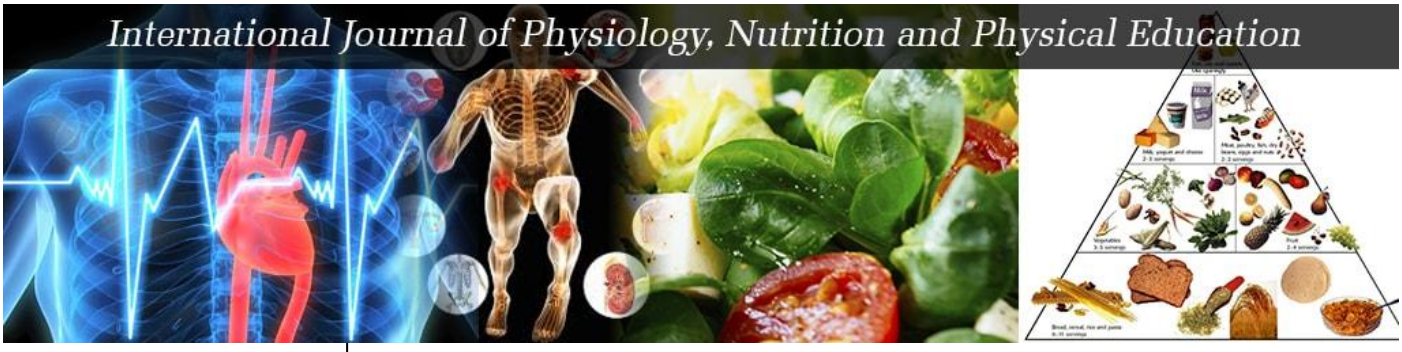

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Effect of resistance exercise on wrestling players of Hisar

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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 fourty 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 fourty x fourty 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%

concentric 1 repetition maximum bench press (1RMBP), 3 sets of 3-6 reps with a load of 70-95% of 4 repetition maximum parallel squats (4RMPS), plus vertical jumps and sprints. The 1RMBP, 4RMPS, speed over 30 m (S30), jump (countermovement jump height [CMJ]; CMJ with additional weights [20kg and 40kg], and ball throw velocity (BTv) were tested before the experimental period (T1), after 6 weeks (T2), and after the 12-week experimental period (T3). Immediately after these 12 weeks, THPs started a 7-week DT period, maintained normal practices. The CMJ and the BTv were the only parameters evaluated during DT. The most important gains ($p < 0.001$) in S30 were obtained between T1-T2 and T1-T3. The BTv improved significantly ($p < 0.001$) only between T1-T2 and T1-T3. The most relevant increases ($p < 0.001$) in jumping performance took place between T1-T2 and T1-T3. The 1RMBP showed significant increases ($p < 0.001$) only between T1-T2 and T1-T3. The 4RMPS increased significantly between all testing trials. After the DT, THPs showed no significant losses in CMJ performance. However, they declined significantly in BTv ($p = 0.023$). The results suggest that elite THPs can optimize important physical parameters over 12 weeks in-season and that 7 weeks of DT, although insufficient to produce significant decreases in CMJ, are sufficient to induce significant decreases in BTv. It is concluded that after RT cessation THPs reduced BTv performance.

Methodology

For the study a sample of ten male players of wrestling of the inter-college level of Hisar district was taken. For the purpose of the study body strength was selected as a variable. Through resistance exercises the body strength was measured.

Test area

Subjects were tested on various machines in a gym.

Procedure

The researcher explained the purpose of study to the subjects the subjects were asked to show there body abilities by using the following machines Dumbells, Smith machine, Hack squat machine, leg press machine, barbell, trap bar, cable machine, leg extension machine, leg curl machine. Some exercises were done in sitting position while other were done in laying position they were asked to lift the weight as many times as they could. They were again measured after three weeks training programme and best one was counted as subjects final score.

Scoring

The researcher measures the strength of subjects on the basis of number of times exercise done by them in a particular time.

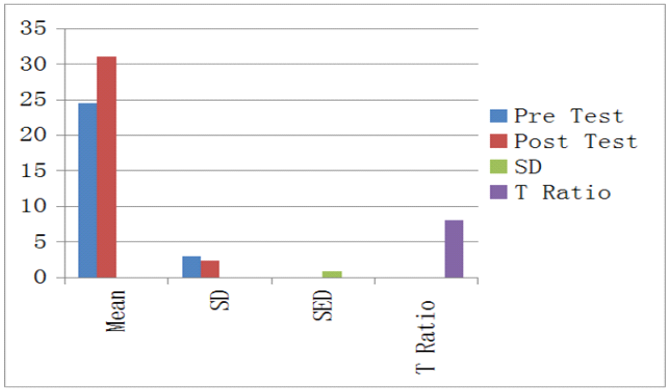
Data collection and analysis

The difference between their number of exercise was measured by the researcher personally and analysed with the help of various statistical technique.

Table 1: Results related to resistance exercises on wrestling players in Hisar district

Resistance Exercises	Pre-test		Post-test		S. E. D	T-ratio
Squat	mean	S.D.	Mean	S.D.	080623	8.062
	24.5	2.953	31	2.357		

Source: Field Survey



Significant at 0.05 level of confidence

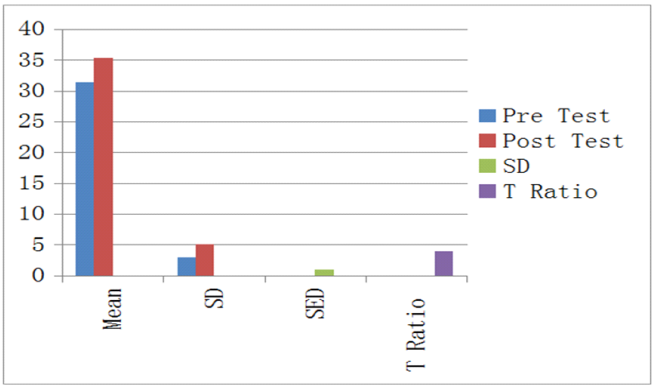
Fig 1: The significant difference of mean, S.D, S.E.D, and T-ratio of pre and post-test of squat exercise of wrestling players

As show in Table no.1 above, the mean score of wrestling players of resistance exercise 'squat' 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 2.3570 and pre-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 significance 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

Resistance Exercises	Pre-test		Post-test		S.E.D	T-ratio
Leg press	mean	S.D.	mean	S.D.	0.99387	3.924
	31.4	2.875	35.3	5.100		

Source: Field survey



Significant at 0.05 level of confidence

Fig 2: The significant difference of mean, S.D, S.E.D and T-ratio of pre and post-test of leg press exercise of wrestling players

As show in Table 4.2 series no.2 above, the mean score of wrestling players of resistance exercise 'leg press' as post-test score performance mean is 35.300 and pre-test performances mean is 31.400. The S.D. of post-test performance is 5.1001 and pre-test performance is 2.8751, SED is 0.9938 and the calculated value of 't'-ratio test is 3.924, which is significance at the 0.05 level of the confidence. It means that the hypothesis was rejected at the 0.05 level of significance and significant difference was found between the post-test and pre-test of leg press 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

1. Francisco DD. Comparison of once weekly and twice weekly strenght training in older adults. Sports Med. Epub. 2006, 2007; 41(1):19-22.
2. Mario A Cardoso. Journal of Strength and Conditioning Research. 2007; 21(4):1002.