A BRIEF STUDY ON THE PROCEDURE OF PHYSICAL AND ANTHROPOMETRIC MEASUREMENT

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1. ABSTRACT: - In recent years, the Indian game of kabaddi has become a popular offshoot of interest to the general public, with its first World Cup held in 1918. The rise in demand is often credited to Maharashtra. The next year, the fundamentals of the game's rules and needs were dispersed, as was mandated. Anyhow, the infinite runs were first streamed on paper in 1923, after a period of perhaps two or three years. At the time, In Baroda, where the All-India Kabaddi Dispute was held, everyone was expected to agree to the game's basic concludes. From that point on, the game has reached a whole new and critical level of intensity. Due to the game's rising popularity, a number of tournaments were held at the local and national levels. The first ever competition of the sport took place in the 1938 Indian Olympic Games in Calcutta, and it quickly gained popularity thereafter.

2. KEYWORDS: - Anthropometric Measurement erc

3. Measurement of Height Purpose:

This investigation offers a detailed summary of the anthropometric and physical assessment methods used. Measuring the subject's body height by determining the vertical distance between their head and the floor. A stadiometre made by Hindustan Minerals and Natural specimens supply co. in Kolkata, India, a steel tape, and a flat surface are among the necessary tools.

Procedure : Each participant was given the instructions to stand upright on a surface that was horizontal, extend as far as they could while maintaining their heels in vertical contact with each other on the surface, and then pull down on the arm that was horizontal. It was measured, and the results showed that its height was exactly one centimetre as expected.

Measurement of Weight Purpose:

so that an accurate assessment of the subject's weight may be made. Required Infrastructure and Tools: The CROWN co. Ltd. scale used to measure an individual's total body mass during a medical evaluation.

Procedure: A discredited scale was employed for the purpose of making weight calculations. Individuals were instructed to maintain an erect posture while standing on the scale in order to get an accurate reading of their body weight in kilogrammes.

3.4.1.3 Measurement of Girths

The cam-graded steel tape that was used for measuring the girths was manufactured by Tajim Asa Bhanu tools ltd., which is located in Hyderabad, India. During the process of collecting the measurements, it was essential that the measuring tape be positioned such that it formed a right angle (90 degrees) with the longitudinal axis of the segments. In order to prevent skin damage, the measuring tape was used with as little force as possible as it was being fitted.

Abdomen

The umbilicus, which is one inch in diameter, is used to measure the perimeter of the abdomen in a direction that is orthogonal to the longitudinal plane of the trunk.

Subject Position: The participant stands in a comfortable posture with their arms crossed across their chests.

Method: The investigator will stand in front of the subject, and the latter will grip the investigator's arms tangentially to initiate the tape's passage around the one-inch umbilical area. At this time, the examiner will shift the tape to the appropriate level. The cross-hand method ensured that the tape and the measurer were on the same plane by readjusting the tape's starting point.

Right Upper arm

Measurements taken around the right upper arm midway between the acromion and the radial head.

Subject Position: The person stands with their left arm hanging limply at their side and their shoulders slouched. The individual's right arm was extended in front of them, palm facing up.

Method: The palm of one's hand is extended outwards (i.e. fore arm supinated). Take a series of measurements while sliding the tape up and down the forearm using the cross-hand method to relax the muscles in the forearm. This will allow you to find the position that puts the broadest part of the forearm in the right orientation.

Calf

A calf may be measured by determining the leg's circumference at the point where the medial calf skin fold is located. It is in a direction that is orthogonal to its long axis.

Subject Position: The person in question adopts a casual standing stance, allowing their arms to hang loosely by their sides. The feet of the patient should be spread apart, and their weight should be distributed equally.

Method: The character spends much of the scene standing on something. After the tape has been folded over the calf, the researcher takes it to the fitting plane for further inspection. The tape was utilised for cross-hand technique positions, although it was kept in a plane counter to the leg rotation. From that point on, the tape is checked for slippage and reshaped so that it does not leave an indentation on the skin.

3.4.1.3.4 Mid Thigh

The circumference of the thigh as measured along a line that is perpendicular to its long axis and begins at the height of the playmaker lateral site.

Subject Position: The patient will begin in a calm standing stance with their arms crossed over their thorax. This position will be maintained throughout the whole examination. It is important to keep the feet of the patient apart while maintaining an equal distribution of weight.

Method: There are several instances when the character maintains an elevated stance throughout the scenario. When the tape reaches the analyst's perceptual plane, he or she slides it in between his or her legs and then pulls it out. The tape was used in the cross-hand technique positions, and was held in a direction perpendicular to the leg's centre of gravity. After that, the tape is re-evaluated as usual to make sure it hasn't slipped and won't leave an etching on the skin.

Measurements of Lengths

In the research, the following length measures were taken into consideration.

Arm Length

The vertical distance that separated the acromiale and the stylion sites was used to determine the arm length.

Subject Position: The person in question adopts a casual standing stance, allowing their arms to hang loosely by their sides.

Method: This particular rating mostly concerns the length of the arm. The acromial end of the calliper and segmometer is resting on a well-organized stylion. It's important to become used to the segometer or caliper's measuring scale to the point where it's almost an extension of your arm.

Leg Length

The vertical distance between the Torchanterion and the Sphyrion lateral sites was used to determine the length of each leg.

Subject Position: The participant stands up straight with their feet touching and their arms crossed over their chest. This is the starting posture.

Method: This specific evaluation takes care of the leg length. The pictured Torchanterion serves as the base for one of the anthropometer's or segmometer's branches, while the inspected Sphyrion serves as the base for the other.

Body Composition

For this study, we considered the following indicators of body fatness.

Body Fat%

It was calculated using circumference measures in the method reported by McArdle, Katch, and Katch (2000). Here is the formula for determining one's body fat percentage:

Percentage of Body Fat = Constant A + Constant B - 10.2

Instead, Constant A was determined by inputting the right upper arm Girth measurement into Chart F, 1. That's why we may say the transformation was fruitful (McArdle, Katch & Katch, Appendix F, 2000). The abdomen was used in a similar manner to establish constant B, and the right forearm was used to determine constant C.

Fat Mass

The following equation was used to arrive at an estimate of the total amount of fat mass:

The formula for calculating fat mass is: (Body Weight x Body Fat Percentage)/100.

Lean Body Mass

Lean Body Mass was estimated by the equation:

Lean Body Mass = Body Weight — Fat Mass

4. Findings

Table 4.1 illustrates the differences in terms of speed that may be expected to be seen amongst kabaddi players competing at the national and international levels.

TABLE 4.1

SIGNIFICANCE OF DIFFERENCE BETWEEN NATIONAL AND NATIONAL LEVELKABADDI PLAYERS ON SPEED

Groups	Mean	SD	DM	SE Dif.	t ratio
International Players	8.14	0.727		0.174	
National Level Players	7.97	0.995	0.168		6.303*

T.05(98) = 1.98, *Epic at the 0.05 level

The Speed Handling Ratings of Kabaddi Players are Revealed in Table 4.1 (50 mts run). Generally speaking, kabaddi players have a mean and standard deviation of 8.14 and.727, respectively, which they display without reservation. With no inhibitions, the public kabaddi players have a mean and standard deviation value of 7.97.995.

Table-2 shows that there was a huge gap in speed between it public player system and the general kabaddi player system, with the got value of t being much greater than the expected value of t (1.98) (which would be considered huge at the (98) level of chance with a 0.05 level of certainty).

In Figure 4.1, we have a visual representation of the mean and standard deviation of People in general and All around kabaddi Players on Speed.
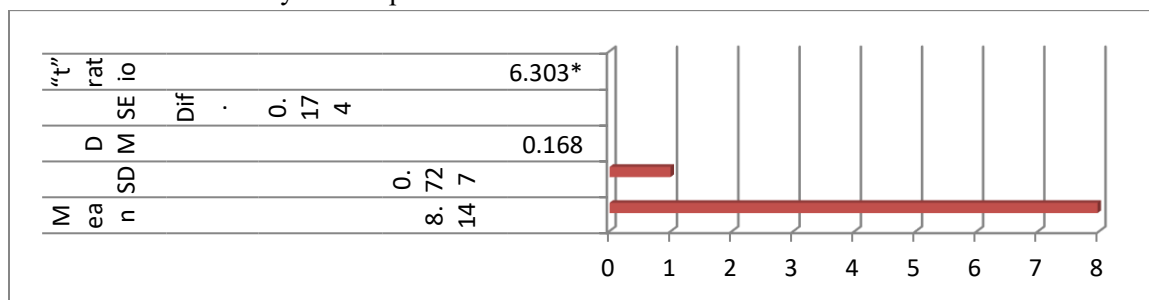

Figure 4.1 Comparison of Mean and SD Scores in National and National kabaddi Players on Speed

TABLE 4.2

SIGNIFICANCE OF DIFFERENCE BETWEEN NATIONAL AND INTERNATIONAL LEVEL KABADDI PLAYERS ON CARDIO VASCULAR ENDURANCE (mts)

| Groups | Mean | SD | DM | SE | t ratio |
				Dif.	
International Players	2026.6	206.87			
National Level Players	1912	212.12	114.6	41.9	2.29*

At the 5% significance level, the result is *Monstrous (t.05 (98) = 1.98).

The subjective rating of Kabaddi players' cardiovascular strength is shown in Table 4.2. (brief run walk test). Mean and standard deviation (45.0911.74) are shown here for the As a rule players. Mean and standard deviation for the public kabaddi players are both significant (44.85 16.21).

Table-3 shows that there is a significant difference between the philosophies of professional and amateur kabaddi players regarding cardiovascular stability, with the difference being most pronounced when comparing the obtained value of t (6.35), which is significantly higher than the depicted value of t (1.98), and thus being considered significant at the (98) level of chance with a 0.05 level of conviction.

Figure 4.2 presents the mean and standard deviation of cardiovascular vitality scores for both professional and amateur kabaddi players.
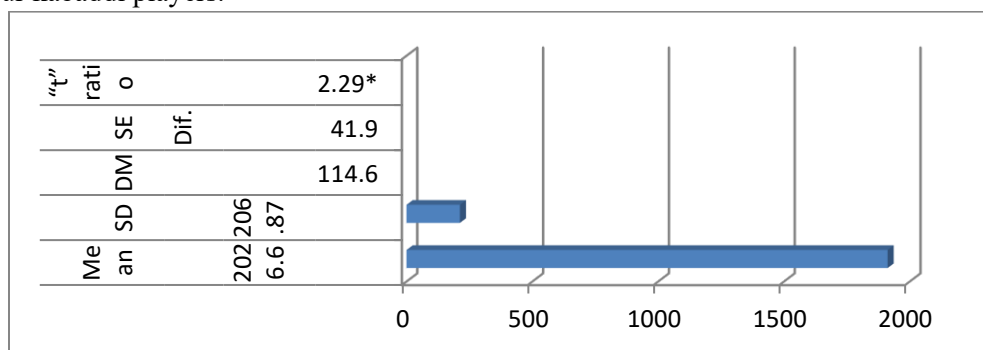

Figure 4.2 Comparison of Mean and SD Scores in National and National kabaddi Players on cardiovascular endurance

TABLE 4.3

SIGNIFICANCE OF DIFFERENCE BETWEEN INTERNATIONAL AND NATIONAL LEVEL KABADDI PLAYERS ON FLEXIBILITY

| Groups | Mean | SD | DM | SE | t |
				Dif.	ratio
International Players	3.65	1.108		0.217	
National Level Players	4.02	1.06	0.37		0.012

T.05(98) = 1.98, *Monster at the 0.05 level

Table 4.3 shows how coaches and fans rate Kabaddi players on adaptability (Sit and Show up at test). Here, the vast majority of kabaddi players demonstrate their own mean and standard deviation worth (4.13 .44). Only the mean and standard deviation (4.03 .30) provide any meaningful information about the public kabaddi players' value.

Table-4 shows that there is a vast gap between the frameworks for overall kabaddi players and public kabaddi players with regards to flexibility, with the obtained value of t (8.69) being significantly higher

than the collected value of t (1.98), which should be crucial at the (98) level of chance with a 0.05 level of conviction.

Figure 4.3 shows the average and standard deviation of the general public and professional kabaddi players' adaptability.
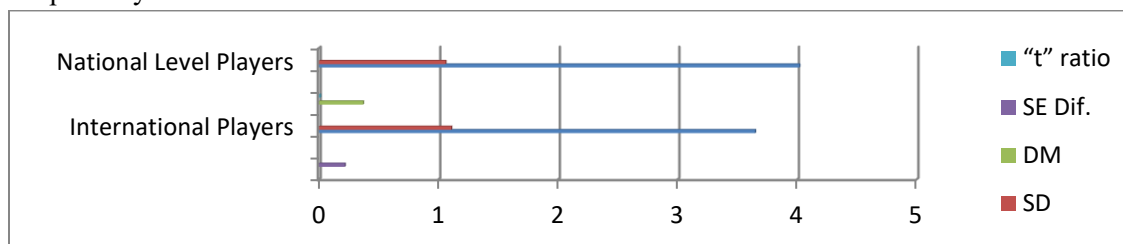

Figure 4.3 Comparison of Mean and SD Scores in International and National kabaddi Players on flexibility

TABLE 4.4

SIGNIFICANCE OF DIFFERENCE BETWEEN INTERNATIONAL AND NATIONAL LEVEL KABADDI PLAYERS ON AGILITY

Groups	Mean	SD	DM	SE Dif.	t ratio
International Players	9.07	1.1		0.212	
National Level Players	8.93	1.01	0.14		0.507

Massive *at the.05 level t.05 (98) = 1.98

The evaluation of Kabaddi players' Nimbleness (4*10 mts transport run) is shown in Table 4.4. Here, the mean and standard deviation (75.68 7.79) are shown openly, demonstrating the players' all-around kabaddi value. There is no hiding the fact that the public kabaddi players have a mean and standard deviation of (9.77) of 78 that reflect their quality.

Table-5 shows that the structure for the average kabaddi player and the public kabaddi player on the transport run was very similar, with a p-value of 0.05, since the obtained value of t (1.918) was less than the arranged value of t (1.98).

Figure 4.4 presents a graphical representation of the mean and SD of the Overall Open kabaddi Players on the transit run.

Conclusions

- If there were to be an occurrence involving the ratio of muscle to fat, the problem would become apparent in a mammoth capacity among both the general population and the public kabaddi players.
- When it came to the time limit for holding one's breath, the conversation revealed that the typical kabaddi player and the average member of the general public did not significantly vary from one another in this regard.
- The discussion brought up the possibility that there is a substantial gap between the resting

respiratory rates of people in the general population and those of those who play kabaddi in the general public.

- Regarding the issue at hand, the General Kabaddi Player and the Public Kabaddi Player did not seem to have any significant points of contention with regard to the context of the beat.

- The conversation shed light on a significant communication barrier that exists between the spectators at public kabaddi and the participants on the field.

- The subject matter exhibited a substantial skill, as shown by the weight record, not only among the wider kabaddi community, but also among public players. This was the case.

- In the case that there was to be a competition of speed, the topic would be shown in a significant capacity among both general and public players of kabaddi.

- During the time that the transit run was being carried out, the problem did not reveal a significant rift between the general population and the public kabaddi player.

- Both as a group and as individuals, the kabaddi players did not demonstrate a competence that was especially noteworthy in terms of the variety of their plays.

- The topic found that there was not a significant difference between the general population and the public kabaddi player in terms of the delicate leg strength.

- In the test that was meant to measure cardiovascular consistency, the individual had a phenomenally high level of talent in compared to both the general population and the public kabaddi players.