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Comparative study on selected cardiovascular endurance among boxing and judo players

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Abstract
For the purpose of the investigation, the sample for the study were 40 female players in the age group of 18-25 years, from Boxing (N=20) and Judo (N=20). The subjects were under graduate students of Punjabi University Patiala. To test the cardiovascular endurance of the subjects, they were divided into two groups i.e. boxing and Judo players to perform according to AAHPER Youth Fitness Test to increase their physical fitness variables. The pre- test and post test data had been collected, cardiovascular endurance was measured of every individual with the help of AAHPER Youth Fitness test i.e. 12 MIN RUN/WALK. To examine the hypothesis of the study that will be no significant difference in the cardiovascular endurance of Boxing and Judo male players, descriptive statistics and t-test analysis was employed for the present data.

Keywords: cardiovascular endurance, boxing, judo players, youth fitness

Introduction
Throughout the history of mankind physical fitness an essential element of everyday life. It is also considered as the degree of cardiovascular endurance to execute a physical task under various ambient conditions. Physical fitness means that the organic system of the body is healthy and function efficiently vigorous tasks and leisure activities beyond 5 Organic development, muscular strength and stamina. Physical fitness impels efficient performance in exercise (Bucher and Prentice, 1985). Cardiovascular Fitness is the ability to exercise your body for an extended period of time. It requires a strong heart, healthy lungs and clear blood vessels to supply the body with oxygen. It is the ability of the heart, lungs, and blood vessels to deliver an adequate supply of oxygen to exercising muscles. Cardiovascular exercise utilizes the heart, lungs, and large muscle groups, such as running or walking. Stein (1964) conducted a study to ascertain the reliability of individual test items of Youth fitness test. Tenth and Eleventh grade students of Wake Field High School were selected as subject. The AAHPER Youth Fitness test was administered and the reliability co-efficient for all the items (Pull-ups, Broad Jump, Sit-ups, 50 Yard dash/45.72M and Soft Ball throw) have shown reliability co-efficient ranging between 0.74 and 0.83. All the reliability co-efficients were significant beyond 0.01 level. The Boxer showed a better capability in cardiovascular endurance, the purpose of the present study was to compare the cardiovascular endurance among Boxing and Judo players.

Statement of the Problem
The statement of the problem from the available literature and opinion of the expert guide, the investigator motivated to find out the difference on selected cardiovascular endurance among boxing and judo players. Thus the problem was stated as: “Comparative study on selected cardiovascular endurance among boxing and judo players.”

Objectives of the Study
1. To find out the difference on selected cardiovascular endurance among boxing and judo players.
Hypothesis of the Study
On the basis of previous literature and research findings of the problem, It was hypothesized that:
1. There would be insignificant difference on selected cardiovascular endurance among boxing and judo players.

Methodology and Procedure
For the purpose of the investigation, the sample for the study were 40 female players in the age group of 18-25 years, from Boxing (N=20) and Judo (N=20). The subjects were under graduate students of Punjabi University Patiala. To test the cardiovascular endurance of the subjects, they were divided into two groups i.e. Boxing and Judo players to perform according to AAHPER Youth Fitness Test to increase their physical fitness variables. The pretest and post test data had been collected, cardiovascular endurance was measured of every individual with the help of AAHPER Youth Fitness test i.e. 12 MIN RUN/WALK. To examine the hypothesis of the study that will be no significant difference in the cardiovascular endurance of Boxing and Judo female players, descriptive statistics and t-test analysis was employed for the present data.

Result and Discussion
For the present study, the mean value, standard deviations and T-test was applied to analyze the data. This data is processed by the applicants of a relevant statistical tool called Mean, Standard Deviation, Standard Error Mean and T-test.

<table>
<thead>
<tr>
<th>Players</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error mean</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boxing</td>
<td>20</td>
<td>1.62</td>
<td>156.93</td>
<td>15.56</td>
<td>1.30</td>
</tr>
<tr>
<td>Judo</td>
<td>20</td>
<td>1.60</td>
<td>109.94</td>
<td>15.56</td>
<td></td>
</tr>
</tbody>
</table>

Significant at 0.01 level of the confidence.

The significant difference of mean, Standard Deviation, Standard error mean and T ratio of 12 min run/walk exercise of boxing female players and judo female players. Table 1 illustrates the t’ ratio of mean scores on 12 min run/walk test. It is implied that there is a significant difference between the mean score is 1.62, Standard Deviation is 156.93 for boxing female players and mean score is 1.60 and Standard Deviation is 109.94 for judo female players. And the Standard error mean is 15.56. The t’ ratio 1.30 was no significant at any level. The mean score of boxing female players is higher than the judo female players. It is further implied that the boxing female players is higher cardiovascular endurance as compared to the judo female players.

Fig 1: Shows the T-Ratio of the Mean Scores on the Cardiovascular Endurance

Showing Mean scores of the Boxing & Judo Players on the 12 Min Run/Walk.

Conclusion
In the present study it was concluded that Boxing female players were more cardiovascular endurance as compared to the Judo female players.

References
2. Barrow MG. Approach a practical to measurement in physical Education, 1976, 462.