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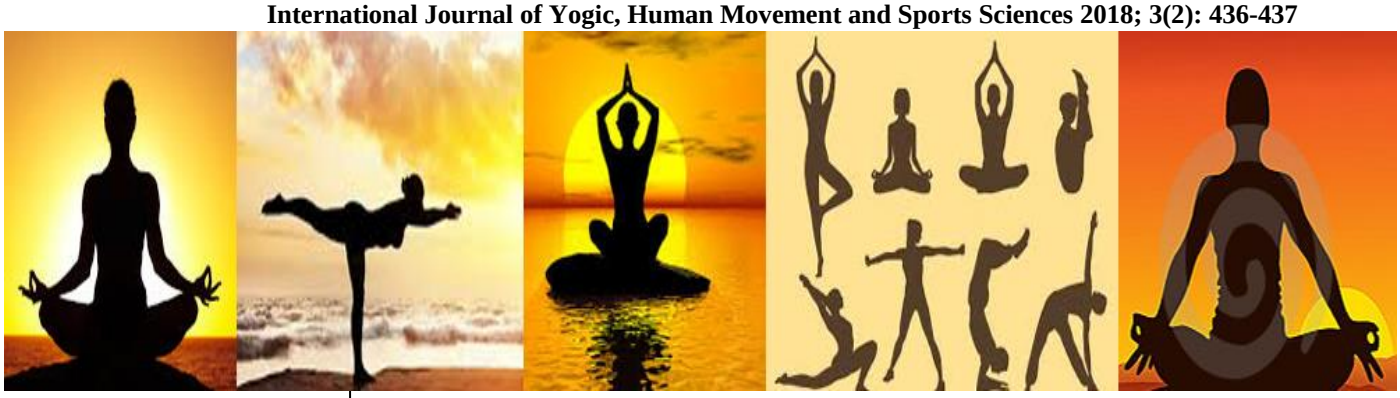

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Effect of core stability training on dynamic strength among college male students

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Abstract
The purpose of the present study was to investigate the effect of core stability training on dynamic strength among college male students. To achieve the purpose of the study thirty college men students were selected from Alagappa University college of Physical Education, Karaikudi during the year 2018. The subject's age ranges from 18 to 25 years. The selected players were divided into two equal groups consists of 15 men students each namely experimental group and control group. The experimental group underwent a core stability training programme for six weeks. The control group was not taking part in any training during the course of the study. Dynamic strength was taken as criterion variable in this study. The selected subjects were tested on Dynamic strength was measured through Dynamic sit- ups test. Pre-test was taken before the training period and post- test was measured immediately after the six weeks training period. Statistical technique 't' ratio was used to analyse the means of the pre-test and post test data of experimental group and control group. The results revealed that there was a significant difference found on the criterion variable. The difference is found due to core stability training given to the experimental group on Dynamic strength when compared to control group.

Keywords: Core stability training, dynamic strength and 't' ratio

Introduction
In the sports world, physical education is the most essential aspect due to the fact physical schooling increases the performance and the effectiveness of the sports. The player's performance depends on different factors; however the important aspect of gamers' overall performance is physical education. The word 'education' denotes the procedure of preparation for a few assignments. There's no question that, for gamers, "manner" in physical schooling is quite as treasured as "product". (R. Kalley, 1951) [2].

'Core stability' is visible as being pivotal for an green bio mechanical characteristic to maximise pressure era and minimize joint masses in all styles of activities ranging from jogging to throwing. But, there's less readability about what exactly constitutes 'the core', either anatomically or physiologically, and bodily assessment of center function is also numerous. (Kibler WB, 2006) [3]

A sturdy center is critical because the force is transferred maximum effectively through the frame in a instantly line. Whilst the trunk is poorly advanced, the result is negative posture that could cause less green moves. Such athletes will no longer be capable of maximize their counter torque, frequently dissipating strength thru jerky uncoordinated motion. (Hedrick, 2000) [1]

Methodology
Selection of Subjects
The purpose of the study was to find out the effect of core stability training on dynamic strength among college male students. To achieve this purpose of the study, thirty college men students were selected as subjects at random. The age of the subjects were ranged from 18 to 25 years.

Selection of variable

Independent variable

- Core stability training

Dependent variable

- Dynamic strength

Experimental design

The selected subjects were divided into two equal groups of fifteen subjects each, such as a core stability training group (Experimental Group) and control group. The experimental group underwent core stability training for three days per week for six weeks. Control group, which they did not undergo any special training programme apart from their regular physical activities as per their curriculum. The following physical variable, namely dynamic strength was selected as criterion variable. All the subjects of two groups were tested on selected criterion variable Dynamic strength was measured through Dynamic sit- ups test at prior to and immediately after the training programme.

Statistical technique

The 't' test was used to analyse the significant differences, if any, difference between the groups respectively.

Level of significance

The 0.05 level of confidence was fixed to test the level of significance which was considered as an appropriate.

Analysis of the Data

The significance of the difference among the means of the experimental group was found out by pre-test. The data were analysed and dependent 't' test was used with 0.05 levels as confidence.

Table 1: Analysis of t-ratio for the Pre and Post Tests of Experimental and Control Group on Dynamic strength (Scores in number)

Variables	Group	Mean		SD		df	't' ratio
		Pre	Post	Pre	Post		
Dynamic strength	Control	11	10.93	1.51	1.10	14	0.21
	Experimental	10.87	13.33	1.36	1.05		10.44*

*Significance at 0.05 level of confidence.

The Table-I shows that the mean values of pre-test and post-test of the control group on Dynamic strength were 20.49 and 20.52 respectively. The obtained 't' ratio was 0.37, since the obtained 't' ratio was less than the required table value of 2.14 for the significant at 0.05 level with 14 degrees of freedom it was found to be statistically insignificant. The mean values of pre-test and post-test of the experimental group on Dynamic strength were 20.48 and 20.08 respectively. The obtained 't' ratio was 8.66* since the obtained 't' ratio was greater than the required table value of 2.14 for significance at 0.05 level with 14 degrees of freedom it was found to be statistically significant. The result of the study showed that there was a significant difference between control group and experimental group in dynamic strength. It may be concluded from the result of the study that experimental group improved in dynamic strength due to six weeks of core stability training.

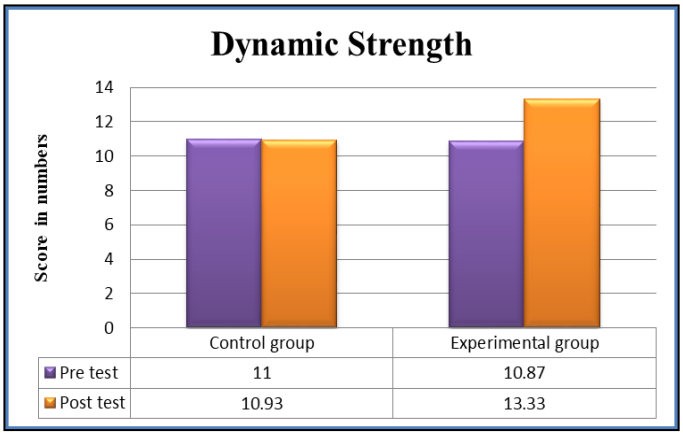

Fig 1: Bar Diagram Showing the Pre and Post Mean Values of Experimental and Control Group on Dynamic strength

Discussions on Findings

The result of the study indicates that the experimental group, namely core stability training group had significantly improved the selected dependent variable namely Dynamic strength, when compared to the control group. It is also found that the improvement caused by core stability training when compared to the control group. The result of this study on Dynamic strength has in line with the study conducted by (Mcguigan, Michael R, *et al*. 2010) [4].

Conclusion

On the basis of the results obtained the following conclusions are drawn,

1. There was a significant difference between experimental and control group on Dynamic strength after the training period.
2. There was a significant improvement in Dynamic strength. However the improvement was in favor of experimental group due to six weeks of core stability training.

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