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A Comparative Study Of Selected Strength Factors Of Inter-Collegiate Kabaddi And Kho-Kho Players Of Maharashtra

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Abstract

The purpose of the study was to compare the selected strength factors among the male Kabaddi and Kho Kho players. To accomplish the study a sample 120 players, 60 players each of Kabaddi and Kho-Kho, studying in different colleges in Amravati District of Maharashtra was selected as subjects. It was hypothesized that there will be no significant difference in the selected strength factors of inter-collegiate Kabaddi and Kho-kho players. Data regarding the research study was collected using Sit-ups, Pull-ups, Vertical jump. Mean, standard deviations and t-test were used to analyze the data statistically. The level of significance was set at 0.05 level of confidence. The results showed a significant difference in the variable of selected strength factors of players no significant difference was observed. Hence, the null hypothesis was partially rejected and partially accepted.

Keywords: Strength, Co-coordinative Ability, Kabaddi, Kho-Kho,

Introduction

Sport is as old as the human society, and it has achieved universal following in the modern times. It now enjoys popularity which strips out any other form of social activity. It has become an integral part of educational process. Millions of fans follow different sports events all over the world. Many participate in sports activities for the fun of it or for health, strength and fitness. It is taking the shape of a profession to some with high skills, with ample financial benefits linked with high degree of popularity.

Each sports activity demands different types and levels of different physical abilities. When a particular sport possesses qualities, it contributes to the development of specific physical fitness. It is this specific fitness which makes it possible for a player to perform unusual and extraordinary movements with a very high standard of efficiency.

Physical fitness is to the human body what fine tuning is to an engine. It enables us to perform up to our potential therefore, fitness is that which characterizes the degree to which the person is able to function. Fitness is an individual matter whether it can be motor fitness or can be physical fitness. "Physical fitness is one's valuable trait, it cannot be purchased, but has to be earned through daily routine of well planned physical activities".

Regular training leads to improve one's physical fitness which includes strength, speed, flexibility, endurance and co-ordination. Co-ordination ability plays a very vital role in all games and sports because when an athlete participates in game and sports, he has to bring about a series of changes in direction and movement at various parts of the body.

Muscular strength is the amount of muscular force that one is capable of exerting in a single muscular contraction. The muscular strength is usually measured with respect to individual group of muscles acting together. Muscular strength is tested with the help of dynamometer and thermometer, which measure the amount of force exerted in a single effort by a particular group of muscles.

Objectives Of The Study

The main objective of the study was set to find out the difference between the Kabaddi and Kho-Kho players selected physical fitness variables i.e. the shoulder strength, abdominal strength, explosive leg strength, explosive shoulder strength and coordinative ability.

Hypothesis

It was hypothesized that no significant difference would appear between the Kabaddi and Kho-Kho players selected physical fitness variables.

Procedure

In the present investigation, a survey type of study has been conducted. In total, investigator selected a sample of 120 players by means of purposive random sampling from ten intercollegiate of the Amravati district of Maharashtra, out of which he selected 12 Kabaddi players each from the first five colleges and 12 Kho-Kho players each from the other five colleges. The subjects were boys of 10+2 classes of colleges and were of 18-25 years age group only. Moreover, the present research was confined to only those players who had participated at zonal level intercollegiate tournament of district Amravati.

Data regarding selected physical fitness variables i.e. the arm and shoulder strength, abdominal strength, explosive leg strength, explosive shoulder strength and co-ordinative ability was collected using selected test items of AAHPERD's Physical fitness test battery. Mean, Standard Deviation and T-test were used to analyze the data statistically. The level of significance was set at 0.05 level of confidence.

Results And Discussion

The Mean, Standard Deviation and 't' values of the investigated physical fitness variables of Kabaddi and Kho-Kho players are given in the table No.1, 2, 3, 4 and 5 and their analysis and interpretation follows them.

Table-1
Mean values, standard deviation and 't' value of arm and shoulder strength variable of kabaddi and kho-kho players

| | N | Mean | S.D. | S.E.M. | Mean Difference | df | t-value |
|---------|----|-------|------|--------|-----------------|-----|---------|
| Kabaddi | 60 | 10.93 | 1.68 | .22 | .98 | 118 | 3.09* |
| Kho-Kho | 60 | 9.95 | 1.79 | .23 | | | |

*Significant at 0.01 level

Table-1 reveals that the mean scores of arm and shoulder strength variable of the selected Kabaddi and Kho-Kho players are 10.93 and 9.95 respectively and the calculated 't'-value (3.09) for both the groups is higher than the table value at 0.01 level of significance. Thus, it is interpreted that the two groups differ significantly w.r.t. the variable arm and shoulder strength.

Hence, the formulated hypothesis for the Kabaddi and Kho-Kho players w.r.t. the variable arm and shoulder strength is rejected.

Table-2
Mean values, standard deviation and 't' value of abdominal strength variable of kabaddi and kho-kho players

| | N | Mean | S.D. | S.E.M. | Mean Difference | df | t-value |
|---------|----|-------|------|--------|-----------------|-----|---------|
| Kabaddi | 60 | 28.93 | 1.77 | .23 | .400 | 118 | 1.19 |
| Kho-Kho | 60 | 29.33 | 1.90 | .25 | | | |

Not Significant at 0.05 level

Table-2 reveals that the mean scores of abdominal strength variable of the selected Kabaddi and Kho-Kho players are 28.93 and 29.33 respectively and the calculated 't'-value (1.19) for both the groups is less than the table value at 0.05 level of significance. Thus, it is interpreted that the two groups do not differ significantly w.r.t. the variable abdominal strength.

Hence, the formulated hypothesis for the Kabaddi and Kho-Kho players w.r.t. the variable abdominal strength is accepted.

Table-3

Mean values, standard deviation and 't' value of explosive leg strength variable of kabaddi and kho-kho players

| | N | Mean | S.D. | S.E.M. | Mean Difference | df | t-value |
|---------|----|------|------|--------|-----------------|-----|---------|
| Kabaddi | 60 | 1.78 | 5.01 | 6.47 | .164 | 118 | 14.16* |
| Kho-Kho | 60 | 1.95 | 7.47 | 9.64 | | | |

*Significant at 0.01 level

Table-3 reveals that the mean scores of explosive leg strength variable of the selected Kabaddi and Kho-Kho players are 1.78 and 1.95 respectively and the calculated 't'-value (14.16) for both the groups is higher than the table value at 0.01 level of significance. Thus, it is interpreted that the two groups differ significantly w.r.t. the variable explosive leg strength.

Hence, the formulated hypothesis for the Kabaddi and Kho-Kho players w.r.t. the variable explosive leg strength is rejected.

Table-4

Mean values, standard deviation and 't' value of explosive shoulder strength variable of kabaddi and kho-kho players

| | N | Mean | S.D. | S.E.M. | Mean Difference | df | t-value |
|---------|----|-------|------|--------|-----------------|-----|---------|
| Kabaddi | 60 | 67.28 | 2.57 | .33 | 2.42 | 118 | 5.13* |
| Kho-Kho | 60 | 64.87 | 2.59 | .33 | | | |

*Significant at 0.01 level

Table no. 4 reveals that the mean scores of explosive shoulder strength variable of the selected Kabaddi and Kho-Kho players are 67.28 and 64.87 respectively and the calculated 't'-value (5.13) for both the groups is higher than the table value at 0.01 level of significance. Thus, it is interpreted that the two groups differ significantly w.r.t. the variable explosive shoulder strength.

Hence, the formulated hypothesis for the Kabaddi and Kho-Kho players w.r.t. the variable explosive shoulder strength is rejected.

Table-5

Mean values, standard deviation and 't' value of coordinative ability variable of kabaddi and kho-kho players

| | N | Mean | S.D. | S.E.M. | Mean Difference | df | t-value |
|---------|----|-------|------|--------|-----------------|-----|---------|
| Kabaddi | 60 | 11.12 | .22 | 2.86 | .111 | 118 | 3.09* |
| Kho-Kho | 60 | 11.01 | .17 | 2.18 | | | |

*Significant at 0.01 level

Table no. 5 reveals that the mean scores of coordinative ability variable of the selected Kabaddi and Kho-Kho players are 11.12 and 11.01 respectively and the calculated 't'-value (3.09) for both the groups is higher than the table value at 0.01 level of significance. Thus, it is interpreted that the two groups differ significantly w.r.t. the variable coordinative ability.

Hence, the formulated hypothesis for the Kabaddi and Kho-Kho players w.r.t. the variable coordinative ability is rejected.

Conclusions

Based on the analysis and interpretation of the data and within the limitations of the present investigation, following conclusions are drawn:

- (i) The Kabaddi players are better than Kho-Kho players when compared against the physical fitness variable arm and shoulder strength.
- (ii) The Kabaddi and Kho-Kho players have same level of physical fitness when compared against the physical fitness variable abdominal strength.
- (iii) The Kho-Kho players are better than Kabaddi players when compared against the physical fitness variable explosive leg strength.
- (iv) The Kabaddi players are better than Kho-Kho players when compared against the physical fitness variable explosive shoulder strength.
- (v) The Kabaddi players are better than Kho-Kho players when compared against the physical fitness variable coordinative ability.

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