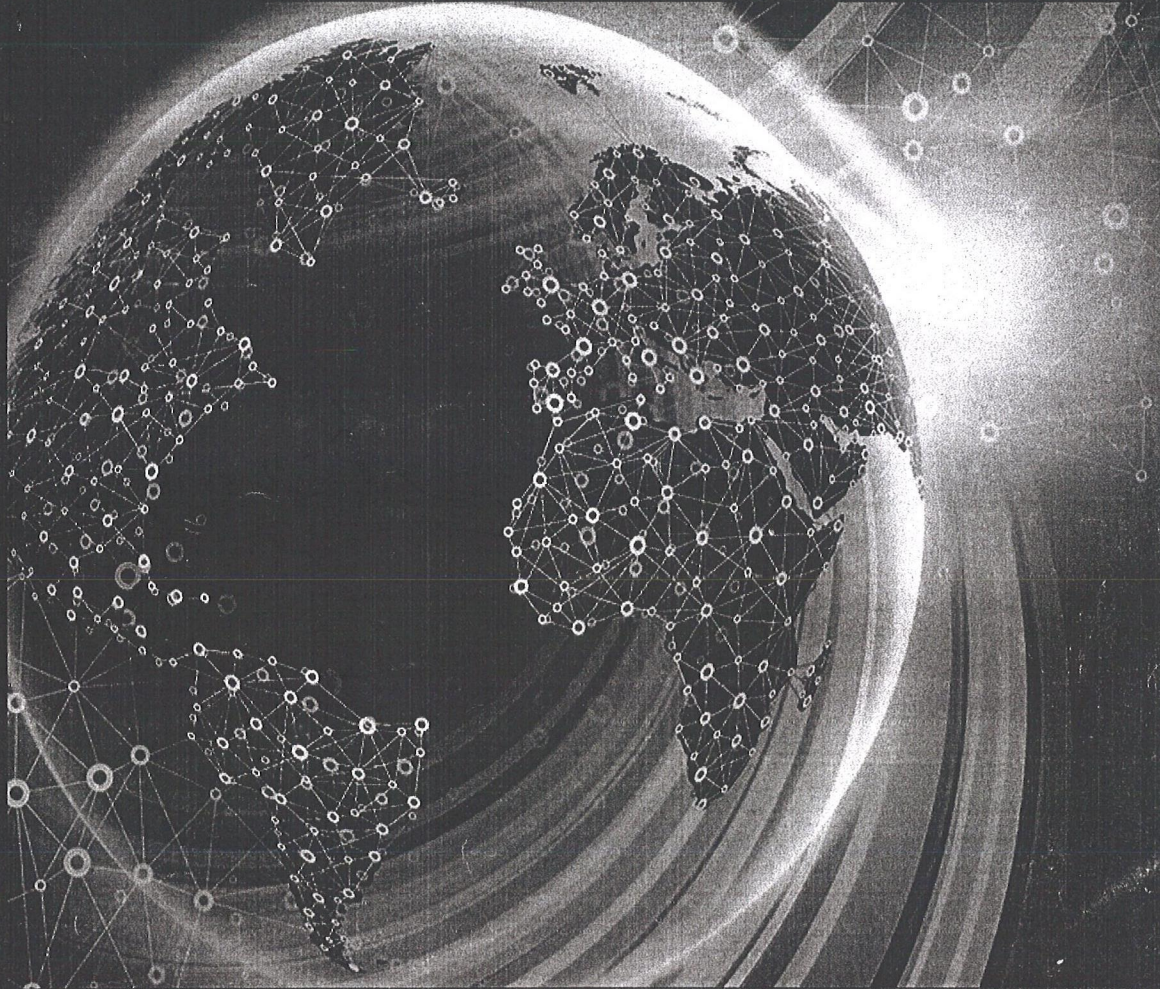

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GLOBAL INNOVATIVE RESEARCH DIMENSIONS



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GLOBAL INNOVATIVE RESEARCH DIMENSIONS

Proceedings of 7th International Multidisciplinary Conference

VOLUME - 9

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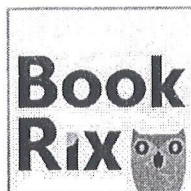
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COMPARATIVE STUDY OF ANTHROPOMETRIC MEASUREMENTS AND BODY COMPOSITION BETWEEN INTER UNIVERSITY LEVEL FOOTBALL AND KHO-KHO PLAYERS OF SELECTED STATE UNIVERSITY OF KARNATAKA

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Abstract

The aim of present investigation was to examine the somatotype and body composition between medalist and non-medalist kho-kho players. This study included 72 kho-kho players of All India Inter-University, including medalists (N=36) and non-medalists (N=36). Each player was tested on various anthropometric measurements necessary for the estimation of somatotype and body composition. The results indicated that medalist kho kho players were older (1 year), taller (1cm) and significantly heavier (2kg) than non-medalist kho kho players. It has been found that medalists were dominant on mesomorph component, however non medalists were dominant on endomorph and ectomorph component, and differences were found insignificant. These medalists had insignificantly higher bone mass and subcutaneous tissue, and having significantly more muscle development than the non-medalists. This study suggests that the optimum stature and body weight play significant role in performance of kho kho players. Finding also indicated that medalist kho-kho players were more mesomorphic and having more muscle development than non-medalist players. It has been found that non-medalist players were possessed more fat percentage and have linear physique than medalist players.

Keywords: Football, Position, Defender, Midfielder and Anthropometric.

Introduction

Anthropometry and physiology assume an essential part in choosing the specific form of the body with different estimations of the portions of the body it has additionally its significance in the recorded of Football and Kho-Kho amusement. Somewhat or by and large the body stature length of different level and estimations of the differs body fragments, beat rate pulse Hemoglobin, fundamental limit and body synthesis effect sly affect the execution of these amusement players. The agent in the present investigation endeavored to test this hunch to think about the contrast between the different physiological and Anthropometrical estimations of Football and Kho-Kho players. The point of this examination was to dissect the anthropometric factors of football and kho-kho players. For show think about 40 universities level male football (n=20) and kho-kho (n=20) players were chosen from, two locale of Karnataka. The age assembles chose for this examination was 17.64 ± 2.54 a long time. Information was gathered by administrating chosen anthropometric estimations which were standing stature, sitting tallness, leg length, upper a safe distance and lower arm length. The gathered information were broke down by utilizing t-test at 0.05 level of essentialness. Aftereffects of this examination uncovered that there was a noteworthy distinction between Standing tallness ($t=6.61$), Sitting stature ($t=2.93$) and Forearm length ($t=3.23$). As there was a unimportant contrast between Leg length ($t=1.99$) and Upper a safe distance ($t=1.97$).

Football, which is also known as Soccer is probably world's most popular sports, 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. The physical education seems to have taken a new turn in the form of sports science. The sports science in turn has their substance and methodology from various sports basic. Soccer is the most popular sport in the world because it is performed by the man and women, children and adults with deferent level of expertise. The popularity of the game is reflected in the millions who participate in Soccer in lower level of play. Soccer is now being played in more than 210 countries throughout the world. Soccer is popular because of the fact it is a simple game requiring very minimum infrastructure and equipments Stepnicka (1974). Anthropometry is the science that deals with measurements of size, weight and proportions of human body. It provides scientific methods and observations on the living humans. Anthropometric techniques (skinfold fat, circumference and diameter measurements) are popular for predicting body composition because they are not much expensive, require little space and can be performed easily (Behenke

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and Willmore, 1974, and Pollock and Willmore, 1990). Anthropometry is often used in physical education, sports science, physical activity and biomedical sciences. Anthropometry is often used in physical education, sports science, physical activity and biomedical sciences. Anthropometric measurements can be divided into height, weight and lengths, breadth or width, circumferences or girths, depths and skinfolds. All measurements of individual are external dimensions of the body.

Kho-Kho, the game of running and chasing is an indigenous game. The popularization and development of this game has been associated with the development of Akharas and Vyamshalas in Maharashtra. Kho-Kho has played historical role during freedom from British rule. YMCA and RSS movement has played a key role to spread the game throughout India.

There were no set rules framed earlier to conduct the game but as the time passed the rules were changed time to time with advancement of game. The first code of rule was drawn up by a team of kho-kho experts appointed by the Deccan Gymkhana, Pune in 1914. The rules were remodeled by the Hind Vijay Gymkhana, Baroda in 1924 which were again streamlined by Akhil Maharashtra Sharirik Shikshana Mandal (AMSSM) in 1928. The first book of rules was published in 1935, by the AMSSM and second edition in 1949 (Ramraj, 1993).

The kho-kho Federation of India was formed in 1960 and it organized the first kho-kho National for men at Vijayawada (A.P.) in the same year. The Championship for women was conducted at Kolhapur (Maharashtra) in 1961. The first National Junior kho-kho Championship for boys was organized in 1971 at Hyderabad and for girls in 1975 at Madhya Pradesh. The first SubJunior Boys/Girls Championship was held at Indore (M.P.) in 1980 (Verma, 2011).

At present various competitions are being conducted from cluster level to National Level as Sub Junior (boys and girls), Primary School Championship (boys and girls), High School Championship (boys and girls), Senior (men and women), Nehru Cup, University/Inter-varsity (men and women) and federation cup. Special awards as Eklavya, Rani Laxmibai, Veer Abhimanyu (under 18 boys), Janaki (under 16 girls) Bharat Puraskar (SubJunior boys), Veer Bala Puraskkar (Sub Junior girls) and Arjuna Awards are being given to kho-kho players who show excellency of their skills during the prestigious matches. The Dronacharya Award is also conferred to the coach whose team brings outstanding achievement in the prestigious competitions in the field of kho-kho (Mishra, 2007, 2011).

The efforts to include the game in Olympic Games has been continued since 1936 Berlin Olympic Games in which a request for exhibition match was made before the organizers but it could not be accepted. The exhibition matches were played in Sweden and Denmark in 1949. But due to no set rules and poor techniques, it could not make impression to the foreigners.

The exhibition matches were also played in 1982, Asian Games held at New Delhi and in SAF Games at Calcutta in 1987. The Asian kho-kho Federation was also formed during the third SAF games, held at Calcutta competition. As a result of this, the game was included in the Asian Games Competition. The credit of this endeavour goes to All India kho-kho Federation and its affiliated State Federations. The two Asian kho-kho Championships were conducted in 1996 and 2000. Netaji Subhash International Gold Cup was also organized in 1999 (Mishra, 2007, 2011).

Now the game has become most popular in India as well as in other countries. Its popularity can be judged that now the game is looking forward for a glorious entry into INTERNATIONAL SPORTS ARENA. Its popularity can be judged in terms of international kho Kho Participation. Its popularity is known with the fact that it requires a minimum space and equipments. It can be played on any surface that suits open field sports. It is inexpensive and therefore poor players can also take part in this game. Besides this, as the game is played with different type of fast body movements which required speed, agility, strength, explosive power, muscle co-ordination, lung power and above all intelligence and quickness of thought and action during the game situation. In turn, it will endow them with many sterling benefits like development of physical, mental, moral, social characteristics which make them good citizens of the country.

EVALUATION OF PLAYING ABILITIES

In team game like kho-kho, true assessment of playing ability is done through evaluation of game performance. Objective evaluation of game performance is not found possible. It is also observed that all the abilities of the players could not be assessed through game performance evaluation. Generally the game performance is evaluated by three expert coaches through observation, which is subjective in nature. The performance during kho-kho Competition is being assessed to a certain extent, objectively, through statistical information. It is revealed that the tests which can predict the actual match performance of the player are composed of techniques of the body movements that are requires to be performed during game. Research findings have revealed that kho-kho playing ability can be indirectly evaluated through the

performance in running and chasing movements as the playing ability assessed through expert ratings was found related with performance in during game running and chasing movements.

The human body size and form varies in a variety of ways and depends upon age, sex, race and geography. One of the main concerns of the physical anthropology and human biology is to acquire and convey the knowledge on the true ways and reasons of individual variability and differentiation. This also applied to the whole of biology contribution taken in morphological, physiological and psychological aspects as reported by Tanner (1947). Research is aimed at obtaining knowledge of the variables, real qualities of body measurements and through their analysis or the effects on the genetic and environmental factors acting on the human body.

The world of games and sports has crossed many milestones, as results of different achievements in general and their application in the field of sports in particular. Scientific investigation in to performance of sportsman has been playing an increasingly important role in the training of athletes in the scientific way to attain excellence in performance in different spheres of sports.

Kinanthropometry is an oldest type of body measurements used, dating back to the beginning of recorded history. The concepts of the ideal proportion varied over period of time. For example, Polyclitus fashioned doryphorus the spear thrower as a fighter and an athlete broad shouldered thick set and square chest as the perfect man.

Evidence of this is a common place; observe that well proportionate physique of boxers and gymnasts, the super structure of great basketball players, the wryness of champion distance runners and the massive build of great shot-putter and discus throwers. The hurdlers have been found to have long legs and short trunk.

BODY COMPOSITION AND PERFORMANCE

With the advent of new physical fitness test (AAHPER) the physical education teachers/coaches are more interested to find out the body composition of the athlete because it effects the performance very much and also change as the physical activity change. So, it is important to know the norms suitable for body composition on the basis of which the suitable training schedule may be constructed to improve the performance in sports and may also help to choose the event or activity according to an individual body composition.

Body composition refers mainly to the evaluation of three principle tissue component of body i.e. muscle, bone and fat. The section deals with the methods of evaluating the different components. Hydrometer, densitometry, roentgenogrammetry and somatometry on anthropometry are the main methods of study in this section.

Kho-Kho ranks as one of the most popular traditional sports in India. Kho Kho is an extremely complicated and tactical sport. Kho Kho is a tag sport played by teams of twelve players who try to avoid being touched by members of the opposing team; only 9 players of the team enter the field. It is one of the two most popular traditional tag games of South Asia, the other being Kabbadi. Apart from South Asia (mainly Bangladesh, India and Pakistan), it is also played in South Africa.

The origin of Kho-Kho is difficult to trace, but many historians believe, that it is a modified form of 'Run Chase', which in its simplest form involves chasing and touching a person. With its origins in Maharashtra, Kho-Kho in ancient times, was played on 'raths' or chariots, and was known as RATHERA. Dodging, feinting and bursts of controlled speed make this game quite thrilling. To catch by pursuit - to chase, rather than just run - is the capstone of Kho-Kho. The game develops qualities such as obedience, discipline, sportsmanship, and loyalty between team members.

Morphological characteristics are most important factor because to a great extent these are genetically determined. The anthropometric measurements are used to determine the morphological status, that is, body constitution and body structure of an athlete. It is well known fact that a general relationship exists between morphology and performance.

Several studies on various body characteristics of different sports activities have been carried out by many researchers and they concluded that strong relationship exist between structure and performance. Physical performance declines when body weight and percentage of body fat is at extreme level, but depending on the sport, a higher or lower body fat level may be beneficial. Because of this, body composition trends in different sports can help identify potential participants. The top athletes in a particular sport or event show similarities in body dimension and body constitution.

Various researchers also suggested that different body size, shape and proportions are beneficial in different physical activities. Thus the model body type for a specific sport or event is most easily determined by studying the top level athletes. The knowledge of these characteristics assists the coaches in planning better training programs while preparing their athletes for competition. The present study, therefore, has been conducted on the participant of South zone

interuniversity Kho-Kho tournament for women, 2011-12, organized by Physical education and sports department, Pondicherry University, India and controls subjects to evaluate their somatic traits and body composition.

The body composition studies have been conducted very extensively on the athletes. The examination of fat and skinfold at selected sites is most important in them. It has been found that the athletes who were lean or less fatty but heavy because of a well-developed musculature were superior in performance in certain competitive sports. On the other hand the athletes who had substantial amount of adipose tissue have permanently increased energy demands owing to the inert weight of fat, this making the work more difficult to perform in such activities where the body has to be projected as in jumping movements or propelled against gravity over long distance as in distance running contrarily the long distance swimming, water polo and synchronized swimming are sports where in moderate levels of fat may actually aid performance by providing additional buoyancy and insulation provided by the fat to be a reduced heat loss.

Conclusion

Comparative study of anthropometric measurements of Caucasian and Negro boys and girls to find out the, differences in anthropometric measurements and at the same time differences in standing broad jump, medicine ball put, and zig-zag run performance of the boys and girls of both races. A total of 900 subjects were taken. Subjects were of different age groups of six to ten years. Anthropometric measurements were standing height, sitting height, weight, length of arm, length of fore arm, length of the hand, length of the upper extremity, length of the thigh, length of the leg and length of the lower extremity. He found that at the age of six to eight and ten years, boys differed from girls in most anthropometric measurements. However, there were no differences in standing height, leg, and lower extremity length, Negro boys and girls were not superior in the events of power and agility.

Reference

- Weinberg R.S. and Gould D., *Foundations of sport and exercise psychology*, (4th ed.). Champaign, IL: Human Kinetics, (2007)
- Heath BH and Carter J.E.L., *Somatotyping: development and applications*, Cambridge University press, New York, (1990)
- Duquet W and Carter J.E.L., *Somatotyping*, In R. Eston, Reilly, T. (Ed.), *Kinanthropometry and exercise physiology laboratory manual: Tests, Procedure and data*, (2 ed., Vol. 1, pp. 47-65). London and New York: Routledge, Taylor and Francis Group (2001)
- Mathur D.N. and Salokun S.O., *Body composition of successful Nigerian female athletes*, *J Sports Med*, 25, 27-21 (1985)
- Popovic S., Bjelica D., Petkovic J. and Muratovic A., *Comparative Study of Anthropometric Measurement and Body Composition between Elite Soccer and Handball Players*, In: 4th International Scientific Conference "Contemporary Kinesiology". Split: Faculty of Kinesiology, University of Split, 102-8 (2012)
- Hadzic R, Bjelica D and Popovic S., *Comparative study of anthropometric measurement and body composition between elite basketball and volleyball players*, *Research in physical education, sport and health*, 1(1), 103-8 (2012)
- Triki M., Rebai H., Abroug T., Masmoudi K., Fellmann N., Zouari M. and Tabka Z., *Comparative study of body composition and anaerobic performance between football and judo groups*, *Science and Sports*, 27(5), 293- 9 (2012)
- Wilmore J.H., *Body composition and athletic performance*, In W. Haskell; J. Scala and J. Whittam (Eds.), *Nutrition and Athletic Performance*, California, USA, Bull Publishing, 158-75 (1982)
- Meszaros J and Mohcsi J., *An anthropometric study of top level athletes in view of the changes that take place in the style of some ball games*, *Humanbiologia Budapestinensis*, 13, 15-20 (1982b)
- Carter J.E.L., *Physical structure of Olympic athletes, Part II*. S. Karger, Basel, (1984)



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