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Some physical measurements and their relationship with the effectiveness of skilled performance for basketball players female in Sulaimani Club

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Abstract

The aim of the research is to identify the relationship of some physical measurements with the effectiveness of the skillful performance of the semen basketball players of the Sulaymaniyah club with basketball. The researcher used the descriptive method by the method of correlation. The research sample was chosen by an intentional method from the female athletes of the Sulaymaniyah club in basketball (Minni Basket), who are (10) players The researcher excluded (3) female players for conducting the exploratory experiment on them, and thus the research sample reached (7), on which the basic experiment was conducted. The researcher used some body measurements where the researcher relied on the physical measurements mentioned in the sources and references that are agreed upon by others with the addition of age and weight to these measurements. All these measurements were taken for the research sample from the agreed anatomical points, including (lengths, widths, and perimeters). As for the skill performance test, the researcher used the basketball skills test battery of the American Federation for Health and Recreation, as this battery contains 9 tests and after using the appropriate statistical means, the researcher reached the following conclusions: There is a significant correlation between some physical measurements and the skill performance of basketball. The percentage of the contribution of some body measurements to the performance of skills in basketball was good, which confirms the effectiveness of these measurements in skill performance. The researcher recommended several recommendations to emphasize the importance of anthropometric measurements that showed moral relationships and contribution rates in the performance of basketball skills and work on developing and developing them and taking this into account in developing training programs and plans. There is necessity of adopting anthropometric measurements when selecting sperm players and junior players in basketball and conducting a similar study for the teams of young and advanced students.

Keywords :*measurements of physical, performance skill, players, club Al Sulaimani, Football, Basketball*

Introduction

The modern era is characterized by scientific progress and increased interest in studying the movement performance to recognize the importance of influencing factors in the technical, psychological, physiological, skill and other aspects, to reach clarification of the interrelation of all factors and their linkage with the aim of rationalizing the training process in order to develop performance and raise the higher levels and since basketball is one of the games that It depends primarily on mastering the basic skills of the game well. This requires physical characteristics commensurate with the different movements and direct physical contact between the competitors **(Aziz, 2001).** Where it has become important to provide suitable bodies as one of the supports that must be provided to reach the players to the highest possible athletic levels, regardless of his technical ability, he will not be considered a hero of any body, so the coach must choose a promising material before trying to train (**Abu Al-Ela , 1984**) as the structural composition It plays a large and essential role in athletic performance, and the importance of measurements appears in that they are often used as a basis for success or failure in a particular activity. And this is what has been confirmed by many studies, as the difference in its height and shortness will affect the skillful performance of individuals (**Saudi, 2015**). Also, physical measurements are of great importance in evaluating the growth of the individual in identifying weight and height, for example in different age stages, where it is one of the indicators which expresses the state of growth in individuals. As well as that every sporting activity is characterized by the activities of other sports if available s d t a t certain recipes for the athlete to qualify him to practice this type of activity better and the fact that

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players play basketball semen Basket smaller class age can be basic considered as the base upon which to build higher levels teams and this was confirmed by Abu-Ela as the physical characteristics of the first step and essential for achieving high levels **(Ali, 2011**). From here, the importance of the study emerges from the results that emerge from it in helping trainers to improve the education and training processes and the level of skill performance as well as to identify the extent to which training can be focused on physical and physical characteristics that have a positive impact on excellence in performance. And there are two main objectives for the selection of this study , the first of desire and love of student research for the game of basketball and that you find fun to work in the study where either second purpose, the basketball game and one of the sports activities that need special requirements, where physical variables play an influential and important role in the development of the level of Skillful performance through training and upgrading the level of the player, the highly qualified player can perform many skill and planning requirements throughout the match with high efficiency. As for the ill-considered choice of players and not relying on the accurate specifications of the basketball player, it leads to a wasted training effort and thus the goal of the training process is not It is clear, therefore, that the researcher decided to conduct this study in order to improve the skillful performance of female players in the future, which would provide the effort exerted by coaches to bring the players to higher levels. **(Ahmad, 1996)**

Literature review

1. Anthropometric measures

The term anthropologist Anthropology It is a two-fold Greek word, the first part (anthropos). Anthropos and its meaning is human, and the second part (logy) Logy and its meaning is science, hence the word anthropology, meaning anthropology, originated (**Qabbari, 1986**). Anthropometric measurements are important factors for practicing sports activities, as these measurements help in performing various movements and are known as "a branch of natural anthropology that searches for measuring the human body and its various dimensions." (**Muhammad, 1987**) and that anthropometric measurements of the human body represent an important place in various scientific fields to identify the difference between human races and the influence of environments in them, and that these measurements provide us with certain foundations that will be used in the comparison between the athletic performance of individuals. ”For each type of sports activities It needs physical specifications of its own, so in order to reach high levels, the body must be suitable for the type of sports activity practiced" (**Abdel Moneim, 2002**). Body measurements are of great importance in evaluating the growth of the individual and identifying the individual differences between them through knowing the weight and height in the stages the different, "just as the physical self of the individual has high relations in many vital areas. Physical growth is related to health, social and transitional harmony, and it also has a high Trust in achievement and intelligence, as well as there is a relationship between physical growth and muscular development of children who are physically normal” (**Ali, 2004**)

2. Anthropometrics and their importance in the sports field:

Physical measurements are special qualifications for a player, which have a lot to do with development in various sports, as physical measurements are of clear importance when performing any sporting activity because players perform sports movements with their different bodies in their measurements from one player to another, which leads to a difference in the level of performance. In it, "The ability to perform sports movements depends on the suitability of the physical measurements of the player to fulfill the requirements of that performance (**Muhammad, 1991**).

3. Basics of anthropometric procedure:

There are some conditions for conducting anthropometric measurements, which are represented by the following: Choosing the foundations that have fixed rules in the measurement process, Standardization of measurement modes for individuals and accurate identification of the anatomical points of the human body. Ensure the accuracy of measurements and tools used in measurement. Use appropriate statistical methods when processing data. (**Ahmad, 198**7)

4. Types of anthropometric measurements:

Familiarizing the researcher with many specialized sources and references It was found that anthropometric measurements adopted and repeated in the mathematical field can be placed in five main groups:

- *First: - Measuring body weight.*
- *Second: - Length index and it includes*. Total body length from standing, trunk length from sitting, arm length, upper arm length, forearm length, palm length, forearm length with palm, lower limb length, thigh length, leg length, foot length.
- *Third: - The body circumference index includes*. Neck circumference, head circumference, shoulder circumference, chest circumference (inhale - exhale), midsection, abdominal circumference, hip circumference, thigh circumference, knee

circumference, leg circumference, foot circumference, humeral circumference (Fold - extend), forearm circumference, wrist circumference.

- *Fourth: - The breadth index (widths) and it includes*: head breadth, shoulder breadth, pelvis breadth, quadriceps breadth, knee breadth, wrist breadth, elbow breadth, wrist breadth.
- *Fifth: Skin folds thickness index*, which includes: below the plate bone, at the midline of the armpit, at the chest, at the top of the elbow, at the mid-thigh, above the knee bone, at the three-headed humeral muscle, at the biceps humeral, and at the back of the upper forearm .

5. Conditions for successful anthropometric measurement:

First: In order to achieve the measurement of the required accuracy, the following points must be taken into account: A - The measurement is performed and the laboratory is completely naked. The safe may not be thick. B - Standardization of those who measure the devices used, as well as the measurement conditions. C - Calibrate the devices used in the measurement to ensure their suitability. D - If the measurements are made on adult females, it must be ensured that they do not go through the period of their menstrual cycle while taking the measurements and a closed place must be allocated for them to perform the measurements. E - Accurately record the measurements in the registration card, according to the instructions laid down. (**Muhammad, 1997**)

Second: In order to conduct anthropometric measurements: It is necessary for those in the measurement process to be fully aware of the following: A - The anatomical points specified for the places of measurement, as follows: 1 - The highest point of the skull. 2 - The lateral edge of the acromial protrusion. 3 - The lateral edge of the lower head of the homers. 4 - The acral protrusion of the radius bone. 5 - Elbow. 6 - The ulnar protrusion of the ulna. 7 - The middle of the sternum. 8 - The lateral edge of the occipital free bone. 9 - Symphysis joint. 10- The trochanter of the upper head of the thigh bone 11- The lateral edge of the middle of the knee joint. 12- The medial prominence of the heel. 13- Lateral prominence of the heel b - laboratory positions during measurement. C - Methods of using measuring devices. D - Technical and organizational measurement conditions and their exact application.

6. Importance of anthropometrics in basketball:

Anthropometric measures are important in influencing the success of performance, and as long as movement in any type of sports activities is mediated by the player's body, anthropometric measurements affect the success and efficiency of performance (**Essam, 2001**). Each sports game has specific physical characteristics that distinguish it from other sports, and tennis is one of these games that have distinctive physical characteristics that must be available in its practitioners in terms of total length that helps the player perform the skill of transmission and thus harmony between physical specifications and requirements. Physical skill for the game" (**Muhammad, 2003**)

7. Basic skills in basketball:

These are the skills that are most concerned with the implementation or performance of types of strikes correctly and include (front and back ground strikes, serve, and crushing, flying, cutting and high strikes) (**Hilal, 1991**). The basic skills of any sport is the main pillar on which the game is built, and the basic skills in the game of tennis are the movements that the player should perform according to the circumstances required by the game in order to reach positive and economic results (**Zafer, 2000**) .

Methodology

Research methodology: The researcher used the descriptive approach in the manner of correlational studies to suit it with the nature of the problem to be studied.

*Research community and its sample***:** The research sample was deliberately chosen from the Sulaymaniyah basketball club (Minni Basket), totaling (10) players. The researcher excluded (3) female players for conducting the exploratory experiment on them, and thus the research sample reached (7) where the basic experiment was performed on them**.**

A test and measurement:

- *Skill Performance Test*. The American Health and Recreation Association basketball skills test battery was used, which contains 9 tests (front aiming, side shooting, free throw, aiming from the bottom of the basket, fast passing, jumping and touching, passing with one hand from the top, accuracy of passing by push, dribbling).
- *Anthropometric*. The researcher relied on the anthropometric measurements mentioned in the sources and references that were agreed upon by (Ahmad Hamad Fater, Ali Al-Beik and Muhammad Subhi Hassanein) with the addition of age and weight to these measurements. All these measurements were taken for the research sample from the agreed anatomical points, including (lengths, widths, and perimeters)

Tools used **:** basketballs, Basketball court, Medical scale, Tape measure, Sagging Whistle and stopwatch.

The exploratory experiment: In order to avoid the shortcomings and weakness of the capabilities and the experience of skill performance tests on the semen category, in addition to identifying the time taken to take anthropometric measurements and the skill test, the researcher carried out a pilot experiment 4/4/2019 On the research sample of (3) female players, and from outside the research sample.

The main experiment: After confirming the measurements and tests, field application was carried out on 4/11/2019 on the basic research sample of (7) female players, with the help of the assistant work team

Results

Table No. (1) Pearson correlation coefficient between physical measurements and the level of performance of basic basketball skills

	Front shot	Side loading	Free throw	Shooting from the bottom of the basket	Fast scroll	Jump and touch	One-handed scrolling			
From the top	Push pass accuracy	The Conversation	Values r Tabular							0.754
The weight	0.812 *	0.231	0.24 7	0,215	0,352	0,215	0,895 *	0,154	0.231	
The length	0.75 * 8	0.774*	0.876*	0,841 *	0,954 *	0,668 *	0,789 *	0,895 *	0,864 *	
I trunk	0,834 *	0,845 *	0,815 *	0.921 *	0.648	0.775 *	0.694	0,772 *	0,854 *	
I arm	0,841 *	0.775 *	0.8 25 *	0,841 *	0.755 *	0,875 *	0.776 *	0.766 *	0.775 *	
I humerus	0.931 *	8 13.0 *	0.78 *	0. 7 48 *	0. 7 52 *	0. 7 78 *	0. 7 88 *	0.885 *	0. 8 52 *	
I forearm	0,953 *	0.80	0,841 *	0.785 *	0.885 *	0.864 *	0.941 *	0.900 *	0.901 *	
I palm	0,844 *	0.771 *	0.775 *	0,841 *	0.885 *	0,848 *	0.421	0,219	0,264	
I man	0,854 *	0,825 *	0,825 *	0,951 *	0,875 *	0,785 *	0,865 *	0,782 *	0,844 *	
I thigh	0.931 *	0.774*	0.774*	0,841 *	0.888*	0,845 *	0 .777 *	0.786 *	0.885 *	
I leg	0.775 *	0.781 *	0.778 *	0.978 *	0.845 *	0.958 *	0.768 *	0.878 *	0.778 *	
I foot	0,211	0.321	0.33	0.758 *	0.985 *	0,799 *	0.625	0.845	0.847 *	
P shoulders	0,844 *	0,904 *	0.912 *	0.854	0,781 *	0. 7 5 5 *	0. 754 *	0. 8 15 *	0. 7 58 *	
P chest	0,118	0,858 *	0,858 *	0.658	0.685	0.154	0.859 *	0.126	0.754 *	
P hip	0,254	0,125	0,124	0.845 *	0.785 *	0.258	0.216	0.854 *	0.875 *	
M shoulders	0,124	0,241	0,25	0,783 *	0.541	0.845 *	0.325	0.658	0.251	
M thigh	0,841 *	0,11	0,12	0.214	0.874 *	0.759 *	0.258	0.754 *	0.156	
M x leg	0,911 *	0,875 *	0,858 *	0.985 *	0.889 *	0.658	0.815 *	0.985 *	0. 7 5 5 *	
M abdomen	0,254	0.325	0.331	0.845 *	0.785 *	0.895 *	0.854 *	0.254	0.845 *	

*** It reached a value r Tabular (0.754) at a degree of freedom8 And indication level 0.05**

It can be seen from the table (1) There is a correlation significant moral results showed that the relationship between each (total length of the body, torso length, arm length, the length of the forearm, the length of the humerus, the length of stop, and the length of the man, the length of the thigh, leg length, shoulder width, perimeter grocery leg, Wrist circumference (with each of (forward aiming , lateral aiming, free throw, passing accuracy with one hand, passing accuracy by push, touch and jump, dribbling) where the correlation coefficients were higher than the value of r Tabulated This shows a relationship attribute researcher so that it is logical as the recipe length of player ball basketball where whenever the player long increased the weight of the center of the body and thus increasing the jump distance of the player as well as for the rest of lengths physical but for the ocean body as the ball game The basket needs certain body patterns with physical measurements commensurate with the movements and direct physical friction between the competitors, so that the regular practice of any kind of sporting activities for long periods of time, including basketball, gains its practitioners some measurements for this game and the change in these measurements is due to the nature of the muscle groups The most used in the game, as muscle fibers begin to enlarge and grow according to the size, intensity and intensity of the load, which affects the surroundings and symptoms of the body (**Aziz , 2001)** As for the weight, it showed a correlation only with each of (front aiming, passing with one hand), while the chest display showed a significant correlation relationship with each of (shooting, free throw, passing with one hand, dribbling)

As for the width of the hip (aiming from the bottom of the basket, fast passing, passing with one hand), while the circumference of the thigh showed a correlation with (front correction, fast passing, jumping and touching, passing accuracy)

and it has become important to provide the appropriate bodies as one of the important pillars for reaching the players to the top Athletic Levels Enabled (**Muhammad, 1987)**

Conclusions

1. The presence of a significant correlation relationship, where the results showed that the relationship between (total body length, trunk length, arm length, forearm length, upper arm length, palm length, leg length, thigh length, leg length, shoulder width, calf circumference, calf circumference) Wrist (with front aiming, side aiming, free throw, passing accuracy with one hand, passing accuracy by push, touch and jump, dribbling).
2. Weight showed a correlation relationship only with each of (front aiming, passing with one hand), while chest width showed a significant correlation relationship with each of (shooting, free throw, passing with one hand, dribbling) as well as hip width (aiming from the bottom of the basket, fast passing, Passing with one hand) while the circumference of the thigh showed a correlation with (front aiming, fast passing, jumping and touching, passing accuracy)
3. Emphasizing the importance of anthropometric measurements that showed moral relationships and contribution rates in the performance of basketball skills and working on developing and developing them, and taking this into account in developing training programs and plans.
4. The necessity of adopting anthropometric measurements when selecting sperm players and junior players in basketball.
5. Conducting a similar study for the teams of young women and girls.

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