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## Effect of strength training on selected physical fitness variables among university male Kho-Kho players

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### Abstract

The purpose of the study was to find out the effect of strength training on selected physical fitness variables among university male Kho – Kho players. To achieve the purpose of the study 24 male kho-kho players were selected from department of physical education and sports sciences, Annamalai University Tamil Nadu. The selected subjects were divided into two equal groups' namely experimental group and control group. The number of subjects was equal in each group, experimental (N=12) and control group (N=12). The age group of the subjects was ranged from 20 to 24 years. All the subjects were informed about the nature and objects of the study. The group I experimental group goes through strength training three days in a week for the period of six weeks training programme. The second group which acted as control group did not participate in any training programmed, apart from regular physical education activities as per the curriculum and their daily life activates. The selected variable which was examined during study was speed and flexibility. All the data which was collected from the subjects was analyses with the proper statistical procedure in which (ANCOVA) is used to find out the difference in group. The level of confidence was 0.05 was fixed to find out the level of significance. The result of the study shows that there was a significant difference between experimental group and control group on selected variables which was examined during the study.

**Keywords:** Strength training, physical fitness, speed and flexibility

### Introduction

Ever rules on Kho-Kho were published from Gymkhana Baroda, in 1924. In 1959-60, the first national Kho-Kho championship was organized in Vijayawada (Andhra Pradesh). The Government has initiated the following awards for the game: Arjuna Award, Eklavya Award for men, Rani Laxmi Bai award for women, Veer Abhimanyu award for boys under 18, and Janaki award for girls under 16.kho kho is popular in Asian countries.

### Methodology

To achieve the purpose of the study twenty four male kho kho players were selected from department of physical education and sports sciences, Annamalai University, Tamil Nadu. The selected subjects were divided into two equal groups namely experimental group (N=12) and control group (N=12). The age group of the subjects was ranged from 20 to 24 years. All the subjects were informed about the nature and objects of the study. The group I experimental group goes through strength training three days in a week for the period of six weeks training programme. The second group which acted as control group did not participate in any training programmed, apart from regular physical education activities as per the curriculum and their daily life activates. The post data was collected before two days of training programme and post data was collected after training programme. All the data was analyzed with the help of proper statically procedure in which 0.05 level of confidence was fixed to find out the difference.

### Experimental procedure of training design

S. No	Name of group	Type of group	Type of training
1	A	Experitmental	Strength Training
2	B	Control	No Training

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**Result and Discussion**

All the data collected to the present study were examined by employing ‘t’ test to find out whether any significance difference between the means of pre and post test score of the both groups after the period of six weeks strength training programs.

The following notations were used for all the subsequent tables for elaborations.

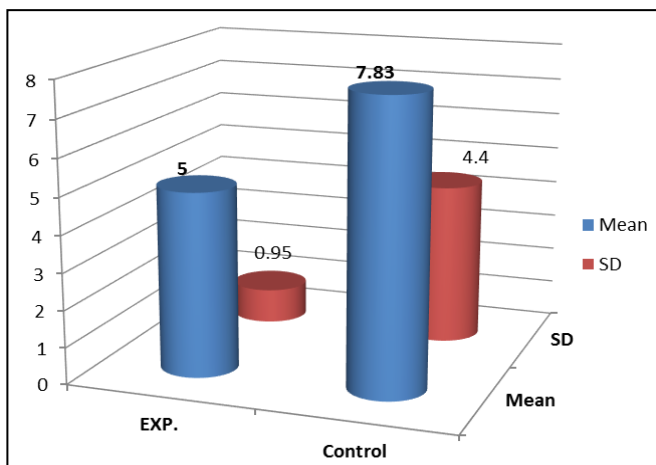
E.G. – Experimental group, C.G. – control group, N – Number of subjects in group, M – Mean score., SD – Standard deviation of test score, ‘t’ – ‘t’ value, df – degree of freedom, ‘t’ follows t distribution with (N<sub>1</sub>+ N<sub>2</sub> -2) in 0. 05 level of significance.

**Table 1:** Mean differences between the experimental and control groups on Speed.

S. no.	Group	Mean	SD	N	MD	DF	‘t’ value
1	Exp.	5.00	0.95	12	2.83	22	3.36
2	Contol	7.83	2.75	12			

Significant at 0.05level, table value required for 0.05 level of significant with df 22 is 2.21.

Table - 1 highlights that mean and SD of experimental group on speed is 5.00 and 0.95 respectively and the mean and SD of control group is 7.83 and 2.75. After applying statically procedure t value was 3.36 which were significant at 0.05 levels, because required t value is grater then require value 2.21and the result of the study shows that there was a significant effect of training on selected physical variable speed of experiment group.



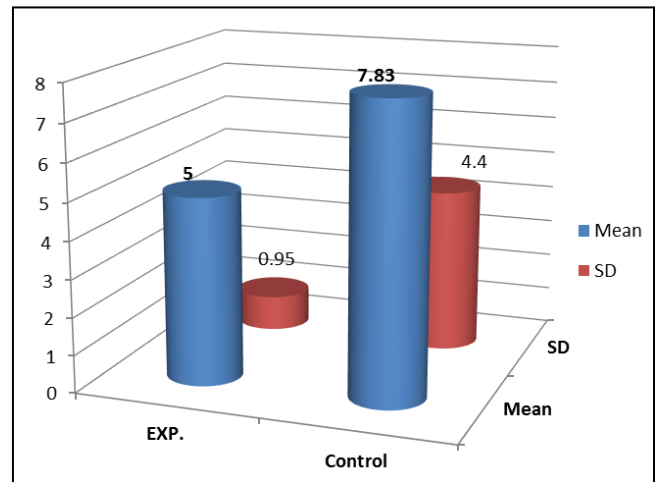
**Graph 1**

**Table 2:** Mean differences between the experimental and control groups on flexibility.

S. no.	Group	Mean	SD	N	MD	DF	‘T’ Value
1	Exp.	5.33	1.07	12	1.75	22	2.69
2	Contol	7.08	1.97	12			

Significant at 0.05 level, table value required for 0.05 level of significant with df 22 is 2.21.

Table - 2 highlights that mean and SD of experimental group on flexibility is 5.33 and 1.07 respectively and the mean and SD of control group is 7.8 and 1.97. After applying statically procedure t value was 3.36 which were significant at 0.05 levels, because required t value is grater then require value 2.21and the result of the study shows that there was a significant effect of training on selected physical variable flexibility of experiment group.



**Graph 2**

**Conclusion**

Based on the result of the study following conclusion were drawn.

1. There was a significant difference between experimental group and control group on selected physical fitness variables.
2. There was a significant improvement in speed of experimental group due to the effect of six weeks training programme.
3. There was a significant improvement in flexibility of experimental group due to the effect of six weeks training programme.

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