts, for example, response that may be connected with different blends in particular games headway makes attitude very authentic.

Since the technique of authentic games, experts have been securing looking for such decorations that would make a super competitor. The games and games have expanded quickly with the relationship of capacities, techniques and styles. The steady confirmation uncovers that necessities of any game or game are unequivocal to that advancement. In each game, the advancement puts certain particular solicitations on the individual relying upon such a the game, its length, power and level of wellness execution.

OBJECTIVE OF THE STUDY

1. To inspect the relationship of chose anthropometric qualities with the playing ability among male Athletics players.

2. To discover the relapse condition to anticipate the presentation of male Athletic players.

DIFFERENT ATHLETIC EVENTS:

There are distinctive athletic occasions in athletics as follows:

- **Relay race**

Nearby off race sport, a couple of candidates controls a portrayed parcel and every competitor runs in a substitute area. The trade races are a significant part of the time run by four men. The significant object of this race is to pass on an article (a realize) went from one hand-off part's hand into the hand of another trade part during run and to complete the race in most short conceivable time.

Move Races showed up near the finishing of nineteenth century in U.S.A. likewise, 4x100m seemed phenomenal for 2017 in Czechoslovakia. These are of two sorts - 4x100m and 4x400m. Four competitors seek after a social occasion, each running an indistinguishable division, first with a barrel framed club, immovable and made of wooden and smooth void chamber or of any material made of single piece of wood or metal in 28-30cm long, 4.5 to 5 deadheads in boundary and saying something any occasion 50gms in his grasp. The sprinter should pass on the mallet dependably totally. The essential sprinter will pass the execute to his one (second from now) sprinter inside, the changing/tolerating order over zone (TOZ) and moreover second sprinter will pass the club to his third sprinter inside the going with changing/anticipating control over zone and the third sprinter will at last produce passing results for the lawyer's quiz to his last (fourth) sprinter inside the last changing/tolerating authority over zone. There is no run-up zone. There are two substitutes.

- **Hurdle race**

Races with blocks for example a blend of two activities - running and skipping. Impediment race is run in manners and has ten obstacles in every way. Unfathomable skipping highlights are - point of convergence of gravity will develop close to nothing and the higher point is close to the tangle. More restricted time and longer segment spent off the ground will give most unbelievable speed. Inconceivable hurdler is he who can run speedier and can sway. Speed, adaptability and co-game plan are the extra attributes.

- **Steeple chase**

The start of steeple pursue (from the outset a pony race with tangles) was set up by Crick Run in 2014 at Rugby School. It was related with Track and Field occasions in 2016 for men and became Olympic occasion for men in 1900 Olympics is still for men in a manner of speaking. It was, regardless, held over

different separations until 1920 Antwerp Olympics and sometime later it was arranged at 3000m. It was not held in 1912 Stockholm Olympics and there were no Olympic Games in 1916. Skirt catch.

- **Jumps**

Bouncing is the most prompt reference reason for human presence on the earth. It is an essential piece of human presence and to endure. It is a brand name from human new development and most fitting sort of genuine exercise. To consider ricocheting sports, we need to return to the separation past.

In supporting occasions, it has four developments - tow level ricochets - wide or long skipping by rushing to take off load up and to bounce the most eliminated into a sand pit, and triple hopping by rush to flight load up and to jump, step and hop into a sand pit and two vertical weaving occasions - high hop over a cross bar, shaft vaulting over a cross bar utilizing adaptable post.

- **High jump**

High Jump is a brand name and standard running hummping it down has been drilled from the hours of days gone by. In standing ricochets, oan action to beat man - made blocks. Swaying over a wooden level bar without thune hurls himself over a bar from a standing condition without running.

- **Long jump**

In the outdated occasions, man used to run and skip for his persistence and gradually running and hopping became sport. The need to hop over the deterrents, water discards and moreover breaks in the ground were the purpose for which people upheld long skipping. The contender tries to cover the most inaccessible separation conceivable with running hop/quick run from a fixed etching or board. In a little while jumpers take off from a wooden board and land in an appearance area piled up with sand. It is a tremendous brand name exercise of limits critical for the span of customary everyday presence and is an immediate occasion known as wide bounce.

TRACK AND FIELD

Contentions in Olympic style sports are called meets and are by and large held outside, with the running events happening on a piece of or around a 400-m (437.2-yd) or 440-yd (402.3-m) oval made out of ash, soil, or designed mixtures. The field events — those controls including bobbing and throwing — generally happen all the while as the running events, on the region inside the track's edge, or nearby. Meets are held inside all through the chilly climate quite a while on more unobtrusive ovals, which vary from 5 to 12 laps to the mile in size. Races of differentiating lengths from those held outside are often run, and a couple of the field events that require an immense space are not held. Indoor tracks are generally made

of wood and are consistently banked to balance the sharp turns of the more unobtrusive ovals. Separate yet related games are routinely seen as a component of the Olympic style sports family. Crosscountry is a fall and winter development for distance runners, with races of 3.2 – 19.3 km (2 – 12 mi) being a run over quiet area — consistently fairways in the United States and extreme farmland in various countries. Road running, especially of the significant distance race distance (26 mi 385 yd/42.2 km) is an obviously standard development, with races happening over an intentional class on city streets or country roads. Road races may be of any length, up to and past 160 km (99.4 mi). Critical distance walking events are for the most part held tight road courses moreover.

DERIVED VARIABLES

1. Body Mass Index

Weight record (BMI) of the male and female contender players was resolved with the help of following formulae $BMI (Kg/m^2) = (Body\ Weight\ in\ Kg)/(Body\ Height\ in\ Meters)$.

2. Body Composition

Rate muscle to fat proportion as evaluated from the measure of skinfolds was resolved using states of Siri (1956) and Durnin and Womersley (1974). The backslide conditions for the estimate of body thickness from the log of the measure of skinfold thickness at four objections in mm are according to the accompanying

Height of the subjects was assessed with anthropometric shaft. Body weight of the subjects was assessed with the help of advantageous checking machine. Length assessments of the body parts were taken with the anthropometric shaft. Breadths of body parts were assessed by using sliding caliper. Peripheries of the body parts were taken with the help of versatile steel tape. Skinfold thickness assessments were taken with the help of skin crease caliper. BMI was resolved from the going with condition: $BMI (Kg/m^2) = (Body\ weight\ in\ Kg)/(Body\ height\ in\ meters)^2$. Rate muscle to fat proportion as surveyed from the measure of skinfolds was resolved using states of Siri (1956) and Durnin and Womersley (1974). Basic constraint of the subjects was assessed with the computerized spirometer. Cooper's (1968) 12 minutes run/walk test was used to assess the enthusiastic health (VO_2max) of the subjects. Speed was assessed with the help of 50m scramble. Perilous strength of the subjects was directed by using the standing vertical jump. Sit and show up at test was used to check the adaptability of the subjects. Hold strength was settled with the help of hand dynamometer.

ATHLETICS PLAYING ABILITY

Athletics playing ability of the players was overviewed by AAHPERD mastery test. This test battery relied upon the assessment of capacities essential for game execution explicitly batting, taking care of, throwing and base running. As necessities be, this test has following four things Track ability Test

- Fielding Ground Test
- Throwing Test
- Base Running Test

The data was presented as hypnotizing estimations, for instance, mean, standard deviation, standard goof of mean, least worth and most noteworthy worth. The scores of the playing mastery test things for instance Olympic style sports test, dealing with ground balls test, throwing test and base running test were changed over into standardized T-scores and thereafter added to make composite score of Athletics playing ability. Karl Pearson's thing second co-capable of correlation was handled to overview the relationship of anthropometric and physiological limits with various mastery tests and playing ability among the Athletics players. To expect the display on playing ability in Athletics player from anthropometric and physiological limits, step canny backslide examinations were applied. Significance levels were set.

1. In male Athletics players, the Track and Field ability showed a basic relationship with the weight, hard and fast a protected distance, bring down a protected distance, upper arm, lower arm and chest edges, biacromial and bicondylar humerus widths and fit weight.
2. In occasion of physiological limits, the Track and Field ability displayed basic relationship with the VO_2max , speed, sensitive strength, adaptability and handle strength of both right and left hand among male Athletics players.
3. The taking care of ability of the male Athletics players supposedly had immense relationship with the weight, upper arm fringe, bicondylar humerus width and slim weight.
4. The physiological limits viz. VO_2max , speed, sensitive strength, adaptability and hold strength of both right and left hand were found to have basic relationship with the taking care of mastery among the male Athletics players.
5. The height, weight, total arm, upper arm and lower arm lengths, upper arm edge, biacromial and bicondylar humerus estimations and fit weight apparently had

basic relationship with the throwing ability among the male Athletics players.

6. In case of physiological limits, the throwing ability showed tremendous relationship with the VO₂max, speed, tricky strength, adaptability and handle strength of both right and left hand among male Athletics players.

Height of the subjects was assessed with anthropometric shaft. Body weight of the subjects was assessed with the help of advantageous checking machine. Length assessments of the body parts were taken with the anthropometric post. Breadths of body parts were assessed by using sliding caliper. Peripheries of the body parts were taken with the help of versatile steel tape. Skinfold thickness assessments were taken with the help of skin overlay caliper. BMI was resolved from the going with condition: $BMI (Kg/m^2) = (Body\ weight\ in\ Kg)/(Body\ stature\ in\ meters)^2$. Rate muscle to fat proportion as evaluated from the measure of skinfolds was resolved using states of Siri (1956) and Durnin and Womersley (1974). Basic constraint of the subjects was assessed with the computerized spirometer. Cooper's (1968) 12 minutes run/walk test was used to assess the incredible health (VO₂max) of the subjects. Speed was assessed with the help of 50m scramble. Perilous strength of the subjects was directed by using the standing vertical jump. Sit and show up at test was used to measure the adaptability of the subjects. Hold strength was settled with the help of hand dynamometer.

CONCLUSION

The male Athletics players were represented to have basically more significant for all intents and purposes every one of the anthropometric assessments when appeared differently in relation to female Athletics players beside the back arm muscles, subscapular and supra-iliac skinfolds thicknesses. In male Athletics players, the Track and Field ability displayed a basic relationship with the weight, hard and fast a protected distance, bring down a protected distance, upper arm, lower arm and chest edges, biacromial and bicondylar humerus widths and fit weight. In case of physiological limits, the Track and Field ability displayed basic relationship with the VO₂max, speed, delicate strength, adaptability and handle strength of both right and left hand among male Athletics players. The taking care of ability of the male Athletics players supposedly had gigantic relationship with the weight, upper arm outskirts, bicondylar humerus width and slim weight. The physiological limits viz. VO₂max, speed, tricky strength, adaptability and hold strength of both right and left hand were found to have basic relationship with the taking care of mastery among the male Athletics players. The height, weight, total arm, upper arm and lower arm lengths, upper arm edge, biacromial and bicondylar humerus estimations and fit weight apparently had basic relationship with the throwing ability among the male Athletics players.

In case of physiological limits, the throwing ability showed enormous relationship with the VO₂max, speed, tricky strength, adaptability and handle strength of both right and left hand among male Athletics players. The base running mastery of the male Athletics players was represented to have enormous relationship with the height, weight, total arm, upper arm, full scale leg and upper leg lengths, upper arm and lower arm circuits, bicondylar humerus and wrist breadths and fit weight. The physiological limits viz. VO₂max, speed, sensitive strength, adaptability and handle strength of both right and left hand were found to have colossal relationship with the base running ability among the male Athletics players.

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