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ANALYSIS OF SELECTED PHYSIOLOGICAL PARAMETERS BETWEEN URBAN SCHOOL KABADDI AND KHO-KHO PLAYERS

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Abstract:

The purpose of the study was to compare the resting pulse rate and breath holding time between urban school kabaddi and kho-kho players. To achieve this purpose of the study, sixty players studying in the urban schools in Karnataka state, India were selected as subjects at random. Among them, thirty kabaddi players and thirty kho-kho players were selected. Among the physiological parameters, the following variables namely resting pulse rate and breath holding time were selected as criterion variables. All the subjects of two groups were tested on selected dependent variables by using radial pulse and holding the breath for time. The independent 't' ratio was used to analyze the significant difference, if any between groups. The .05 level of confidence was fixed as the level of significance to test the 't' ratio obtained, which was considered as an appropriate. The results of the study showed that there was a significant difference between kabaddi players and kho-kho players on resting pulse rate and breath holding time.

Key Words: Resting Pulse Rate, Breath Holding Time, Urban School Kabaddi Players, Kho-Kho Players

Introduction:

Resting pulse rate and breath-holding time can serve as indicators of cardiovascular fitness and respiratory endurance, which are important for athletes in sports like kabaddi and kho-kho, especially in rural school settings where these sports are often popular. A lower resting pulse rate generally indicates better cardiovascular fitness. Athletes who regularly participate in aerobic activities like kabaddi and kho-kho tend to have lower resting heart rates because their hearts are more efficient at pumping blood.

Resting pulse rate is typically measured by counting the number of heartbeats per minute when an individual is at rest, preferably in the morning before getting out of bed. A lower resting pulse rate, such as below 60-100 beats per minute (bpm), is considered healthy for most adults, but athletes may have even lower rates. Kabaddi and Kho-Kho Players: Breath-holding time can reflect respiratory endurance and lung capacity, which are important for sustaining physical activity and recovering between intense bouts of exercise in sports like kabaddi and kho-kho. Breath-holding time is measured by timing how long an individual can hold their breath comfortably and safely. Typically, longer breath-holding times indicate better respiratory function and endurance. However, it's crucial to emphasize safety during breath-holding exercises to prevent hypoxia or other complications.

In rural school settings, monitoring resting pulse rates and breath-holding times can help coaches and trainers assess the cardiovascular and respiratory fitness levels of kabaddi and kho-kho players. Regular measurements can track improvements in fitness over time and identify players who may need additional conditioning or training. These metrics can also serve as motivational tools for players, encouraging them to improve their fitness levels and performance in their respective sports.

Monitoring resting pulse rate and breath-holding time can provide valuable insights into the cardiovascular and respiratory fitness of rural school kabaddi and kho-kho players. By incorporating regular assessments and appropriate training interventions, coaches and trainers can help optimize the athletic performance and overall health of their players.

Methodology:

The purpose of the study was to compare the resting pulse rate and breath holding time between urban school kabaddi and kho-kho players. To achieve this purpose of the study, sixty players studying in the urban schools in Karnataka state, India were selected as subjects at random. Among them, thirty kabaddi players and thirty kho-kho players were selected. Among the physiological parameters, the following variables namely resting pulse rate and breath holding time were selected as criterion variables. All the subjects of two groups were tested on selected dependent variables by using radial pulse and holding the breath for time. The independent 't' ratio was used to analyze the significant difference, if any between groups. The .05 level of

confidence was fixed as the level of significance to test the 't' ratio obtained, which was considered as an appropriate.

Analysis of the Data:

Resting Pulse Rate:

The mean, standard deviation and 't' ratio values on resting pulse rate of kabaddi players and kho-kho players have been analyzed and presented in table 1.

Table 1: The Mean, Standard Deviation and 't' Ratio Values Between Kabaddi and Kho-Kho Players on Resting Pulse Rate

Groups	Mean	Standard Deviation	't' ratio value
Kabaddi Players	72.38	0.18	6.49*
Kho-kho Players	72.07	0.19	

* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence with df 58 was 2.002).

The table 1 shows that the mean values on resting pulse rate for kabaddi players and kho-kho players were 72.38 and 72.07 respectively. The obtained 't' ratio value on resting pulse rate 6.49 which was greater than the table value required for significance with df 58 was 2.002. The results of the study showed that there was a significant difference between urban school kabaddi players and kho-kho players on resting pulse rate.

Breath Holding Time:

The mean, standard deviation and 't' ratio values on breath holding time of kabaddi players and kho-kho players have been analyzed and presented in table 2.

Table 2: The Mean, Standard Deviation and 't' Ratio Values Between Kabaddi and Kho-Kho Players on Breath Holding Time

Groups	Mean	Standard Deviation	't' ratio value
Kabaddi Players	33.21	0.64	12.65*
Kho-kho Players	35.47	0.74	

* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence with df 58 was 2.002).

The table 2 shows that the mean values on breath holding time for kabaddi players and kho-kho players were 33.21 and 35.47 respectively. The obtained 't' ratio value on breath holding time 12.65 which was greater than the table value required for significance with df 58 was 2.002. The results of the study showed that there was a significant difference between urban school kabaddi players and kho-kho players on breath holding time.

Conclusions:

- There was a significant difference between kabaddi players and kho-kho players on resting pulse rate.
- There was a significant difference between kabaddi players and kho-kho players on breath holding time.

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