Effect of resistance exercise on wrestling players of Hisar

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Abstract
The purpose of this study was to see the effect of resistance exercises (like: squat, leg press, exercises) on strength of wrestling players. For this study experimental design was used on ten wrestling players of district Hisar of Haryana. A three weak training program was organized after taking pre-test of the players, then post-test was done for testing strength of players. For statistical analysis of the data, mean, S.D, S.E.D and t-test was applied. In this study the results were found to be significant at 0.05 level. It was found that there is a significant difference in the strength of wrestling player before and after training.

Keywords: Squat, leg press, exercises, resistance exercise, wrestling

Introduction
Wrestling court dimensions according to the NCAA. First is that a wrestling mat should have a circular wrestling area with a diameter between thirty two and forty two feet. There should also be what is called an apron that has a minimum width of five feet. This apron should extend around the entire wrestling area. The area of the apron ought to be designated and identified by using either a line that a two inches wide or using contrasting colors. If the two inch wide line is used the line itself should become part of the wrestling area. Additionally, since it is expected that mats will shrink, the NCAA recommends that the minimum diameter of the wrestling area should be thirty four feet. Both the apron and the wrestling area should be of the same thickness. However, the mat itself shouldn’t be any thicker than four inches. Furthermore, if ever mats are divided into sections they should be assembled and secured together.

Olympic size mats
The wrestling mat dimensions that are accepted in major tournaments such as the Olympics and other worldwide championships will vary slightly. Like the regulations for the NCAA, these tournaments emphasize the safety of the competitors above all else. Standard dimensions of these tournament mats are forty x forty feet and two inches in thickness or thirty three x thirty three feet by two inches in thickness.

Related literature
Di Francisco-Donoghue (2007) [1]— the researchers assessed the effects of training frequency in 18 elderly subjects aged 65 – 79 years. The subjects were randomly assigned to 1 or 2 groups who trained either 1 or 2 times per week. Both groups performed 1 set of 6 exercises at 75% of 1RM with 10 – 15 repetitions to failure for 9 weeks. The exercises comprised the leg press, leg extension, leg curl, chest fly, arm curl and seated dip. The researchers observed no difference in strength gains between the two groups. However, there was a non-significant trend for the group training 2 times per week to increase strength by more on average across the 6 exercises than the group training 1 time per week (40.0% vs. 30.8%).

Mario A Cardoso (2007) [2] The object of this study was to investigate the changes in physical parameters produced during an in-season resistance training (RT) and detraining (DT, or RT cessation) in 16 high level team handball players (THPs). Apart from normal practice sessions, THPs underwent 12 weeks of RT. Subjects performed 3 sets of 3-6 reps with a load of 70-85%
confident. It means that the hypothesis was rejected at the 0.05 level of confidence. As show in Table no.1 above, the mean score of wrestling players of resistance exercise ‘leg press’ as post-test score performance mean is 31.000 and pre-test performances mean is 24.500. The S.D. of post-test performance is 2.9533, SED is 0.8062 and the calculated value of t-ratio test is 8.062, which is signified at the 0.05 level of the confidence. It means that the hypothesis was rejected at the 0.05 level of confidence and significant difference was found between the post-test and pre-test of squat resistance exercise of wrestling players performance.

**Table 2: The mean score of wrestling players of resistance exercise**

<table>
<thead>
<tr>
<th>Resistance Exercises</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>S.E.D</th>
<th>T-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leg press</td>
<td>mean</td>
<td>31.4</td>
<td>mean</td>
<td>2.875</td>
</tr>
</tbody>
</table>

Source: Field survey

Significant at 0.05 level of confidence

**Fig 1: The significant difference of mean, S.D, S.E.D, and T-ratio of pre and post-test of squat exercise of wrestling players**

As show in Table no.1 above, the mean score of wrestling players of resistance exercise ‘leg press’ as post-test score performance mean is 31.000 and pre-test performances mean is 24.500. The S.D. of post-test performance is 2.9533, SED is 0.8062 and the calculated value of t-ratio test is 8.062, which is signified at the 0.05 level of the confidence. It means that the hypothesis was rejected at the 0.05 level of confidence and significant difference was found between the post-test and pre-test of squat resistance exercise of wrestling players performance.

**Table 4.2 series no.2 above, the mean score of**

As show in Table no.1 above, the mean score of wrestling players of resistance exercise ‘leg press’ as post-test score performance mean is 31.000 and pre-test performances mean is 24.500. The S.D. of post-test performance is 2.9533, SED is 0.8062 and the calculated value of t-ratio test is 8.062, which is signified at the 0.05 level of the confidence. It means that the hypothesis was rejected at the 0.05 level of confidence and significant difference was found between the post-test and pre-test of squat resistance exercise of wrestling players performance.

**Conclusion**

The scholar had taken a null hypothesis in the starting of that
study. As the scholar collected the data according to it and the scholar uses the mean, S.D, S.E.D, T-ratio test for interpretation of data and the scholar found that during a training period of resistance exercise of three weeks. The performance and strength of body is increased by all exercises done by wrestling players in post-test as compared to pre-test. It proves that the null hypothesis is not accepted.

References